

AVID TECHNOLOGY, INC.
Form 10-K
March 15, 2019

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: 1-36254

Avid Technology, Inc.
(Exact Name of Registrant as Specified in Its Charter)
Delaware 04-2977748
(State or Other Jurisdiction of (I.R.S. Employer
Incorporation or Organization) Identification No.)
75 Network Drive
Burlington, Massachusetts 01803
(Address of Principal Executive Offices, Including Zip Code)

(978) 640-6789
(Registrant's Telephone Number, Including Area Code)

Securities Registered Pursuant to Section 12(b) of the Act:

Title of Each Class	Name of each exchange on which registered
Common Stock, \$.01 Par Value	Nasdaq Global Select Market

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 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 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.

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Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, an emerging growth company or a smaller reporting company. See the definitions of “large accelerated filer,” “accelerated filer,” “emerging growth company” and “smaller reporting 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

The aggregate market value of the voting stock held by non-affiliates of the registrant was approximately \$209,476,088 based on the closing price of the Common Stock on the Nasdaq Global Select Market on June 30, 2018. The number of shares outstanding of the registrant’s Common Stock as of March 11, 2019 was 42,000,870.

DOCUMENTS INCORPORATED BY REFERENCE

Document Description	10-K Part
Portions of the Registrant’s Proxy Statement for the 2019 Annual Meeting of Stockholders	III

AVID TECHNOLOGY, INC.
 FORM 10-K
 FOR THE FISCAL YEAR ENDED DECEMBER 31, 2018

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CAUTIONARY NOTE ON FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K, or Form 10-K, filed by Avid Technology, Inc. together with its consolidated subsidiaries, “Avid” or the “Company”, or “we”, “us” or “our” unless the context indicates otherwise, includes forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. For this purpose, any statements contained in this Form 10-K that relate to future results or events are forward-looking statements. Forward-looking statements may be identified by use of forward-looking words, such as “anticipate,” “believe,” “confidence,” “could,” “estimate,” “expect,” “feel,” “intend,” “may,” “plan,” “should,” “seek,” “will” and “would,” or similar

Forward-looking statements may involve subjects relating to, among others, the following:

- our ability to successfully implement our strategy, including our cost saving strategies;
- the anticipated trends and developments in our markets and the success of our products in these markets;
- our ability to develop, market and sell new products and services;
- our business strategies and market positioning;
- our ability to achieve our goal of expanding our market positions;
- our ability to accelerate growth of our Cloud-enabled platform;
 - anticipated trends relating to our sales, financial condition or results of operations, including our shift to a recurring revenue model and complex enterprise sales with long sales cycles;
- the expected timing of recognition of revenue backlog as revenue, and the timing of recognition of revenues from subscription offerings;
- our ability to successfully consummate acquisitions, or investment transactions and successfully integrate acquired businesses;
- our anticipated benefits and synergies from, and the anticipated financial impact of, any acquired business;
- the anticipated performance of our products;
- changes in inventory levels;
- plans regarding repatriation of foreign earnings;
- the outcome, impact, costs and expenses of any litigation or government inquiries to which we are or become subject;
- the effect of the continuing worldwide macroeconomic uncertainty on our business and results of operations, including Brexit;
- our compliance with covenants contained in the agreements governing our indebtedness;
- our ability to service our debt and meet the obligations thereunder, including our ability to satisfy our conversion and repurchase obligations under our convertible notes due 2020;
- seasonal factors;
- fluctuations in foreign exchange and interest rates;
- the risk of restatement of our financial statements;
- estimated asset and liability values and amortization of our intangible assets;
- our capital resources and the adequacy thereof; and
- worldwide political uncertainty, in particular the risk that the United States may withdraw from or materially modify NAFTA or other international trade agreements as discussed further in “Risk Factors” in Item 1A of this Form 10-K.

Actual results and events in future periods may differ materially from those expressed or implied by the forward-looking statements in this Form 10-K. There are a number of factors that could cause actual events or results to differ materially from those indicated or implied by forward-looking statements, many of which are beyond our control, including the risk factors discussed in Item 1A of this Form 10-K. In addition, the forward-looking statements contained in this Form 10-K represent our estimates only as of the date of this filing and should not be relied upon as representing our estimates as of any subsequent date. While we may elect to update these forward-looking statements in the future, we specifically disclaim any obligation to do so, whether to reflect actual results, changes in assumptions, changes in other factors affecting such forward-looking statements or otherwise.

The information included under the heading “Stock Performance Graph” in Item 5 of this Form 10-K is “furnished” and not “filed” and shall not be deemed to be “soliciting material” or subject to Regulation 14A, shall not be deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, or the Exchange Act, or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any filing under the Exchange Act or the Securities Act of 1933, or the Securities Act, except to the extent that we specifically incorporate it by reference.

We own or have rights to trademarks and service marks that we use in connection with the operation of our business. “Avid” is a trademark of Avid Technology, Inc. Other trademarks, logos, and slogans registered or used by us and our subsidiaries in the United States and other countries include, but are not limited to, the following: Avid NEXIS, AirSpeed, EUCON, MediaCentral, Media Composer, Pro Tools and Sibelius. Other trademarks appearing in this Form 10-K are the property of their respective owners.

PART I

ITEM 1. BUSINESS

OVERVIEW

We develop, market, sell, and support software and integrated solutions for video and audio content creation, management and distribution. We are a leading technology provider that powers the media and entertainment industry. We do this by providing an open and efficient platform for digital media, along with a comprehensive set of tools and workflow solutions. Our solutions are used in production and post-production facilities; film studios; network, affiliate, independent and cable television stations; recording studios; live-sound performance venues; advertising agencies; government and educational institutions; corporate communications departments; and by independent video and audio creative professionals, as well as aspiring professionals. Projects produced using our tools, platform and ecosystem include feature films, television programming, live events, news broadcasts, sports productions, commercials, music, video and other digital media content. With over one million creative users and thousands of enterprise clients relying on our technology platforms and solutions around the world, Avid enables the industry to thrive in today's connected media and entertainment world.

Our mission is to empower media creators with innovative technology and collaborative tools to entertain, inform, educate and enlighten the world. Our clients rely on Avid to create the most prestigious and award-winning feature films, music recordings, television shows, live concerts, sporting events and news broadcasts. Avid has been honored for technological innovation with 16 Emmy Awards, one Grammy Award, two Oscars and the first ever America Cinema Editors Technical Excellence Award. In 2018, Avid was named the recipient of the prestigious Philo T. Farnsworth Award by the Television Academy, to honor Avid's 30 years of continuous, transformative technology innovations, including products that have improved and accelerated the entire editing and post production process for television. Our creative tools and workflow solutions were used in all 2019 Oscar nominated films for Best Film Editing, Best Sound Editing, Best Sound Mixing, and Best Picture.

CORPORATE STRATEGY

Acceleration of digitization is having a tremendous impact on the media industry and altering the industry value chain. Today's consumers are empowered to create and consume content on-demand, anywhere, anytime. Organizations in the media industry are under pressure to connect and automate the entire creation-to-consumption workflow, and are facing a number of challenges, including:

Increasing rate of content creation and digitation of media assets - Many organizations are feeling intense pressure to create more and more content, increasingly tailored for audience niches, while also facing greater competition from nimble players. At the same time, access to creative tools is wider today than ever before, giving more people the ability to tell their stories.

Exponential growth of distribution platforms - The number of distribution platforms continue to expand, and the economic models of new distribution platforms are still evolving. Many organizations need to embrace new opportunities while also maximizing heritage business.

Continued increase in content consumption - There has been a tremendous increase in viewership in the last decade, but it is spread across many outlets and channels, and while there is this increase in viewership, it is dwarfed by an increase in competitive content. In addition, with growing audience fragmentation, compelling content, brand equity and relevance is even more critical today.

Disparate mix of tools, skills & workflows - Lack of commonality and a fragmented supplier landscape creates incompatibilities, inhibiting agility, collaboration, sharing and efficiency.

Media technology budgets - Today's economic realities are placing pressure on media technology budgets, while content output must increase exponentially to deliver on the market requirements. Content creators and distributors have to do a lot more, with essentially flat budgets, necessitating more efficient workflows and solutions.

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We believe we are uniquely positioned in the media technology industry because we have a differentiated platform strategy and a well-established market position. Our products and solutions allow our customers to (i) create high-quality, engaging and immersive content, (ii) distribute to more outlets and devices, (iii) maximize and protect the value of media assets, and (iv) create operational and capital efficiency. As a result of our unique position across the media industry, we believe we can take advantage of the following opportunities and trends:

Large and growing market poised for transition - Customers are facing significant disruption and are on the cusp of making major changes and investments in their business and operational approaches, which are challenges that our product offerings address.

Deeply entrenched with a market leadership position - We have the ability to strategically leverage a significant global customer base that is loyal to our brand across TV, film, music and media.

Best positioned to help the industry navigate disruption - Our unique approach encompasses a common technology platform, leading software apps and integrated solutions-with a large and open ecosystem, which we believe significantly differentiates us from our competitors.

Ready to intercept the next emerging opportunity - By leveraging our unique partnership with Microsoft and our MediaCentral platform, we believe we can lead the media and entertainment industry into the cloud with market-leading Software as a Service, or SaaS, offerings.

Our strategy for connecting creative professionals and media enterprises with audiences in a powerful, efficient, collaborative, and profitable way leverages our Avid MediaCentral Platform - the open, extensible, and customizable foundation that streamlines and simplifies content workflows by integrating all Avid or third-party products and services that run on top of it. The platform provides secure and protected access, and enables fast and easy creation, delivery and monetization of content.

We work to ensure that we are meeting customer needs, staying ahead of industry trends and investing in the right areas through a close and interactive relationship with our customer base. The Avid Customer Association was established to be the world's most innovative and influential media technology community representing thousands of organizations and over 27,000 professionals from all levels of the industry including the industry's most inspirational and award-winning thought leaders, innovators and storytellers. The Avid Customer Association fosters collaboration between Avid, its customers and other industry colleagues to help shape our product offerings as well as providing a means to shape our industry together.

A key element of our strategy is our transition to a recurring revenue-based model, through a combination of subscription offerings and long-term agreements. We started offering subscription licensing options for some of our products and solutions in 2014, and had approximately 125,000 paying subscribers at the end of 2018. These licensing options offer choices in pricing and deployment to suit our customers' needs. Our subscription offerings to date have primarily been sold to creative professionals, however, we expect to increase subscription sales to media enterprises going forward as we expand offerings and move through customer upgrade cycles, which we expect will further increase recurring revenue on a longer-term basis. Our long-term agreements are comprised of multi-year agreements with large media enterprise customers to provide specified products and services, including SaaS offerings, and channel partners and resellers to purchase minimum amounts of products and service over a specified period of time. We believe our strategy to increase recurring revenue will continue to increase our visibility of revenue and cash flows in future periods.

Another key aspect of our strategy has been to implement programs to increase operational efficiencies and reduce costs. We are making significant changes in business operations to better support the company's strategy and overall performance. We have implemented a number of spending control initiatives with an emphasis on non-personnel costs to reduce the overall cost structure while still investing in key areas that will drive growth. We are also revamping our supply chain and logistics, moving to a lean model that leverages a new supplier and distribution network. We are optimizing our go-to-market strategy, simplifying it to address specific customer markets and help maximize our commercial success. We expect this will improve our effectiveness, increase efficiency and drive growth in our pipeline and ultimately revenue.

CUSTOMER MARKETS

We provide our solutions to the following markets:

Media Enterprises. This market consists of broadcast, government, sports and other organizations that acquire, create, process, and/or distribute audio and video content to a large audience for communication, entertainment, analysis, and/or forensic purposes. Customers in this market rely on workflows that span content acquisition, creation, editing, distribution, sales and redistribution and utilize all content distribution platforms, including web, mobile, internet protocol television, cable, satellite, on-air and various other proprietary platforms. Our domain expertise also allows us to provide customers in this market with a range of professional and consulting services. We sell into this market through our direct sales force and resellers.

Creative Professionals. This market is made up of individual artists and small entities that create audio and video media as a paid service, but do not currently distribute media to end consumers on a large scale. This market spans a wide-ranging target audience that includes: independent video editors, facilities and filmmakers that produce video media as a business but are not broadcasters; professional sound designers, editors and mixers and facilities that specialize in the creation of audio for picture; songwriters, musicians, producers, film composers and engineers who compose and record music professionally; technicians, engineers, rental companies and facilities that present, record and broadcast audio and video for live performances; and students and teachers in career technical education programs in high schools, colleges and universities, as well as in post-secondary vocational schools, that prepare students for professional media production careers in the digital workplace. Our domain expertise also allows us to provide customers in this market with a broad range of professional services. We sell into this market through storefront and on-line retailers, as well as through our direct sales force, resellers and our web store.

PRODUCTS AND SERVICES

Overview

Avid's growing product portfolio is rooted in providing open and extensible products that ensure our long-term position with customers. Our software and integrated solutions, as well as our services offerings, address the diverse needs, skills and sophistication levels of our customers. All of our key products and solutions have been integrated into our MediaCentral Platform, which provides the industry's most open, integrated and efficient platform designed for media. In addition, we provide flexible deployment models, licensing options and commercial structures so our customers can choose how, when and where to deploy and use our tools.

The standalone software portion of our portfolio consists of our Creative Software Suite and the Enterprise Software Suite, representing a large high-margin software and maintenance business.

Creative Software Solutions

The Creative Software Suite includes our iconic Media Composer, Pro Tools and Sibelius tools, as well the Artist Community platform and the Avid Marketplace - all of which are key components of our cloud-enabled software subscription strategy.

Media Composer

Our award-winning Media Composer product line is used to edit video content, including television programming, commercials and films. Our cloud-enabled solutions that include Media Composer enable broadcast news, sports,

reality television and film professionals to acquire, access, edit and finish stories anytime and from everywhere. Leveraging an integrated, yet open, end-to-end architecture, this solution gives contributors the ability to craft stories where and while they are happening and speed them to delivery, while maintaining connectivity with the central production operation. Media Composer also offers resolution flexibility and independence, accelerating high-res, HDR, and HD workflows. We offer Media Composer through both subscription and perpetual license offerings.

Pro Tools

Our Pro Tools digital audio software facilitates the audio production process, including music and sound creation, recording, editing, signal processing, integrated surround mixing and mastering and reference video playback. The Pro Tools platform supports a wide variety of internally developed and third-party software plug-ins and integrated hardware. Pro Tools solutions are offered at a range of price points and are used by professionals in music, film, television, radio, gaming, Internet and other media production environments. We offer Pro Tools through both subscription and perpetual license offerings.

Sibelius

Our Sibelius product allows users to create, edit and publish musical scores. It is used by composers, arrangers and other music professionals. Student versions are also available to assist in the teaching of music composition and score writing. Sibelius music notation software offers sophisticated, yet easy-to-use tools that are proven and trusted by composers, arrangers, publishers, educators, and students alike. We also offer Sibelius | Cloud Sharing, which allows users to view and play scores anywhere from the cloud using current web browsers and mobile devices. We offer Sibelius through both subscription and perpetual license offerings.

Avid Link

Avid Link is a free mobile application for anyone wanting to connect with other artists, producers, mixers, composers, editors, videographers, movie makers, and graphic designers, and to the Avid Marketplace. Currently available as a public beta for Mac, Windows, iOS and Android users, Avid Link is intended to make it easy for users to find, connect, message, and collaborate with audio and video creators, promote their work and skills to a vast network of media professionals, manage and keep their software up to date, and purchase new tools. We believe Avid Link will increase interest and demand for Avid's suite of product offerings.

Enterprise Software Solutions

Avid's Enterprise Software Suite is built on the MediaCentral platform along with a rich suite of applications, modules and services and is also the foundation of our cloud and SaaS offerings.

Media Central

In 2018, we announced the availability of MediaCentral | Cloud UX, Avid's next-generation media production suite that further extends the Avid MediaCentral platform into the cloud. The MediaCentral platform scales from the simplest to the most sophisticated solutions. Built on a customizable cloud native microservices architecture, MediaCentral platform features a cloud-based user experience that runs on any device, workflow modules for editorial, production, news, graphics, and asset management, with apps to enhance and scale any of those modules, and a wide array of media services and partner connectors. Every user is connected in a completely integrated workflow environment with a user-friendly interface, and gains a unified view into all their media with flexible deployment options for on premises, hybrid or cloud (public/private) environments.

As part of the Avid MediaCentral platform, we also offer an Editorial Management module for smaller creative teams that provides the same robust media management capabilities used by the largest media enterprises in the industry. Integrated within Media Composer via a panel, Editorial Management connects directly to Avid NEXIS storage to provide easy access to media with hyper-search functionality. Editorial Management also extends collaboration capabilities for the assistant editor in an easy to use web interface by allowing Media Composer bin creation, logging and search capabilities, greatly expanding the efficiency of creative teams.

SaaS Solutions

In 2017, we announced a strategic partnership with Microsoft to deliver Azure certified solutions to support end-to-end hybrid and cloud deployments of news workflows. Our partnership includes developing virtualized versions of many of our product offerings, allowing them to run in a private cloud, public cloud or in hybrid deployments, enabling customers to

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migrate to more traditional IT infrastructures leveraging IP technology to integrate disparate systems within a broadcast environment. We believe our new SaaS and cloud offerings will allow our customers to (i) scale production while lowering costs, (ii) enable anytime access, boosting efficiency and collaboration and (iii) deliver content quickly and securely to any device, from anywhere. With many of our SaaS and cloud offerings just coming on-line, historical revenue related to SaaS offerings has not been significant, however, we expect these product offerings to be significant growth drivers going forward.

Integrated Solutions

The Integrated Solutions part of our portfolio mainly consists of four common, best-in-class hardware platforms that are combined with tightly integrated software elements to create powerful and highly differentiated solutions - all of which are designed to complement and enhance our overall software strategy.

Avid NEXIS

Our Avid NEXIS family of shared storage systems are real-time, open solutions that bring the power of shared storage to local, regional, national and multinational broadcasters and post-production facilities at competitive prices. Customers can improve allocation of creative resources and support changing project needs with an open, shared storage platform that includes file system technology on lower cost hardware, support for third-party applications and streamlined administration to create more content at an affordable price. Avid NEXIS is the industry's first and only software-defined storage platform specifically designed for storing and managing media. Avid NEXIS enables fully virtualized storage so media organizations can adjust storage capacity mid-project, without disrupting workflows. Powered by our MediaCentral Platform, Avid NEXIS delivers media storage flexibility, scalability, and control for both Avid-based and third-party workflows. It has been designed to serve small production teams as powerfully as large media enterprises and is built with flexibility to grow with customers at every stage of their business.

S6

Our S6 product line offers customers a range of complementary control surfaces and consoles, leveraging the open industry standard protocol EUCON (Extended User Control) to provide open solutions that meet the needs of customers ranging from the independent professional to the high-end broadcaster. Our Pro Tools | S6 control surface for sound recording, mixing and editing was designed as a state-of-the-art modular solution that scales to meet both current and future customer requirements. S6 is designed for audio professionals in demanding production environments, delivering the performance needed to complete projects faster while producing high quality mixes. Our Artist Series control surfaces offer integrated, hands-on control for price-sensitive applications. Compact and portable, all control surfaces in the Artist line feature EUCON, allowing hands-on control of the user's applications. Finally, the free Pro Tools | Control iOS app enables customers to record and mix faster and easier than working with a mouse and keyboard alone.

Our VENUE product family and our VENUE | S6L live sound system includes console systems for mixing audio for live sound reinforcement for concerts, theater performances and other public address events. We offer a range of VENUE systems designed for large performance settings, such as stadium concerts, as well as medium-sized theaters and houses of worship. VENUE systems allow the direct integration of Pro Tools solutions to create and playback live recordings.

Maestro

Our Maestro product line offers customers comprehensive solutions for integrating virtual sets, augmented reality and video wall control into existing workflows, ideal for any type of production needs in news, sports, entertainment and

in-studio productions, creating greater accessibility, efficiency at scale to enable the delivery of content with graphics faster. Maestro features a core platform that includes a powerful render engine and featured design tool called Maestro | Designer that drives a line-up of applications that are designed to address the specific challenges broadcasters face when automating the integration of statistics and graphics for the creation of an engaging broadcast. By adding graphics capabilities across the entire product line, we enable journalists and producers to add graphics remotely to news stories or enhance any story with innovative stats to drive augmented reality graphics for presenting data in new and compelling ways.

FastServe

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Our FastServe video server product line assists broadcasters in making the move to UHD and IP based workflows with a new, modular architecture. The Avid FastServe family integrates with the MediaCentral platform, empowering creative teams to deliver content fast for news, sports, entertainment, and other media productions. Its 10GbE interface offers direct connection to Avid NEXIS storage, enabling real-time ingest, editing, and playout, even while media is being captured. Plus, its modular, future-proof architecture fits any budget, improves efficiency, and provides a smooth transition from HD to UHD, and from SDI workflows to video over IP. We also continue to sell and support our on-air server solutions, including AirSpeed 5000 and AirSpeed 5500, which enable broadcasters to automate the ingest and playout of television and news programming. The AirSpeed 5000 and 5500 video servers work with a wide range of applications to improve workflow and provide cost-efficient ingest and play to air capabilities for broadcasters of any size.

I/O & Processing

We offer a number of hardware products that complement our Media Composer and Pro Tools creative solutions, which include I/O devices, interfaces and audio and video processing equipment.

Customer Support

We offer a variety of service contracts and support plans, allowing each customer to select the level of technical and operational support that they need to maintain their operational effectiveness. Support contracts typically include the right to the latest software updates, call support and in some cases hardware maintenance. Support contracts for individual products are sold bundled with initial product offerings or as renewals once initial contracts have lapsed. Support contracts are also sold on an enterprise basis where a customer purchases support for all Avid products owned. Our Customer Care team provides customers with a partner committed to giving them help and support when they need it. Our global Customer Care team of industry professionals offers a blend of technology expertise and real-world experience throughout the audio, visual, and entertainment industries. The team's mission is to provide timely, informed responses to our customers' issues, and proactive maintenance for our solutions to help our customers maintain high standards of operational effectiveness.

Professional Services

Our Professional Services team delivers workflow design and consulting, program and project management, system installation and commissioning, custom development and role-based product level training. The Professional Services team facilitates the engagement with our customers to maximize their investment in technology, increase their operational efficiency, and enable them to reduce deployment risk and implement our solutions.

Training and Education

Our Education team delivers public and private training to our customers and alliance partners to ensure that they have the necessary skills and technical competencies to deploy, use, administer and create Avid solutions. The Education team develops and licenses curriculum content for use by third party Avid Learning partners to deliver training to customers, users and alliance partners. The Education team includes the Avid Certification program which validates the skills and competency of Avid users, administrators, instructors, support representatives and developers.

COMPETITION

Our customer markets are highly competitive and subject to rapid change and declining average selling prices. The competitive landscape is fragmented with a large number of companies providing various types of products and

services in different markets and geographic areas. We provide integrated solutions that compete based on total workflow value, features, quality, service, and flexibility of pricing and deployment options. Companies with which we compete in some contexts may also act as our partners in other contexts, such as large enterprise customer environments.

Certain companies that compete with us across some of our products and solutions are listed below by the market relevant to Avid in which they compete predominantly:

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Broadcast and Media: Belden Inc. (Grass Valley), ChyronHego Corporation, Dalet S.A., Dell Technologies Inc. (EMC Isilon), EVS Corporation, Harmonic Inc., Quantum Corporation, Ross Video Limited, and Vizrt Ltd., among others.

Audio and Video Post and Professional: Ableton AG, Adobe Systems Incorporated, Apple Inc., AudioTonix Limited, Blackmagic Design Pty Ltd, PreSonus Audio Electronics, Inc., and Yamaha Corporation, among others.

Some of our principal competitors are substantially larger than we are and have greater financial, technical, marketing and other resources than us. For a discussion of these and other risks associated with our competitors, see “Risk Factors” in Item 1A of this Form 10-K.

OPERATIONS

Sales and Services Channels

We market and sell our products and solutions through a combination of direct, indirect and digital sales channels. Our direct sales channel consists of internal sales representatives serving select customers and markets. Our indirect sales channels include global networks of independent distributors, value-added resellers, system integrators, and retailers. Our digital sales channel is represented by the online Avid Marketplace, and also through the Xchange Market Platform (“XMP”) of some of our key partners and distributors.

We have significant international operations with offices in 20 countries and the ability to reach approximately 170 countries through a combination of our direct sales force and resellers. Sales to customers outside the United States accounted for 64%, 62% and 64%, of our total net revenues in 2018, 2017 and 2016, respectively. Additional information about the geographic breakdown of our revenues and long-lived assets can be found in Note O to our Consolidated Financial Statements in Item 8 of this Form 10-K. For additional information about risks associated with our international operations, see “Risk Factors” in Item 1A of this Form 10-K.

We generally ship our products shortly after the receipt of an order. However, a high percentage of our revenues has historically been generated in the third month of each fiscal quarter and concentrated in the latter part of that month. Orders that may exist at the end of a quarter and have not been shipped are not recognized as revenues in that quarter and are included in revenue backlog.

We provide customer care services directly through regional in-house and contracted support centers and major-market field service representatives and indirectly through dealers, value-added resellers and authorized third-party service providers. Depending on the solution, customers may choose from a variety of support offerings, including telephone and online technical support, on-site assistance, hardware replacement and extended warranty, and software upgrades. In addition to customer care services, we offer a broad array of professional services, including installation, integration, planning and consulting services, and customer training.

Manufacturing and Suppliers

Our manufacturing operations consist primarily of a network of contract manufacturers around the globe to manufacture many of our products, components and subassemblies, and original equipment manufacturers, or OEMs, from whom we purchase finished assemblies. Our products undergo testing and quality assurance at the final assembly stage. In addition to our external manufacturing operations, we also have an internal manufacturing operation consisting primarily of configuring into complete systems the products, board sets, subassemblies and components purchased from third parties, and final assembly and testing of some board sets, software, related hardware components and complete systems. We depend on sole-source suppliers for many key hardware product components and finished goods, including some critical items. Although we have procedures in place to mitigate the risks

associated with our sole-sourced suppliers, we cannot be certain that we will be able to obtain sole-sourced components or finished goods from alternative suppliers or that we will be able to do so on commercially reasonable terms without a material impact on our results of operations or financial position. For the risks associated with our use of contractors and sole-source vendors, see “Risk Factors” in Item 1A of this Form 10-K.

Our company-operated manufacturing facilities, primarily for final assembly and testing of certain products, are located in Kfar Saba, Israel, and Dublin, Ireland. Our contract manufacturers and OEMs manufacture our products at a relatively limited number of different facilities located throughout the world and, in most cases, the manufacturing of each of our products is concentrated in one or a few locations. An interruption in manufacturing capabilities at any of these facilities, as a result of equipment failure or other reasons, could reduce, delay or prevent the production of our products. Because some of our manufacturing or our contract manufacturers' operations are located outside of the United States, including in Israel, Ireland, China, Mexico and Thailand, those manufacturing operations are also subject to additional challenges and risks associated with international operations. For these and other risks associated with our manufacturing operations, see "Risk Factors" in Item 1A of this Form 10-K.

Research and Development

We are committed to delivering best-in-class digital media content-creation solutions that are designed for the unique needs, skills and sophistication levels of our target customer markets as well as a generic media platform for the media industry to host our own as well as our partner solutions. Having helped establish the digital media technology industry, we are building on a 30 year heritage of innovation and leadership in developing content-creation solutions and platforms. We have research and development, or R&D, operations around the globe. Our R&D efforts are focused on the development of digital media content-creation, distribution and monetization tools as well as the media platform. These tools operate primarily on the Mac and on Windows platforms, whereas the media platform primarily operates on Linux platforms. Our R&D efforts also include highly optimized media storage solutions, standards-based media transfer and media asset management tools, as well as ingest and playout solutions to cover the entire workflow. In addition to our internal R&D efforts, we outsource a significant portion of certain R&D projects to an internationally based partner in Kiev, Ukraine. Our R&D expenditures for 2018, 2017 and 2016 were \$62.4 million, \$68.2 million and \$81.6 million, respectively, which represented 15%, 16% and 16% of our total net revenues, respectively. For the risks associated with our use of partners for R&D projects, see "Risk Factors" in Item 1A of this Form 10-K.

Our philosophy is to prioritize research and development investments to take advantage of market opportunities based on the following short-term, medium-term and long-term horizons:

Here & Now - Improve performance, solidify core portfolio, improve margins and ignite growth.

Emerging - Expand opportunities by pursuing growth areas, extending our product portfolio and expanding market opportunities.

Transformational - Build for the future, creating unique defensible differentiation in our products and solutions with disruptive and visionary innovation.

Our company-operated R&D operations are located in: Burlington, Massachusetts; Berkeley, California; Munich, Germany; Kaiserslautern, Germany; Kfar Saba, Israel; Szczecin, Poland; and Montreal, Canada. We also partner with a vendor in Kiev, Ukraine for outsourced R&D services.

Intellectual Property

We regard our software and hardware as proprietary and protect our proprietary interests under the laws of patents, copyrights, trademarks and trade secrets, as well as through contractual provisions.

We have obtained patents and have registered copyrights, trademarks and service marks in the United States and in many foreign countries. At February 8, 2019, we held 123 U.S. patents, with expiration dates through 2037, and had 17 patent applications pending with the U.S. Patent and Trademark Office. We have also registered or applied to register various trademarks and service marks in the United States and a number of foreign countries, including Avid, Avid Nexis, AirSpeed, EUCON, MediaCentral, Media Composer, Pro Tools and Sibelius. As a technology company,

we regard our patents, copyrights, trademarks, service marks and trade secrets as being among our most valuable assets, together with the innovative skills, technical competence and marketing abilities of our personnel.

Our software is licensed to end users pursuant to shrink-wrap, embedded, click-through or signed license agreements. Our products generally contain features to guard against unauthorized use. Policing unauthorized use of computer software is difficult, and software piracy is a persistent problem for us, as it is for the software industry in general. Although we attempt

to protect our intellectual property rights through patents, trademarks, copyrights, licensing arrangements, maintaining certain technology as trade secrets and other measures, there can be no assurance that any patent, trademark, copyright or other intellectual property rights owned by us will not be invalidated, circumvented or challenged, that such intellectual property rights will provide competitive advantages to us, or that any of our pending or future patent applications will be issued with the claims, or the scope of the claims, sought by us, if at all. Others may develop technologies that are similar or superior to our technology, duplicate our technology or design around the patents that we own. In addition, effective patent, copyright and trade secret protection may be unavailable or limited in countries in which we do business or may do business in the future. For these and other risks associated with the protection of our intellectual property, see “Risk Factors” in Item 1A of this Form 10-K.

HISTORY AND EMPLOYEES

Avid was incorporated in Delaware in 1987. We are headquartered in Burlington, Massachusetts, with operations in North America, South America, Europe, the Middle East, Asia and Australia. At December 31, 2018, our worldwide workforce consisted of 1,446 employees and 294 external contractors.

AVAILABLE INFORMATION

We make available free of charge on our website, www.avid.com, copies of our Annual Reports on Form 10-K, our Quarterly Reports on Form 10-Q, our Current Reports on Form 8-K and all amendments to those reports as soon as practicable after filing with the Securities and Exchange Commission, or SEC. Additionally, we will provide paper copies of all of these filings free of charge upon request. Alternatively, these reports can be accessed at the SEC’s Internet website at www.sec.gov. The information contained on our web site shall not be deemed incorporated by reference in any filing under the Securities Act or the Exchange Act.

ITEM 1A. RISK FACTORS

You should carefully consider the risks and uncertainties described below, in addition to the other information included or incorporated by reference in this Form 10-K, before making an investment decision regarding our common stock. If any of the following risks were to actually occur, our business, financial condition or operating results would likely suffer, possibly materially, the trading price of our common stock could decline, and you could lose part or all of your investment. Additional risks and uncertainties that we are unaware of, or that we currently believe are not material, may also become important factors that adversely affect our business.

Risks Related to Our Business and Industry

The rapid evolution of the media industry is changing our customers' needs, businesses and revenue models, and if we cannot anticipate these changes or adapt to them quickly, our revenues will be adversely affected and our business will be harmed.

The media industry has rapidly and dramatically transformed over the past decade, and it is continuing to do so as a result of free content, minimal entry costs for creation and distribution, and expanded use of mobile devices. As a result, our traditional customers' needs, businesses and revenue models are changing, often in ways that deviate from our traditional core strengths and bases. If we cannot anticipate these changes or adapt to them quickly, our revenues will be adversely affected and our business will be harmed. For example, our customers have to address the increasing digitization of the media industry, which requires the creation of a more seamless value chain between content creation and monetization. Because of the consumerization of the media industry, there is more pressure to create media that can be efficiently repurposed in a variety of ways. As a result of these industry changes, traditional advertising channels are also facing competition from web and mobile platforms, and diminished revenues from traditional advertising could cause some customers' budgets for the purchase of our solutions to decline; this may be particularly true among local television stations, which in the past have been an important source of revenue for us. Additionally, our customers may seek to pool or share facilities and resources with others in their industry and engage with providers of software as a service.

The ongoing rapid evolution of the media industry may reduce demand for some of our existing products and services. New or non-traditional competitors may arise or adapt in response to this evolution of the media industry, which could create downward price pressure on our products and solutions and reduce our market share and revenue opportunities.

Our success depends in significant part on our ability to offer innovative products and solutions in response to dynamic and rapidly evolving market demand.

To succeed in our market, we must offer innovative products and solutions. Innovation requires that we accurately predict future market trends and customer expectations, and that we quickly adapt our development efforts in response. We must also protect our product roadmap and new product initiatives from leaks that might reduce or eliminate any innovative edge that we seek. Predicting market trends is difficult because our market is dynamic and rapidly evolving. Additionally, given the complex, sophisticated nature of our solutions and our typically lengthy product development cycles, we may not be able to rapidly change our product direction or strategic course. If we are unable to accurately predict market trends or adapt to evolving market conditions, we may be unable to capture customer demand and our market reputation and financial performance will be negatively affected. Even to the extent we make accurate predictions and possess the requisite flexibility to adapt, we may be able to pursue only some of the possible innovations, due to limited resources. Our success, therefore, further depends on our ability to identify and focus on the most promising innovations.

Our success also depends on our ability to manage a number of risks associated with new products that we introduce, including timely and successful product launch, market acceptance, and the availability of products in appropriate locations, quantities and costs to meet demand. There can be no assurance that our efforts will be successful in the near future, or at all, or that our competitors will not take significant market share in similar efforts. If we fail to develop new products and to manage new product introductions and transitions properly, our financial condition and operating results could be harmed.

Our increased emphasis on a cloud strategy may give rise to risks that could harm our business.

Our cloud strategy requires continued investment in product development and cloud operations, where we have a limited operating history. Our cloud strategy has also led to changes in the way we price and deliver our products. Many of our competitors may have advantages over us due to their larger presence, larger developer network, deeper experience in the cloud-based computing market, and greater sales and marketing resources. It is uncertain whether our cloud strategy will prove successful, or whether we will be able to develop the necessary infrastructure and business models more quickly than our competitors. Our cloud strategy may give rise to a number of risks, including the following:

• If new or current customers desire only perpetual licenses, we may not be successful in selling subscriptions.

• Although we intend to support our perpetual license business, the increased emphasis on a cloud strategy may raise concerns among our installed customer base.

• We may be unsuccessful in achieving our target pricing.

• Our revenues might decline over the short or long term as a result of this strategy.

• Our relationships with existing partners that resell perpetual licenses may be damaged.

• We may incur costs at a higher than forecasted rate as we enhance and expand our cloud operations.

We operate in highly fragmented and competitive markets, and our competitors may be able to draw upon a greater depth and breadth of resources than those available to us.

We operate in highly fragmented and competitive markets characterized by pressure to innovate, expand feature sets and functionality, accelerate new product releases and reduce prices. Markets for certain of our products have limited barriers to entry. Also, the fragmentation in our markets creates an additional risk of consolidation among our competitors, which would result in fewer, more effective competitors. Customers consider many factors when evaluating our products relative to those of our competitors, including innovation, ease of use, price, feature sets, functionality, reliability, performance, reputation, and training and support, and we may not compare favorably against our competitors in all respects. Some of our current and potential competitors have longer operating histories, greater brand recognition and substantially greater financial, technical, marketing, distribution and support resources than we do. As a result, our competitors may be able to deliver greater innovation, respond more quickly to new or emerging technologies and changes in market demand, devote more resources to the development, marketing and sale of their products, successfully expand into emerging and other international markets, or price their products more aggressively than we can. If our competitors are more successful than we are in developing products, or in attracting and retaining customers, our financial condition and operating results could be adversely affected.

Certain of our enterprise offerings have long and complex sales cycles, which could result in a loss of customers and lower revenues.

With our transition to leveraging the Avid MediaCentral platform in our sales process, we have experienced longer and more complex sales cycle for some of our enterprise offerings, which could result in a loss of customers and lower revenues. The length and complexity in these sales cycles is due to a number of factors, including:

• the need for our sales representatives to educate customers about the uses and benefits of our products and services, including technical capabilities, security features, potential cost savings and return on investment, which are made available in large-scale deployments;

• the desire of large and medium size organizations to undertake significant evaluation processes to determine their technology requirements prior to making information technology expenditures;

• the negotiation of large, complex, enterprise-wide contracts, as often required by our and our customers' business and legal representatives;

• the need for our customers to obtain requisition approvals from various decision makers within their organizations; and

• customer budget constraints, economic conditions and unplanned administrative delays.

We spend substantial time and money on our sales efforts without any assurance that potential customers will ultimately purchase our solutions. As we target our sales efforts at larger enterprise customers, these trends are expected to continue. Our long and complex sales cycle for these products makes it difficult to predict when a given sales cycle will close.

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There are a number of risks in our subscription model.

A growing portion of our revenue is subscription-based pursuant to service agreements that are generally month-to-month or one year in length, and we intend to continue to expand our subscription-based offerings. Although the subscription model is designed to increase the number of customers who purchase our products and services on a recurring basis and create a more predictable revenue stream, it creates certain risks and uncertainties related to subscription renewal, the timing of revenue recognition and potential reductions in cash flows. Although many of our service and subscription agreements contain automatic renewal terms, our customers have no obligation to renew their subscriptions for our services after the expiration of their initial subscription period. If customers do renew their subscriptions, these subscriptions may not be renewed on the same terms. Moreover, under certain circumstances, some of our customers have the right to cancel their service agreements prior to the expiration of the terms of their agreements. If our customers do not renew their subscriptions for our services or if they renew on terms less favorable to us, our revenues may decline. Our future growth is also affected by our ability to sell additional features and services to our current customers, which depends on a number of factors, including customers' satisfaction with our products and services, the prices of our offerings and general economic conditions. If our efforts to cross-sell and upsell to our customers are unsuccessful, the rate at which our business grows may decline.

A portion of the subscription-based revenue we report each quarter results from the recognition of deferred revenue relating to subscription agreements entered into during previous quarters. A decline in new or renewed subscriptions in any period may not be immediately reflected in our reported financial results for that period but may result in a decline in our revenue in future quarters. If we were to experience significant downturns in subscription sales and renewal rates, our reported financial results might not reflect such downturns until future periods. Our subscription model could also make it difficult for us to rapidly increase our revenues from subscription-based services through additional sales in any period, as revenue from new customers will be recognized over the applicable subscription term. Further, any increases in sales under our subscription sales model could result in decreased revenues over the short term if these sales are offset by a decline in sales from perpetual license customers. If any of our assumptions about revenue from our new businesses or our addition of a subscription-based model prove incorrect, our actual results may differ materially from those anticipated, estimated or projected. We may be unable accurately to predict subscription renewal rates and the impact these rates may have on our future revenue and operating results.

Failure of our information systems or those of third parties or breaches of data security could cause significant harm to our business.

Our systems and processes involve the storage and transmission of proprietary information and sensitive or confidential data, including personal information of employees, customers and others. In addition, we rely on information systems controlled by third parties. Information system failures, network disruptions and system and data security breaches, manipulation, destruction or leakage, whether intentional or accidental, could impair our ability to provide services to our customers or otherwise harm our ability to conduct our business, impede the development, manufacture or shipment of products, interrupt or delay processing of transactions and reporting financial results, result in theft or misuse of our intellectual property or other assets, or result in the unintentional disclosure of personal, proprietary, sensitive or confidential information. With our development of Avid MediaCentral Platform, public and private marketplaces and cloud-based offerings, our and our customer's data and financial and proprietary information could become more susceptible to such failures and data breaches. Significant or repeated reductions in the performance, reliability, security or availability of our information systems and network infrastructure could significantly harm our brand and reputation and ability to attract and retain existing and potential users, customers, advertisers and content providers.

Information system failures or unauthorized access could be caused by our failure to adequately maintain and enhance our systems and networks, external theft or attack, misconduct by our employees, contractors, or vendors, or many other causes such as power failures, earthquakes, fire or other natural disasters. Cyber threats are constantly evolving, increasing the difficulty of detecting and successfully defending against them. We may have no current capability to detect certain vulnerabilities, which may allow them to persist in the environment over long periods of time. Cyber threats can have cascading impacts that unfold with increasing speed across our internal networks and systems and those of our partners and customers.

Any information system failures or unauthorized access could expose us, our customers or the individuals affected to a risk of loss or misuse of this information, resulting in litigation and potential liability for us. In addition, we could incur substantial

remediation costs, including costs associated with repairing our information systems, implementing further data protection measures, engaging third-party experts and consultants, and increased insurance premiums.

We obtain certain hardware product components and finished goods under sole-source supply arrangements, and any disruptions to these arrangements could jeopardize the manufacturing or distribution of certain of our hardware products.

Although we generally prefer to establish multi-source supply arrangements for our hardware product components and finished goods, multi-source arrangements are not always possible or cost-effective. We consequently depend on sole-source suppliers for many hardware product components and finished goods, including some critical items. We do not generally carry significant inventories of, and may not in all cases have guaranteed supply arrangements for, these sole-sourced items. Our sole-source suppliers may cease, suspend or otherwise limit production or shipment of our product components, due to, among other things, macroeconomic events, political crises or natural or environmental disasters or other occurrences, or they may terminate our agreements or adversely modify supply terms or pricing. If any of these events occur, our ability to manufacture, distribute and service our products would be impaired, and our business could be significantly harmed. We may not be able to obtain sole-sourced components or finished goods, or acceptable substitutes, from alternative suppliers or on commercially reasonable terms. If we are forced to change sole-source suppliers due to a contract termination or other production cessation, it may take a significant amount of time and expenses to obtain substitute suppliers, during which time our inventory may be significantly reduced, which may adversely impact our working capital, liquidity, results of operations or financial position. We may also be required to expend significant development resources to redesign our products to work around the exclusion of any sole-sourced component or accommodate the inclusion of any substitute component. Although we have procedures in place to mitigate the risks associated with our sole-sourced suppliers, we cannot be certain that we will be able to obtain sole-sourced components or finished goods from alternative suppliers or that we will be able to do so on commercially reasonable terms without a material impact on our results of operations or financial position.

We are in the process of transitioning the manufacturer of certain of our hardware product components to a new international vendor. Although the risks of disruption will be lessened upon the conclusion of this planned transition, the new international vendor may experience difficulty ramping up production to meet our demand within our desired timeline. Such a delay could result in significant product shortfalls and delays in delivery of products to our customers. We plan to mitigate these risks by conducting manufacturing readiness reviews and may place company personnel on site at the international vendors' facility to assist with production.

We depend on the availability and proper functioning of certain third-party technology that we incorporate into or bundle with our products. Third-party technology may include defects or errors that could adversely affect the performance of our products. If third-party technology becomes unavailable at acceptable prices, we may need to expend considerable resources integrating alternative third-party technology or developing our own substitute technology.

The profit margin for some of our products depends in part on the royalty, license and purchase fees we pay in connection with third-party technology which we license for incorporation into our bundling with our products. To the extent we add additional third-party technology to our products and we are unable to offset associated costs, our profit margins may decline, and our operating results may suffer. In addition to cost implications, third-party technology may include defects or errors that could adversely affect the performance of our products, which may harm our market reputation or adversely affect our product sales. Third-party technology may also include certain open source software code that if used in combination with our own software may jeopardize our intellectual property rights or limit our ability to sell through certain sales channels. If any third-party technology license expires, is terminated or ceases to be available on commercially reasonable terms, we may be required to expend considerable resources integrating

alternative third-party technology or developing our own substitute technology. In the interim, sales of our products may be delayed or suspended, or we may be forced to distribute our products with reduced feature sets or functionality.

Our international operations expose us to legal, regulatory and other risks that we may not face in the United States.

We derive more than half of our revenues from customers outside of the United States, and we rely on foreign contractors for the supply and manufacture of many of our products. For example, sales to customers outside the United States accounted for 64%, 62% and 64%, of our total net revenues in 2018, 2017 and 2016, respectively. We also conduct significant research and development activities overseas, including through third-party development vendors. For example, a portion of our research and

development is outsourced to contractors operating in Kiev, Ukraine, we have customer support activities in the Philippines, and we have operations in Poland and Israel.

Our international operations are subject to a variety of risks that we may not face in the United States, including:

- the financial and administrative burdens associated with environmental, tax and export laws, as well as other business regulations, in foreign jurisdictions, including high compliance costs, inconsistencies among jurisdictions, and a lack of administrative or judicial interpretative guidance;
- reduced or varied protection for intellectual property rights in some countries;
- regional economic downturns;
- economic, social and political instability, security concerns, and the risk of war;
- fluctuations in foreign currency exchange rates;
- longer collection cycles for accounts receivable;
- difficulties in enforcing contracts;
- difficulties in managing and staffing international implementations and operations, and executing our business strategy internationally;
- potentially adverse tax consequences, including the complexities of foreign value added or other tax systems and restrictions on the repatriation of earnings;
- increased financial accounting and reporting burdens and complexities;
- difficulties in maintaining effective internal control over financial reporting and disclosure controls;
- costs and delays associated with developing products in multiple languages; and
- foreign exchange controls that may prevent or limit our ability to repatriate income earned in foreign markets.

Additionally, recent legal developments in Europe have created compliance uncertainty regarding certain transfers of personal data from Europe to the United States. For example, the General Data Protection Regulation (“GDPR”), which became effective in the European Union (“EU”) in May 2018, will apply to any of our activities conducted from an establishment in the EU or related to products and services that we offer to EU users. The GDPR created a range of new data privacy related compliance obligations, which could cause us to change our business practices, and will significantly increase financial penalties for noncompliance, including possible fines of up to 4% of global annual turnover for the preceding financial year or €20 million (whichever is higher) for the most serious infringements.

We may not be successful in developing, implementing or maintaining policies and strategies that will be effective in managing the varying risks in each country where we do business. Our failure to manage these risks successfully, including developing appropriate contingency plans for our outsourced research and development work, could harm our international operations, reduce our international sales and increase our costs, thus adversely affecting our business, operating results and financial condition.

We could be adversely affected by violations of the U.S. Foreign Corrupt Practices Act, the U.K. Bribery Act and similar foreign anti-corruption laws.

We operate in several foreign jurisdictions. The U.S. Foreign Corrupt Practices Act (“FCPA”) and similar foreign anti-corruption laws generally prohibit companies and their intermediaries from offering, promising, authorizing, or making payments to foreign officials for the purpose of influencing any act or decision of such official in his or her official capacity, inducing the official to do any act in violation of his or her lawful duty, or to secure any improper advantage in obtaining or retaining business. Recent years have seen a substantial increase in the global enforcement of anti-corruption laws, with more frequent voluntary self-disclosures by companies, aggressive investigations and enforcement proceedings by both the U.S. Department of Justice and the SEC resulting in record fines and penalties, increased enforcement activity by non-U.S. regulators, and increases in criminal and civil proceedings brought against companies and individuals.

We operate in a number of countries that are recognized as having governmental corruption problems to some degree and where local customs and practices may not foster strict compliance with anti-corruption laws, including China. Our continued operation and expansion outside the United States could increase the risk of such violations in the future. Although we have policies that mandate compliance with these anti-corruption laws and require training, we cannot assure you that these policies and procedures will protect us from unauthorized reckless or criminal acts committed by our employees or agents. In the event that we believe or have reason to believe that our employees or agents have or may have violated applicable anti-corruption laws, including the FCPA, we may be required to investigate or have outside counsel investigate the relevant facts and circumstances, which can be expensive and require significant time and attention from senior management. Violations of these laws may result in significant criminal or civil sanctions, which could disrupt our business and result in a material adverse effect on our reputation, business, results of operations or financial condition.

We rely to a significant extent on manufacturing and hardware development vendors with operations in China, Thailand and other foreign jurisdiction. This may reduce our control over the manufacturing activities, create uncertainty with respect to intended cost savings and expose our proprietary assets to greater risk of misappropriation. Changes to these vendor relationships may result in delays or disruptions that could harm our business.

We rely to a significant extent on vendors for the development and manufacture of certain of our hardware products, primarily in China and Thailand. These relationships provide us with more flexible resource capabilities, access to global talent and cost savings, but also expose us to risks that may not exist or may be less pronounced with respect to our internal operations. We are able to exercise only limited oversight of our contractors, including with respect to their engineering and manufacturing processes, resource allocations, delivery schedules, security procedures and quality control. Language, cultural and time zone differences complicate effective management of contractors that are located abroad. Additionally, competition for talent in certain locations may lead to high turnover rates that disrupt development or manufacturing continuity. The manufacturers we use also manufacture products for other companies, including our competitors. Our contractors could choose to prioritize capacity for other users, increase the prices they charge us or reduce or eliminate deliveries to us, which could have a material adverse effect on our business. Pricing terms offered by contractors may be highly variable over time reflecting, among other things, order volume, local inflation and exchange rates. For example, during the past few years, including in 2018, most of our outsourced manufacturers have been in China, where the cost of manufacturing has been increasing and labor unrest and turn-over rates at manufacturers have been on the rise. Some of our contractor relationships are based on contract, while others operate on a purchase order basis, where we do not have the benefit of written protections with respect to pricing or other critical terms.

We are in the process of transitioning the manufacturer of certain of our hardware product components to a new international vendor. Although the risks of disruption will be lessened upon the conclusion of this planned transition, the new international vendor may experience difficulty ramping up production to meet our demand within our desired timeline or be unable to manufacture product components that meet our quality standards. Such a delay in meeting our desired timeline or inability to produce high-quality components could result in significant product shortfalls and delays in delivery of products to our customers. We plan to mitigate these risks by conducting manufacturing readiness reviews and may place company personnel on site at the international vendors' facility to assist with production.

Many of our contractors require access to our intellectual property and our confidential and proprietary information to perform their services. Protection of these assets in certain non-U.S. jurisdictions may be less robust than in the United States. We must rely on policies and procedures we have instituted with our contractors and certain confidentiality and contractual provisions in our written agreements, to the extent they exist, for protection. These safeguards may be inadequate to prevent breaches. If a breach were to occur, available legal or other remedies may be limited or otherwise insufficient to compensate us for any resulting damages.

Furthermore, if one of our international vendors were, for any reason, to cease or experience significant disruptions in its operations, among others as a result of political unrest, we might be unable to replace it on a timely basis with a comparably priced provider. We would also have to expend time and resources to train any new development or manufacturing vendor. If any of the vendors were to suffer an interruption in its business, or experience delays, disruptions or quality control problems in development or manufacturing operations, or if we had to change development or manufacturing vendors, our ability to provide services to our customers would be delayed and our business, operating results and financial condition would be adversely affected.

Lengthy procurement lead times and unpredictable life cycles and customer demand for some of our products may result in significant inventory risks.

With respect to many of our products, particularly our audio products, we must procure component parts and build finished inventory far in advance of product shipments. Certain of these products may have unpredictable life cycles and encounter rapid technological obsolescence as a result of dynamic market conditions. We procure product components and build inventory based upon our forecasts of product life cycle and customer demand. If we are unable to accurately forecast product life cycle and customer demand or unable to manage our inventory levels in response to shifts in customer demand, the result may be insufficient, excess or obsolete product inventory. Insufficient product inventory may impair our ability to fulfill product orders and negatively affect our revenues, while excess or obsolete inventory may require a write-down on products and components to their net realizable value, which would negatively affect our results of operations.

Our revenues and operating results depend significantly on our third-party reseller and distribution channels. Our failure to effectively manage our distribution channels for our products and services could adversely affect our revenues and gross margins and therefore our profitability.

We distribute many of our products indirectly through third-party resellers and distributors. We also distribute products directly to end-user customers. Successfully managing the interaction of our direct and indirect channel efforts to reach various potential customer industries for our products and services is a complex process. For example, in response to our direct sales strategies or for other business reasons, our current resellers and distributors may from time to time choose to resell our competitors' products in addition to, or in place of, our products. Moreover, since each distribution method has distinct risks and gross margins, our failure to identify and implement the most advantageous balance in the delivery model for our products and services could adversely affect our revenues and gross margins and therefore our profitability.

If we are unable to sell our professional products through retail sales channels, our operating results could be adversely affected.

We continue to have a presence in retail because our professional-level products are offered through specialty retailers. Our ability to continue to sell our professional products through certain retail sales channels could be impaired due to changes in our business strategy, including our shift to more subscription offerings. Changes in our strategy could lead to fewer unit sales through retail channels in the future, which could adversely affect retailers' willingness to carry our professional-level products and our ability to reach certain customers. If we are unable to sell our professional products through retail sales channels, our operating results could be adversely affected.

Our products may experience defects that could negatively impact our customer relationships, market reputation and operating results.

Our software products occasionally include coding defects (commonly referred to as "bugs"), which in some cases may interfere with or impair a customer's ability to operate or use the software. Similarly, our hardware products could include design or manufacturing defects that could cause them to malfunction. The quality control measures we use are not designed or intended to detect and remedy all defects. Any product defects could result in loss of customers or revenues, delays in revenue recognition, increased product returns, damage to our market reputation and significant warranty or other expense and could have a material adverse impact on our financial condition and operating results.

Our success depends in part on our ability to hire and retain competent and skilled management and technical, sales and other personnel.

We are dependent on the continued service and performance of our management team and key technical, sales and other personnel and our success will depend in part on our ability to retain these employees in a competitive job market. If we fail to recruit and retain, including through competitive compensation, competent and skilled personnel, we may incur increased costs or experience challenges with execution of our strategic plan. Also, if we fail to maintain an inclusive and discrimination-free workplace, we could run the risk of losing employees.

Our competitors may in some instances be able to offer a work environment with higher compensation or more opportunities to work with cutting-edge technology than we can. If we are unable to retain our key personnel or appropriately match skill sets with our needs, we would be required to expend significant time and financial resources to identify and hire new qualified personnel and to transfer significant internal historical knowledge, which might significantly delay or prevent the achievement of our business objectives.

Our intellectual property and trade secrets are valuable assets that may be subject to third-party infringement and misappropriation.

As a technology company, our intellectual property and trade secrets are among our most valuable assets. Infringement or misappropriation of these assets can result in lost revenues, and thereby ultimately reduce their value. We rely on a combination of patent, copyright, trademark and trade secret laws, as well as confidentiality procedures, contractual provisions and anti-piracy technology in certain of our products to protect our intellectual property and trade secrets. Most of these tools require vigilant monitoring of competitor and other third-party activities and of end-user usage of our products to be effective. These tools may not provide adequate protection in all instances, may be subject to circumvention, or may require a vigilance that in some cases exceeds our capabilities or resources. Additionally, our business model is increasingly focused on software products and, as we offer more software products, our revenues may be more vulnerable to loss through piracy, which could result in revenue losses. While we may seek to engage with those potentially infringing our intellectual property to negotiate a license for use, we also may seek legal recourse. The legal regimes of certain foreign jurisdictions in which we operate, may not protect our intellectual property or trade secrets to the same extent as do the laws of the United States. If our intellectual property or trade secrets are misappropriated in foreign jurisdictions, we may be without adequate remedies to address these issues. Regardless of jurisdiction, assuming legal protection exists, and infringement or misappropriation is detected, any enforcement action that we may pursue could be costly and time-consuming, the outcome will be uncertain, and the alleged offender in some cases may seek to have our intellectual property rights invalidated. If we are unable to protect our intellectual property and trade secrets, our business could be harmed.

Our results could be materially adversely affected if we are accused of, or found to be, infringing third parties' intellectual property rights.

Because of technological change in our industry, extensive and sometimes uncertain patent coverage, and the rapid issuance of new patents, it is possible that certain of our products or business methods may infringe the patents or other intellectual property rights of third parties. Companies in the technology industry own large numbers of patents, copyrights, trademarks and trade secrets and frequently enter into litigation based on allegations of infringement or other violations of intellectual property rights. Our technologies may not be able to withstand any third-party claims or rights against their use. We have received claims, and are subject to litigation alleging, that we infringe patents owned by third parties, and we may in the future be subject to such claims and litigation. Regardless of the scope or validity of such patents, or the merits of any patent claims by potential or actual litigants, we could incur substantial costs in defending intellectual property claims and litigation, and such claims and litigation could distract management's attention from normal business operations. In addition, we provide indemnification provisions in agreements with certain customers covering potential claims by third parties of intellectual property infringement. These agreements generally provide that we will indemnify customers for losses incurred in connection with an infringement claim brought by a third party with respect to our products, and we have received claims for such indemnification. The results of any intellectual property litigation to which we are, or may become, a party, or for which we are required to provide indemnification, may require us to:

- cease selling or using products or services that incorporate the challenged intellectual property;
- make substantial payments for legal fees, settlement payments or other costs or damages;
- obtain a license, which may not be available on reasonable terms, to sell or use the relevant technology, which such license could require royalties that would significantly increase our cost of goods sold; or

redesign products or services to avoid infringement, where such redesign could involve significant costs and result in delayed and/or reduced sales of the affected products.

Potential acquisitions could be difficult to consummate and integrate into our operations, and they could disrupt our business, dilute stockholder value or impair our financial results.

As part of our business strategy, from time to time we may seek to grow our business through acquisitions of or investments in new or complementary businesses, technologies or products that we believe can improve our ability to compete in our existing customer markets or allow us to enter new markets. The potential risks associated with acquisitions and investment transactions include, but are not limited to:

- failure to realize anticipated returns on investment, cost savings and synergies;
- difficulty in assimilating the operations, policies and personnel of the acquired company;
- unanticipated costs associated with acquisitions;
- challenges in combining product offerings and entering into new markets in which we may not have experience;
- distraction of management's attention from normal business operations;
- potential loss of key employees of the acquired company;
- difficulty implementing effective internal control over financial reporting and disclosure controls and procedures;
- impairment of relationships with customers or suppliers;
- possibility of incurring impairment losses related to goodwill and intangible assets; and
- unidentified issues not discovered in due diligence, which may include product quality issues or legal or other contingencies.

In order to complete an acquisition or investment transaction, we may need to obtain financing, including through borrowings or the issuance of debt or equity securities. Any issuance of additional securities could potentially dilute existing stockholders. The amount and terms of any potential future acquisition-related borrowings, as well as other factors, could adversely affect our liquidity and financial condition. We may not be able to consummate such financings on commercially reasonable terms, or at all, in which case our ability to complete desired acquisitions or investments and to implement our business strategy, and as a result our financial results, may be materially impaired. In addition, business combinations and investment transactions could impact our effective tax rate. We may experience risks relating to the challenges and costs of closing a business combination or investment transaction and the risk that an announced business combination or investment transaction may not close. The contributions to financial results of any completed, pending or future acquisitions or investments may differ from the investment community's expectations in a given period or over time.

Unanticipated changes in our tax provisions, the adoption of new tax legislation or exposure to additional tax liabilities could affect our profitability.

We are subject to income and other taxes in the United States and numerous foreign jurisdictions. Our tax liabilities are affected by the amounts we charge for inventory, services, licenses and other items in intercompany transactions. We are also subject to ongoing tax audits in various jurisdictions. Tax authorities may disagree with our intercompany charges, cross-jurisdictional transfer pricing or other matters and assess additional taxes. We regularly assess the likely outcomes of these audits in order to determine the appropriateness of our tax provision. However, there can be no assurance that we will accurately predict the outcomes of these audits, and the amounts ultimately paid upon the resolution of an audit could be materially different from the amounts previously included in our income tax expense and therefore, could have a material impact on our tax provision, net income and cash flows. In addition, our tax provision in the future could be adversely affected by changes to our operating structure, changes in the mix of earnings in countries with differing statutory tax rates, changes in the valuation of deferred tax assets and liabilities, changes in tax laws - including the U.S. Tax Cuts and Jobs Act, or TCJA, enacted on December 22, 2017, and the discovery of new information in the course of our tax return preparation process. The TCJA requires certain complex computations not previously required under U.S. tax law and accounting treatments have yet to be clarified as the U.S. Department of the Treasury and the Internal Revenue Service continues to issue additional regulatory guidance. As such, the full effect of the TCJA remains uncertain.

We may be subject to litigation, which, if adversely determined, could harm our business and operating results.

The costs of defending litigation, whether in cash expenses or in management time, could harm our business and materially and adversely affect our operating results and cash flows. An unfavorable outcome in any litigation matter could require that we pay substantial damages, or, in connection with any intellectual property infringement claims, could require that we pay ongoing royalty payments or prohibit us from selling certain of our products. In addition, we may decide to settle any litigation, which

could cause us to incur significant settlement costs. A settlement or an unfavorable outcome on any litigation matter could have a material and adverse effect on our business, operating results, financial condition and cash flows.

A natural disaster or catastrophic event may significantly limit our ability to conduct business as normal and harm our business.

Our operations, and the operations of our customers, are vulnerable to interruptions by natural disasters and catastrophic events. For example, we operate a complex, geographically dispersed business, which includes significant personnel, customers and facilities in California near major earthquake fault lines. We may not be able to protect our company from such catastrophic events and we are predominantly uninsured for business continuity losses and disruptions caused by catastrophic events. Disruption or failure of our or our customers' networks or systems, or injury or damage to either parties' personnel or physical infrastructure, caused by a natural disaster, public health crisis, terrorism, cyber-attack, act of war or other catastrophic event may significantly limit our or our customers' ability to conduct business as normal, including our ability to communicate and transact with customers, suppliers, distributors and resellers, which may negatively affect our revenues and operating results. Additionally, a natural disaster or catastrophic event could cause us or our customers to suspend all or a portion of operations for a significant period of time, result in a permanent loss of resources, and require the relocation of personnel and material to alternate facilities that may not be available or adequate. Such an event could also cause an indirect economic impact on our customers, which could impact our customers' purchasing decisions and reduce demand for our products and services. A prolonged disruption of our business could also damage our reputation, particularly among our global news organization customers who are likely to require our solutions and support during such time. Any of these factors could cause a material adverse impact on our financial condition and operating results.

Economic conditions and regulatory changes leading up to and following the United Kingdom's scheduled exit from the European Union could have a material adverse effect on our business and results of operations.

The United Kingdom, or U.K., government has commenced the legal process of leaving the European Union, typically referred to as "Brexit." There remains significant uncertainty about when and how the U.K. will officially exit the European Union, if at all, and the possible effects of Brexit including but not limited to, the imposition of trade barriers and increased costs throughout Europe, changes in European manufacturing and employment markets, and currency fluctuations. While the full effects of Brexit will not be known for some time, Brexit could cause disruptions to, and create uncertainty surrounding, our business and results of operations. The most immediate effect of the expected Brexit has been significant volatility in global equity and debt markets and currency exchange rate fluctuations. Ongoing global market volatility and a deterioration in economic conditions due to uncertainty surrounding Brexit, could significantly disrupt the markets in which we operate and lead our customers to closely monitor their costs and delay capital spending decisions.

Additionally, the expected Brexit has resulted in the immediate strengthening of the U.S. dollar against foreign currencies in which we conduct business. Although this strengthening has been somewhat ameliorated by the British Government's stated desire to accomplish a transitional exit, because we translate revenue denominated in foreign currency into U.S. dollars for our financial statements, during periods of a strengthening U.S. Dollar, our reported revenue from foreign operations is reduced. As a result of Brexit and the continued negotiations within the U.K., there may be further periods of volatility in the currencies in which we conduct business.

The effects of Brexit will depend on any agreements the U.K. makes to retain access to EU markets, either during a transitional period or more permanently. The measures could potentially disrupt the markets we serve and may cause us to lose customers and employees. In addition, Brexit could lead to legal uncertainty and potentially divergent national laws and regulations as the U.K. determines which EU laws to replace or replicate.

Any of these effects of Brexit could materially adversely affect our business, results of operations and financial condition.

Risks Related to Our Liquidity and Financial Performance

If we are not able to generate and maintain adequate liquidity our ability to operate our business could be adversely affected.

Generating and maintaining adequate liquidity is important to our business operations. We meet our liquidity needs primarily through cash generated by operations, supplemented from time to time with the proceeds of long-term debt and borrowings under the revolving credit facility, or Credit Facility, governed by the financing agreement, dated February 26, 2016, as amended, between us and the lender parties thereto, or the Financing Agreement. We have the ability to borrow up to \$22.5 million under the Credit Facility. We have also undertaken significant cost cutting measures and we may take additional measures to further improve our liquidity. Significant fluctuations in our cash balances could harm our ability to meet our immediate liquidity needs, impair our capacity to react to sudden or unexpected contractions or growth in our business, reduce our ability to withstand a sustained period of economic crisis, and impair our ability to compete with competitors with greater financial resources. In addition, fluctuations in our cash balances could cause us to draw on our Credit Facility and therefore reduce available funds under the Credit Facility (see “Management’s Discussion and Analysis of Financial Condition and Results of Operations - Liquidity and Capital Resources” in Item 7 of this Form 10-K). If we are unable to generate sufficient cash flow or our borrowings are not sufficient, our liquidity may significantly decrease, which could have an adverse effect on our business.

We may not be able to achieve the efficiencies, savings and other benefits anticipated from our cost reduction, margin improvement and other business optimization initiatives.

We regularly review and implement programs to reduce costs, increase efficiencies and enhance our business. We have undertaken, and expect to continue to undertake, various restructuring activities and cost reduction initiatives in an effort to better align our organizational structure and costs with our overall strategy. Past restructuring and cost reduction initiatives have included reductions in our workforce, facility consolidation, transferring resources to lower cost regions and reducing other third-party services costs.

In connection with these activities, we may experience a disruption in our ability to perform functions important to our strategy. Unexpected delays, increased costs, challenges with adapting our internal control environment to a new organizational structure, inability to retain and motivate employees, or other challenges arising from these initiatives could adversely affect our ability to realize the anticipated savings or other intended benefits of these activities and could have a material adverse impact on our financial condition and operating results.

Restrictions in the Financing Agreement may limit our activities.

The Financing Agreement contains restrictive covenants that limit our ability to engage in activities that could otherwise benefit us, including, among other things, limitations on our ability to make investments, incur additional indebtedness, issue equity, sell assets, pay dividends and make other restricted payments, and create liens. We are also required to comply on an ongoing basis with certain financial covenants, including a maximum leverage ratio and an annual limit on the amount of our capital expenditures. Our ability to comply with these restrictions and covenants in the future is uncertain and could be affected by the levels of our cash flows from operations and events or circumstances beyond our control. Failure to comply with any of these restrictions or covenants may result in an event of default under the Financing Agreement, which could permit acceleration of the outstanding indebtedness under the Financing Agreement and require us to repay such indebtedness before its scheduled due date. Certain events of default under the Financing Agreement may also give rise to a default under our convertible notes due 2020 or other future indebtedness. If an event of default were to occur, we might not have sufficient funds available to make the payments required. If we are unable to repay amounts owed, our lenders may be entitled to foreclose on and sell substantially all of our assets, which secure our borrowings under the Financing Agreement.

Our substantial indebtedness could adversely affect our business, cash flow and results of operations.

As of December 31, 2018 we had \$221 million of long-term indebtedness, including our 2.00% convertible senior notes due 2020, or the Notes, and borrowings under the Financing Agreement. This substantial level of indebtedness may:

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require us to dedicate a greater percentage of our cash flow from operations to payments on our debt, thereby reducing the availability of cash flow to fund capital expenditures, pursue other acquisitions or investments and use for general corporate purposes;

increase our vulnerability to general adverse economic conditions, including increases in interest rates with respect to borrowings under the Financing Agreement that bear interest at variable rates or when our indebtedness is being refinanced;

limit our ability to obtain additional financing; and

limit our flexibility in planning for, or reacting to, changes in or challenges relating to our business and industry, creating competitive disadvantages compared to other competitors with lower debt levels and borrowing costs.

The Notes mature in June 2020 and become a current liability on our balance sheet in June 2019. We cannot make any assurance that our cash flow from operations, combined with any additional borrowings available to us, will be sufficient to enable us to repay the Notes or our other indebtedness, or to fund other liquidity needs. We may incur additional indebtedness in the future, which could cause these risks to intensify. If we are unable to generate sufficient cash flows to repay the Notes and our other indebtedness when due or to fund our other liquidity needs, we may be required to adopt one or more alternatives, such as selling assets, restructuring debt or obtaining additional equity capital on terms that may be onerous or highly dilutive. Our ability to refinance the Notes or our other indebtedness will depend on the capital markets and our financial condition at such time. We may not be able to engage in any of these activities or engage in these activities on desirable terms, which could result in a default on our debt obligations.

We recognized a significant amount of revenue in recent years due to the amortization of deferred revenue attributable to transactions occurring in the past. The reduction in deferred revenues resulted in increased revenue and gross margin and our reported net income in prior years. Revenue from the amortization of deferred revenue will not recur to the same extent in future periods; as a result, there are no assurances that we will be able to report net income in future periods. In addition, as less revenue is recognized from deferred revenue amortization and we have adopted a new accounting standard for revenue recognition, we may experience greater volatility in our quarterly and annual operating results.

As a result of our historical practice of providing Implied Maintenance Release PCS on many of our products, we were required, under accounting principles generally accepted in the United States of America, or GAAP, to recognize revenue for many of these transactions ratably over a period that typically ranged from three to six years. Due to changes in accounting rules, namely Accounting Standards Update, or ASU, No. 2009-13 and ASU No. 2009-14, and the cessation of our practice of providing Implied Maintenance Release PCS for many of our products, revenue from older transactions continued to be recognized and, in some cases, accelerated into revenue through 2017. This resulted in significant increases to revenue and declines in deferred revenue during 2016 and 2017. New sales of many of the same products now qualify for upfront recognition and do not add significantly to deferred revenue balances. As a result, revenue attributable to older transactions has declined significantly through 2017 as corresponding deferred revenue is fully amortized and not being replenished by new transactions. Deferred revenue for the fiscal years 2016 and 2017 declined approximately \$123 million and \$31 million, respectively, as a result of these circumstances.

The amortization of deferred revenue described above resulted in our reporting a smaller net loss of \$14 million in 2017 and net income of approximately \$48 million in 2016. With the impact of deferred revenue amortization declining significantly in future periods, there are no assurances that we will be able to report net income in future periods. Our financial results and the impact of the deferred revenue are discussed in “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in Item 7 of this Form 10-K.

The adoption of ASU No. 2014-09, Revenue from Contracts with Customers (ASC 606) on January 1, 2018, which requires virtually all product sales to be recognized as revenue upon delivery, further impacts our deferred revenue balances since, upon adoption, using the modified retrospective method, we recorded a cumulative reduction of

deferred revenue of approximately \$97 million. With the adoption of ASC 606, we now recognize a greater proportion of revenue upon delivery of our products, whereas some of our product sales under legacy GAAP were initially recorded in deferred revenue and recognized over a longer period of time. With the decreased amount of deferred revenue and more immediate impact of current period sales and shipment activity on revenue, our operating results may be more volatile in future quarterly and annual periods.

Our revenues and operating results are difficult to predict and may fluctuate from period to period.

Our results of operations have been, and may continue to, be subject to significant quarterly variation. Our revenues and operating results for any particular quarter may also vary due to a number of factors, including, but not limited to, those enumerated under the section “Cautionary Note on Forward-Looking Statements,” appearing elsewhere in this Form 10-K and:

- the timing of large or enterprise-wide sales and our ability to recognize revenues from such sales;
- demand planning and logistics;
- renewal rates under subscription contracts;
- reliance on third-party reseller and distribution channels;
- changes in operating expenses;
- price protections and provisions for inventory obsolescence extended to resellers and distributors;
- seasonal factors, such as higher consumer demand at year-end; and
- complex accounting rules for revenue recognition.

The occurrence and interaction of these variables may cause our revenues and operating results to fluctuate from period to period. As a result, period-to-period comparisons of our revenues and operating results may not provide a good indication of our future performance. We cannot be certain when, or if, our operations will be profitable in future periods.

Our revenue backlog estimates are based on certain assumptions and are subject to unexpected adjustments and cancellations and backlog orders may not be timely converted to revenues in any particular fiscal period, if at all, or be indicative of our actual operating results for any future period.

Our revenue backlog, as we define it, consists of firm orders received and includes both (i) orders where the customer has paid in advance of our performance obligations being fulfilled, which are reflected as deferred revenues on our balance sheet, and (ii) orders for future product deliveries or services that have not yet been invoiced by us. To the extent that our customers cancel their orders with us, or reduce their requirements during a particular period for any reason, we will not realize revenue or profit from the associated revenue backlog. Even where a project proceeds as scheduled, it is possible that the customer may default and fail to pay amounts owed to us. Material delays, payment defaults or cancellations could reduce the amount of revenue backlog currently reported, and consequently, could inhibit the conversion of that backlog into revenues. Furthermore, orders included in our revenue backlog may not be profitable. We may experience variances in the realization of our revenue backlog because of project delays or cancellations resulting from external market factors and economic factors beyond our control. In addition, even if we realize all of the revenue from the projects in our revenue backlog, if our expenses associated with these projects are higher than expected, our results of operations and financial condition would be adversely affected.

Fluctuations in foreign exchange rates may result in short-term currency exchange losses and could adversely affect our revenues from foreign markets and our manufacturing costs in the long term.

Our international sales are, for the most part, transacted through foreign subsidiaries and generally in the currency of the end-user customers. Consequently, we are exposed to short-term currency exchange risks that may adversely affect our revenues, operating results and cash flows. The majority of our international sales are transacted in euros. To hedge against the dollar/euro exchange exposure of the resulting forecasted payables, receivables and cash balances, we may enter into foreign currency contracts. The success of our hedging programs depends on the accuracy of our forecasts of transaction activity in foreign currency. To the extent that these forecasts are over- or understated during periods of currency volatility, we may experience currency gains or losses. Our hedging activities, if enacted, may only offset a portion of the adverse financial impact resulting from unfavorable movement in dollar/euro exchange rates, which could adversely affect our financial position or results of operations.

Furthermore, the significance to our business of sales in Europe subjects us to risks associated with long-term changes in the dollar/euro exchange rate. A sustained strengthening of the U.S. dollar against the euro would decrease our expected future U.S. dollar revenues from European sales, and could have a significant adverse effect on our overall profit margins. During the past few years, economic instability in Europe, including concern over sovereign debt in Greece, Italy, Ireland and certain other European Union countries, caused significant fluctuations in the value of the euro relative to those of other currencies, including

the U.S. dollar. Continuing uncertainty regarding economic conditions, including the solvency of these countries and the stability of the Eurozone, could lead to significant long-term economic weakness and reduced economic growth in Europe, the occurrence of which, or the potential occurrence of which, could lead to a sustained strengthening of the U.S. dollar against the euro, adversely affecting the profitability of our European operations.

In addition, we source and manufacture many of our products in China and our costs may increase should the renminbi not remain stable with the U.S. dollar. Although the renminbi is pegged against a basket of currencies determined by the People's Bank of China, the renminbi may appreciate or depreciate significantly in value against the U.S. dollar in the long term. In addition, if China were to permit the renminbi to float to a free market rate of exchange, it is widely anticipated that the renminbi would appreciate significantly in value against U.S. dollar. An increase in the value of the renminbi against the U.S. dollar would have the effect of increasing the labor and production costs of our Chinese manufacturers in U.S. dollar terms, which may result in their passing such costs to us in the form of increased pricing, which would adversely affect our profit margins if we could not pass those price increases along to our customers.

Global economic weakness and uncertainty could adversely affect our revenues, gross margins and expenses.

Our business is impacted by global economic conditions, which have been in recent years, and continue to be, volatile. Specifically, our revenues and gross margins depend significantly on global economic conditions and the demand for our products and services in the markets in which we compete. Economic weakness and uncertainty have resulted, and may result in the future, in decreased revenue, gross margin, earnings or growth rates and difficulty managing inventory levels. Sustained uncertainty about global economic conditions may adversely affect demand for our products and services and could cause demand to differ materially from our expectations as customers curtail or delay spending on our products and services. Economic weakness and uncertainty also make it more difficult for us to make accurate forecasts of revenues, gross margins and expenses.

The inability of our customers to obtain credit in the future may impair their ability to make timely payments to us. Tightening of credit by financial institutions could also lead customers to postpone spending or to cancel, decrease or delay their existing or future orders with us. Customer insolvencies could negatively impact our revenues and our ability to collect receivables. Financial difficulties experienced by our suppliers or distributors could result in product delays, increased accounts receivable defaults and inventory challenges. In the event we are impacted by global economic weakness, we may record additional charges relating to restructuring costs or the impairment of assets, and our business and results of operations could be materially and adversely affected.

The attempt by the current United States Administration to replace NAFTA, and efforts to withdraw from, or materially modify other international trade agreements, and the imposition of tariffs, and any other future attempts to otherwise limit international trade could adversely affect our business, financial condition and results of operations.

A significant portion of our business activities is conducted in foreign countries, including Mexico and China. The current Administration has indicated that it is not supportive of certain existing international trade agreements, and it has sought to replace the North American Free Trade Agreement, or NAFTA, with the recently signed U.S.-Mexico-Canada Agreement, or USMCA. There is significant uncertainty regarding whether and when the USMCA will be ratified and, if ratified, its ultimate form. The current Administration has also imposed certain tariffs on international trade and may consider additional tariffs or other limitations on international trade. As a result of these actions, and any other actions that the U.S. may take in the future to withdraw from or materially modify other international trade agreements, or to otherwise limit international trade, our business, financial condition and results of operations could be adversely affected.

Risks related to our 2.00% convertible senior notes due 2020

The use of cash to satisfy our conversion obligation under the Notes may adversely affect our liquidity, and we may not have the ability to raise the funds necessary to settle conversions in cash or to repurchase the Notes upon a fundamental change. The agreements governing our other indebtedness may contain limitations on our ability to pay cash upon conversion or repurchase of the Notes.

On June 15, 2015, we completed an offering of \$125.0 million aggregate principal amount of the Notes. The Notes may be converted into shares of our common stock, at the election of the holder, if certain conditions are met, including, among other

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things, the last reported sale price of the common stock being greater than or equal to 130% of the conversion price of the Notes (initially \$21.94 per share) for at least 20 trading days within a period of 30 consecutive trading days. In the event the conditional conversion feature of the Notes is triggered, and one or more holders elect to convert their Notes, we may elect to satisfy our conversion obligation by paying cash or by delivering shares of our common stock. Further, holders of the Notes have the right to require us to repurchase their Notes upon the occurrence of a fundamental change, which generally means a merger, sale of all or substantially all of our assets, or other similar change of control transaction. To the extent we do not elect to satisfy our conversion obligation by delivering solely shares of our common stock, we would be required to settle a portion or all of our conversion obligation through the payment of cash. The use of cash to settle our conversion obligation could adversely affect our liquidity. Further, we may not have enough available cash, or be able to obtain financing at the time we are required to make repurchases of the Notes surrendered or to make cash payments in respect of Notes being converted. The Financing Agreement contains a restriction on our ability to settle conversions of the Notes with cash.

The Notes mature in June 2020. Under applicable accounting rules, if the Notes are not converted or repaid prior to August 2019, our financial condition and operating results could be adversely affected.

The Notes mature in June 2020. If holders do not elect to convert their Notes and the Notes remain outstanding prior to the issuance of our quarterly report for the three months ended June 30, 2019, which we expect in August 2019, we would be required under applicable accounting rules to reclassify all or a portion of the outstanding principal of the Notes as a current, rather than long-term, liability. Such reclassification would result in a material reduction of our net working capital, which could have a material adverse effect on our financial condition and results of operations. In addition, while we could seek to obtain third-party financing to pay for any amounts due in cash upon the maturity of the Notes, we cannot be sure that such third-party financing would be available on commercially reasonable terms, if at all.

Our failure to repurchase Notes or pay any cash upon conversion of the Notes would constitute a default under the indenture governing the Notes, and could cause defaults under our other or future indebtedness.

Our failure to repurchase Notes or pay any cash upon conversion of the Notes as required by the indenture governing the Notes would constitute a default under the indenture. This kind of default under the indenture would also constitute a default under the Financing Agreement, and it could constitute a default under agreements governing our future indebtedness. If the repayment of the indebtedness under the Financing Agreement, or any other indebtedness, were to be accelerated after any applicable notice or grace periods, we may not have sufficient funds to repay the indebtedness and repurchase the Notes or make cash payments upon conversions thereof.

The capped call transaction may affect the trading price of our common stock.

In connection with the offering of the Notes, we entered into the Capped Call. The primary purpose of the Capped Call was to reduce potential dilution to our common stock and/or offset any cash payments we may be required to make in excess of the principal amount, in each case, upon any conversion of Notes. In order to establish a hedge of the Capped Call, the Counterparty may have entered into various derivative transactions with respect to our common stock, and it may modify its hedge positions from time to time by entering into or unwinding various derivative transactions with respect to our common stock and/or purchasing or selling our common stock or other securities in secondary market transactions prior to the maturity of the Notes. The Counterparty is likely to undertake these activities during, and potentially prior to, any observation period related to a conversion of the Notes. These activities could cause or avoid an increase or a decrease in the market price of our common stock.

Risks Related to Our Stock

The market price of our common stock has been and may continue to be volatile.

The market price of our common stock has historically experienced volatility. Our stock may continue to fluctuate substantially in the future in response to various factors, some of which are beyond our control. These factors include, but are not limited to:

- period-to-period variations in our revenues or operating results;
- our failure to accurately forecast revenues or operating results or to report financial or operating results within the range of our previously issued guidance;

- our ability to produce accurate and timely financial statements;
- whether our results meet analysts' expectations;
- market reaction to significant corporate initiatives or announcements;
- our ability to innovate;
- our relative competitive position within our markets;
- shifts in markets or demand for our solutions;
- changes in our relationships with suppliers, resellers, distributors or customers;
- our commencement of, or involvement in, litigation;
- short sales, hedging or other derivative transactions involving shares of our common stock;
- shifts in financial markets and fluctuations of exchange rates; and
- the actions and decisions of our significant stockholders.

Additionally, broader financial market and global economic trends may affect the market price of our common stock, regardless of our operating performance.

Delaware law and our charter documents may impede or discourage a takeover, which could reduce the market price of our common stock.

We are a Delaware corporation, and the anti-takeover provisions of Delaware law impose various impediments to the ability of a third party to acquire control of us, even if a change in control would be beneficial to our existing stockholders. In addition, our board of directors, or a committee thereof, has the power, without stockholder approval, to designate the terms of one or more series of preferred stock and issue shares of preferred stock. The ability of our board of directors or a committee thereof to create and issue a new series of preferred stock and certain provisions of Delaware law and our certificate of incorporation and bylaws, could impede a merger, takeover or other business combination involving us, or discourage a potential acquirer from making a tender offer for our common stock, which, under certain circumstances, could reduce the market price of our common stock.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

We lease approximately 124,000 square feet in two facilities in Burlington, Massachusetts for our principal corporate and administrative offices, as well as for significant R&D activities. The lease for 24,000 square feet expires in May 2020 and the lease for 100,000 square feet expires in May 2028.

We lease approximately 17,000 square feet of office space in Iver Heath, United Kingdom for our European headquarters, which includes administrative, sales and support functions, and 24,000 square feet in Dublin, Ireland for the final assembly and distribution of our products. We lease approximately 24,000 square feet in the Philippines for our Asia operations including customer support and administrative functions.

We also lease office space for sales operations and research and development in several other domestic and international locations.

ITEM 3. LEGAL PROCEEDINGS

Our industry is characterized by the existence of a large number of patents and frequent claims and litigation regarding patent and other intellectual property rights. We are involved in legal proceedings from time to time arising from the normal course of business activities, including claims of alleged infringement of intellectual property rights and contractual, commercial, employee relations, product or service performance, or other matters.

Class Action Lawsuit

In November 2016, a purported securities class action lawsuit was filed in the U.S. District Court for the District of Massachusetts (*Mohanty v. Avid Technology, Inc. et al.*, No. 16-cv-12336) against us and certain of our executive officers seeking unspecified damages and other relief on behalf of a purported class of purchasers of our common stock between August 4, 2016 and November 9, 2016, inclusive. The complaint purported to state a claim for violation of federal securities laws as a result of alleged violations of Sections 10(b) and 20(a) of the Exchange Act and Rule 10b-5 promulgated thereunder. The complaint's allegations relate generally to our disclosure surrounding the level of implementation of our Avid NEXIS solution product offerings. On February 7, 2017, the Court appointed a lead plaintiff and counsel in the matter. On June 14, 2017, we moved to dismiss the action. On July 31, 2017, the lead plaintiff filed an opposition to our motion to dismiss, and on August 21, 2017, we filed our reply brief. On October 13, 2017, after a mediation, the parties reached an agreement in principle to settle this litigation. The settlement was approved by the court and the settlement payment was made by our insurers in May 2018.

The outcome of legal proceedings and claims brought against us is subject to significant uncertainty and, as a result, our financial position or results of operations may be negatively affected by the unfavorable resolution of one or more of these proceedings for the period in which a matter is resolved. See Part I, Item 1A, "Risk Factors."

ITEM 4. MINE SAFETY DISCLOSURES

Not Applicable.

PART II

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

Our common stock is listed on the Nasdaq Global Select Market under the symbol AVID. The approximate number of holders of record of our common stock at March 11, 2019 was 255. This number does not include stockholders for whom shares were held in a "nominee" or "street" name.

We have never declared or paid cash dividends on our capital stock, and we do not anticipate paying any cash dividends in the foreseeable future. Our Financing Agreement prohibits us from declaring or paying any dividends in cash on our capital stock.

Stock Performance Graph

The following graph compares the cumulative stockholder return on our common stock during the period from December 31, 2013 through December 31, 2018 with the cumulative return during the period for:

- the Nasdaq Composite Index (all companies traded on Nasdaq Capital, Global or Global Select Markets),
- the 2017 Avid Peer Group Index,
- and
- the 2018 Avid Peer Group Index (see details following the graph).

This comparison assumes the investment of \$100 on December 31, 2013 in our common stock, the Nasdaq Market Index and the Avid Peer Group Index, and assumes that dividends, if any, were reinvested.

COMPARISON OF FIVE-YEAR CUMULATIVE TOTAL RETURN

Among Avid Technology, Inc., the Nasdaq Composite Index,
and the Avid Peer Groups

Because our products and services are diverse, we do not believe any single published industry index is appropriate for comparing stockholder return. As a result, we compare our common stock returns to a peer group index, which was composed of Nasdaq traded companies selected to best represent our peers based on various criteria, including industry classification, number of employees and market capitalization.

The composition of the Avid Peer Group Index is dictated by the peer group selected by the compensation committee of our board of directors for reference in setting executive compensation. The compensation committee seeks generally to include companies with similar product and service offerings to those of Avid while also achieving a balance of smaller and larger sized peer companies in terms of market capitalizations and revenue. For 2018, the compensation committee made certain changes to the 2017 Avid Peer Group Index to more accurately reflect this philosophy.

The Avid Peer Group Index for 2018 was composed of: 3D Systems Corporation, Brightcove Inc., Carbonite, Inc., Cray Inc., Extreme Networks, Inc., Harmonic Inc., Limelight Networks, Inc. MicroStrategy Incorporated, Monotype Imagine Holdings Inc., Progress Software Corporation, RealNetworks, Inc., Shutterstock, Inc., and TiVo Corporation.

The Avid Peer Group Index is weighted based on market capitalization.

ITEM 6. SELECTED FINANCIAL DATA

The selected condensed consolidated financial data below should be read in conjunction with Item 7, “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” and Item 8, “Financial Statements and Supplementary Financial Information,” included elsewhere in this Form 10-K. The selected condensed consolidated financial data as of December 31, 2018, 2017, 2016, 2015 and 2014 and for the years ended December 31, 2018, 2017, 2016, 2015 and 2014 has been derived from our audited consolidated financial statements.

CONSOLIDATED STATEMENTS OF OPERATIONS DATA:

(in thousands, except per share data)

	For the Year Ended December 31,				
	2018 ⁽¹⁾	2017 ⁽²⁾	2016 ⁽²⁾	2015 ⁽²⁾	2014 ⁽²⁾
Net revenues	\$413,282	\$419,003	\$511,930	\$505,595	\$530,251
Cost of revenues	174,118	176,887	179,207	197,445	204,471
Gross profit	239,164	242,116	332,723	308,150	325,780
Operating expenses:					
Research and development	62,379	68,212	81,564	95,898	90,390
Marketing and selling	101,273	106,257	110,338	122,511	133,049
General and administrative	55,230	53,892	61,471	74,109	81,181
Amortization of intangible assets	1,450	1,450	2,498	2,354	1,626
Restructuring costs (recoveries), net	5,148	7,059	12,837	6,305	(165)
Total operating expenses	225,480	236,870	268,708	301,177	306,081
Operating income	13,684	5,246	64,015	6,973	19,699
Interest and other expense, net	(23,087)	(18,668)	(18,671)	(6,408)	(2,783)
(Loss) income before income taxes	(9,403)	(13,422)	45,344	565	16,916
Provision for (benefit from) income taxes	1,271	133	(2,875)	(1,915)	2,188
Net (loss) income	\$(10,674)	\$(13,555)	\$48,219	\$2,480	\$14,728
Net (loss) income per share – basic and diluted	\$(0.26)	\$(0.33)	\$1.20	\$0.06	\$0.38
Weighted-average common shares outstanding – basic	41,662	41,020	40,021	39,423	39,147
Weighted-average common shares outstanding – diluted	41,662	41,020	40,176	40,380	39,267

(1) As a result of our adoption of Accounting Standards Codification, or ASC, Topic 606 effective January 1, 2018 using the modified retrospective method, prior period amounts have not been adjusted to conform with ASC 606 and therefore may not be comparable. See our policy on “Revenue Recognition” in Note B to our Consolidated Financial Statements in Item 8 of this Form 10-K for a further discussion of the effects of the changes to our revenue recognition policies on our financial results.

(2) Our revenues and operating results have been affected by the deferral of revenues from customer transactions occurring prior to 2011. On January 1, 2011, we adopted Accounting Standards Update, or ASU, No. 2009-14. Substantially all revenue arrangements prior to January 1, 2011 were generally recognized on a ratable basis over the service period of Implied Maintenance Release PCS. Subsequent to January 1, 2011, product revenues are generally recognized upon delivery and Implied Maintenance PCS and other service and support elements are recognized as services are rendered.

CONSOLIDATED BALANCE SHEET DATA:

(in thousands)

	As of December 31,				
	2018	2017	2016	2015	2014
Cash, cash equivalents and marketable securities	\$56,103	\$57,223	\$44,948	\$17,902	\$25,056
Working capital (deficit) (1)	8,923	(61,753)	(86,931)	(167,450)	(157,492)
Total assets	265,843	234,684	249,581	247,926	191,599
Deferred revenues (current and long-term amounts)	99,601	194,613	225,684	348,382	414,840
Long-term liabilities (1)	244,831	287,174	281,556	272,599	222,641
Total stockholders' deficit	(166,661)	(268,570)	(269,911)	(329,572)	(341,070)

(1) The presentation of prior year working capital deficit and long-term liability amounts have been changed to reflect our retrospective adoption of ASU No. 2015-17, Balance Sheet Classification of Deferred Taxes. The standard requires entities to present all deferred tax assets and deferred tax liabilities as non-current in a classified balance sheet.

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

EXECUTIVE OVERVIEW

Business Overview

We develop, market, sell, and support software and integrated solutions for video and audio content creation, management and distribution. We are a leading technology provider that powers the media and entertainment industry. We do this by providing an open and efficient platform for digital media, along with a comprehensive set of tools and workflow solutions. Our solutions are used in production and post-production facilities; film studios; network, affiliate, independent and cable television stations; recording studios; live-sound performance venues; advertising agencies; government and educational institutions; corporate communications departments; and by independent video and audio creative professionals, as well as aspiring professionals. Projects produced using our tools, platform and ecosystem include feature films, television programming, live events, news broadcasts, sports productions, commercials, music, video and other digital media content. With over one million creative users and thousands of enterprise clients relying on our technology platforms and solutions around the world, Avid enables the industry to thrive in today's connected media and entertainment world.

Our mission is to empower media creators with innovative technology and collaborative tools to entertain, inform, educate and enlighten the world. Our clients rely on Avid to create the most prestigious and award-winning feature films, music recordings, television shows, live concerts, sporting events and news broadcasts. Avid has been honored for technological innovation with 16 Emmy Awards, one Grammy Award, two Oscars and the first ever America Cinema Editors Technical Excellence Award. In 2018, Avid was named the recipient of the prestigious Philo T. Farnsworth Award by the Television Academy, to honor Avid's 30 years of continuous, transformative technology innovations, including products that have improved and accelerated the entire editing and post production process for television. Our creative tools and workflow solutions were used in all 2019 Oscar nominated films for Best Film Editing, Best Sound Editing, Best Sound Mixing, and Best Picture.

Operations Overview

Our strategy for connecting creative professionals and media enterprises with audiences in a powerful, efficient, collaborative, and profitable way leverages our Avid MediaCentral Platform - the open, extensible, and customizable foundation that streamlines and simplifies content workflows by integrating all Avid or third-party products and services that run on top of it. The platform provides secure and protected access, and enables fast and easy creation, delivery and monetization of content.

We work to ensure that we are meeting customer needs, staying ahead of industry trends and investing in the right areas through a close and interactive relationship with our customer base. The Avid Customer Association was established to be the world's most innovative and influential media technology community representing thousands of organizations and over 27,000 professionals from all levels of the industry including the industry's most inspirational and award-winning thought leaders, innovators and storytellers. The Avid Customer Association fosters collaboration between Avid, its customers and other industry colleagues to help shape our product offerings as well as providing a means to shape our industry together.

A key element of our strategy is our transition to a recurring revenue-based model, through a combination of subscription offerings and long-term agreements. We started offering subscription licensing options for some of our products and solutions in 2014, and had approximately 125,000 paying subscribers at the end of 2018. These licensing options offer choices in pricing and deployment to suit our customers' needs. Our subscription offerings to date have

primarily been sold to creative professionals, however, we expect to increase subscription sales to media enterprises going forward as we expand offerings and move through customer upgrade cycles, which we expect will further increase recurring revenue on a longer-term basis. Our long-term agreements are comprised of multi-year agreements with large media enterprise customers to provide specified products and services, including SaaS offerings, and channel partners and resellers to purchase minimum amounts of products and service over a specified period of time.

Another key aspect of our strategy has been to implement programs to increase operational efficiencies and reduce costs. We are making significant changes in business operations to better support the company's strategy and overall performance. We have implemented a number of spending control initiatives biased towards non-personnel costs to reduce the overall cost structure

while still investing in key areas that will drive growth. We are also revamping our supply chain and logistics, moving to a lean model that leverages a new supplier and distribution network. We are optimizing our go-to-market strategy, simplifying our strategy to address specific customer markets to help maximize our commercial success, which we expect will improve effectiveness, while increasing efficiency and driving growth of our pipeline and ultimately revenue.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

Our consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America. The preparation of these financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosures of contingent assets and liabilities as of the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. We regularly reevaluate our estimates and judgments, including those related to the following: revenue recognition and allowances for sales returns and exchanges; stock-based compensation; income tax assets and liabilities; and restructuring charges and accruals. We base our estimates and judgments on historical experience and various other factors we believe to be reasonable under the circumstances, the results of which form the basis for judgments about the carrying values of assets and liabilities and the amounts of revenues and expenses that are not readily apparent from other sources. Actual results may differ from these estimates.

We believe the following critical accounting policies most significantly affect the portrayal of our financial condition and involve our most difficult and subjective estimates and judgments.

On January 1, 2018, we adopted ASC Topic 606, Revenue from Contracts with Customers (“ASC 606”), using the modified retrospective method applied to contracts not completed as of January 1, 2018. Results for reporting periods beginning after January 1, 2018 are presented under ASC 606, while prior period amounts are not adjusted and continue to be reported in accordance with our historic accounting under ASC 605. For this reason, the discussion that follows describes our revenue recognition policies both before and after our adoption of ASC 606.

Revenue Recognition - Prior to the adoption of ASC 606 on January 1, 2018

General

We commence revenue recognition when persuasive evidence of an arrangement exists, delivery has occurred, the sales price is fixed or determinable and collection is reasonably assured. Generally, the products we sell do not require significant production, modification or customization. Installation of our products is generally routine, consists of implementation and configuration and does not have to be performed by us.

At the time of a sales transaction, we make an assessment of the collectability of the amount due from the customer. Revenues are recognized only if it is reasonably assured that collection will occur. When making this assessment, we consider customer credit-worthiness and historical payment experience. If it is determined from the outset of the arrangement that collection is not reasonably assured, revenues are recognized on a cash basis, provided that all other revenue recognition criteria are satisfied. At the outset of the arrangement, we also assess whether the fee associated with the order is fixed or determinable and free of contingencies or significant uncertainties. When assessing whether the fee is fixed or determinable, we consider the payment terms of the transaction, our collection experience in similar transactions, and our involvement, if any, in third-party financing transactions, among other factors. If the fee is not fixed or determinable, revenues are recognized only as payments become due from the customer, provided that all other revenue recognition criteria are met. If a significant portion of the fee is due after our normal payment terms, we evaluate whether we have sufficient history of successfully collecting past transactions with similar terms without offering concessions. If that collection history is sufficient, revenue recognition commences, upon delivery of the products, assuming all other revenue recognition criteria are satisfied. If we were to make different judgments or assumptions about any of these matters, it could cause a material increase or decrease in the amount of revenues reported in a particular period.

We often receive multiple purchase orders or contracts from a single customer or a group of related customers that are evaluated to determine if they are, in effect, part of a single arrangement. In situations when we have concluded that

two or more orders with the same customer are so closely related that they are, in effect, parts of a single arrangement, we account for those orders as a single arrangement for revenue recognition purposes. In other circumstances, when we have concluded that two or more orders with the same customer are independent buying decisions, such as an earlier purchase of a product and a subsequent purchase of a software upgrade or maintenance contract, we account for those orders as separate arrangements for revenue recognition purposes.

For many of our products, there has been an ongoing practice of Avid making available at no charge to customers' minor feature and compatibility enhancements as well as bug fixes on a when-and-if-available basis (collectively "Software Updates"), for a period of time after initial sales to end users. The implicit obligation to make such Software Updates available to customers over a

period of time represents implied post-contract customer support, which is deemed to be a deliverable in each arrangement and is accounted for as a separate element (“Implied Maintenance Release PCS”).

Over the course of the last few years, in connection with a strategic initiative to increase support and other recurring revenue streams, we have taken a number of steps to eliminate the longstanding practice of providing Implied Maintenance Release PCS for many of our products, including the Media Composer, Pro Tools and Sibelius product lines. In the third quarter and fourth quarter of 2015, respectively, we concluded that Implied Maintenance Release PCS for our Media Composer and Sibelius product lines had ceased. In the first quarter of 2016, in connection with the release of Cloud Collaboration in Pro Tools version 12.5, which was an undelivered feature that had prevented us from recognizing any revenue related to new Pro Tools 12 software sales as it represented a specified upgrade right for which vendor specific objective evidence (“VSOE”) of fair value was not available, we concluded that Implied Maintenance Release PCS for Pro Tools 12 product lines had also ended. The determination that Pro Tools 12 Implied Maintenance Release PCS had ended was based on management (i) clearly communicating a policy of no longer providing any Software Updates or other support to customers that are not covered under a paid support plan and (ii) implementing robust digital rights management tools to enforce the policy. With the new policy and technology for Pro Tools 12 in place, combined with management’s intent to continue to adhere to the policy, management concluded in the first quarter of 2016 that Implied Maintenance Release PCS for Pro Tools 12 transactions no longer exists. As a result of the conclusion that Implied Maintenance Release PCS on Pro Tools 12 has ended, revenue and net income in the first quarter of 2016 increased approximately \$11.1 million reflecting the recognition of orders received after the launch of Pro Tools 12 that would have qualified for earlier recognition using the residual method of accounting. In addition, the elimination of Implied Maintenance Release PCS also resulted in the accelerated recognition of maintenance and product revenues that were previously being recognized on a ratable basis over a much longer expected period of Implied Maintenance Release PCS rather than the contractual maintenance period. The reduction in the estimated amortization period of transactions being recognized on a ratable basis resulted in an additional \$41.8 million of revenue during the year ended December 31, 2016.

Revenue Recognition of Non-Software Deliverables

Revenue from products that are considered non-software deliverables is recognized upon delivery of the product to the customer. Products are considered delivered to the customer once they have been shipped and title and risk of loss has been transferred. For most of our product sales, these criteria are met at the time the product is shipped. Revenue from support that is considered a non-software deliverable is initially deferred and is recognized ratably over the contractual period of the arrangement, which is generally twelve months. Professional services and training services are typically sold to customers on a time and materials basis. Revenue from professional services and training services that are considered non-software deliverables is recognized for these deliverables as services are provided to the customer. Revenue for Implied Maintenance Release PCS that is considered a non-software deliverable is recognized ratably over the service period of Implied Maintenance Release PCS, which ranges from one to eight years.

Revenue Recognition of Software Deliverables

We recognize the following types of elements sold using software revenue recognition guidance: (i) software products and software upgrades, when the software sold in a customer arrangement is more than incidental to the arrangement as a whole and the product does not contain hardware that functions with the software to provide essential functionality, (ii) initial support contracts where the underlying product being supported is considered to be a software deliverable, (iii) support contract renewals, and (iv) professional services and training that relate to deliverables considered to be software deliverables. Because we do not have VSOE of the fair value of our software products, we are permitted to account for our typical customer arrangements that include multiple elements using the residual method. Under the residual method, the VSOE of fair value of the undelivered elements (which could include support, professional services or training, or any combination thereof) is deferred and the remaining portion of the total

arrangement fee is recognized as revenue for the delivered elements. If evidence of the VSOE of fair value of one or more undelivered elements does not exist, revenues are deferred and recognized when delivery of those elements occurs or when VSOE of fair value can be established. VSOE of fair value is typically based on the price charged when the element is sold separately to customers. We are unable to use the residual method to recognize revenues for some arrangements that include products that are software deliverables under GAAP since VSOE of fair value does not exist for Implied Maintenance Release PCS elements, which are included in some of our arrangements.

For software products that include Implied Maintenance Release PCS, an element for which VSOE of fair value does not exist, revenue for the entire arrangement fee, which could include combinations of product, professional services, training and support,

is recognized ratably as a group over the longest service period of any deliverable in the arrangement, with recognition commencing on the date delivery has occurred for all deliverables in the arrangement (or begins to occur in the case of professional services, training and support). Standalone sales of support contracts are recognized ratably over the service period of the product being supported.

From time to time, we offer certain customers free upgrades or specified future products or enhancements. When a software deliverable arrangement contains an Implied Maintenance Release PCS deliverable, revenue recognition of the entire arrangement will only commence when any free upgrades or specified future products or enhancements have been delivered, assuming all other products in the arrangement have been delivered and all services, if any, have commenced.

Other Revenue Recognition Policies

In a limited number of arrangements, the professional services and training to be delivered are considered essential to the functionality of our software products. If services sold in an arrangement are deemed to be essential to the functionality of the software products, the arrangement is accounted for using contract accounting. As we have concluded that we cannot reliably estimate our contract costs, we use the completed contract method of contract accounting. The completed contract method of accounting defers all revenue and costs until the date that the products have been delivered and professional services, exclusive of post-contract customer support, have been completed. Deferred costs related to fully deferred contracts are recorded as a component of inventories in the consolidated balance sheet, and generally all other costs of sales are recognized when revenue recognition commences.

We record as revenues all amounts billed to customers for shipping and handling costs and records our actual shipping costs as a component of cost of revenues. Reimbursements received from customers for out-of-pocket expenses are recorded as revenues, with related costs recorded as cost of revenues. We present revenues net of any taxes collected from customers and remitted to government authorities.

In the consolidated statements of operations, we classify revenues as product revenues or services revenues. For multiple-element arrangements that include both product and service elements, including Implied Maintenance Release PCS, we evaluate available indicators of fair value and applies our judgment to reasonably classify the arrangement fee between product revenues and services revenues. The amount of multiple-element arrangement fees classified as product and service revenues based on management estimates of fair value when VSOE of fair value for all elements of an arrangement does not exist could differ from amounts classified as product and service revenues if VSOE of fair value for all elements existed.

Revenue Recognition - After the adoption of ASC 606 on January 1, 2018

We enter into contracts with customers that include various combinations of products and services, which are typically capable of being distinct and are accounted for as separate performance obligations. We account for a contract when (i) it has approval and commitment from both parties, (ii) the rights of the parties have been identified, (iii) payment terms have been identified, (iv) the contract has commercial substance and (v) collectability is probable. We recognize revenue upon transfer of control of promised products or services to customers, which typically occurs upon shipment or delivery depending on the terms of the underlying contracts, in an amount that reflects the consideration we expect to receive in exchange for those products or services.

See Note O for disaggregated revenue schedules and further discussion on revenue and deferred revenue performance obligations and the timing of revenue recognition.

We often enter into contractual arrangements that have multiple performance obligations, one or more of which may be delivered subsequent to the delivery of other performance obligations. These arrangements may include a combination of products, support, training and professional services. We allocate the transaction price of the arrangement based on the relative estimated standalone selling price, or SSP, of each distinct performance obligation.

Our process for determining SSP for each performance obligation involves significant management judgment. In determining SSP, we maximize observable inputs and consider a number of data points, including:

- the pricing of standalone sales (in the limited instances where available);
- the pricing established by management when setting prices for deliverables that are intended to be sold on a standalone basis;

contractually stated prices for deliverables that are intended to be sold on a standalone basis;
other pricing factors, such as the geographical region in which the products are sold and expected discounts based on the customer size and type.

Determining SSP for performance obligations which we never sell separately also requires significant judgment. In estimating the SSP, we consider the likely price that would have resulted from established pricing practices had the deliverable been offered separately and the prices a customer would likely be willing to pay.

We only include estimated amounts in the transaction price to the extent it is probable that a significant reversal of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is resolved. We reduce transaction prices for estimated returns and other allowances that represent variable consideration under ASC 606, which we estimate based on historical return experience and other relevant factors, and record a corresponding refund liability as a component of accrued expenses and other current liabilities. Other forms of contingent revenue or variable consideration are infrequent.

While not a common practice for us, in the event we grant the customer the option to acquire additional products or services in an arrangement, we consider if the option provides a material right to the customer that it would not receive without entering into the contract (e.g., an incremental discount compared to the range of discounts typically given for similar products or services). If a material right is deemed to exist, we account for the option as a distinct performance obligation and recognize revenue when those future products or services are transferred or when the option expires.

We also record as revenue all amounts billed to customers for shipping and handling costs and record the actual shipping costs as a component of cost of revenues. Reimbursements received from customers for out-of-pocket expenses are recorded as revenues, with related costs recorded as cost of revenues. We present revenues net of any taxes collected from customers and remitted to government authorities.

Our contracts rarely contain significant financing components as payments from customers are due within a short period from when our performance obligations are satisfied.

We are applying the practical expedient for the deferral of sales commissions and other contract acquisition costs, which are expensed as incurred, because the amortization period would be one year or less.

Stock-Based Compensation

We account for stock-based compensation at fair value. The vesting of stock options and restricted stock awards may be based on time, performance, market conditions, or a combination of time, performance and market conditions. In the future, we may grant stock awards, options, or other equity-based instruments allowed by our stock-based compensation plans, or a combination thereof, as part of our overall compensation strategy.

We generally use the Black-Scholes option pricing model to estimate the fair value of stock option grants with time-based vesting. The Black-Scholes option pricing model relies on a number of key assumptions to calculate estimated fair values. Our assumed dividend yield of zero is based on the fact that we have never paid cash dividends, we have no present intention to pay cash dividends and our current credit agreement precludes us from paying dividends. Our expected stock-price volatility assumption is based on actual historic stock volatility for periods equivalent to the expected term of the award. The assumed risk-free interest rate is the U.S. Treasury security rate with a term equal to the expected life of the option. The assumed expected life is based on company-specific historical experience, considering the exercise behavior of past grants and models the pattern of aggregate exercises. The fair values of restricted stock and restricted stock unit awards with time-based vesting are based on the intrinsic values of

the awards at the date of grant as these awards have a purchase price of \$0.01 per share.

We have also issued stock option grants or restricted stock unit awards with vesting based on market conditions, which historically included Avid's stock price or performance conditions, generally our adjusted EBITDA. The fair values and derived service periods for all grants that include vesting based on market conditions are estimated using the Monte Carlo simulation method. For stock option grants that include vesting based on performance conditions, the fair values are estimated using the Black-Scholes option pricing model. For restricted stock unit awards that include vesting based on performance conditions, the

fair values are estimated based on the intrinsic values of the awards at the date of grant as these awards have a purchase price of \$0.01 per share.

Income Tax Assets and Liabilities

We record deferred tax assets and liabilities based on the net tax effects of tax credits, operating loss carryforwards and temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes compared to the amounts used for income tax purposes. We regularly review our deferred tax assets for recoverability with consideration for such factors as historical losses, projected future taxable income and the expected timing of the reversals of existing temporary differences. A valuation allowance is recorded when it is more likely than not that some portion or all of the deferred tax assets will not be realized.

On December 22, 2017, TCJA was signed into law. The TCJA changed many aspects of U.S. corporate income taxation and included reduction of the corporate income tax rate from 35% to 21%, implementation of a territorial tax system and imposition of a tax on deemed repatriated earnings of foreign subsidiaries. The TCJA was effective as of December 31, 2017 and at that time we made a reasonable estimate of the effects on our existing deferred tax balances and the one-time transition tax. As of September 30, 2018, we completed our accounting for the tax effects of the TCJA and there were no material changes to the estimated amounts that were recorded as of December 31, 2017. The global intangible low-taxed income (“GILTI”) provisions of the TCJA impose a tax on foreign income in excess of a deemed return on tangible assets of foreign corporations. Under U.S. GAAP, we can make an accounting policy choice of either (1) treating taxes due on future U.S. inclusions in taxable income related to GILTI as a current-period expense when incurred (the “period cost method”) or (2) factoring such amounts into the measurement of our deferred taxes (the “deferred method”). During the year ended December 31, 2018 we made a policy election to record tax effects of GILTI as an expense in the period incurred.

Based on the magnitude of our gross deferred tax assets, which totaled approximately \$308.5 million at December 31, 2018, after revaluation for the TCJA U.S. corporate income tax rate reduction, and our level of historical U.S. losses, we have determined that the uncertainty regarding the realization of these assets is sufficient to warrant the need for a full valuation allowance against our U.S. deferred tax assets. We also determined that a valuation allowance is warranted on a portion of our foreign deferred tax assets.

Our assessment of the valuation allowance on our U.S. and foreign deferred tax assets could change in the future based on our levels of pre-tax income and other tax-related adjustments. Reversal of the valuation allowance in whole or in part would result in a non-cash reduction in income tax expense during the period of reversal. To the extent some or all of our valuation allowance is reversed, future financial statements would reflect an increase in non-cash income tax expense until such time as our deferred tax assets are fully utilized.

The amount of income taxes we pay is subject to our interpretation of applicable tax laws in the jurisdictions in which we file. We have taken and will continue to take tax positions based on our interpretation of such tax laws. There can be no assurance that a taxing authority will not have a different interpretation of applicable law and assess us with additional taxes. Should we be assessed with additional taxes, it could have a negative impact on our results of operations or financial condition.

We account for uncertainty in income taxes recognized in our financial statements by applying a two-step process to determine the amount of tax provision or benefit to be recognized. First, the tax position must be evaluated to determine the likelihood that it will be sustained upon examination by the taxing authorities, based on the technical merits of the position. If the tax position is deemed more likely than not to be sustained, the tax position is then assessed to determine the amount of provision or benefit to recognize in the financial statements. The amount of provision or benefit that may be recognized is the largest amount that has a greater than 50% likelihood of being

realized upon ultimate settlement. Our provision for income taxes includes the effects of any resulting tax reserves, referred to as unrecognized tax benefits, that are considered appropriate as well as the related net interest and penalties.

Restructuring Charges and Accruals

We recognize facility-related restructuring charges upon exiting all or a portion of a leased facility and meeting cease-use and other requirements. The amount of restructuring charges is based on the fair value of the lease obligation for the abandoned space, which includes a sublease assumption that could be reasonably obtained.

Based on our policies for the calculation and payment of severance benefits, we account for employee-related restructuring charges as an ongoing benefit arrangement in accordance with ASC Topic 712, Compensation - Nonretirement Postemployment Benefits. Severance-related charges are accrued when it is determined that a liability has been incurred, which is when the expected severance payments are probable and can be reasonably estimated.

Restructuring charges require significant estimates and assumptions, including sub-lease income and severance period assumptions. Our estimates involve a number of risks and uncertainties, some of which are beyond our control, including future real estate market conditions and our ability to successfully enter into subleases or termination agreements with terms as favorable as those assumed when arriving at our estimates. We monitor these estimates and assumptions on at least a quarterly basis for changes in circumstances and any corresponding adjustments to the accrual are recorded in our statement of operations in the period when such changes are known.

RESULTS OF OPERATIONS

The following table sets forth certain items from our consolidated statements of operations as a percentage of net revenues for the periods indicated:

	Year Ended December 31,			
	2018	2017	2016	
Net revenues:				
Product revenues	49.6	% 50.0	% 55.3	%
Services revenues	50.4	% 50.0	% 44.7	%
Total net revenues	100.0	% 100.0	% 100.0	%
Cost of revenues	42.1	% 42.2	% 35.0	%
Gross margin	57.9	% 57.8	% 65.0	%
Operating expenses:				
Research and development	15.1	% 16.3	% 15.9	%
Marketing and selling	24.5	% 25.4	% 21.6	%
General and administrative	13.4	% 12.8	% 12.0	%
Amortization of intangible assets	0.4	% 0.3	% 0.5	%
Restructuring costs, net	1.2	% 1.7	% 2.5	%
Total operating expenses	54.6	% 56.5	% 52.5	%
Operating income	3.3	% 1.3	% 12.5	%
Interest and other expense, net	(5.6))% (4.5))% (3.7))%
(Loss) income before income taxes	(2.3))% (3.2))% 8.8	%
Benefit from income taxes	0.3	% —	% (0.6))%
Net (loss) income	(2.6))% (3.2))% 9.4	%

Net Revenues

Our net revenues are derived mainly from sales of video and audio products and solutions for digital media content production, management and distribution, and related professional services and maintenance contracts. We commonly sell large, complex solutions to our customers that, due to their strategic nature, have long lead times where the timing of order execution and fulfillment can be difficult to predict. In addition, the rapid evolution of the media industry is

changing our customers' needs,

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businesses and revenue models, which is influencing their short-term and long-term purchasing decisions. As a result of these factors, the timing and amount of product revenue recognized related to orders for large, complex solutions, as well as the services associated with them, can fluctuate from quarter to quarter and cause significant volatility in our quarterly and annual operating results. See the risk factors discussed in Part I - Item 1A under the heading “Risk Factors” of this Form 10-K.

Net Revenues for the Years Ended December 31, 2018 and 2017

(dollars in thousands)

	2018	Change		2017
	Net Revenues	\$	%	Net Revenues
Video products and solutions	\$ 132,276	\$ 17,489	15.2%	\$ 114,787
Audio products and solutions	72,831	(21,843)	(23.1)%	94,674
Total products and solutions	205,107	(4,354)	(2.1)%	209,461
Services	208,175	(1,367)	(0.7)%	209,542
Total net revenues	\$ 413,282	\$(5,721)	(1.4)%	\$ 419,003

Net Revenues for the Years Ended December 31, 2017 and 2016

(dollars in thousands)

	2017	Change		2016
	Net Revenues	\$	%	Net Revenues
Video products and solutions	\$ 114,787	\$(40,621)	(26.1)%	\$ 155,408
Audio products and solutions	94,674	(33,028)	(25.9)%	127,702
Total products and solutions	209,461	(73,649)	(26.0)%	283,110
Services	209,542	(19,278)	(8.4)%	228,820
Total net revenues	\$ 419,003	\$(92,927)	(18.2)%	\$ 511,930

The following table sets forth the percentage of our net revenues attributable to geographic regions for the periods indicated:

	Year Ended		
	December 31,		
	2018	2017	2016
United States	36%	38%	36%
Other Americas	7%	7%	7%
Europe, Middle East and Africa	42%	39%	40%
Asia-Pacific	15%	16%	17%

Video Products and Solutions Revenues

2018 Compared to 2017

Video products and solutions revenues increased \$17.5 million, or 15.2%, for 2018, compared to 2017. The increase in video revenues was primarily due to improved storage product sales as a result of more large enterprise contracts executed in 2018 as well as strength in our Media Composer offerings.

2017 Compared to 2016

Video products and solutions revenues decreased \$40.6 million, or 26.1%, for 2017, compared to 2016. The decrease in video revenues was primarily due to lower amortization of deferred revenues attributable to transactions executed on or before December 31, 2010. As a result of our adoption of ASU No. 2009-13 and ASU No. 2009-14 on January 1, 2011, many of our product orders now qualify for upfront revenue recognition; however, prior to adoption of this accounting guidance, the same orders required ratable recognition over periods of up to eight years. Deferred revenue associated with transactions executed prior to the adoption of ASU No. 2009-13 and ASU No. 2009-14 was largely amortized in 2016.

Audio Products and Solutions Revenues

2018 Compared to 2017

Audio products and solutions revenues decreased \$21.8 million, or 23.1%, for 2018, compared to 2017. The decrease in audio revenues was primarily due to the accelerated revenue recognition of Pro Tools 12 during the first half of 2017 as the result of the cessation of Implied Maintenance Release PCS for Pro Tools, as well as lower audio hardware sales in 2018.

2017 Compared to 2016

Audio products and solutions revenues decreased \$33.0 million, or 25.9%, for 2017, compared to 2016. The decrease in audio revenues was primarily due to the accelerated revenue recognition of Pro Tools 12 during 2016 as a result of the cessation of Implied Maintenance Release PCS for Pro Tools, which revenue did not recur at the same level in 2017. The decrease was also due to the previously discussed lower amortization of deferred revenues attributable to transactions executed on or before December 31, 2010.

Services Revenues

2018 Compared to 2017

Services revenues are derived primarily from maintenance contracts, as well as professional services and training. The \$1.4 million, or 0.7%, decrease in services revenues in 2018 was primarily due to the accelerated revenue recognition of support contracts during the first half of 2017 as the result of the cessation of Implied Maintenance Release PCS for Pro Tools.

2017 Compared to 2016

The \$19.3 million, or 8.4%, decrease in services revenues for 2017, compared to 2016, was primarily due to the accelerated revenue recognition of maintenance contracts and increasing conversion rates of new maintenance contracts into revenue as the result of the determination that Implied Maintenance Release PCS on Pro Tools 12 no longer existed during 2016. The previously discussed lower amortization of deferred revenues attributable to transactions executed on or before December 31, 2010 also contributed to the decrease.

Revenue Backlog

At December 31, 2018, we had revenue backlog of approximately \$457 million, of which approximately \$190 million is expected to be recognized in the next twelve months, compared to \$536 million at December 31, 2017. Revenue backlog, as we define it, consists of firm orders received and includes both (i) orders where the customer has paid in

advance of our performance obligations being fulfilled, and (ii) orders for future product deliveries or services that have not yet been invoiced by us. Revenue backlog associated with arrangement consideration paid in advance primarily consists of deferred revenue related to (i) the undelivered portion of annual support contracts, (ii) software arrangements for which VSOE of fair value of undelivered elements does not exist, (iii) Implied Maintenance Release PCS performance obligations, and (iv) in-process installations that are subject to substantive customer acceptance provisions. Revenue backlog associated with orders for future product deliveries and services where cash has not been received primarily consists of (i) product orders received but not yet shipped, (ii) professional services not yet rendered and (iii) future years of multi-year support agreements not yet billed. Our definition of backlog includes contractual commitments with customers that specify minimum future purchases, however, since these contractual arrangements

do not specify which specific products and services must be purchased to fulfill these commitments, they do not meet the definition of an unfulfilled remaining performance obligation under GAAP.

Orders included in revenue backlog may be reduced, canceled or deferred by our customers. The expected timing of the recognition of revenue backlog as revenue is based on our current estimates and could change based on a number of factors, including (i) the timing of delivery of products and services, (ii) customer cancellations or change orders, or (iii) changes in the estimated period of time Implied Maintenance Release PCS is provided to customers. As there is no industry standard definition of revenue backlog, our reported revenue backlog may not be comparable with other companies. Revenue backlog as of any particular date should not be relied upon as indicative of our net revenues for any future period.

Cost of Revenues, Gross Profit and Gross Margin Percentage

Cost of revenues consists primarily of costs associated with:

- procurement of components and finished goods;
- assembly, testing and distribution of finished products;
- warehousing;
- customer support related to maintenance;
- royalties for third-party software and hardware included in our products;
- amortization of technology; and
- providing professional services and training.

Amortization of technology included in cost of revenues represents the amortization of developed technology assets acquired as part of acquisitions and is described further in the Amortization of Intangible Assets section below.

Costs of Revenues for the Years Ended December 31, 2018 and 2017

(dollars in thousands)

	2018	Change		2017
	Costs	\$	%	Costs
Products	\$110,758	\$(1,848)	(1.6)%	\$112,606
Services	55,560	(921)	(1.6)%	56,481
Amortization of intangible assets	7,800	—	—%	7,800
Total cost of revenues	174,118	(2,769)	(1.6)%	176,887

Gross profit \$239,164 \$(2,952) (1.2)% \$242,116

Costs of Revenues for the Years Ended December 31, 2017 and 2016

(dollars in thousands)

	2017	Change		2016
	Costs	\$	%	Costs
Products	\$112,606	\$1,027	0.9%	\$111,579
Services	56,481	(3,347)	(5.6)%	59,828
Amortization of intangible assets	7,800	—	—%	7,800
Total costs of revenues	176,887	(2,320)	(1.3)%	179,207

Gross profit \$242,116 \$(90,607) (27.2)% \$332,723

Gross Margin Percentage

Gross margin percentage, which is net revenues less costs of revenues divided by net revenues, fluctuates based on factors such as the mix of products sold, the cost and proportion of third-party hardware and software included in the systems sold, the offering of product upgrades, price discounts and other sales-promotion programs, the distribution channels through which products are sold, the timing of new product introductions, sales of aftermarket hardware products such as disk drives and currency exchange-rate fluctuations. Our total gross margin percentage for 2018, compared to 2017, was effectively unchanged.

Gross Margin % for the Years Ended December 31, 2018, 2017 and 2016

	2018 Gross Margin %	(Decrease) Increase in Gross Margin %	2017 Gross Margin %	(Decrease) Increase in Gross Margin %	2016 Gross Margin %
Products	46.0%	(0.2)%	46.2%	(14.4)%	60.6%
Services	73.3%	0.3%	73.0%	(0.9)%	73.9%
Total Gross Margin	57.9%	0.1%	57.8%	(7.2)%	65.0%

2018 Compared to 2017

The products gross margin percentage for 2018 decreased to 46.0% from 46.2% for 2017, and the services gross margin percentage increased 0.3% from 2017. The change was primarily due to the decreased revenue from our products and services as discussed above, partially offset by cost savings resulting from our programs to reduce costs and increase operational efficiencies.

2017 Compared to 2016

The products gross margin percentage for 2017 decreased to 46.2% from 60.6% for 2016, and the service gross margin percentage decreased 0.9% from 2016. The decreases were primarily due to the decreased revenue from our products and services as discussed above, including the impact of the cessation of Pro Tools Implied Maintenance Release PCS in 2016, partially offset by cost savings resulting from our programs to reduce costs and increase operational efficiencies.

Operating Expenses and Operating Income

Operating Expenses and Operating Income for the Years Ended December 31, 2018 and 2017

(dollars in thousands)

	2018 Expenses	Change \$	%	2017 Expenses
Research and development expenses	\$62,379	\$(5,833)	(8.6)%	\$68,212
Marketing and selling expenses	101,273	(4,984)	(4.7)%	106,257
General and administrative expenses	55,230	1,338	2.5%	53,892
Amortization of intangible assets	1,450	—	—%	1,450
Restructuring costs, net	5,148	(1,911)	(27.1)%	7,059
Total operating expenses	\$225,480	\$(11,390)	(4.8)%	\$236,870
Operating income	\$13,684	\$8,438	160.8%	\$5,246

Operating Expenses and Operating Income for the Years Ended December 31,
2017 and 2016

(dollars in thousands)

	2017	Change		2016
	Expenses	\$	%	Expenses
Research and development expenses	\$68,212	\$(13,352)	(16.4)%	\$81,564
Marketing and selling expenses	106,257	(4,081)	(3.7)%	110,338
General and administrative expenses	53,892	(7,579)	(12.3)%	61,471
Amortization of intangible assets	1,450	(1,048)	(42.0)%	2,498
Restructuring costs, net	7,059	(5,778)	(45.0)%	12,837
Total operating expenses	\$236,870	\$(31,838)	(11.8)%	\$268,708
Operating income	\$5,246	\$(58,769)	(91.8)%	\$64,015

Research and Development Expenses

Research and development, or R&D, expenses include costs associated with the development of new products and the enhancement of existing products, and consist primarily of employee salaries and benefits; facilities costs; depreciation; costs for consulting and temporary employees; and prototype and other development expenses. R&D expenses decreased \$5.8 million, or 8.6%, during the year ended December 31, 2018, compared to 2017. The table below provides further details regarding the changes in components of R&D expense.

Year-Over-Year Change in R&D Expenses for the Years Ended December 31, 2018 and 2017

(dollars in thousands)

	2018		2017	
	(Decrease)/Increase		(Decrease)/Increase	
	From 2017		From 2016	
	\$	%	\$	%
Personnel-related	\$(3,136)	(8.2)%	\$(7,074)	(15.6)%
Consulting and outside services	(1,900)	(15.4)%	(2,594)	(17.3)%
Facilities and information technology	(1,379)	(9.9)%	(2,626)	(15.9)%
Computer hardware and supplies	832	75.3%	(621)	(36.0)%
Other expenses	(250)	(9.8)%	(437)	(14.6)%
Total research and development expenses decrease	\$(5,833)	(8.6)%	\$(13,352)	(16.4)%

2018 Compared to 2017

The decreases in all R&D expense categories, except computer hardware and supplies, for 2018, compared to 2017, were primarily the result of our programs to increase operational efficiencies and reduce costs. The increase in computer hardware and supplies expenses was the result of more prototype development for our video products in 2018.

2017 Compared to 2016

The decreases in all R&D expense categories for 2017, compared to 2016, were primarily the result of our cost efficiency program.

Marketing and Selling Expenses

Marketing and selling expenses consist primarily of employee salaries and benefits for selling, marketing and pre-sales customer support personnel; commissions; travel expenses; advertising and promotional expenses; web design costs and facilities costs.

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Marketing and selling expenses decreased \$5.0 million, or 4.7%, during the year ended December 31, 2018, compared to 2017. The table below provides further details regarding the changes in components of marketing and selling expense.

Year-Over-Year Change in Marketing and Selling Expenses for Years Ended December 31, 2018 and 2017
(dollars in thousands)

	2018		2017	
	(Decrease)/Increase From 2017		(Decrease)/Increase From 2016	
	\$	%	\$	%
Foreign-exchange (gains) and losses	\$ (4,648)	(91.1)%	\$ 5,724	(920.0)%
Personnel-related	(1,035)	(1.4)%	(6,297)	(8.0)%
Consulting and outside services	615	17.4%	(1,285)	(26.7)%
Facilities and information technology	(369)	(2.4)%	739	5.0%
Advertising and promotions	269	3.7%	(1,855)	(20.3)%
Other expenses	184	9.9%	(1,107)	(37.4)%
Total marketing and selling expenses decrease	\$ (4,984)	(4.7)%	\$ (4,081)	(3.7)%

2018 Compared to 2017

For the year ended December 31, 2018, net foreign-exchange losses, which are included in marketing and selling expenses, were \$0.5 million, compared to losses of \$5.1 million for 2017. The foreign-exchange losses result from foreign currency denominated transactions and the revaluation of foreign currency denominated assets and liabilities. The large change was primarily due to the euro-dollar exchange rate volatility. The decrease in personnel-related expenses for 2018 compared to 2017, was primarily due to decreases in incentive-based compensation accrual, stock-based compensation and sales commissions. The decrease in facilities and information technology expenses for 2018 compared to 2017, was primarily due to lower office rent expense resulting from our facilities consolidation. The increases in consulting and outside services and advertising and promotions expenses for 2018, compared to 2017, were in line with our increased spending in marketing and selling activities and events.

2017 Compared to 2016

The decreases in personnel-related, advertising and promotions, consulting and outside services expenses for 2017, compared to 2016, were primarily the result of our programs to increase operational efficiencies and reduce costs. The decrease in other expenses for 2017 was primarily due to the decrease in bad debt reserve. During 2017, net foreign exchange losses (specifically, resulting from foreign currency denominated transactions and the revaluation of foreign currency denominated assets and liabilities), which are included in marketing and selling expenses, were \$5.1 million, compared to gains of \$0.6 million in 2016.

General and Administrative Expenses

General and administrative, or G&A, expenses consist primarily of employee salaries and benefits for administrative, executive, finance and legal personnel; audit, legal and strategic consulting fees; and insurance, information systems and facilities costs. Information systems and facilities costs reported within G&A expenses are net of allocations to other expenses categories. G&A expenses increased \$1.3 million, or 2.5%, during the year ended December 31, 2018, compared to 2017. The table below provides further details regarding the changes in components of G&A expense.

Year-Over-Year Change in G&A Expenses for the Years Ended December 31, 2018 and 2017
(dollars in thousands)

	2018 (Decrease)/Increase From 2017		2017 (Decrease)/Increase From 2016	
	\$	%	\$	%
Consulting and outside services	\$ 3,992	30.6%	\$(5,471)	(29.5)%
Personnel-related	(2,168)	(8.0)%	157	0.6%
Facilities and information technology	(494)	(5.5)%	(1,179)	(11.6)%
Other expenses	8	0.2%	(297)	(5.8)%
Acquisition and related integration	—	—%	(789)	100.0%
Total general and administrative expenses decrease	\$ 1,338	2.5%	\$(7,579)	(12.3)%

2018 Compared to 2017

The increase in consulting and outside services expenses for 2018, compared to 2017, was primarily the result of a legal settlement gain of \$5.2 million recorded in 2017. The decrease in personnel-related expenses for 2018 compared to 2017, was due to decreases in incentive-based compensation accrual and stock-based compensation. The decrease in facilities and information technology was primarily the result of cost savings from our facilities consolidation.

2017 Compared to 2016

The decrease in consulting and outside services expenses for 2017, compared to 2016, was primarily the result of a legal settlement gain of \$5.2 million recorded in 2017. The decrease in facilities and information technology was primarily the result of our cost efficiency program. The decrease in acquisition and related integration expenses was due to Orad acquisition related integration work completed in 2016.

Amortization of Intangible Assets

Intangible assets result from acquisitions and include developed technology, customer-related intangibles, trade names and other identifiable intangible assets with finite lives. These intangible assets are amortized using the straight-line method over the estimated useful lives of such assets, which are generally two years to twelve years. Amortization of developed technology is recorded within cost of revenues. Amortization of customer-related intangibles, trade names and other identifiable intangible assets is recorded within operating expenses.

There has been no change in the amortization of intangible assets for 2018, compared to 2017. The decrease in amortization of intangible assets for 2017, compared to 2016, was the result of two intangible assets, customer relationships acquired through acquisitions, fully amortized in 2016. We expect amortization of intangible assets to be approximately \$4.4 million in 2019 at which point the intangible assets will be fully amortized. See Note H, Intangible Assets and Goodwill, to our Consolidated Financial Statements in Item 8 of the Form 10-K for further information regarding our identifiable intangible assets.

Restructuring Costs, Net

In February 2016, we committed to a restructuring plan that encompassed a series of measures intended to allow us to more efficiently operate in a leaner, more directed cost structure. These included reductions in our workforce, consolidation of facilities, transfers of certain business processes to lower cost regions, and reductions in other third-party services costs.

During the year ended December 31, 2018, we recorded \$3.6 million of severance costs for an additional 84 positions that were eliminated during 2018 and the first quarter of 2019, \$1.1 million of leasehold improvement write-off resulting from the consolidation of our facilities in Burlington, Massachusetts, and \$0.4 million of facilities restructuring related adjustments.

During the year ended December 31, 2017, we recorded restructuring costs of \$3.1 million for an additional 102 positions that were eliminated during 2017 and the first quarter of 2018, and recoveries of \$1.1 million as a result of revised severance cost estimates. During 2017, we further consolidated workspaces and vacated our facilities in Taiwan and Boca Raton, Florida, and a portion of facilities in Burlington, Massachusetts, Mt View, California and Pinewood, U.K. We recorded \$5.1 million of restructuring costs for the closure and partial closure of the facilities, which included \$3.2 million of leasehold improvement write-offs.

During the year ended December 31, 2016, we recorded restructuring costs of \$10.0 million, which represented 138 positions eliminated during 2016 and 141 positions eliminated during the first quarter of 2017. We also recorded \$2.0 million of facility restructuring charge for the partial closure of the facilities in Burlington, and revisions of \$0.8 million based on the updated sublease assumption for our Mountain View, California facility that was partially abandoned in 2012.

Interest and Other Expense, Net

Interest and other expense, net, generally consists of interest income and interest expense.

Interest and Other Expense for the Years Ended December 31, 2018 and 2017 (dollars in thousands)

	2018	Change		2017
	Income	\$	%	Income
	(Expense)			(Expense)
Interest income	\$195	\$(340)	(63.6)%	\$535
Interest expense	(23,474)	(3,510)	17.6%	(19,964)
Other income, net	192	(569)	(74.8)%	761
Total interest and other expense, net	\$(23,087)	\$(4,419)	23.7%	\$(18,668)

Interest and Other Expense for the Years Ended December 31, 2017 and 2016 (dollars in thousands)

	2017	Change		2016
	Income	\$	%	Income
	(Expense)			(Expense)
Interest income	\$535	\$535	100.0%	\$—
Interest expense	(19,964)	(1,061)	5.6%	(18,903)
Other income, net	761	529	228.0%	232
Total interest and other expense, net	\$(18,668)	\$3	—%	\$(18,671)

2018 Compared to 2017

The increase in interest expense for 2018 compared to 2017, was due to the additional \$22.7 million term loan we obtained in 2018 and broker commissions related to the Financing Agreement amendment that we entered into on May 10, 2018. See Note P, Long-Term Debt and Credit Agreement, to our Consolidated Financial Statements in Item 8 of this Form 10-K for further information.

2017 Compared to 2016

The increase in interest expense for 2017 compared to 2016, was due to the additional \$15.0 million term loan we obtained in 2017.

Provision for (Benefit from) Income Taxes

Provision for Income Taxes for the Years Ended December 31,
2018 and 2017
(dollars in thousands)

	2018	Change	2017
	Provision \$	%	Provision
Provision for income taxes	\$ 1,271	\$1,138 855.6%	\$ 133

Benefit from Income Taxes for the Years Ended December 31, 2017 and 2016
(dollars in thousands)

	2017	Change	2016
	Provision \$	%	Benefit
Provision for (Benefit from) income taxes	\$ 133	\$3,008 (104.6)%	\$(2,875)

Our effective tax rate, which represents our tax provision as a percentage of income before tax, was (13.5)%, (1.0)% and (6.3)%, respectively, for 2018, 2017 and 2016.

The increase in our 2018 provision was driven by a \$0.4 million increase in our foreign taxes augmented by a non-recurring benefit in 2017 of \$0.8 million related to refundable alternative minimum, or AMT, tax credits resulting from the Tax Cuts and Jobs Act (“TCJA”). Our 2017 provision includes a non-recurring \$0.8 million benefit related to refundable alternative minimum, or AMT, tax credits resulting from the TCJA. This benefit was largely offset by an \$0.8 million increase in our reserve for uncertain tax positions related to an Israel audit issue. Our 2016 benefit from income taxes was primarily due to a change in our uncertain tax position related to the foreign tax implications arising from changes in revenue recognition. The amount of the benefit included in the tax provision was \$3.2 million.

We early adopted ASU No. 2016-09 during the second quarter of 2016 on a modified retrospective basis. The adoption of new guidance had no impact on income taxes because of our significant accumulated deferred tax assets including the tax effects of net operating loss and tax credit carryovers. The realization of the net deferred tax assets is dependent upon the generation of sufficient future taxable income in the applicable tax jurisdictions. We regularly review our deferred tax assets for recoverability with consideration for such factors as historical losses, projected future taxable income, the expected timing of the reversals of existing temporary differences, and tax planning strategies. ASC Topic 740, Income Taxes, requires us to record a valuation allowance when it is more likely than not that some portion or all of the deferred tax assets will not be realized. Based on the magnitude of our deferred tax assets at December 31, 2018 and our level of historical U.S. losses, we have determined that the uncertainty regarding the realization of these assets is sufficient to warrant the need for a full valuation allowance against our U.S. deferred tax assets. We have also determined that a valuation allowance is warranted on a portion of our foreign deferred tax assets.

On December 22, 2017, the TCJA was signed into law. The TCJA changed many aspects of U.S. corporate income taxation and included reduction of the corporate income tax rate from 35% to a flat 21%, implementation of a territorial tax system and imposition of a tax on deemed repatriated earnings of foreign subsidiaries. The TCJA was effective as of December 31, 2017 and at that time we made a reasonable estimate of the effects on our existing deferred tax balances and the one-time transition tax. As of September 30, 2018, we completed our accounting for the tax effects of the TCJA and there were no material changes to the estimated amounts that were recorded as of December 31, 2017. The global intangible low-taxed income (“GILTI”) provisions of the TCJA impose a tax on foreign income in excess of a deemed return on tangible assets of foreign corporations. Under U.S. GAAP, we can make an accounting policy choice of either (1) treating taxes due on future U.S. inclusions in taxable income related to GILTI as a current-period expense when incurred (the “period cost method”) or (2) factoring such amounts into the

measurement of our deferred taxes (the “deferred method”). During the year ended December 31, 2018 we made a policy election to record tax effects of GILTI as an expense in the period incurred.

LIQUIDITY AND CAPITAL RESOURCES

Liquidity and Sources of Cash

Our principal sources of liquidity include cash and cash equivalents totaling \$56.1 million as of December 31, 2018. We have generally funded operations in recent years through the use of existing cash balances, supplemented from time to time with the proceeds of long-term debt and borrowings under our credit facilities.

Our cash requirements vary depending on factors such as the growth of the business, changes in working capital, capital expenditures, and obligations under our cost efficiency program. We expect to operate the business and execute our strategic initiatives principally with funds generated from operations, remaining net proceeds from the term loan borrowings under the Financing Agreement, and draws of up to a maximum of \$22.5 million under the Financing Agreement's revolving credit facility. We anticipate that we will have sufficient internal and external sources of liquidity to fund operations and anticipated working capital and other expected cash needs for at least the next 12 months as well as for the foreseeable future.

One key aspect of our strategy has been to implement programs to increase operational efficiencies and reduce costs. We are making significant changes in business operations to better support the company's strategy and overall performance. We have implemented a number of spending control initiatives with an emphasis on non-personnel costs to reduce the overall cost structure while still investing in key areas that will drive growth. We are also revamping our supply chain and logistics, moving to a lean model that leverages a new supplier and distribution model. We are optimizing our go-to-market strategy, simplifying our strategy to address specific customer markets to help maximize our commercial success, which we expect will improve effectiveness, while increasing efficiency and driving growth of our pipeline and ultimately revenue. We believe these collective efforts will continue to improve our efficiency as an organization, increasing gross margins and overall profitability.

Financing Agreement

On February 26, 2016, we entered into the Financing Agreement with the lenders party thereto, or the Lenders. Pursuant to the Financing Agreement, the Lenders agreed to provide us with (a) a term loan in the aggregate principal amount of \$100.0 million, or the Term Loan, and (b) a revolving credit facility of up to a maximum of \$5.0 million in borrowings outstanding at any time, or the Credit Facility. We borrowed the full amount of the Term Loan, or \$100.0 million, as of the closing date, but did not borrow any amount under the Credit Facility as of the Closing Date. Prior to the maturity of the Credit Facility, any amounts borrowed under the Credit Facility may be repaid and, subject to the terms and conditions of the Financing Agreement, reborrowed in whole or in part without penalty.

On November 9, 2017, we entered into an amendment to the Financing Agreement. The amendment extended an additional \$15.0 million term loan to us, thereby increasing the aggregate principal amount of the term loan to \$115.0 million. The amendment also increased the amount of available revolving credit by \$5.0 million to an aggregate amount of \$10.0 million. The additional \$15.0 million term loan must be repaid in quarterly principal payments of \$0.2 million commencing in March 2018. The amendment also granted us the ability to use up to \$15.0 million to purchase Notes and modified the definition of consolidated EBITDA used in the Leverage Ratio calculation to adjust for expected changes in deferred revenue due to the adoption of ASC 606.

On May 10, 2018, we entered into an amendment to the Financing Agreement that extended the maturity of the Financing Agreement to May 2023, and increased the Term Loan by \$22.7 million and the amount available under the Credit Facility by \$12.5 million to an aggregate amount of \$22.5 million. The amendment modified the covenant requiring us to maintain a Leverage Ratio (defined to mean the ratio of (a) the sum of indebtedness under the Term Loan and Credit Facility, capitalized leases and non-cash collateralized letters of credit to (b) consolidated EBITDA)

of no greater than 3.00:1.00 for the four quarters ended June 30, 2018 through December 31, 2018, 2.50:1.00 for the four quarters ending March 31, 2019 through December 31, 2019, 2.25:1.00 for the four quarters ending March 31, 2020 through March 31, 2021, 2.00:1.00 for the four quarters ending June 30, 2021 through December 31, 2022, respectively, and thereafter declining to 1.50:1.00.

Financial terms and prepayments. Effective with the May 10, 2018 amendment to the Financing Agreement, interest accrues on outstanding borrowings under the Term Loan and Credit Facility (each as defined in the Financing Agreement) at a rate of either the LIBOR Rate (as defined in the Financing Agreement) plus 6.625% or a Reference Rate (as defined in the Financing Agreement) plus 5.625%, at our option. Under the terms of the amendment, aggregate quarterly principal repayments beginning September 30, 2018 through June 30, 2020 are equal to \$318,750, then from July 1, 2020 through June 30, 2021 are equal to

\$796,875, finally from July 1, 2021 through May 10, 2023 are equal to \$1,593,750. We may prepay all or any portion of the Term Loan prior to its stated maturity, subject to the payment of certain fees based on the amount repaid. We must pay to the Lenders, on a monthly basis, an unused line fee at a rate of 0.5% per annum on an amount equal to (1) the total lending commitments under the Credit Facility less (2) the average daily amount of the outstanding borrowings under the Credit Facility during the immediately preceding month. During the term of the Credit Facility, we are entitled to reduce the maximum amounts of the Lenders' commitments under the Credit Facility, subject to the payment of certain fees based on the amount of any reduction. In addition, subject to limited exceptions we will be required to prepay the borrowings under the Financing Agreement with proceeds it receives from specified events, including sales of assets, tax refunds, legal judgments and settlements, third party indemnities insurance proceeds and condemnation awards. Each year we will be required to prepay the borrowings under the Financing Agreement in an amount equal to 50% of our excess cash flow.

Collateral and guarantees. We and our subsidiary, Avid Technology Worldwide, Inc., or Avid Worldwide, granted a security interest on substantially all of our assets to secure the obligations of all obligors under the Term Loan and the Credit Facility. Avid Worldwide provided a guarantee of all our obligations under the Financing Agreement. Our future subsidiaries (other than certain foreign and immaterial subsidiaries) are also required to become a party to the applicable security agreements and guarantee the obligations under the Financing Agreement.

The Financing Agreement contains restrictive covenants that are customary for an agreement of this kind, including, for example, covenants that restrict us from incurring additional indebtedness, granting liens, making investments and restricted payments, making acquisitions, paying dividends, and engaging in transactions with affiliates. Certain exceptions to these restrictive covenants are not available in the event our liquidity (defined as cash held in U.S. accounts and availability under the Credit Facility) is less than \$30 million.

Events of default. The Financing Agreement contains customary events of default under which our payment obligations may be accelerated. These events of default include, among others, failure to pay amounts payable under the Financing Agreement when due, breach of representations and warranties, failure to perform covenants, a change of control, default or acceleration of material indebtedness, certain judgments and certain impairments to the collateral.

Financial and other covenants. The Financing Agreement, as amended, contains customary representations and warranties and covenants. These include covenants requiring us to maintain a Leverage Ratio per the terms of the May 10, 2018 amendment. The Financing Agreement also restricts us from making capital expenditures in excess of \$20 million in any fiscal year. As of December 31, 2018, we were in compliance with these covenants.

Our ability to satisfy the Leverage Ratio covenant in the future is heavily dependent on our ability to increase bookings and billings above levels experienced over the last twelve months. In recent quarters, we have experienced volatility in bookings and billings resulting from, among other things, (i) our transition towards subscription and recurring revenue streams and the resulting decline in traditional upfront product sales, (ii) dramatic changes in the media industry and the impact it has on our customers, (iii) the impact of new and anticipated product launches and features, and (iv) volatility in currency rates. In addition to the impact of new bookings and billings, GAAP revenues recognized as the result of the existence of Implied Maintenance Release PCS in prior periods completed in 2017, which will have an adverse impact on our Leverage Ratio.

In the event bookings and billings in future quarters are lower than we currently anticipate, we may be forced to take remedial actions which could include, among other things (and where allowed by the Lenders), (i) further cost reductions, (ii) seeking replacement financing, (iii) raising additional equity or (iv) disposing of certain assets or businesses. Such remedial actions, which may not be available on favorable terms or at all, could have a material adverse impact on our business. If we are not in compliance with the Leverage Ratio and are unable to obtain an

amendment or waiver, such noncompliance may result in an event of default under the Financing Agreement, which could permit acceleration of the outstanding indebtedness under the Financing Agreement and require us to repay such indebtedness before the scheduled due date. If an event of default were to occur, we might not have sufficient funds available to make the payments required. If we are unable to repay amounts owed, the Lenders may be entitled to foreclose on and sell substantially all of our assets, which secure our borrowings under the Financing Agreement.

2.00% Convertible Senior Notes

On June 15, 2015, we issued \$125.0 million aggregate principal amount of our 2.00% Convertible Senior Notes due 2020, or the Notes. The net proceeds from the offering were \$120.3 million after deducting the offering expenses. The Notes pay interest semi-annually on June 15 and December 15 of each year, at an annual rate of 2.00% and mature on June 15, 2020 unless earlier repurchased or converted in accordance with their terms prior to such date. In connection with the offering of the Notes, on June 9, 2015, we entered into a capped call derivative transaction with a third party, or the Capped Call. The Capped Call is expected generally to reduce the potential dilution to the common stock and/or offset any cash payments we may be required to make in excess of the principal amount upon conversion of the Notes in the event that the market price per share of the common stock is greater than the strike price of the Capped Call. The Capped Call has a strike price of \$21.94 and a cap price of \$26.00 and is exercisable by us when and if the Notes are converted. The Capped Call expires on June 15, 2020.

We have repurchased some of the Notes for cash and, as a result, as of December 31, 2018, the outstanding principal amount of the Notes was \$106.8 million.

Cash Flows

The following table summarizes our cash flows for the years ended December 31, 2018, 2017 and 2016 (in thousands):

	Year Ended December 31,		
	2018	2017	2016
Net cash provided by (used in) operating activities	\$15,822	\$8,936	\$(49,195)
Net cash used in investing activities	(9,917)	(7,913)	(11,033)
Net cash provided by financing activities	2,536	8,375	91,452
Effect of foreign currency exchange rates on cash and cash equivalents	(780)	1,087	366
Net increase in cash and cash equivalents	\$7,661	\$10,485	\$31,590

Cash Flows from Operating Activities

Cash provided by operating activities aggregated \$15.8 million for the year ended December 31, 2018. The improvement compared to prior years was primarily attributable to lower operating expenses as the result of our programs to increase operational efficiencies and reduce costs.

Cash Flows from Investing Activities

For the year ended December 31, 2018, the net cash flow used in investing activities reflected \$9.9 million used for the purchase of property and equipment. Our purchases of property and equipment largely consist of computer hardware and software to support R&D activities, and leasehold improvements.

Cash Flows from Financing Activities

For the year ended December 31, 2018, the net cash flow provided by financing activities reflected the additional \$22.7 million term loan, the \$14.7 million paid to repurchase outstanding Notes, and \$3.5 million of principal payments under the Financing Agreement.

CONTRACTUAL AND COMMERCIAL OBLIGATIONS

The following table outlines our contractual payment obligations as of December 31, 2018 (in thousands):

	Total	Less than 1 Year	1 – 3 Years	3 – 5 Years	After 5 Years
Notes	\$106,753	\$—	\$106,753	\$—	\$—
Term Loan	125,424	1,275	7,012	117,137	—
Other LT Debt	1,453	130	289	331	703
Operating leases	58,635	11,225	16,634	10,736	20,040
Unconditional purchase obligations (a)	23,100	23,100	—	—	—
	\$315,365	\$35,730	\$130,688	\$128,204	\$20,743

At December 31, 2018, we had entered into purchase commitments for certain inventory and other goods used in (a) our normal operations. The purchase commitments covered by these agreements are for a period of less than one year.

Other contractual arrangements or unrecognized tax positions that may result in cash payments consisted of the following at December 31, 2018 (in thousands):

	Total	Less than 1 Year	1 – 3 Years	3 – 5 Years	After 5 Years
Unrecognized tax positions and related interest	\$1,400	\$1,400	\$—	\$—	\$—
Stand-by letters of credit	12,141	8,500	2,654	88	899
	\$13,541	\$9,900	\$2,654	\$88	\$899

On May 10, 2018, we entered into an amendment to the Financing Agreement, which extended the maturity of the Financing Agreement to May 2023. Under the terms of the amendment, aggregate quarterly principal repayments beginning September 30, 2018 through June 30, 2020 are equal to \$318,750, then from July 1, 2020 through June 30, 2021 are equal to \$796,875, finally from July 1, 2021 through May 10, 2023 are equal to \$1,593,750. The Notes mature in June 2020 and are convertible into cash, shares of Avid's common stock or a combination of cash and shares of common stock, at our election. See more details in Note P, Long-Term Debt and Credit Agreement, to our Consolidated Financial Statements in Item 8 of this Form 10-K.

We entered into a long-term agreement to purchase a variety of information technology solutions from a third party in the second quarter of 2017, which included an unconditional commitment to purchase a minimum of \$12.8 million of products and services over the initial three-year term of the agreement. We have purchased \$4.9 million pursuant to this agreement as of December 31, 2018 to develop Azure certified solutions.

We have letters of credit that are used as security deposits in connection with our leased Burlington, Massachusetts headquarters office space. In the event of default on the underlying leases, the landlords would, at December 31, 2018, be eligible to draw against the letters of credit to a maximum of \$1.3 million in the aggregate. The letters of credit are subject to aggregate reductions provided that we are not in default of the underlying leases and meet certain financial performance conditions. In no case will the letters of credit amounts for the Burlington leases be reduced to below \$1.2 million in the aggregate throughout the lease periods.

In addition, we have letters of credit in connection with security deposits for other facility leases totaling \$1.1 million in the aggregate, as well as letters of credit totaling \$1.3 million that otherwise support our ongoing operations. These letters of credit have various terms and expire during 2019 and beyond, while some of the letters of credit may

automatically renew based on the terms of the underlying agreements.

We issued a letter of credit totaling \$8.5 million to one of our sole-source suppliers in February 2018. The supplier is eligible to draw on the letter of credit in the event that we are insolvent or unable to pay on our purchase orders for certain

key hardware components of our product. The letter of credit is valid for one year from its issuance date, and will automatically renew based on the terms of the underlying agreement.

OFF-BALANCE SHEET ARRANGEMENTS

Other than operating leases, we do not engage in off-balance sheet financing arrangements or have any variable-interest entities. At December 31, 2018, we did not have any off-balance sheet arrangements as defined in Item 303(a)(4)(ii) of Regulation S-K.

RECENT ACCOUNTING PRONOUNCEMENTS

Recently Adopted Accounting Pronouncement

See Note B, Summary of Significant Accounting Policies, to our Consolidated Financial Statements in Item 8 of the Form 10-K for a description of recently adopted accounting standards.

Recently Accounting Pronouncement to be Adopted

See Note B, Summary of Significant Accounting Policies, to our Consolidated Financial Statements in Item 8 of the Form 10-K for a description of certain issued accounting standards that have not been adopted and may impact our financial statements in future reporting periods.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURE ABOUT MARKET RISK

Foreign Currency Exchange Risk

We have significant international operations and derive more than half of our revenues from customers outside the United States. This business is, for the most part, transacted through international subsidiaries and generally in the currency of the end-user customers. Therefore, we are exposed to the changes in foreign currency exchange rates that could adversely affect our revenues, net income and cash flow.

For the year ended December 31, 2018, 2017, and 2016, we recorded net losses (gains) of \$0.5 million, \$5.1 million, and \$(0.6) million, respectively, that resulted from foreign currency denominated transactions and the revaluation of foreign currency denominated assets and liabilities.

A hypothetical change of 10% in appreciation or depreciation of foreign currency exchange rates from the quoted foreign currency exchange rates as of December 31, 2018, would not have a significant impact on our financial position, results of operations or cash flows.

Interest Rate Risk

We borrowed \$100.0 million under the Term Loan on February 26, 2016, and an additional \$15.0 million and \$22.7 million under the Term Loan on November 9, 2017 and May 10, 2018, respectively. We also maintain a revolving Credit Facility that allows us to borrow up to \$22.5 million. Following the latest amendment Effective Date, May 10, 2018, interest accrues on outstanding borrowings under the Term Loan and the Credit Facility (each as defined in the

Financing Agreement) at a rate of either the LIBOR Rate (as defined in the Financing Agreement) plus 6.625% or a Reference Rate (as defined in the Financing Agreement) plus 5.625%, at our option. A hypothetical 10% increase or decrease in interest rates paid on outstanding borrowings under the Financing Agreement would not have a material impact on our financial position, results of operations or cash flows.

On June 15, 2015, we issued \$125.0 million aggregate principal amount of our Notes pursuant to the terms of an indenture. During 2017, we purchased \$2.0 million of our Notes and during 2018 we purchased an additional \$16.2 million of our Notes. The Notes pay interest semi-annually on June 15 and December 15 of each year, at an annual rate of 2.00% and mature on June 15, 2020 unless earlier repurchased or converted in accordance with their terms prior to such date. The fair value of the Notes is dependent on the price and volatility of our common stock as well as movements in interest rates. The fair value of our common stock and interest rate changes affect the fair value of the Notes, but do not impact our financial position, cash flows or results of operations due to the fixed nature of the debt obligations.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY FINANCIAL INFORMATION

AVID TECHNOLOGY, INC.

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CONSOLIDATED FINANCIAL STATEMENTS INCLUDED IN ITEM 8:	
<u>Reports of Independent Registered Public Accounting Firm</u>	<u>53</u>
<u>Consolidated Statements of Operations for the years ended December 31, 2018, 2017 and 2016</u>	<u>54</u>
<u>Consolidated Statements of Comprehensive (Loss) Income for the years ended December 31, 2018, 2017 and 2016</u>	<u>55</u>
<u>Consolidated Balance Sheets as of December 31, 2018 and 2017</u>	<u>56</u>
<u>Consolidated Statements of Stockholders' Deficit for the years ended December 31, 2018, 2017 and 2016</u>	<u>57</u>
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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Shareholders and Board of Directors

Avid Technology, Inc.

Burlington, Massachusetts

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Avid Technology, Inc. and subsidiaries (the “Company”) as of December 31, 2018 and 2017, the related consolidated statements of operations and comprehensive (loss) income, stockholders’ deficit, and cash flows for each of the three years in the period ended December 31, 2018, and the related notes (collectively referred to as the “consolidated financial statements”). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018, in conformity with accounting principles generally accepted in the United States of America.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (“PCAOB”), the Company’s internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (“COSO”) and our report dated March 14, 2019, expressed an unqualified opinion thereon.

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 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/ BDO USA, LLP

We have served as the Company's auditor since 2016.

Boston, Massachusetts

March 14, 2019

AVID TECHNOLOGY, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS
(in thousands, except per share data)

	Year Ended December 31,		
	2018	2017	2016
Net revenues ⁽¹⁾ :			
Products	\$205,107	\$209,461	\$283,110
Services	208,175	209,542	228,820
Total net revenues	413,282	419,003	511,930
Cost of revenues:			
Products	110,758	112,606	111,579
Services	55,560	56,481	59,828
Amortization of intangible assets	7,800	7,800	7,800
Total cost of revenues	174,118	176,887	179,207
Gross profit	239,164	242,116	332,723
Operating expenses:			
Research and development	62,379	68,212	81,564
Marketing and selling	101,273	106,257	110,338
General and administrative	55,230	53,892	61,471
Amortization of intangible assets	1,450	1,450	2,498
Restructuring costs, net	5,148	7,059	12,837
Total operating expenses	225,480	236,870	268,708
Operating income	13,684	5,246	64,015
Interest income	195	535	—
Interest expense	(23,474)	(19,964)	(18,903)
Other income, net	192	761	232
(Loss) income before income taxes	(9,403)	(13,422)	45,344
Provision for (benefit from) income taxes	1,271	133	(2,875)
Net (loss) income	\$(10,674)	\$(13,555)	\$48,219
Net (loss) income per common share – basic and diluted	\$(0.26)	\$(0.33)	\$1.20

Weighted-average common shares outstanding – basic 41,662 41,020 40,021

Weighted-average common shares outstanding – diluted 41,662 41,020 40,176

(1) As a result of our adoption of ASC 606 effective January 1, 2018 using the modified retrospective method, prior period amounts have not been adjusted to conform with ASC 606 and therefore may not be comparable.

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

AVID TECHNOLOGY, INC.

CONSOLIDATED STATEMENTS OF COMPREHENSIVE (LOSS) INCOME

(in thousands)

	Year Ended December 31,		
	2018	2017	2016
Net (loss) income	\$(10,674)	\$(13,555)	\$48,219
Other comprehensive (loss) income:			
Foreign currency translation adjustments	(1,341)	7,470	(1,717)
Comprehensive (loss) income	\$(12,015)	\$(6,085)	\$46,502

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

AVID TECHNOLOGY, INC.
CONSOLIDATED BALANCE SHEETS
(in thousands, except per share data)

	December 31,	
	2018	2017
ASSETS		
Current assets:		
Cash and cash equivalents	\$56,103	\$57,223
Restricted cash	8,500	—
Accounts receivable, net of allowances of \$1,339 and \$11,142 at December 31, 2018 and 2017, respectively (Note B)	67,754	40,134
Inventories	32,956	38,421
Prepaid expenses	8,853	8,208
Contract assets	16,513	—
Other current assets	5,917	10,341
Total current assets	196,596	154,327
Property and equipment, net	21,582	21,903
Intangible assets, net	4,432	13,682
Goodwill	32,643	32,643
Long-term deferred tax assets, net	1,158	1,318
Other long-term assets	9,432	10,811
Total assets	\$265,843	\$234,684
LIABILITIES AND STOCKHOLDERS' DEFICIT		
Current liabilities:		
Accounts payable	\$39,239	\$30,160
Accrued compensation and benefits	21,967	25,466
Accrued expenses and other current liabilities	37,547	31,549
Income taxes payable	1,853	1,815
Short-term debt	1,405	5,906
Deferred revenues	85,662	121,184
Total current liabilities	187,673	216,080
Long-term debt	220,590	204,498
Long-term deferred revenues	13,939	73,429
Other long-term liabilities	10,302	9,247
Total liabilities	432,504	503,254
Commitments and contingencies (Note J)		
Stockholders' deficit:		
Preferred stock, \$0.01 par value, 1,000 shares authorized; no shares issued or outstanding	—	—
Common stock, \$0.01 par value, 100,000 shares authorized; 42,339 shares issued, and 41,948 shares and 41,356 shares outstanding at December 31, 2018 and 2017, respectively	423	423
Additional paid-in capital	1,028,924	1,035,808
Accumulated deficit	(1,187,010)	(1,284,703)
Treasury stock at cost, net of reissuances, 391 shares and 983 shares at December 31, 2018 and 2017, respectively	(5,231)	(17,672)
Accumulated other comprehensive loss	(3,767)	(2,426)
Total stockholders' deficit	(166,661)	(268,570)

Total liabilities and stockholders' deficit	\$265,843	\$234,684
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The accompanying notes are an integral part of the consolidated financial statements.

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AVID TECHNOLOGY, INC.
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' DEFICIT
(in thousands)

	Shares of Common Stock Issued	In Treasury	Comm Stock	Additional Paid-in Capital	Accumulated Deficit	Treasury Stock	Accumulated Other Comprehensive Income (Loss)	Total Stockholders' Deficit
Balances at January 1, 2016	42,339	(2,809)	423	1,055,838	(1,319,318)	(58,336)	(8,179)	(329,572)
Cumulative-effect adjustment due to adoption of ASU No. 2016-09				49	(49)			—
Stock issued pursuant to employee stock plans	1,197			(20,740)		25,983		5,243
Stock-based compensation				7,916				7,916
Net income					48,219			48,219
Other comprehensive loss							(1,717)	(1,717)
Balances at December 31, 2016	42,339	(1,612)	423	1,043,063	(1,271,148)	(32,353)	(9,896)	(269,911)
Stock issued pursuant to employee stock plans	629			(15,565)		14,681		(884)
Stock-based compensation				8,311				8,311
Net loss					(13,555)			(13,555)
Other comprehensive income							7,470	7,470
Partial retirement of convertible senior notes conversion feature				(5)				(5)
Partial unwind capped call cash receipt				4				4
Balances at December 31, 2017	42,339	(983)	423	1,035,808	(1,284,703)	(17,672)	(2,426)	(268,570)
Cumulative-effect adjustment due to adoption of ASC Topic 606					108,367			108,367
Stock issued pursuant to employee stock plans	592			(13,084)		12,441		(643)
Stock-based compensation				6,258				6,258
Net loss					(10,674)			(10,674)

Other comprehensive loss					(1,341)	(1,341)
Partial retirement of convertible senior notes conversion feature		(74)				(74)
Partial unwind capped call cash receipt			16			16
Balances at December 31, 2018	42,339(391)	423	1,028,924	(1,187,010)	(5,231)	(3,767) (166,661)

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

AVID TECHNOLOGY, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)

	Year Ended December 31,		
	2018	2017	2016
Cash flows from operating activities:			
Net (loss) income	\$(10,674)	\$(13,555)	\$48,219
Adjustments to reconcile net (loss) income to net cash provided by (used in) operating activities:			
Depreciation and amortization	21,142	22,337	25,479
Provision for (recovery from) doubtful accounts	119	(340)	886
Stock-based compensation expense	6,258	8,311	7,916
Non-cash provision for restructuring	1,083	3,191	1,137
Non-cash interest expense	8,987	8,951	9,620
Unrealized foreign currency transaction (gains) losses	(996)	7,336	(2,599)
Provision for (benefit from) deferred taxes	113	(873)	(1,842)
Changes in operating assets and liabilities:			
Accounts receivable	(6,689)	3,800	14,321
Inventories	(551)	12,280	(2,628)
Prepaid expenses and other assets	5,832	(7,567)	(1,839)
Accounts payable	9,148	3,606	(18,959)
Accrued expenses, compensation and benefits and other liabilities	(8,853)	(8,189)	(6,280)
Income taxes payable	38	800	(9)
Deferred revenue and contract assets	(9,135)	(31,152)	(122,617)
Net cash provided by (used in) operating activities	15,822	8,936	(49,195)
Cash flows from investing activities:			
Purchases of property and equipment	(9,936)	(7,877)	(11,003)
Decrease (increase) in other long-term assets	19	(36)	(30)
Net cash used in investing activities	(9,917)	(7,913)	(11,033)
Cash flows from financing activities:			
Proceeds from long-term debt	22,688	16,694	100,000
Repayment of debt	(18,451)	(6,735)	(3,750)
Proceeds from the issuance of common stock under employee stock plans	355	445	6,184
Common stock repurchases for tax withholdings for net settlement of equity awards	(998)	(1,329)	(941)
Proceeds from revolving credit facilities	—	—	25,000
Payments on revolving credit facilities	—	—	(30,000)
Partial retirement of the Notes conversion feature and capped call option unwind	(58)	—	—
Payments for credit facility issuance costs	(1,000)	(700)	(5,041)
Net cash provided by financing activities	2,536	8,375	91,452
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(780)	1,087	366
Net increase in cash, cash equivalents and restricted cash	7,661	10,485	31,590
Cash, cash equivalents and restricted cash at beginning of year	60,433	49,948	18,358
Cash, cash equivalents and restricted cash at end of year	\$68,094	\$60,433	\$49,948
Supplemental information:			
Cash and cash equivalents	\$56,103	\$57,223	\$44,948

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Restricted cash	\$8,500	—	—
Restricted cash included in other long-term assets	\$3,491	3,210	5,000
Total cash, cash equivalents and restricted cash shown in the statement of cash flows	\$68,094	\$60,433	\$49,948
Cash (refunded) paid for income taxes, net	\$(2,791)	\$(100)	\$1,587
Cash paid for interest	14,505	10,966	9,302
Non-cash transaction – property and equipment included in accounts payable or accruals	\$220	\$30	\$119

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

(1) The Consolidated Statement of Cash Flows for the years ended December 31, 2017 and 2016 has been revised to reflect the adoption, on January 1, 2018, of ASU 2016-18, Statement of Cash Flows (Topic 230): Restricted Cash. The Consolidated Statements of Cash Flows reflects the changes during the periods in the total of cash, cash equivalents, and restricted cash. Therefore, restricted cash activity is included with cash when reconciling the beginning-of-period and end-of-period total amounts shown. Refer to Note B for further discussion.

AVID TECHNOLOGY, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

A. BUSINESS

Description of Business

Avid Technology, Inc. (“Avid”, “we” or “us”) develops, markets, sells, and supports software and integrated solutions for video and audio content creation, management and distribution. We are a leading technology provider that powers the media and entertainment industry. We do this by providing an open and efficient platform for digital media, along with a comprehensive set of tools and workflow solutions. Our solutions are used in production and post-production facilities; film studios; network, affiliate, independent and cable television stations; recording studios; live-sound performance venues; advertising agencies; government and educational institutions; corporate communications departments; and by independent video and audio creative professionals, as well as aspiring professionals. Projects produced using our tools, platform and ecosystem include feature films, television programming, live events, news broadcasts, sports productions, commercials, music, video and other digital media content. With over one million creative users and thousands of enterprise clients relying on our technology platforms and solutions around the world, Avid enables the industry to thrive in today’s connected media and entertainment world.

B. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Principles of Consolidation

The consolidated financial statements include our accounts and our wholly owned subsidiaries. Intercompany balances and transactions have been eliminated.

Basis of Presentation and Use of Estimates

Our preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the dates of the financial statements and the reported amounts of revenues and expenses during the reported periods. Actual results could differ from our estimates.

On January 1, 2018, we adopted ASC Topic 606, Revenue from Contracts with Customers (“ASC 606”), using the modified retrospective method applied to contracts not completed as of January 1, 2018. Results for reporting periods beginning after January 1, 2018 are presented under ASC 606, while prior period amounts are not adjusted and continue to be reported in accordance with our historic accounting under ASC 605. For this reason, the discussion that follows describes our revenue recognition policies both before and after our adoption of ASC 606.

Revenue Recognition - Prior to the adoption of ASC 606 on January 1, 2018

General

We commence revenue recognition when persuasive evidence of an arrangement exists, delivery has occurred, the sales price is fixed or determinable and collection is reasonably assured. Generally, the products we sell do not require significant production, modification or customization. Installation of our products is generally routine, consists of implementation and configuration and does not have to be performed by us.

At the time of a sales transaction, we make an assessment of the collectability of the amount due from the customer. Revenues are recognized only if it is reasonably assured that collection will occur. When making this assessment, we consider customer credit-worthiness and historical payment experience. If it is determined from the outset of the arrangement that collection is not reasonably assured, revenues are recognized on a cash basis, provided that all other revenue recognition criteria are satisfied. At the outset of the arrangement, we also assess whether the fee associated with the order is fixed or determinable and free of contingencies or significant uncertainties. When assessing whether the fee is fixed or determinable, we consider the payment terms of the transaction, our collection experience in similar transactions, and our involvement, if any, in third-party financing

transactions, among other factors. If the fee is not fixed or determinable, revenues are recognized only as payments become due from the customer, provided that all other revenue recognition criteria are met. If a significant portion of the fee is due after our normal payment terms, we evaluate whether we have sufficient history of successfully collecting past transactions with similar terms without offering concessions. If that collection history is sufficient, revenue recognition commences, upon delivery of the products, assuming all other revenue recognition criteria are satisfied. If we were to make different judgments or assumptions about any of these matters, it could cause a material increase or decrease in the amount of revenues reported in a particular period.

We often receive multiple purchase orders or contracts from a single customer or a group of related customers that are evaluated to determine if they are, in effect, part of a single arrangement. In situations when we have concluded that two or more orders with the same customer are so closely related that they are, in effect, parts of a single arrangement, we account for those orders as a single arrangement for revenue recognition purposes. In other circumstances, when we have concluded that two or more orders with the same customer are independent buying decisions, such as an earlier purchase of a product and a subsequent purchase of a software upgrade or maintenance contract, we account for those orders as separate arrangements for revenue recognition purposes.

For many of our products, there has been an ongoing practice of Avid making available at no charge to customers' minor feature and compatibility enhancements as well as bug fixes on a when-and-if-available basis (collectively "Software Updates"), for a period of time after initial sales to end users. The implicit obligation to make such Software Updates available to customers over a period of time represents implied post-contract customer support, which is deemed to be a deliverable in each arrangement and is accounted for as a separate element ("Implied Maintenance Release PCS").

Over the course of the last few years, in connection with a strategic initiative to increase support and other recurring revenue streams, we have taken a number of steps to eliminate the longstanding practice of providing Implied Maintenance Release PCS for many of our products, including the Media Composer, Pro Tools and Sibelius product lines. In the third quarter and fourth quarter of 2015, respectively, we concluded that Implied Maintenance Release PCS for our Media Composer and Sibelius product lines had ceased. In the first quarter of 2016, in connection with the release of Cloud Collaboration in Pro Tools version 12.5, which was an undelivered feature that had prevented us from recognizing any revenue related to new Pro Tools 12 software sales as it represented a specified upgrade right for which vendor specific objective evidence ("VSOE") of fair value was not available, we concluded that Implied Maintenance Release PCS for Pro Tools 12 product lines had also ended. The determination that Pro Tools 12 Implied Maintenance Release PCS had ended was based on management (i) clearly communicating a policy of no longer providing any Software Updates or other support to customers that are not covered under a paid support plan and (ii) implementing robust digital rights management tools to enforce the policy. With the new policy and technology for Pro Tools 12 in place, combined with management's intent to continue to adhere to the policy, management concluded in the first quarter of 2016 that Implied Maintenance Release PCS for Pro Tools 12 transactions no longer exists. As a result of the conclusion that Implied Maintenance Release PCS on Pro Tools 12 has ended, revenue and net income in the first quarter of 2016 increased approximately \$11.1 million reflecting the recognition of orders received after the launch of Pro Tools 12 that would have qualified for earlier recognition using the residual method of accounting. In addition, the elimination of Implied Maintenance Release PCS also resulted in the accelerated recognition of maintenance and product revenues that were previously being recognized on a ratable basis over a much longer expected period of Implied Maintenance Release PCS rather than the contractual maintenance period. The reduction in the estimated amortization period of transactions being recognized on a ratable basis resulted in an additional \$41.8 million of revenue during the year ended December 31, 2016.

Revenue Recognition of Non-Software Deliverables

Revenue from products that are considered non-software deliverables is recognized upon delivery of the product to the customer. Products are considered delivered to the customer once they have been shipped and title and risk of loss has been transferred. For most of our product sales, these criteria are met at the time the product is shipped. Revenue from support that is considered a non-software deliverable is initially deferred and is recognized ratably over the contractual period of the arrangement, which is generally twelve months. Professional services and training services are typically sold to customers on a time and materials basis. Revenue from professional services and training services that are considered non-software deliverables is recognized for these deliverables as services are provided to the customer. Revenue for Implied Maintenance Release PCS that is considered a non-software deliverable is recognized ratably over the service period of Implied Maintenance Release PCS, which ranges from one to eight years.

Revenue Recognition of Software Deliverables

We recognize the following types of elements sold using software revenue recognition guidance: (i) software products and software upgrades, when the software sold in a customer arrangement is more than incidental to the arrangement as a whole and the product does not contain hardware that functions with the software to provide essential functionality, (ii) initial support contracts where the underlying product being supported is considered to be a software deliverable, (iii) support contract renewals, and (iv) professional services and training that relate to deliverables considered to be software deliverables. Because we do not have VSOE of the fair value of our software products, we are permitted to account for our typical customer arrangements that include multiple elements using the residual method. Under the residual method, the VSOE of fair value of the undelivered elements (which could include support, professional services or training, or any combination thereof) is deferred and the remaining portion of the total arrangement fee is recognized as revenue for the delivered elements. If evidence of the VSOE of fair value of one or more undelivered elements does not exist, revenues are deferred and recognized when delivery of those elements occurs or when VSOE of fair value can be established. VSOE of fair value is typically based on the price charged when the element is sold separately to customers. We are unable to use the residual method to recognize revenues for some arrangements that include products that are software deliverables under GAAP since VSOE of fair value does not exist for Implied Maintenance Release PCS elements, which are included in some of our arrangements.

For software products that include Implied Maintenance Release PCS, an element for which VSOE of fair value does not exist, revenue for the entire arrangement fee, which could include combinations of product, professional services, training and support, is recognized ratably as a group over the longest service period of any deliverable in the arrangement, with recognition commencing on the date delivery has occurred for all deliverables in the arrangement (or begins to occur in the case of professional services, training and support). Standalone sales of support contracts are recognized ratably over the service period of the product being supported.

From time to time, we offer certain customers free upgrades or specified future products or enhancements. When a software deliverable arrangement contains an Implied Maintenance Release PCS deliverable, revenue recognition of the entire arrangement will only commence when any free upgrades or specified future products or enhancements have been delivered, assuming all other products in the arrangement have been delivered and all services, if any, have commenced.

Other Revenue Recognition Policies

In a limited number of arrangements, the professional services and training to be delivered are considered essential to the functionality of our software products. If services sold in an arrangement are deemed to be essential to the functionality of the software products, the arrangement is accounted for using contract accounting. As we have concluded that we cannot reliably estimate our contract costs, we use the completed contract method of contract accounting. The completed contract method of accounting defers all revenue and costs until the date that the products have been delivered and professional services, exclusive of post-contract customer support, have been completed. Deferred costs related to fully deferred contracts are recorded as a component of inventories in the consolidated balance sheet, and generally all other costs of sales are recognized when revenue recognition commences.

We record as revenues all amounts billed to customers for shipping and handling costs and record our actual shipping costs as a component of cost of revenues. Reimbursements received from customers for out-of-pocket expenses are recorded as revenues, with related costs recorded as cost of revenues. We present revenues net of any taxes collected from customers and remitted to government authorities.

In the consolidated statements of operations, we classify revenues as product revenues or services revenues. For multiple-element arrangements that include both product and service elements, including Implied Maintenance

Release PCS, we evaluate available indicators of fair value and applies our judgment to reasonably classify the arrangement fee between product revenues and services revenues. The amount of multiple-element arrangement fees classified as product and service revenues based on management estimates of fair value when VSOE of fair value for all elements of an arrangement does not exist could differ from amounts classified as product and service revenues if VSOE of fair value for all elements existed.

Revenue Recognition - After the adoption of ASC 606 on January 1, 2018

We enter into contracts with customers that include various combinations of products and services, which are typically capable of being distinct and are accounted for as separate performance obligations. We account for a contract when (i) it has approval and commitment from both parties, (ii) the rights of the parties have been identified, (iii) payment terms have been identified, (iv) the contract has commercial substance and (v) collectability is probable. We recognize revenue upon transfer of control of promised products or services to customers, which typically occurs upon shipment or delivery depending on the terms of the underlying contracts, in an amount that reflects the consideration we expect to receive in exchange for those products or services.

See Note O for disaggregated revenue schedules and further discussion on revenue and deferred revenue performance obligations and the timing of revenue recognition.

We often enter into contractual arrangements that have multiple performance obligations, one or more of which may be delivered subsequent to the delivery of other performance obligations. These arrangements may include a combination of products, support, training and professional services. We allocate the transaction price of the arrangement based on the relative estimated standalone selling price, or SSP, of each distinct performance obligation.

Our process for determining SSP for each performance obligation involves significant management judgment. In determining SSP, we maximize observable inputs and consider a number of data points, including:

- the pricing of standalone sales (in the limited instances where available);
- the pricing established by management when setting prices for deliverables that are intended to be sold on a standalone basis;
- contractually stated prices for deliverables that are intended to be sold on a standalone basis;
- other pricing factors, such as the geographical region in which the products are sold and expected discounts based on the customer size and type.

Determining SSP for performance obligations which we never sell separately also requires significant judgment. In estimating the SSP, we consider the likely price that would have resulted from established pricing practices had the deliverable been offered separately and the prices a customer would likely be willing to pay.

We only include estimated amounts in the transaction price to the extent it is probable that a significant reversal of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is resolved. We reduce transaction prices for estimated returns and other allowances that represent variable consideration under ASC 606, which we estimate based on historical return experience and other relevant factors, and record a corresponding refund liability as a component of accrued expenses and other current liabilities. Other forms of contingent revenue or variable consideration are infrequent.

While not a common practice for us, in the event we grant the customer the option to acquire additional products or services in an arrangement, we consider if the option provides a material right to the customer that it would not receive without entering into the contract (e.g., an incremental discount compared to the range of discounts typically given for similar products or services). If a material right is deemed to exist, we account for the option as a distinct performance obligation and recognize revenue when those future products or services are transferred or when the option expires.

We also record as revenue all amounts billed to customers for shipping and handling costs and record the actual shipping costs as a component of cost of revenues. Reimbursements received from customers for out-of-pocket expenses are recorded as revenues, with related costs recorded as cost of revenues. We present revenues net of any taxes collected from customers and remitted to government authorities.

Our contracts rarely contain significant financing components as payments from customers are due within a short period from when our performance obligations are satisfied.

We are applying the practical expedient for the deferral of sales commissions and other contract acquisition costs, which are expensed as incurred, because the amortization period would be one year or less.

Allowance for Sales Returns and Exchanges

We maintain allowances for estimated potential sales returns and exchanges from our customers, which represents variable consideration under ASC 606. We record a provision for estimated returns and other allowances as a reduction of revenues in the same period that related revenues are recorded based on historical experience and specific customer analysis. Use of management estimates is required in connection with establishing and maintaining a sales allowance for expected returns and other credits. If actual returns differ from the estimates, additional allowances could be required.

The following table sets forth the activity in the allowance for sales returns and exchanges for the years ended December 31, 2018, 2017 and 2016 (in thousands):

	Year Ended December 31,		
	2018	2017	2016
Allowance for sales returns and exchanges – beginning of year	\$9,916	\$7,861	\$8,583
Additions and adjustments to the allowance	12,121	14,494	9,325
Deductions against the allowance	(13,034)	(12,439)	(10,047)
Allowance for sales returns and exchanges – end of year	\$9,003	\$9,916	\$7,861

The allowance for sales returns and exchanges reflects an estimate of amounts invoiced that will not be collected, as well as other allowances and credits that have been or are expected to offset the trade receivables. The allowance for sales returns and exchanges is recorded as a reduction to gross accounts receivable as of December 31, 2017, prior to the adoption of ASC 606, and as a component of accrued expenses and other current liabilities as of December 31, 2018, subsequent to the adoption of ASC 606.

Allowances for Doubtful Accounts

We maintain allowances for estimated losses from bad debt resulting from the inability of our customers to make required payments for products or services. When evaluating the adequacy of the allowances, we analyze accounts receivable balances, historical bad debt experience, customer concentrations, customer credit worthiness and current economic trends. To date, actual bad debts have not differed materially from management's estimates.

The following table sets forth the activity in the allowance for doubtful accounts for the years ended December 31, 2018, 2017 and 2016 (in thousands):

	Year Ended December 31,		
	2018	2017	2016
Allowance for doubtful accounts – beginning of year	\$1,226	\$757	\$643
Bad debt (recovery) expense	119	(340)	886
Increase (reduction) in allowance for doubtful accounts	(6)	809	(772)
Allowance for doubtful accounts – end of year	\$1,339	\$1,226	\$757

Translation of Foreign Currencies

The functional currency of each of our foreign subsidiaries is the local currency, except for the Irish manufacturing branch and Orad Hi-Tech Systems Ltd. (“Orad”) that we acquired in June 2015. The functional currency for both the Irish manufacturing branch and Orad is the U.S. dollar due to the extensive interrelationship of the operations of the Irish branch, Orad and the U.S. parent, and the high volume of intercompany transactions among the two subsidiaries and the parent. The assets and liabilities of the subsidiaries whose functional currencies are other than the U.S. dollar are translated into U.S. dollars at the current exchange rate in effect at the balance sheet date. Income and expense items for these entities are translated using rates that approximate those in effect during the period. Cumulative translation adjustments are included in accumulated other comprehensive income (loss), which is reflected as a separate component of stockholders’ deficit. We do not record tax provisions or benefits for the net changes in the foreign currency translation adjustment as we intend to permanently reinvest undistributed earnings in our foreign subsidiaries.

The U.S. parent company, Irish manufacturing branch and Orad, all of whose functional currency is the U.S. dollar, carry certain monetary assets and liabilities denominated in currencies other than the U.S. dollar. These assets and liabilities typically include cash, accounts receivable and intercompany operating balances denominated in foreign currencies. These assets and liabilities are remeasured into the U.S. dollar at the current exchange rate in effect at the balance sheet date. Foreign currency transaction and remeasurement gains and losses are included within marketing and selling expenses in the results of operations.

The U.S. parent company and various other wholly owned subsidiaries have long-term intercompany loan balances denominated in foreign currencies that are remeasured into the U.S. dollar at the current exchange rate in effect at the balance sheet date. Such loan balances are not expected to be settled in the foreseeable future. Any gains and losses relating to these loans are included in the accumulated other comprehensive income (loss), which is reflected as a separate component of stockholders’ deficit.

We have significant international operations and, therefore, our revenues, earnings, cash flows and financial position are exposed to foreign currency risk from foreign-currency-denominated receivables, payables, sales and expense transactions, and net investments in foreign operations. We derive more than half of our revenues from customers outside the United States. The business is, for the most part, transacted through international subsidiaries and generally in the currency of the end-user customers. Therefore, we are exposed to the risks that changes in foreign currency could adversely affect our revenues, net income (loss), cash flow and financial position. Foreign currency transaction and remeasurement losses and gains are included within marketing and selling expenses in the results of operations. For the year ended December 31, 2018, 2017, and 2016 we recorded net losses (gains) of \$0.5 million, \$5.1 million, and \$(0.6) million respectively, that resulted from foreign currency denominated transactions and the revaluation of foreign currency denominated assets and liabilities.

Cash, Cash Equivalents and Marketable Securities

We measure cash equivalents and marketable securities at fair value on a recurring basis. The cash equivalents and marketable securities consist primarily of money market investments, mutual funds and insurance contracts held in deferred compensation plans. The money market investments and mutual funds held in our deferred compensation plan in the U.S. are reported at fair value within other current assets using quoted market prices with the gains and losses included as other income (expense) in our statement of operations. The insurance contracts held in the deferred compensation plans for employees in Israel and Germany are reported at fair value within other long-term assets using other observable inputs. Other than the investments held in our deferred compensation plans, we held no marketable securities at December 31, 2018 or 2017.

Concentration of Credit Risk

Financial instruments that potentially subject us to concentrations of credit risk consist of cash, cash equivalents, restricted cash and accounts receivable. We place our cash and cash equivalents with financial institutions that management believes to be of high credit quality, and, generally, there are no significant concentrations in any one issuer. Concentrations of credit risk with respect to trade receivables are limited due to the large number of customers that make up our customer base and their dispersion across different regions. No individual customer accounted for 10% or more of our total net revenues or net accounts receivable in the periods presented.

Inventories

Inventories are stated at the lower of cost (determined on a first-in, first-out basis) or market value. Management regularly reviews inventory quantities on hand and writes down inventory to our realizable value to reflect estimated obsolescence or lack of marketability based on assumptions about future inventory demand and market conditions. Inventory in the digital-media market, including our inventory, is subject to rapid technological change or obsolescence; therefore, utilization of existing inventory may differ from our estimates.

Property and Equipment

Property and equipment is recorded at cost and depreciated using the straight-line method over the estimated useful life of the asset. We typically depreciate our property and equipment using the following minimum and maximum useful lives:

	Depreciable Life	
	Minimum	Maximum
Computer and video equipment and software, including internal use software	2 years	5 years
Manufacturing tooling and testbeds	3 years	5 years
Office equipment	3 years	5 years
Furniture, fixtures and other	3 years	8 years

We capitalize certain development costs incurred in connection with our internal use software. 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, are capitalized until the software is substantially complete and ready for its intended use. Capitalized costs are recorded as part of property and equipment. 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.

Leasehold improvements are amortized over the shorter of the useful life of the improvement or the remaining term of the lease. Expenditures for maintenance and repairs are expensed as incurred. Upon retirement or other disposition of assets, the cost and related accumulated depreciation are eliminated from the accounts and the resulting gain or loss is reflected in other income (expense) in the results of operations.

Acquisition-Related Intangible Assets and Goodwill

Acquisition-related intangible assets consist of customer relationships, developed technology, trade names and non-compete agreements. These assets are determined to have either finite or indefinite lives. For finite-lived intangible assets amortization is straight-line over the estimated useful lives of such assets, which are generally two years to twelve years. Straight-line amortization is used because we cannot reliably determine a discernible pattern over which the economic benefits would be realized. We do not have any indefinite-lived intangible assets. Intangible assets are tested for impairment when events and circumstances indicate there is an impairment. The impairment test involves comparing the sum of undiscounted cash flows to the carrying value as of the measurement date. Impairment occurs when the carrying value of the assets exceeds the sum of undiscounted cash flows. Impairment is then measured as the difference between the carrying value and fair value determined using a discounted cash flow method. In estimating the fair value using a discounted cash flow method, we use assumptions that include forecast revenues, gross margins, operating profit margins, growth rates and long-term discount rates, all of which require significant judgment by management. Changes to these assumptions could affect the estimated fair value of the intangible asset and could result in an impairment charge in future.

We adopted ASU No. 2017-04, Simplifying the Test for Goodwill Impairment, during the first quarter of 2017. The adoption of ASU 2017-04 had no immediate impact on our consolidated financial statements. We concluded that we have only one reporting unit and stockholders' deficit of \$166.7 million as of December 31, 2018. According to the revised guidance, the goodwill of reporting units with zero or negative carrying values will not be impaired.

Long-Lived Assets

We periodically evaluate our long-lived assets for events and circumstances that indicate a potential impairment. A long-lived asset is assessed for impairment when the undiscounted expected future cash flows derived from that asset are less than its carrying value. The cash flows used for this analysis take into consideration a number of factors including past operating results, budgets and economic projections, market trends and product development cycles. The amount of any impairment would be equal to the difference between the estimated fair value of the asset, based on a discounted cash flow analysis, and its carrying value.

Advertising Expenses

All advertising costs are expensed as incurred and are classified as marketing and selling expenses. Advertising expenses were not material in the periods presented.

Research and Development Costs

Research and development costs are expensed as incurred. Development costs for software to be sold that are incurred subsequent to the establishment of technological feasibility, but prior to the general release of the product, are capitalized. Upon general release, these costs are amortized using the straight-line method over the expected life of the related products, generally 12 to 36 months. The straight-line method generally results in approximately the same amount of expense as that calculated using the ratio that current period gross product revenues bear to total anticipated gross product revenues. We periodically evaluate the assets, considering a number of business and economic factors, to determine if an impairment exists. No amounts have been capitalized during 2018, 2017, and 2016 as the costs incurred subsequent to the establishment of technological feasibility have not been material.

Income Taxes

We account for income taxes using an asset and liability approach that requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been recognized in our financial statements or tax returns. We record deferred tax assets and liabilities based on the net tax effects of tax credits, operating loss carryforwards and temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes compared to the amounts used for income tax purposes. Deferred tax assets are regularly reviewed for recoverability with consideration for such factors as historical losses, projected future taxable income and the expected timing of the reversals of existing temporary differences. We are required to record a valuation allowance when it is more likely than not that some portion or all of the deferred tax assets will not be realized.

We account for uncertainty in income taxes recognized in our financial statements by applying a two-step process to determine the amount of tax benefit to be recognized. First, the tax position must be evaluated to determine the likelihood that it will be sustained upon examination by the taxing authorities, based on the technical merits of the position. If the tax position is deemed more-likely-than-not to be sustained, the tax position is then assessed to determine the amount of benefit to recognize in the financial statements. The amount of the benefit that may be recognized is the largest amount that has a greater than 50% likelihood of being realized upon ultimate settlement. The provision for income taxes includes the effects of any resulting tax reserves ("unrecognized tax benefits") that are considered appropriate, as well as the related net interest and penalties.

Accounting for Stock-Based Compensation

Our stock-based employee compensation plans allow us to grant stock awards, options, or other equity-based instruments, or a combination thereof, as part of our overall compensation strategy. For stock-based awards granted,

we record stock-based compensation expense based on the grant date fair value over the requisite service periods for the individual awards, which generally equal the vesting periods. The vesting of stock-based award grants may be based on time, performance conditions, market conditions, or a combination of time, performance and market conditions. We early adopted ASU No. 2016-09, Compensation - Stock Compensation (Topic 718) during the second quarter of 2016 and made an accounting policy election to account for forfeitures when they occur.

Product Warranties

We provide warranties on externally sourced and internally developed hardware. The warranty period for all of our products is generally 90 days to one year, but can extend up to 5 years depending on the manufacturer's warranty or local law. For internally developed hardware and in cases where the warranty granted to customers for externally sourced hardware is greater than that provided by the manufacturer, we record an accrual for the related liability based on historical trends and actual material and labor costs. At the end of each quarter, we reevaluate our estimates to assess the adequacy of the recorded warranty liabilities and adjusts the accrued amounts accordingly.

Computation of Net Income (Loss) Per Share

Net income (loss) per share is presented for both basic earnings per share ("Basic EPS") and diluted earnings per share ("Diluted EPS"). Basic EPS is based on the weighted-average number of common shares outstanding during the period, excluding non-vested restricted stock held by employees. Diluted EPS is based on the weighted-average number of common and potential common shares outstanding during the period. Potential common shares result from the assumed exercise of outstanding stock options and non-vested restricted stock and restricted stock units, the proceeds and remaining unrecorded compensation expense of which are then assumed to have been used to repurchase outstanding common stock using the treasury stock method. For periods when we report a loss, all potential common stock is considered anti-dilutive. For periods when we report net income, potential common shares with combined purchase prices and unamortized compensation costs in excess of our average common stock fair value for the related period or that are contingently issuable are considered anti-dilutive. We issued the Notes in 2015, and we applied the treasury stock method in measuring the dilutive impact of those potential common shares to be issued.

Accounting for Restructuring Plans

We record facility-related and contract termination restructuring charges in accordance with ASC Topic 420, Liabilities: Exit or Disposal Cost Obligations. Based on our policies for the calculation and payment of severance benefits, we account for employee-related restructuring charges as an ongoing benefit arrangement in accordance with ASC Topic 712, Compensation - Nonretirement Postemployment Benefits. We recognize facility-related restructuring charges upon exiting all or a portion of a leased facility and meeting cease-use and other requirements. The amount of restructuring charges is based on the fair value of the lease obligation for the abandoned space, which includes a sublease assumption that could be reasonably obtained. Restructuring charges and accruals require significant estimates and assumptions, including sub-lease income assumptions. These estimates and assumptions are monitored on at least a quarterly basis for changes in circumstances and any corresponding adjustments to the accrual are recorded in our statement of operations in the period when such changes are known.

Related Party Transactions

From time to time we enter into arrangements with parties which may be affiliated with us, executive officers and members of our Board of Directors. These transactions are primarily comprised of sales transactions in the normal course of business and are immaterial to the financial statements for all periods presented.

Recently Adopted Accounting Pronouncement

On January 1, 2018, we adopted ASC Topic 606, Revenue from Contracts with Customers ("ASC 606"), using the modified retrospective method applied to contracts not completed as of January 1, 2018. Results for reporting periods beginning after January 1, 2018 are presented under ASC 606, while prior period amounts are not adjusted and continue to be reported in accordance with our historic accounting under ASC 605. We recorded a net reduction to opening accumulated deficit of approximately \$108 million as of January 1, 2018 due to the cumulative impact of

adopting ASC 606. The primary impact of ASC 606 that resulted in a significant decrease in deferred revenue is that vendor specific objective evidence of fair value is no longer required to recognize revenue for distinct software products upon delivery, which allows recognition upon delivery rather than on a ratable basis over a period of time.

A summary of the changes to balance sheet line items that resulted from the adoption of ASC 606 as of January 1, 2018 is as follows (in thousands):

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As of January 1, 2018
 As Previously Reported Impact of Adoption of Topic 606 ⁽⁵⁾ As Adjusted

Assets:	As Previously Reported	Impact of Adoption of Topic 606 ⁽⁵⁾	As Adjusted
Accounts receivable, net ⁽¹⁾	\$40,134	\$21,088	\$61,222
Contract assets ⁽²⁾	—	6,579	6,579
Inventory ⁽³⁾	38,421	(5,716)	32,705