

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 10-K

(Mark One)

[X] ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended September 30, 2018

OR

[] TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from ___ to _

Commission file number 001-27038

NUANCE COMMUNICATIONS, INC.

(Exact name of Registrant as Specified in its Charter)

Delaware
(State or Other Jurisdiction of
Incorporation or Organization)

94-3156479
(I.R.S. Employer
Identification No.)

1 Wayside Road
Burlington, Massachusetts
(Address of Principal Executive Offices)

01803
(Zip Code)

Registrant's telephone number, including area code: (781) 565-5000

SECURITIES REGISTERED PURSUANT TO SECTION 12(b) OF THE ACT:

Table with 2 columns: Title of Each Class, Name of Each Exchange on Which Registered. Rows include Common stock, \$0.001 par value and Preferred share purchase rights, both listed on Nasdaq Stock Market LLC.

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 [X] 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 [X]

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 [X] No []

Indicate by check mark whether the registrant has submitted electronically and every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes [X] 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. [X]

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer [X]
Non-accelerated filer []

Accelerated filer []
Emerging growth company []

Smaller reporting 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 [X]

As of March 31, 2018, the aggregate market value of the registrant's common stock held by non-affiliates of the registrant was \$3.5 billion based on the closing sale price as reported on the Nasdaq Global Select Market for such date.

The number of shares of the registrant's common stock, outstanding as of October 31, 2018, was 287,581,197.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive Proxy Statement to be delivered to stockholders in connection with the registrant's 2019 Annual Meeting of Stockholders are incorporated by reference into Part III of this Form 10-K.

NUANCE COMMUNICATIONS, INC.
TABLE OF CONTENTS

	Page
PART I	
Item 1. Business	1
Item 1A. Risk Factors	7
Item 1B. Unresolved Staff Comments	17
Item 2. Properties	18
Item 3. Legal Proceedings	18
Item 4. Mine Safety Disclosures	18
PART II	
Item 5. Market for the Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities	18
Item 6. Selected Financial Data	21
Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations	22
Item 7A. Quantitative and Qualitative Disclosures about Market Risk	45
Item 8. Financial Statements and Supplementary Data	46
Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure	94
Item 9A. Controls and Procedures	94
Item 9B. Other Information	95
PART III	
Item 10. Directors, Executive Officers and Corporate Governance	95
Item 11. Executive Compensation	95
Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters	95
Item 13. Certain Relationships and Related Transactions, and Director Independence	96
Item 14. Principal Accountant Fees and Services	96
PART IV	
Item 15. Exhibits and Financial Statement Schedules	96

PART I

This Annual Report on Form 10-K contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 that involve risks, uncertainties and assumptions that, if they never materialize or if they prove incorrect, could cause our consolidated results to differ materially from those expressed or implied by such forward-looking statements. All statements other than statements of historical fact are statements that could be deemed forward-looking, including statements pertaining to: our future revenue, cost of revenue, research and development expense, selling, general and administrative expenses, amortization of intangible assets and gross margin, earnings, cash flows and liquidity; our strategy relating to our segments; the potential of future product releases; our product development plans and investments in research and development; future acquisitions and anticipated benefits from acquisitions; international operations and localized versions of our products; our contractual commitments; our fiscal year 2019 revenue and expense expectations and legal proceedings and litigation matters. You can identify these and other forward-looking statements by the use of words such as “may,” “will,” “should,” “expects,” “plans,” “anticipates,” “believes,” “estimates,” “predicts,” “intends,” “potential,” “continue” or the negative of such terms, or other comparable terminology. Forward-looking statements also include the assumptions underlying or relating to any of the foregoing statements. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of various factors, including those set forth in Item 1A of this Annual Report under the heading “Risk Factors.” All forward-looking statements included in this document are based on information available to us on the date hereof. The forward-looking statements do not include the potential impact of any mergers, acquisitions, divestitures, securities offerings or business combinations that may be announced or closed after the date hereof. We will not undertake and specifically decline any obligation to update any forward-looking statements, except to the extent required by law.

Item 1. *Business*

Overview

We are a leading provider of voice recognition and natural language understanding solutions. We work with companies around the world, from banks and hospitals to airlines, telecommunications carriers, and automotive manufacturers and suppliers, who use our solutions and technologies to create better experiences for their customers and their users by enhancing the users' interaction and increasing productivity and customer satisfaction. We offer our customers high accuracy in automated speech recognition ("ASR"), natural language understanding("NLU") capabilities, dialog and information management, biometric speaker authentication, text-to-speech ("TTS"), optical character recognition ("OCR") capabilities, and domain knowledge, along with professional services and implementation support. In addition, our solutions increasingly utilize our innovations in artificial intelligence ("AI"), including cognitive sciences and machine learning to create smarter, more natural experiences with technology. Using advanced analytics and algorithms, our technologies create personalized experiences and transform the way people interact with information and the technology around them. We market and sell our solutions and technologies around the world directly through a dedicated sales force, and also through a global network of resellers, including system integrators, independent software vendors, value-added resellers, distributors, hardware vendors, telecommunications carriers and e-commerce websites.

We are a global organization steeped in research and development. We have approximately 2,100 language scientists, developers, and engineers dedicated to continually refining our technologies and advancing our portfolio to better meet our customers' diverse and changing needs. We have more than 60 international operating locations and a sales presence in more than 81 countries. Our corporate headquarters is located in Burlington, Massachusetts, with international headquarter in Dublin, Ireland. In fiscal year 2018 , our revenue was \$2.1 billion .

Our Strategy

We have large addressable vertical markets, and we focus on growth by providing industry-leading, value-add solutions for our customers and partners through a broad set of flexible technologies, solutions, and service offerings available directly and through our channel partners. The key elements of our strategy include:

- ***Focus on opportunities that leverage our core strengths in key vertical markets.*** During the third quarter of fiscal year 2018, we commenced a comprehensive portfolio and business review with the goal to improve long-term shareholder return and operational efficiency. We are moving toward a goal of a simplified and more efficient operational structure, capable of sustainable, long-term revenue and earnings growth, with resources keenly focused on opportunities that leverage our core strengths in key vertical markets. We plan to focus our resources and R&D capabilities on our core capabilities and shift our focus away from non-core businesses and solutions.

- **Maintain global leadership in all of our major markets and solutions areas.** We have historically targeted markets where we benefit from strong technology, sales and vertical market differentiation. Today, we are one of the leading providers of voice recognition and NLU. We invest considerable time and resources to ensure that we maintain this position through customer satisfaction, technology leadership, deep domain experience and market specialization.
- **Maintain depth in technology, solutions, and intellectual property portfolio.** We have built a world-class portfolio of technologies, applications, solutions and intellectual property through both internal development and acquisitions. We expect to continue to pursue opportunities to expand our assets, geographic presence, distribution network and customer base through organic growth and strategic transactions. We continue to strengthen our core technologies in voice and language, and expand our offerings through research and innovations in AI, including cognitive computing and machine learning.
- **Continue to expand our extensive network of global operations, distribution and services networks.** We market and sell our solutions and technologies directly through a dedicated sales force and through a global network of resellers, including system integrators, independent software vendors, value-added resellers, distributors, hardware vendors, and telecommunications carriers and e-commerce websites. In addition, we continue to expand our presence within our markets, such as ambulatory markets in our Healthcare segment and omni-channel customer services in our Enterprise segment, and we have expanded initiatives in geographic markets such as China, Latin America and Southeast Asia.
- **Continue to expand hosting and transaction-based offerings.** We remain focused on increasing our hosting and transaction-based offerings. We generate hosting revenues through on-demand models that typically have multi-year terms with pricing based on volume of usage, number of transactions, number of seats or number of devices. This pricing structure allows customers to use our products at a lower initial cost when compared to the sale of a perpetual license. This will enable us to deliver applications that our customers use, and pay for, on a recurring basis, providing us with the opportunity to benefit from recurring revenue streams.
- **Maintain significant presence and customer preference in our markets.** We specialize in creating large, enterprise-class solutions that are used by many of the world's largest companies. By combining our core technology, professional services, local presence and deep domain experience, we are able to deliver these specialized offerings for our customers and partners. We have established a trusted position in numerous markets and today work with a majority of the Fortune 100 companies.
- **Strengthen financial profile with improvement in revenue, earnings per share, margin, and cash flow.** We are focused on improving our financial performance by executing upon identified strategic initiatives and further evolving our business toward recurring revenue models, which are positioning us for increased future revenue and profitability growth. Recurring revenue represented 71.4% , 72.5% and 69.6% of total revenue in fiscal years 2018 , 2017 and 2016, respectively.

Segments

We are organized into five segments: Healthcare, Enterprise, Automotive, Imaging and Other. See Note 20 to the consolidated financial statements for additional information about our reportable segments. We offer our solutions and technologies to our customers in a variety of ways, including via hosted cloud-based solutions, perpetual and term software licenses, implementation and custom solution development services and maintenance and support. Our product revenues include embedded original equipment manufacturer ("OEM") royalties, traditional perpetual licensing, term-based licensing and consumer sales. Our hosting, royalty, term license and maintenance and support revenues are recurring in nature as our customers use our products on an ongoing basis to handle their needs in medical transcription, medical coding and compliance, enterprise customer service and automotive connected services. Our professional services offer a continuing revenue stream, whether it is provided in connection with our software solutions or on a standalone basis, as we have a backlog of engagements that take time to complete.

Healthcare

Our Healthcare segment is a leading provider in clinical speech and clinical language understanding solutions that drive smart, efficient decisions and increase productivity across the healthcare industry. Our solutions and services improve the clinical documentation process - from capturing the complete patient record to improving clinical documentation and quality measures for reimbursement. We support clinical documentation work flows and electronic health record ("EHR") adoption through our flexible offerings, including transcription services, dictation software for the EHR, diagnostics work flows, and mobile applications. These solutions increasingly leverage ASR, clinical language understanding ("CLU") and AI innovations to help physicians deliver better outcomes. In addition, we continue to extend our strong hospital customer franchise into the automation and management of healthcare coding and billing processes in order to ensure timely and appropriate reimbursement. These solutions are designed to help healthcare organizations derive additional value from EHR investments and are driven by industry trends such as value-based care, Meaningful Use requirements, which is a program that awards incentives for using EHR technology to improve patient care, and government regulations related to medical codes.

Today, more than 500,000 clinicians and 10,000 healthcare facilities worldwide leverage our solutions to improve patient care and support the physician in clinical work flows from many devices. Our Healthcare segment revenues were \$984.8 million , \$899.3 million , and \$973.3 million in fiscal years 2018 , 2017 and 2016 , respectively. Healthcare segment revenues represented 47.6% , 45.5% and 49.2% of total segment revenue in fiscal years 2018 , 2017 and 2016 , respectively.

Our principal solutions for the Healthcare segment include the following:

- **Dragon Medical:** Provide dictation capabilities that empower physicians to accurately capture and document patient care in real-time from many devices and without disrupting existing work flows. We have expanded this solution to provide clinical language understanding and cognitive intelligence that delivers real-time queries to physicians at the point of care, producing measurable clinical, financial and compliance outcomes.
- **Transcription solutions :** Enable physicians in larger and mid-sized healthcare enterprises to streamline clinical documentation with an on-demand, enterprise-wide medical transcription platforms, and allow healthcare organizations to outsource transcription services. Our transcription solutions are generally offered as an on-demand model.
- **Clinical document improvement and coding solutions :** Ensure patient health information is properly documented, coded, and evaluated to provide more complete and accurate clinical documentation. These services and offerings assist organizations with regulatory compliance and coding efficiency to receive appropriate and timely reimbursement and improve quality reporting. The solutions are generally sold under a term licensing model.
- **Diagnostic solutions :** Allow radiologists to easily document, collaborate, and share medical images and reports in order to optimize patient care . These solutions are generally sold under a traditional perpetual license model, but they are transitioning rapidly to term licensing and transaction based models.
- **Dragon solutions :** Provide professional and personal productivity solutions to business users and consumers with the ability to use their voice to create content, reports and other documents, as well as control their computers and laptops without the use of a keyboard or mouse. This dictation capability is similar to Dragon Medical and is used in markets such as law, public safety, social services, education and accessibility. Dragon solutions are sold generally through a traditional perpetual software license model, and we have recently introduced an on-demand model.

The channels for distribution in the Healthcare segment utilize our direct sales force to address the market and our professional services organization to support the implementation requirements of the healthcare industry. Direct distribution is supplemented by distributors, resellers and partnerships with a variety of healthcare IT providers. Our Healthcare customers and partners include UPMC, Cleveland Clinic, Mayo Clinic and UK National Trust. Our partners include Cerner, Epic, McKesson, and Siemens.

Areas of expansion and focus for our Healthcare segment include providing customers deeper integration with our clinical documentation solutions, investing in our cloud-based offerings, operations and network security, entering new and adjacent markets such as ambulatory care, and expanding our international capabilities.

Automotive

Our Automotive segment provides automotive manufacturers and their suppliers intuitive, personalized, branded, virtual assistants and connected services for cars that are safer, easier, and more enjoyable. Our ASR, NLU and TTS technologies and deep domain experience, integration capabilities and independence make us a preferred vendor to the world's largest automotive manufacturers

and suppliers. Our automotive solutions are generally sold as on-demand models that are typically priced on a per-unit basis for multi-year service terms. We have a worldwide professional services team to provide custom solution development services and sell our technologies through a traditional perpetual software license model, including a royalty-based model. Our Automotive customers include major automotive OEMs, such as Ford, Daimler, BMW, Toyota, Fiat Chrysler, Volkswagen, and Geely.

Automotive segment revenues were \$279.4 million, \$252.2 million, and \$214.3 million in fiscal years 2018, 2017 and 2016, respectively. Automotive segment revenues represented 13.5%, 12.8% and 10.8% of total segment revenue in fiscal years 2018, 2017 and 2016, respectively.

On November 19, 2018, we announced our intent to spin off our Automotive business into an independent publicly-traded company through a pro rata distribution to our common stock holders. Completion of the proposed spin-off is subject to certain conditions, including final approval by our Board of Directors. We are targeting to complete the separation of the business by the end of fiscal year 2019.

Enterprise

Our Enterprise segment is a leading provider of automated customer solutions and services worldwide to aid enterprises with their customer service and engagement. Differentiated by our ASR, NLU and AI technologies, and complemented by our large professional services organization, our solutions help enterprises reduce or replace human contact center agents with conversational systems, across voice, mobile, web and messaging channels. Our intelligent self-service solutions are highly accurate and dependable, resulting in increased customer satisfaction levels while simultaneously reducing the costs associated with delivering customer service for the enterprise. We are continuing to evolve this business, leveraging our presence in on-premise interactive voice response ("IVR") solutions and services, and expanding into multichannel, self-service cloud solutions. Our solutions and services portfolio now span voice, mobile, web and messaging channels, with inbound and outbound customer service and engagement, voice biometrics, and digital virtual assistant capabilities.

Enterprise segment revenues were \$483.2 million, \$474.3 million, and \$396.0 million in fiscal years 2018, 2017 and 2016, respectively. Enterprise segment revenues represented 23.3%, 24.0% and 20.0% of total segment revenue in fiscal years 2018, 2017 and 2016, respectively.

Our principal solutions for the Enterprise segment include the following:

- ***On-Premise solutions and services*** : Provide software that is leveraged to implement automated customer service solutions that are integrated with a wide range of on-premise third-party IVR and contact center platforms. Our products and technologies include ASR, voice biometrics, transcription, TTS, dialog and analytics. Our global professional services team leverages domain expertise to provide end-to-end services to customers and partners, including business consulting, design, development, and deployment of integrated solutions. Our on-premise licensed products are primarily sold through a traditional perpetual software license model, and our on-premise professional services are sold under project-based and multi-year managed services contracts.
- ***On-Demand multichannel cloud***: Deliver a platform that provides enterprises with the ability to implement automatic customer service across inbound, outbound, and digital customer service channels in the cloud. Our on-demand multichannel cloud leverages our ASR, voice biometrics, TTS, and virtual assistant technologies, to implement intelligent, conversational self-service applications, including voice call steering and self-service, automated verification, account access, virtual chat, proactive SMS, messaging and email, and customer service for mobile device customers. In addition, our acquisition of TouchCommerce, Inc. in fiscal year 2016 allows us to provide an end-to-end engagement platform that merges intelligent self-service with assisted service to increase customer satisfaction, strengthen customer loyalty and improve business results. Our on-demand multichannel cloud is sold through sales models that typically have multi-year terms with pricing based on the channel provided and/or volume of usage.

The selling models in the Enterprise segment utilize both direct and channel sales, which includes a network of partners such as Avaya, BT, Cisco, DiData, Genesys, Huawei, MoshiMoshi, NICE, Telstra, and Verint. Our customers include, American Airlines, Amtrak, Bank of America, Barclays, Dominos, Delta, Deutsche Telekom, e*trade, ING Bank, Lloyds Banking Group, T-Mobile, Telefonica, Telstra, and Vodafone.

Areas of focus and expansion for our Enterprise segment include extending our technology capabilities with intelligent self-service and AI for customer service, expansion of our on-demand multichannel cloud to international markets, sales and solution expansion for our voice biometrics suite, and expanding our on-premise product and services portfolio.

Imaging

Our Imaging segment provides software solutions and expertise that help professionals and organizations gain optimal control of their document and information processes by enabling customers to achieve measurable business and productivity benefits as they securely create, use and share documents. Our portfolio of products and services helps business customers achieve compliance with information security policies and regulations while enabling organizations to streamline and eliminate gaps across their document work flows.

We have built on our position in MFP OEM channels and the managed print services space by accelerating the integration of capture and print management technologies. Our intelligent document capture and work flow solutions transform manual, disconnected processes into dynamic, streamlined, and automated work flows. When combined with print management technologies, organizations are also able to control, manage, and monitor their entire print environment. Our business has seen strong commitments from key OEMs, a broad number of OEM partners who embed multiple products, and strong end-user demand in key verticals like healthcare, legal, and financial services.

Imaging segment revenues were \$212.9 million , \$217.7 million , and \$241.6 million in fiscal years 2018 , 2017 and 2016 , respectively. Imaging segment revenues represented 10.3% , 11.0% and 12.2% of total segment revenue in fiscal years 2018 , 2017 and 2016 , respectively.

Our principal solutions for the Imaging segment include the following:

- ***MFP Scan and capture automation solutions*** : Deliver scanning and document management solutions that improve productivity, drive efficiency and assist in enhancing security.
- ***MFP Print management and automation solutions*** : Offer printing and document management solutions to capture and automate paper to digital work flows to increase efficiency .
- ***PDF and OCR software*** : Provide intuitive technologies that enable the efficient capture, creation, and management of document work flows.

The channels for distribution in the Imaging segment include a combination of a global reseller network and direct sales. Our Imaging solutions are generally sold under a traditional perpetual software license model with a subset of our offerings sold as term licenses. Our Imaging customers and partners include Ricoh, Xerox, HP, Canon, and Samsung.

On November 11, 2018, we entered into a definitive stock purchase agreement, pursuant to which we agreed to sell our Imaging business and associated assets for a total cash consideration of approximately \$400 million. The transaction, which is subject to regulatory review and other customary closing conditions, is expected to close by the end of the second quarter of fiscal year 2019.

Other

Other segment includes our SRS and Devices businesses. Our SRS business provides value-added services to mobile operators in India and Brazil (“Mobile Operator Services”) and voicemail transcription services to mobile operators in the rest of the world (“Voicemail-to-Text”). Our Devices business provides speech recognition solutions and predictive text technologies for handset devices. Our Mobile Operator Services has experienced dramatic market disruptions during fiscal year 2018. Our Devices revenue has been declining due to the ongoing consolidation of our handset manufacturer customer base and continued erosion of our penetration of the remaining market. During the fourth quarter of fiscal 2018, in connection with our comprehensive portfolio and business review efforts, we commenced a wind-down of our Devices and Mobile Operator Services businesses.

Other segment revenues were \$109.1 million , \$133.8 million , and 154.4 million in fiscal years 2018 , 2017 and 2016 , respectively. As a percentage of total segment revenue, Other segment revenues represented 5.3% , 6.8% and 7.8% in fiscal years 2018 , 2017 and 2016 , respectively.

Research and Development/Intellectual Property

Over our history we have developed and acquired extensive technology assets, intellectual property, and industry expertise in ASR, NLU and imaging technologies that provide us with a competitive advantage in our markets. Our technologies are based on complex algorithms that require extensive amounts of acoustic and language models, and recognition and understanding techniques. A significant investment in capital and time would be necessary to replicate our current capabilities.

We continue to invest in technologies to maintain our market-leading position and to develop new applications. We rely on a portfolio of patents, copyrights, trademarks, services marks, trade secrets, confidentiality provisions and licensing arrangements to establish and protect our intellectual property and proprietary rights. As of September 30, 2018, we held approximately 4,070 patents and 575 patent applications. Our intellectual property is critical to our success and competitive position.

Competition

The markets in which we compete are highly competitive and are subject to rapid technology changes. There are a number of companies that develop or may develop solutions and technologies that compete in our target markets; however, currently no company directly competes with us across all of our solutions and technologies. While we expect competition to continue to increase both from existing competitors and new market entrants, we believe that we will compete effectively based on many factors, including:

- **Specialized Professional Services.** Our superior technology, when coupled with the high quality and domain knowledge of our professional services organization, allows our customers and partners to place a high degree of confidence and trust in our ability to deliver results. We support our customers in designing and building powerful innovative solutions that specifically address their needs and requirements.
- **International Coverage.** The international reach of our solutions and technologies is due to the broad language coverage of our offerings, including our ASR and NLU solutions, which provide recognition for approximately 70 languages and dialects and natural-sounding synthesized speech in over 160 voices, and support a broad range of hardware platforms and operating systems. Our imaging technology supports more than 120 languages for OCR and document handling, with up to 20 screen language choices, including Asian languages.
- **Technological Superiority.** Our ASR, NLU and imaging technologies, applications and solutions are often recognized as the most innovative and proficient in their respective categories. Our ASR and NLU solutions have industry-leading recognition accuracy and provide a natural, voice-enabled interaction with systems, devices and applications. Our OCR technology in our Imaging segment is viewed as the most accurate in the industry. Technology publications, analyst research and independent benchmarks have consistently indicated that our solutions and technologies rank at or above performance levels of alternative solutions.
- **Broad Distribution Channels.** Our ability to address the needs of specific markets, such as financial, law, healthcare and government, and to introduce new solutions and technologies quickly and effectively is provided by our direct sales force, our extensive global network of resellers, comprising system integrators, independent software vendors, value-added resellers, hardware vendors, telecommunications carriers and distributors, and our e-commerce website.

In our Healthcare business, we compete primarily with M*Modal, Optum, 3M and other smaller providers. In our Automotive business we compete, or may in the future compete, with Amazon, Google, iFlyTek and Microsoft as well as with other, smaller vendors, particularly in China. In our Imaging business we compete primarily with ABBYY and Adobe. Also, some of our partners such as Avaya, Cisco, and Genesys develop and market products that might be considered substitutes for our Enterprise solutions. Additionally, a number of smaller companies in voice recognition, natural language understanding, text input and imaging offer technologies or products that are competitive with our solutions.

Current and potential competitors have established, or may establish, cooperative relationships among themselves or with third parties to increase the ability of their technologies to address the needs of our prospective customers.

Some of our competitors or potential competitors, such as Adobe, Google, and 3M, have significantly greater financial, technical and marketing resources than we do. These competitors may be able to respond more rapidly than we can to new or emerging technologies or changes in customer requirements. They may also devote greater resources to the development, promotion and sale of their products than we do.

Employees

As of September 30, 2018, we had approximately 10,400 full-time employees, including approximately 1,200 in sales and marketing, approximately 2,700 in professional services, approximately 2,100 in research and development, approximately 800 in general and administrative, and approximately 3,600 who provide transcription and editing services. Approximately 66% of our employees are based outside of the United States, approximately 45% of whom provide transcription and editing services and are based in India. None of our employees in the United States is represented by a labor union. Employees of certain of our foreign subsidiaries are represented by labor unions or workers' councils. We believe that our relationships with our employees are satisfactory.

Information About Geographic Areas

We have offices in a number of international locations including Australia, Austria, Belgium, Brazil, Canada, China, Germany, Hungary, India, Ireland, Italy, Japan, and the United Kingdom. The responsibilities of our international operations include research and development, healthcare transcription and editing, customer support, sales and marketing and general and administrative. Additionally, we maintain smaller sales, services and support offices throughout the world to support our international customers and to expand international revenue opportunities.

Geographic revenue classification is based on the geographic areas in which our customers are located. For fiscal years 2018, 2017 and 2016, 72%, 70% and 71% of revenue was generated in the United States and 28%, 30% and 29% of revenue was generated by our international customers, respectively.

Corporate Information and Website

We were incorporated under the laws of the State of Delaware in 1992. Our website is located at www.nuance.com and we trade under the ticker symbol NUAN. We are not including the information contained in our website as part of, or incorporating it by reference into, this annual report on Form 10-K. We make available free of charge through our website our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to these reports, as soon as reasonably practicable after we electronically file these materials with, or otherwise furnish them to, the Securities and Exchange Commission ("SEC").

Item 1A. Risk Factors

You should carefully consider the risks and uncertainties described below when evaluating the company and when deciding whether to invest in the company. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties not presently known to us or that we do not currently believe are important to an investor may also harm our business operations. If any of the events, contingencies, circumstances or conditions described below actually occurs, our business, financial condition or our results of operations could be seriously harmed. If that happens, the trading price of our common stock could decline.

Risks Related to Our Business

The markets in which we operate are highly competitive and rapidly changing and we may be unable to compete successfully.

There are a number of companies that develop or may develop products that compete in our targeted markets. The markets for our products and services are characterized by intense competition, evolving industry and regulatory standards, emerging business and distribution models, disruptive software and hardware technology developments, short product and service life cycles, price sensitivity on the part of customers, and frequent new product introductions, including alternatives for certain of our products that offer limited functionality at significantly lower costs or free of charge. Current and potential competitors have established, or may establish, cooperative relationships among themselves or with third parties to increase the ability of their technologies to address the needs of our prospective customers. Furthermore, there has been a trend toward industry consolidation in our markets for several years. We expect this trend to continue as companies attempt to strengthen or hold their market positions.

The competition in our targeted markets could adversely affect our operating results by reducing the volume of the products and solutions we license or sell or the prices we can charge. Some of our current or potential competitors have significantly greater financial, technical and marketing resources than we do. These competitors may be able to respond more rapidly than we can to new or emerging technologies or changes in customer requirements. They may also devote greater resources to the development, promotion and sale of their products than we do, and in certain cases may be able to include or combine their competitive products or technologies with other of their products or technologies in a manner whereby the competitive functionality is available at

lower cost or free of charge within the larger offering. To the extent they do so, market acceptance and penetration of our products, and therefore our revenue and bookings, may be adversely affected. Our success depends substantially upon our ability to enhance our products and technologies and to develop and introduce, on a timely and cost-effective basis, new products and features that meet changing customer requirements and incorporate technological enhancements. If we are unable to develop or acquire new products and enhance functionalities or technologies to adapt to these changes our business will suffer.

Our operating results may fluctuate significantly from period to period, and this may cause our stock price to decline.

Our revenue, bookings and operating results have fluctuated materially in the past and we expect such fluctuations to continue in the future. These fluctuations may cause our results of operations to not meet the expectations of securities analysts or investors which would likely cause the price of our stock to decline. Factors that may contribute to fluctuations in operating results include:

- volume, timing and fulfillment of customer orders and receipt of royalty reports;
- fluctuating sales by our channel partners to their customers;
- customers delaying their purchasing decisions in anticipation of new versions of our products;
- contractual counterparties failing to meet their contractual commitments to us;
- introduction of new products by us or our competitors;
- cybersecurity or data breaches;
- seasonality in purchasing patterns of our customers;
- reduction in the prices of our products in response to competition, market conditions or contractual obligations;
- returns and allowance charges in excess of accrued amounts;
- timing of significant marketing and sales promotions;
- impairment of goodwill or intangible assets;
- the pace of the transition to an on-demand and transactional revenue model;
- delayed realization of synergies resulting from our acquisitions;
- accounts receivable that are not collectible and write-offs of excess or obsolete inventory;
- increased expenditures incurred pursuing new product or market opportunities;
- higher than anticipated costs related to fixed-price contracts with our customers;
- change in costs due to regulatory or trade restrictions;
- expenses incurred in litigation matters, whether initiated by us or brought by third-parties against us, and settlements or judgments we are required to pay in connection with disputes; and
- general economic trends as they affect the customer bases into which we sell.

Due to the foregoing factors, among others, our revenue, bookings and operating results are difficult to forecast. Our expense levels are based in significant part on our expectations of future revenue, and we may not be able to reduce our expenses quickly to respond to near-term shortfalls in projected revenue. Therefore, our failure to meet revenue expectations would seriously harm our operating results, financial condition and cash flows.

A significant portion of our revenue and bookings are derived, and a significant portion of our research and development activities are based, outside the United States. Our results could be harmed by economic, political, regulatory, foreign currency fluctuations and other risks associated with these international regions.

Because we operate worldwide, our business is subject to risks associated with doing business internationally. We generate most of our international revenue and bookings in Europe and Asia, and we anticipate that revenue and bookings from international operations could increase in the future. In addition, some of our products are developed outside the United States and we have a large number of employees in India who provide transcription and development services, and we also have a large number of employees in Canada, Germany and the United Kingdom who provide professional services. We conduct a significant portion of the development of our voice recognition and natural language understanding solutions in Canada and Germany, and a significant portion of our imaging research and development in Hungary and Canada. We also have significant research and development resources in Austria, Belgium, China, Italy, and the United Kingdom. We are exposed to fluctuating exchange rates of foreign currencies including the euro, British pound, Brazilian real, Canadian dollar, Japanese yen, Indian rupee and Hungarian forint. Accordingly, our future results could be harmed by a variety of factors associated with international sales and operations, including:

- adverse political and economic conditions, or changes to such conditions, in a specific region or country;
- trade protection measures, including tariffs and import/export controls, imposed by the United States and/or by other countries or regional authorities such as China, Canada or the European Union;

[Table of Contents](#)

- the impact on local and global economies of the United Kingdom leaving the European Union;
- changes in foreign currency exchange rates or the lack of ability to hedge certain foreign currencies;
- compliance with laws and regulations in many countries and any subsequent changes in such laws and regulations;
- geopolitical turmoil, including terrorism and war;
- changing data privacy regulations and customer requirements to locate data centers in certain jurisdictions;
- evolving restrictions on cross-border investment, including recent enhancements to the oversight by the Committee on Foreign Investment in the United States pursuant to the Foreign Investment Risk Review Modernization Act and substantial restrictions on investment from China;
- changes in applicable tax laws;
- difficulties in staffing and managing operations in multiple locations in many countries;
- longer payment cycles of foreign customers and timing of collections in foreign jurisdictions; and
- less effective protection of intellectual property than in the United States.

We hired a new Chief Executive Officer in April 2018. If we encounter difficulties in the transition, our business could be negatively impacted.

Mark D. Benjamin became our Chief Executive Officer and a member of our Board of Directors in April 2018. Our future success will partly depend upon Mr. Benjamin's ability, along with the ability of other senior management and key employees, to effectively implement our business strategies. In addition, Mr. Benjamin may pursue changes in our strategy or business focus. Mr. Benjamin may require transition time to fully understand all aspects of our business as would be typical with any executive transition. If we have failures in any aspects of this transition, or new strategies implemented by our management team are not successful, our business could be harmed.

If we are unable to attract and retain key personnel, our business could be harmed.

If any of our key employees were to leave, we could face substantial difficulty in hiring qualified successors and could experience a loss in productivity while any successor obtains the necessary training and experience. Although we have arrangements with some of our executive officers designed to promote retention, our employment relationships are generally at-will and we have had key employees leave in the past. We cannot assure you that one or more key employees will not leave in the future. We intend to continue to hire additional highly qualified personnel, including research and development and operational personnel, but may not be able to attract, assimilate or retain qualified personnel in the future. Any failure to attract, integrate, motivate and retain these employees could harm our business.

We recently added a number of new directors to our Board of Directors and a number of long-serving directors retired from our Board of Directors. If the transition to these new directors is not effective, our business could be harmed.

In June 2018 three long-serving directors retired from our Board and seven of the nine members of our Board of Directors have joined since December 2017, including four in September 2018. We have also recently reconstituted the membership of Board Committees to take advantage of the experience the new members bring to our Board of Directors. There can be no assurances that the Board of Directors or its committees will function effectively and that there will not be any adverse effects on the business as a result of the significant changes on our Board of Directors.

We experienced a significant malware incident in the third quarter of fiscal 2017, the residual impact of which will continue to impact our future results of operation and financial condition.

On June 27, 2017, Nuance was a victim of the global NotPetya malware incident (the "2017 Malware Incident"). The NotPetya malware affected certain Nuance systems, including systems used by our healthcare customers, primarily for transcription services, as well as systems used by our imaging division to receive and process orders. Our revenue and our operating results for fiscal year 2017 were negatively impacted by the 2017 Malware Incident. For fiscal year 2017, we estimate that we lost approximately \$68.0 million in revenues, primarily in our Healthcare segment, due to the service disruption and the reserves we established for customer refund credits. Additionally, we incurred incremental costs of approximately \$24.0 million for fiscal year 2017 as a result of our remediation and restoration efforts, as well as incremental amortization expenses. Although the direct effects of the 2017 Malware Incident were remediated during fiscal year 2017, the 2017 Malware Incident had a continued effect on our results of operations in fiscal year 2018. Our outlook for fiscal year 2019 reflects both the residual effects of the incident and ongoing costs we will incur to continuously enhance information security.

Cybersecurity and data privacy incidents or breaches may damage client relations and inhibit our growth.

The confidentiality and security of our information, and that of third parties, is critical to our business. Our services involve the transmission, use, and storage of customers' and their customer's confidential information. We were the victim of a cybercrime in 2017, and future cybersecurity or data privacy incidents could have a material adverse effect on our results of operations and financial condition. While we maintain a broad array of information security and privacy measures, policies and practices, our networks may be breached through a variety of means, resulting in someone obtaining unauthorized access to our information, to information of our customers or their customers, or to our intellectual property; disabling or degrading service; or sabotaging systems or information. In addition, hardware, software, or applications we develop or procure from third parties may contain defects in design or manufacture or other problems that could unexpectedly compromise information security. Unauthorized parties may also attempt to gain access to our systems or facilities, or those of third parties with whom we do business, through fraud or other forms of deceiving our employees, contractors, and vendors. Because the techniques used to obtain unauthorized access, or to sabotage systems, change frequently and generally are not recognized until launched against a target, we may be unable to anticipate these techniques or to implement adequate preventative measures. We will continue to incur significant costs to continuously enhance our information security measures to defend against the threat of cybercrime. Any cybersecurity or data privacy incident or breach may result in:

- loss of revenue resulting from the operational disruption;
- loss of revenue or increased bad debt expense due to the inability to invoice properly or to customer dissatisfaction resulting in collection issues;
- loss of revenue due to loss of customers;
- material remediation costs to restore systems;
- material investments in new or enhanced systems in order to enhance our information security posture;
- cost of incentives offered to customers to restore confidence and maintain business relationships;
- reputational damage resulting in the failure to retain or attract customers;
- costs associated with potential litigation or governmental investigations;
- costs associated with any required notices of a data breach;
- costs associated with the potential loss of critical business data; and
- other consequences of which we are not currently aware but will discover through the remediation process.

Our business is subject to a variety of domestic and international laws, rules, policies and other obligations including data protection and anticorruption.

We are subject to US and international laws and regulations in multiple areas, including data protection, anticorruption, labor relations, tax, foreign currency, anti-competition, import, export and trade regulations, and we are subject to a complex array of federal, state and international laws relating to the collection, use, retention, disclosure, security and transfer of personally identifiable information and personal health information, with additional laws applicable in some jurisdictions where the information is collected from children. In many cases, these laws apply not only to transfers between unrelated third-parties but also to transfers between us and our subsidiaries. Many jurisdictions have passed laws in this area, and other jurisdictions are considering imposing additional restrictions. The European Commission adopted the European General Data Protection Regulation (the "GDPR"), which went into effect on May 25, 2018. China adopted a new cybersecurity law as of June 2017, and there is an increase in regulation of biometric data globally, which may include voiceprints. In addition, California adopted significant new consumer privacy laws in June 2018 that will be effective beginning in January 2020. Complying with the GDPR, the Health Insurance Portability and Accountability Act of 1966 ("HIPPA"), the Health Information Technology for Economic and Clinical Health ("HITECH"), and other requirements may cause us to incur substantial costs and may require us to change our business practices.

Any failure by us, our customers, suppliers or other parties with whom we do business to comply with our privacy policy or with federal, state or international privacy-related or data protection laws and regulations could result in proceedings against us by governmental entities or others. Any alleged or actual failure to comply with applicable privacy laws and regulations may:

- cause our customers to lose confidence in our solutions;
- harm our reputation;
- expose us to litigation, regulatory investigations and to resulting liabilities including reimbursement of customer costs, damages penalties or fines imposed by regulatory agencies; and
- require us to incur significant expenses for remediation.

We are also subject to a variety of anticorruption laws in respect of our international operations, including the U.S. Foreign Corrupt Practices Act, the U.K. Bribery Act and the Canadian Corruption of Foreign Public Officials Act, and regulations issued by the U.S. Customs and Border Protection, the U.S. Bureau of Industry and Security, the U.S. Treasury Department's Office of Foreign Assets Control, and various other foreign governmental agencies. We cannot predict the nature, scope or effect of future regulatory requirements to which our international operations might be subject or the manner in which existing laws might be administered or interpreted. Actual or alleged violations of these laws and regulations could lead to enforcement actions and financial penalties that could result in substantial costs.

Interruptions or delays in our services could impair the delivery of our services and harm our business

Because our services are complex and incorporate a variety of third-party hardware and software, our services may have errors or defects that could result in unanticipated downtime for our customers and harm to our reputation and our business. We have from time to time, found defects in our services, and new errors in our services may be detected in the future. Any damage to, or failure of, the systems that serve our customers in whole or in part could result in interruptions in our service. Interruptions in our service may reduce our revenue, cause us to issue credits or pay service-level agreement penalties, cause customers to terminate their on-demand services, and adversely affect our renewal rates and our ability to attract new customers.

Interruptions or delays in service from data center hosting facilities could impair the delivery of our services and harm our business.

We currently serve our customers from data center hosting facilities we directly manage and from third-party public cloud facilities. Any damage to, or failure of, the systems that serve our customers could result in interruptions in our service. Interruptions in our service may reduce our revenue, cause us to issue credits or pay service level agreement penalties, cause customers to terminate their on-demand services and adversely affect our renewal rates and our ability to attract new customers.

We may be unable to fully capture the expected value from strategic transactions.

As part of our business strategy, we have in the past acquired, and expect to continue to acquire, other businesses and technologies. We also expect to from time to time pursue other strategic transactions including divestitures, joint ventures, minority stakes and strategic alliances. Our acquisitions have required substantial integration and management efforts, and we expect future acquisitions, divestitures and other strategic transactions to require similar efforts. Successfully realizing the benefits of acquisitions, divestitures and other strategic transactions involves a number of risks, including:

- difficulty in transitioning and integrating the operations and personnel of the acquired businesses;
- difficulty in separating the operations, personnel and systems of divested businesses;
- potential disruption of our ongoing business and distraction of management;
- difficulty in incorporating acquired products and technologies into our products and technologies;
- potential difficulties in completing projects associated with in-process research and development;
- unanticipated expenses and delays in completing acquired development projects and technology integration and upgrades;
- challenges associated with managing additional, geographically remote businesses;
- impairment of relationships with partners and customers;
- assumption of unknown material liabilities of acquired companies;
- the accuracy of revenue and bookings projections of acquired companies;
- customers delaying purchases of our products pending resolution of product integration between our existing and our newly acquired products;
- entering markets or types of businesses in which we have limited experience; and
- potential loss of key employees of the acquired business.

As a result of these and other risks, we may not realize the anticipated benefits from our acquisitions, divestitures, and other strategic transactions. Any failure to achieve these benefits or failure to successfully integrate acquired businesses and technologies or disaggregate divested businesses and technologies could seriously harm our business.

Our plans to wind down or divest certain businesses are subject to various risks and uncertainties and may not be completed in accordance with the expected plans or anticipated timeline, or at all, and will involve significant time and expense, which could disrupt or adversely affect our business.

In connection with our comprehensive business review, we have announced our intent to wind down or divest, including spin-out, certain of our businesses, including our Imaging, Automotive, Devices and Mobile Operating Services businesses.

Winding down or divesting businesses involve risks and uncertainties, such as difficulty separating assets related to such businesses from the businesses we retain, distracting employees, the need to obtain regulatory approvals and other third party consents, potentially disrupting customer and vendor relationships, and we may be subject to additional tax obligations or loss of certain tax benefits. Such actions also involve significant costs and require time and attention of our management, which may divert attention from other business operations. As a result of these challenges, as well as market conditions or other factors, the anticipated wind downs and divestitures may take longer or be more costly than expected, and may not be completed at all. If we are unable to complete the wind downs or divestitures or to successfully transition divested businesses, our business and financial results could be negatively impacted.

After we dispose of a business, we may retain exposure on financial guarantee leases, real estate and other contractual, employment, pension and severance obligations, and potential liabilities that may arise under law as a result of the disposition or the subsequent failure of an acquirer. As a result, performance by the divested businesses or other conditions outside of our control could have a material adverse impact on our results of operations.

In addition, the wind down or divestiture of any business could negatively impact our profitability as a result of losses that may result from such a sale, the loss of sales and operating income, or a decrease in cash flows as a result of such actions and we may also experience greater dissynergies than expected.

Charges to earnings as a result of our acquisitions may adversely affect our operating results in the foreseeable future, which could have a material and adverse effect on the market value of our common stock.

Under accounting principles generally accepted in the United States, we record the market value of our common stock and other forms of consideration issued in connection with an acquisition as the cost of acquiring the company or business. We allocate that cost to the individual assets acquired and liabilities assumed, including various identifiable intangible assets such as acquired technology, acquired trade names and acquired customer relationships, based on their respective fair values. We base our estimates of fair value upon assumptions believed to be reasonable, but which are inherently uncertain. After we complete an acquisition, the following factors could result in material charges and may adversely affect our operating results and cash flows:

- costs incurred to integrate the operations of businesses we acquire, such as transitional employee expenses and employee retention, redeployment or relocation expenses;
- impairment of goodwill or intangible assets;
- amortization of intangible assets acquired;
- a reduction in the useful lives of intangible assets acquired;
- identification of or changes to assumed contingent liabilities, both income tax and non-income tax related, after our final determination of the amounts for these contingencies or the conclusion of the measurement period (generally up to one year from the acquisition date), whichever comes first;
- charges to our operating results to eliminate certain duplicative pre-merger activities, to restructure our operations or to reduce our cost structure;
- charges to our operating results arising from expenses incurred to effect the acquisition; and
- charges to our operating results due to the expensing of stock awards assumed in acquisitions.

Intangible assets are generally amortized over three to ten years. Goodwill is not subject to amortization but is subject to an impairment analysis, at least annually, which may result in an impairment charge if the carrying value exceeds its implied fair value. As of September 30, 2018, we had recorded goodwill of \$3,504.5 million and intangible assets of \$549.5 million, net of accumulated amortization and impairment charges. In addition, purchase accounting limits our ability to recognize certain revenue that otherwise would have been recognized by the acquired company as an independent business. As a result, the combined company may delay revenue recognition or recognize less revenue than we and the acquired company would have recognized as independent companies.

Impairment of our intangible assets could result in significant charges that would adversely impact our future operating results.

We have significant intangible assets, including goodwill and other intangible assets, which are susceptible to valuation adjustments as a result of changes in various factors or conditions. The most significant intangible assets are customer relationships, patents and core technologies, technologies and trademarks. Customer relationships are amortized on an accelerated basis based upon the pattern in which the economic benefits of customer relationships are being utilized. Other identifiable intangible assets are amortized on a straight-line basis over their estimated useful lives. We assess the potential impairment of intangible assets on an annual basis, as well as whenever events or changes in circumstances indicate that the carrying value may not be recoverable. Factors that could trigger an impairment of such assets include the following:

- significant adjustments to our multi year operating plans, in connection of our ongoing portfolio review;
- changes in our organization or management reporting structure that could result in additional reporting units, which may require alternative methods of estimating fair values or greater disaggregation or aggregation in our analysis by reporting unit;
- significant under performance relative to historical or projected future operating results;
- significant changes in the manner of or use of the acquired assets or the strategy for our overall business;
- significant negative industry or economic trends;
- significant decline in our stock price for a sustained period; and
- our market capitalization declining to below net book value.

For example, as more fully described in Note 4 to the accompanying consolidated financial statements, during the second quarter of fiscal year 2018, we reorganized our former Mobile business into three discrete lines of business - Automotive, Dragon TV, and Devices. In connection with this reorganization, and the review of goodwill and indefinite-lived intangible assets for impairment that was triggered by recent financial results and rapidly changing business conditions for our Subscriber Revenue Services (“SRS”), we recorded a total of \$137.9 million of goodwill impairment charge related to Devices and SRS for the second quarter of fiscal 2018. Additionally, in connection with our comprehensive portfolio and business review efforts, management decided to commence a wind-down of our Mobile Operator Services and Devices businesses during the fourth quarter of fiscal 2018. As a result, we recorded additional impairment charges of goodwill and other intangible assets of approximately \$33.0 million. For more information, please see Note 4 of the accompanying consolidated financial statements. Future adverse changes in these or other unforeseeable factors could result in an impairment charge that would impact our results of operations and financial position in the reporting period identified.

We have grown, and may continue to grow, through acquisitions, which could dilute our existing stockholders and/or increase our debt levels.

In connection with past acquisitions, we have in the past issued a substantial number of shares of our common stock as transaction consideration, including contingent consideration, and also incurred significant debt to finance the cash consideration used for our acquisitions. We may continue to issue equity securities for future acquisitions, which would dilute existing stockholders, perhaps significantly, depending on the terms of such acquisitions. We may also incur additional debt in connection with future acquisitions, which, if available at all, may place additional restrictions on our ability to operate our business.

Our strategy to increase cloud services, term licensing and transaction-based recurring revenue may adversely affect our near-term revenue growth and results of operations.

We expect our ongoing shift from a perpetual software license model to cloud services, term licensing and transaction-based recurring revenue models to create a recurring revenue stream that is more predictable. The transition, however, creates risks related to the timing of revenue recognition. We also incur certain expenses associated with the infrastructures and selling efforts of our hosting offerings in advance of our ability to recognize the revenues associated with these offerings, which may adversely affect our near-term reported revenues, results of operations and cash flows. A decline in renewals of recurring revenue offerings in any period may not be immediately reflected in our results for that period but may result in a decline in our revenue and results of operations in future quarters.

We have a history of operating losses, and may incur losses in the future, which may require us to raise additional capital on unfavorable terms.

We reported net losses of \$159.9 million, \$151.0 million and \$12.5 million in fiscal years 2018, 2017 and 2016, respectively, and have a total accumulated deficit of \$740.8 million as of September 30, 2018. If we are unable to return to profitability, the market price for our stock may decline, perhaps substantially. We cannot assure you that our revenue or bookings will grow or that we will return to profitability in the future. If we do not achieve profitability, we may be required to raise additional capital to maintain or grow our operations. Additional capital, if available at all, may be highly dilutive to existing investors or contain other unfavorable terms, such as a high interest rate and restrictive covenants.

If our efforts to execute our formal transformation program are not successful, our business could be harmed.

We have been executing a formal transformation program to focus our product investments on our growth opportunities, increase our operating efficiencies, reduce costs, and further enhance stockholder value through share buybacks. There can be no assurance that we will be successful in executing this transformation program or be able to fully realize the anticipated benefits of this program, within the expected time frames, or at all. Additionally, if we are not successful in strategically aligning our product portfolio, we may not be able to achieve the anticipated benefits of this program. A failure to successfully reduce and re-align our costs could have an adverse effect on our revenue and on our expenses and profitability. As a result, our financial results may not meet our or the expectations of securities analysts or investors in the future and our business could be harmed.

Tax matters may cause significant variability in our financial results.

Our businesses are subject to income taxation in the United States, as well as in many tax jurisdictions throughout the world. Tax rates in these jurisdictions may be subject to significant change. If our effective tax rate increases, our operating results and cash flow could be adversely affected. Our effective income tax rate can vary significantly between periods due to a number of complex factors including:

- projected levels of taxable income;
- pre-tax income being lower than anticipated in countries with lower statutory rates or higher than anticipated in countries with higher statutory rates;
- increases or decreases to valuation allowances recorded against deferred tax assets;
- tax audits conducted and settled by various tax authorities;
- adjustments to income taxes upon finalization of income tax returns;
- the ability to claim foreign tax credits;
- the repatriation of non-U.S. earnings for which we have not previously provided for income taxes; and
- changes in tax laws and their interpretations in countries in which we are subject to taxation.

During 2014, Ireland enacted changes to the taxation of certain Irish incorporated companies effective as of January 2021. On October 5, 2015, the Organization for Economic Cooperation and Development released the Final Reports for its Action Plan on Base Erosion and Profit Shifting. The implementation of one or more of these reports in jurisdictions in which we operate, together with the 2014 enactment by Ireland, could result in an increase to our effective tax rate. In addition, in December 2017, the United States enacted the Tax Cut and Jobs Act of 2017. We expect this to continue having a material impact on our GAAP tax financial results. Future changes in U.S. and non-U.S. tax laws and regulations could have a material effect on our results of operations in the periods in which such laws and regulations become effective as well as in future periods.

The failure to successfully maintain the adequacy of our system of internal control over financial reporting could have a material adverse impact on our ability to report our financial results in an accurate and timely manner.

Under the Sarbanes-Oxley Act of 2002, we were required to develop and are required to maintain an effective system of disclosure controls and internal control over financial reporting to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements. In addition, our management is required to assess and certify the adequacy of our controls on a quarterly basis, and our independent auditors must attest and report on the effectiveness of our internal control over financial reporting on an annual basis. Any failure in the effectiveness of our system of internal control over financial reporting could have a material adverse impact on our ability to report our financial statements in an accurate and timely manner. Inaccurate and/or untimely financial statements could subject us to regulatory actions, civil or criminal penalties, stockholder litigation, or loss of customer confidence, which could result in an adverse reaction in the financial marketplace and ultimately could negatively impact our stock price due to a loss of investor confidence in the reliability of our financial statements.

Our sales to government clients subject us to risks, including early termination, audits, investigations, sanctions and penalties.

We derive a portion of our revenues and bookings from arrangements with governmental users in the U.S. and U.K., and contracts with the government in the U.S. and the U.K., as well as various state and local governments, and their respective agencies. Government contracts are generally subject to oversight, including audits and investigations which could identify violations of these agreements. Government contract violations could result in a range of consequences including, but not limited to, contract price adjustments, civil and criminal penalties, contract termination, forfeiture of profit and/or suspension of payment, and suspension or debarment from future government contracts. We could also suffer serious harm to our reputation if we were found to have violated the terms of our government contracts.

Risks Related to Our Intellectual Property and Technology

Third parties have claimed and may claim in the future that we are infringing their intellectual property, and we could be exposed to significant litigation or licensing expenses or be prevented from selling our products if such claims are successful.

From time to time, we are subject to claims and law actions alleging that we or our customers may be infringing or contributing to the infringement of the intellectual property rights of others. We may be unaware of intellectual property rights of others that may cover some of our technologies and products. If it appears necessary or desirable, we may seek licenses for these intellectual property rights. However, we may not be able to obtain licenses from some or all claimants, the terms of any offered licenses may not be acceptable to us, and we may not be able to resolve disputes without litigation. Any litigation regarding intellectual property could be costly and time-consuming and could divert the attention of our management and key personnel from our business operations. Intellectual property disputes could subject us to significant liabilities, require us to enter into royalty and licensing arrangements on unfavorable terms, prevent us from manufacturing or licensing certain of our products, cause severe disruptions to our operations or the markets in which we compete, or require us to satisfy indemnification commitments with our customers including contractual provisions under various arrangements. Any of these could seriously harm our business.

Unauthorized use of our proprietary technology and intellectual property could adversely affect our business and results of operations.

Our success and competitive position depend in large part on our ability to obtain and maintain intellectual property rights protecting our products and services. We rely on a combination of patents, copyrights, trademarks, service marks, trade secrets, confidentiality provisions and licensing arrangements to establish and protect our intellectual property and proprietary rights. Unauthorized parties may attempt to copy or discover aspects of our products or to obtain, license, sell or otherwise use information that we regard as proprietary. Policing unauthorized use of our products is difficult and we may not be able to protect our technology from unauthorized use. Additionally, our competitors may independently develop technologies that are substantially the same or superior to our technologies and that do not infringe our rights. In these cases, we would be unable to prevent our competitors from selling or licensing these similar or superior technologies. In addition, the laws of some foreign countries do not protect our proprietary rights to the same extent as the laws of the United States. Although the source code for our proprietary software is protected both as a trade secret and as a copyrighted work, litigation may be necessary to enforce our intellectual property rights, to protect our trade secrets, to determine the validity and scope of the proprietary rights of others, or to defend against claims of infringement or invalidity. Litigation, regardless of the outcome, can be very expensive and can divert management efforts.

Our software products may have bugs, which could result in delayed or lost revenue and bookings, expensive correction, liability to our customers and claims against us.

Complex software products such as ours may contain errors, defects or bugs. Defects in the solutions or products that we develop and sell to our customers could require expensive corrections and result in delayed or lost revenue and bookings, adverse customer reaction and negative publicity about us or our products and services. Customers who are not satisfied with any of our products may also bring claims against us for damages, which, even if unsuccessful, would likely be time-consuming to defend, and could result in costly litigation and payment of damages. Such claims could harm our reputation, financial results and competitive position.

Risks Related to our Corporate Structure, Organization and Common Stock

Our debt agreements contain covenant restrictions that may limit our ability to operate our business.

Our debt agreements contain, and any of our other future debt agreements or arrangements may contain, covenant restrictions that limit our ability to operate our business, including restrictions on our ability to:

- incur additional debt or issue guarantees;
- create liens;
- make certain investments;
- enter into transactions with our affiliates;
- sell certain assets;
- repurchase capital stock or make other restricted payments;
- declare or pay dividends or make other distributions to stockholders; and
- merge or consolidate with any entity.

Our ability to comply with these limitations is dependent on our future performance, which will be subject to many factors, some of which are beyond our control, including prevailing economic conditions. As a result of these limitations, our ability to respond to changes in business and economic conditions and to obtain additional financing, if needed, may be significantly restricted, and we may be prevented from engaging in transactions that might otherwise be beneficial to us. In addition, our failure to comply with our debt covenants could result in a default under our debt agreements, which could permit the holders to accelerate our obligation to repay the debt. If any of our debt is accelerated, we may not have sufficient funds available to repay the accelerated debt.

Our significant debt could adversely affect our financial health and prevent us from fulfilling our obligations under our credit facility and our convertible debentures.

We have a significant amount of debt. As of September 30, 2018, we had \$2,437.0 million outstanding principal of debt, including \$300.0 million of senior note due in 2020, \$300.0 million of senior note due in 2024, and \$500.0 million of senior note due in 2026, \$46.6 million of 2.75% 2031 Debentures redeemable in November 2021, \$263.9 million of 1.5% 2035 Debentures redeemable in November 2021, \$676.5 million of 1.0% 2035 Debentures redeemable in December 2022, and \$350.0 million of 1.25% 2025 Debentures redeemable in April 2025. Investors may require us to redeem these debentures earlier than the dates indicated if the closing sale price of our common stock is more than 130% of the then current conversion price of the respective debentures for certain specified periods. If a holder elects to convert, we will be required to pay the principal amount in cash and any amounts payable in excess of the principal amount in cash or shares of our common stock, at our election. For example, on November 1, 2017, holders of \$331.2 million of our 2.75% 2031 Debentures exercised their rights to require us to repurchase such debentures. We also have a \$242.5 million Revolving Credit Facility under which \$6.9 million was committed to backing outstanding letters of credit issued and \$235.6 million was available for borrowing at September 30, 2018. Our debt level could have important consequences, for example it could:

- require us to use a large portion of our cash flow to pay principal and interest on debt, including the convertible debentures and the credit facility, which will reduce the availability of our cash flow to fund working capital, capital expenditures, acquisitions, research and development, exploiting business opportunities, and other business activities;
- place us at a competitive disadvantage compared to our competitors that have less debt; and
- limit, along with the financial and other restrictive covenants related to our debt, our ability to borrow additional funds, dispose of assets or pay cash dividends.

Our ability to meet our payment and other obligations under our debt instruments depends on our ability to generate significant cash flow in the future. This, to some extent, is subject to general economic, financial, competitive, legislative and regulatory factors as well as other factors that are beyond our control. We cannot assure you that our business will generate cash flow from operations, or that additional capital will be available to us, in an amount sufficient to enable us to meet our payment obligations under the convertible debentures and our other debt and to fund other liquidity needs. If we are not able to generate sufficient cash flow to service our debt obligations, we may need to refinance or restructure our debt, including the convertible debentures, sell assets, reduce or delay capital investments, or seek to raise additional capital. If we are unable to implement one or more of these alternatives, we may not be able to meet our payment obligations under the convertible debentures and our other debt.

The market price of our common stock has been and may continue to be subject to wide fluctuations, and this may make it difficult for you to resell the common stock when you want or at prices you find attractive.

Our stock price historically has been, and may continue to be, volatile. Various factors contribute to the volatility of our stock price, including, for example, quarterly variations in our financial results, new product introductions by us or our competitors and general economic and market conditions. Sales of a substantial number of shares of our common stock by our largest stockholders, or the perception that such sales could occur, could also contribute to the volatility of our stock price. While we cannot predict the individual effect that any of these factors may have on the market price of our common stock, these factors, either individually or in the aggregate, could result in significant volatility in our stock price. Moreover, companies that have experienced volatility in the market price of their stock may be

subject to securities class action litigation. Any such litigation could result in substantial costs and divert management's attention and resources.

Current uncertainty in the global financial markets and the global economy may negatively affect the value of our investment portfolio.

Our investment portfolios, which include investments in money market funds, bank deposits and separately managed investment portfolios, are generally subject to credit, liquidity, counterparty, market and interest rate risks that may be exacerbated by a global financial crisis or by uncertainty surrounding the United Kingdom's exit from the European Union or recent changes in tariffs and trade agreements. If the banking system or the fixed income, credit or equity markets deteriorate or remain volatile, our investment portfolio may be impacted, and the values and liquidity of our investments could be adversely affected

Future issuances of our common stock could adversely affect the trading price of our common stock and our ability to raise funds in new stock offerings.

Future issuances of substantial amounts of our common stock, whether in the public market or through private placements, including issuances in connection with acquisition activities, or the perception that such issuances could occur, could adversely affect prevailing trading prices of our common stock and could impair our ability to raise capital through future offerings of equity or equity-related securities. In connection with past acquisitions, we issued a substantial number of shares of our common stock as transaction consideration or contingent consideration. We may continue to issue equity securities for future acquisitions, which would dilute existing stockholders, perhaps significantly depending on the terms of such acquisitions. No prediction can be made as to the effect, if any, that future sales of shares of common stock, or the availability of shares of common stock for future sale, will have on the trading price of our common stock.

Our business could be negatively affected by the actions of activist stockholders.

In the past, certain stockholders have publicly and privately expressed concerns with our performance and with certain governance matters. Responding to actions by activist stockholders can be costly and time-consuming, disrupting our operations and diverting the attention of management and our employees. Furthermore, any perceived uncertainties as to our future direction could result in the loss of potential business opportunities, and may make it more difficult to attract and retain qualified personnel and business partners. In addition, we have enacted certain changes to our bylaws in the past year that may weaken our ability to prevent an unsolicited takeover.

Item 1B. *Unresolved Staff Comments*

None.

Item 2. Properties

Our corporate headquarters are located in Burlington, Massachusetts. As of September 30, 2018, we leased approximately 1.5 million square feet of building space, primarily in the United States, and to a lesser extent, in Asia-Pacific regions, Europe and Canada. Larger leased sites include properties located in: Montreal, Canada; Sunnyvale, California; and Bangalore, India. In addition, we own 130,000 square feet of building space located in Melbourne, Florida.

We also include in the total square feet leased space leased in specialized data centers in Massachusetts, Washington, Texas, China and smaller facilities around the world.

We believe our existing facilities and equipment, which are used by all of our operating segments, are in good operating condition and are suitable for the conduct of our business.

Item 3. Legal Proceedings

Similar to many companies in the software industry, we are involved in a variety of claims, demands, suits, investigations and proceedings that arise from time to time relating to matters incidental to the ordinary course of our business, including actions with respect to contracts, intellectual property, employment, benefits and securities matters. We evaluate the probability of adverse outcomes and, as applicable, estimate the amount of probable losses that may result from pending matters. Probable losses that can be reasonably estimated are reflected in our consolidated financial statements. These recorded amounts are not material to our consolidated financial statements for any of the periods presented in the accompanying consolidated financial statements. While it is not possible to predict the outcome of these matters with certainty, we do not expect the results of any of these actions to have a material adverse effect on our results of operations or financial position. However, each of these matters is subject to uncertainties, the actual losses may prove to be larger or smaller than the accruals reflected in our consolidated financial statements, and we could incur judgments or enter into settlements of claims that could adversely affect our financial position, results of operations or cash flows.

Item 4. Mine Safety Disclosures

Not applicable.

PART II**Item 5. Market for the Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities****Market Information**

Our common stock is traded on the Nasdaq Global Select Market under the symbol "NUAN". The following table sets forth, for our fiscal quarters indicated, the high and low sales prices of our common stock, in each case as reported on the Nasdaq Global Select Market.

	Low	High
Fiscal Year 2017:		
First quarter	\$ 13.44	\$ 17.47
Second quarter	\$ 14.85	\$ 17.43
Third quarter	\$ 16.36	\$ 19.93
Fourth quarter	\$ 15.38	\$ 17.97
Fiscal Year 2018:		
First quarter	\$ 14.02	\$ 17.72
Second quarter	\$ 15.23	\$ 18.75
Third quarter	\$ 12.18	\$ 15.75
Fourth quarter	\$ 13.70	\$ 17.42

Holders

As of October 31, 2018, there were 605 stockholders of record of our common stock. Because many of our shares of common stock are held by brokers and other institutions on behalf of stockholders, we are unable to estimate the total number of beneficial owners represented by these record holders.

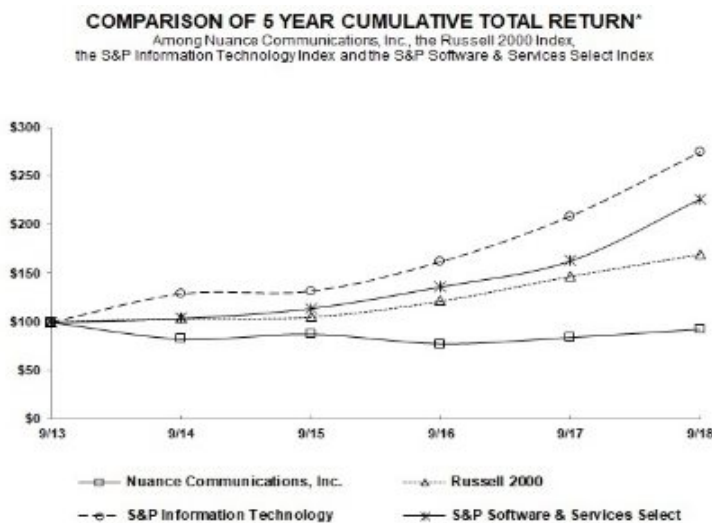
Dividend Policy

We have never declared or paid any cash dividends on our common stock. We currently expect to retain future earnings, if any, to finance the growth and development of our business, or to purchase common stock under our share repurchase program and do not anticipate paying any cash dividends in the foreseeable future. Furthermore, the terms of our debt agreements place restrictions on our ability to pay dividends, except for stock dividends.

Stock Performance Graph

The following performance graph compares the Company's cumulative total return on its common stock between September 30, 2013 and September 30, 2018 to the cumulative total return of the Russell 2000, and to the S&P Information Technology indices assuming \$100 was invested in the Company's common stock and each of the indices upon the closing of trading on September 30, 2013 and assuming the reinvestment of dividends, if any. The Company has never declared or paid any cash dividends on its common stock and does not anticipate paying any cash dividends in the foreseeable future.

The comparisons shown in the graph below are based upon historical data. We caution that the stock price performance shown in the graph below is not necessarily indicative of, nor is it intended to forecast, the potential future performance of our common stock.



* \$100 invested on September 30, 2013 in stock or index, including reinvestment of dividends, for each of the fiscal years below.

	9/13	9/14	9/15	9/16	9/17	9/18
Nuance Communications, Inc.	100.00	82.52	87.63	77.62	84.15	92.72
Russell 2000	100.00	103.93	105.23	121.50	146.70	169.06
S&P Information Technology	100.00	129.27	132.00	162.13	208.96	274.76
S&P Software & Services Select	100.00	103.86	114.06	136.40	162.94	226.49

Issuer Purchases of Equity Securities

The following is a summary of our share repurchases for the three months ended September 30, 2018 :

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Program ⁽¹⁾	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Program ⁽¹⁾
July 1, 2018 - July 31, 2018	907,286	\$ 14.45	907,286	\$ 68,324,001
August 1, 2018 - August 31, 2018	402,897	\$ 15.78	402,897	\$ 561,968,153
September 1, 2018 - September 30, 2018	280,213	\$ 16.59	280,213	\$ 557,318,776
Total	<u>1,590,396</u>		<u>1,590,396</u>	

⁽¹⁾ On April 29, 2013, our Board of Directors approved a share repurchase program for up to \$500.0 million , which was increased by \$500.0 million on April 29, 2015. On August 1, 2018, our Board of Directors approved an additional \$500.0 million under our share repurchase program. The program has no expiration date. As of September 30, 2018 , approximately \$557.3 million remained available for future repurchases under the program.

For the majority of restricted stock units granted to employees, the number of shares issued on the date the restricted stock units vest is net of the minimum statutory income withholding tax requirements that we pay in cash to the applicable taxing authorities on behalf of our employees. We do not consider these transactions to be common stock repurchases.

Unregistered Sales of Equity Securities and Use of Proceeds

None.

Item 6. Selected Consolidated Financial Data

The following selected consolidated financial data is not necessarily indicative of the results of future operations and should be read in conjunction with “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and our consolidated financial statements and related notes included elsewhere in this Annual Report on Form 10-K.

<i>(In millions, except per share amounts)</i>	Fiscal Year Ended September 30,				
	2018	2017	2016	2015	2014
Operations:					
Total revenues	\$ 2,051.7	\$ 1,939.4	\$ 1,948.9	\$ 1,931.1	\$ 1,923.5
Gross profit	\$ 1,178.1	\$ 1,085.6	\$ 1,119.4	\$ 1,102.6	\$ 1,080.9
(Loss) income from operations	\$ (86.9)	\$ 52.0	\$ 138.5	\$ 54.9	\$ (21.4)
(Benefit) provision for income taxes	\$ (56.8)	\$ 32.0	\$ 14.2	\$ 34.5	\$ (4.7)
Net loss	\$ (159.9)	\$ (151.0)	\$ (12.5)	\$ (115.0)	\$ (150.3)
Net Loss Per Share Data:					
Basic	\$ (0.55)	\$ (0.52)	\$ (0.04)	\$ (0.36)	\$ (0.47)
Diluted	\$ (0.55)	\$ (0.52)	\$ (0.04)	\$ (0.36)	\$ (0.47)
Weighted average common shares outstanding:					
Basic	291.3	289.3	292.1	317.0	316.9
Diluted	291.3	289.3	292.1	317.0	316.9
Financial Position:					
Cash and cash equivalents and marketable securities	\$ 473.5	\$ 874.1	\$ 608.1	\$ 568.8	\$ 588.2
Total assets	\$ 5,302.4	\$ 5,931.9	\$ 5,661.5	\$ 5,511.9	\$ 5,738.2
Long-term debt	\$ 2,185.4	\$ 2,617.4	\$ 2,433.2	\$ 2,103.1	\$ 2,108.4
Total deferred revenue	\$ 873.0	\$ 790.0	\$ 736.2	\$ 668.2	\$ 548.1
Total stockholders’ equity	\$ 1,717.5	\$ 1,931.4	\$ 1,931.3	\$ 2,265.3	\$ 2,582.0
Selected Data and Ratios:					
Working capital	\$ 164.5	\$ 216.4	\$ 347.7	\$ 360.2	\$ 466.5
Depreciation of property and equipment	\$ 62.4	\$ 55.7	\$ 60.6	\$ 62.4	\$ 51.7
Amortization of intangible assets	\$ 148.0	\$ 178.7	\$ 170.9	\$ 168.3	\$ 170.1
Gross margin percentage	57.4%	56.0%	57.4%	57.1%	56.2%

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

The following Management's Discussion and Analysis is intended to help the reader understand the results of operations and financial condition of our business. The Management's Discussion and Analysis is provided as a supplement to, and should be read in conjunction with, our consolidated financial statements and the accompanying notes to the consolidated financial statements.

Overview

Business Overview

We are a pioneer and leader in conversational and cognitive artificial intelligence ("AI") innovations that bring intelligence to everyday work and life. Our solutions and technologies can understand, analyze and respond to human language to increase productivity and amplify human intelligence. Our solutions are used by businesses in the healthcare, automotive, financial services, telecommunication and travel industries, among others. We see several trends in our markets, including (i) the growing adoption of cloud-based, connected services and highly interactive mobile applications, (ii) deeper integration of virtual assistant capabilities and services, and (iii) the continued expansion of our core technology portfolio including ASR, natural NLU, semantic processing, domain-specific reasoning, dialog management capabilities, AI, and voice biometric speaker authentication. We report our business in five segments, Healthcare, Enterprise, Automotive, Imaging and Other.

Trends in Our Businesses

- *Healthcare.* Customers in our healthcare segment are broadly implementing EHR systems and are working to improve clinical documentation, improve quality of care, minimize physician burnout integrate quality measures and aid reimbursement. These trends are driving a shift towards more integrated solutions that combine both Dragon Medical and transcription services, and increasingly use only Dragon Medical. Recently, higher demand for more integrated solutions have offset declines in legacy, hosted transcription services. Additionally, we have been able to capitalize on healthcare providers' shift towards hosted, or cloud-based solutions, and away from perpetual licenses, by adding new innovations to our Dragon Medical cloud solutions including new clinical language understanding and AI capabilities designed to increase productivity and improve clinical documentation at the point of care and within existing electronic medical work flow.
- *Enterprise.* Consumer demand for 24/7, multi-channel access to customer service from the businesses they interact with is driving demand for our AI-powered omni-channel engagement solutions. We continue to enhance our technology capabilities with intelligent self-service and AI for customer service, and to extend the market for our on-demand omni-channel enterprise solutions into international markets, expand our sales and solutions for biometrics, and expand our core products and services portfolio.
- *Automotive.* Demand for our embedded and cloud-based automotive solutions is being driven by the growth in personalized, automotive virtual assistants and connected services for cars and by auto manufacturers' desire to create a branded and personalized experience, capable of intelligently integrating users' smart phone and home device preferences and technologies.

On November 19, 2018, we announced our intent to spin off our Automotive business into an independent publicly-traded company through a pro rata distribution to our common stock holders. Completion of the proposed spin-off is subject to certain conditions, including final approval by our Board of Directors. We are targeting to complete the separation of the business by the end of fiscal year 2019.

- *Imaging.* The imaging market is evolving to include more networked solutions to MFP devices, as well as more mobile access to those networked solutions, and away from packaged software. We are investing to merge the scan and print technology platforms to improve mobile access to our solutions and technologies, expand our distribution channels and embedded relationships, and expand our language coverage for OCR in order to drive a more comprehensive and compelling offering to our partners.

On November 11, 2018, we entered into a definitive stock purchase agreement, pursuant to which we agreed to sell our Imaging business and associated assets for a total cash consideration of approximately \$400 million. The transaction, which is subject to regulatory review and other customary closing conditions, is expected to close by the end of the second quarter of fiscal year 2019.

[Table of Contents](#)

- *Other.* Our Other segment includes our Subscriber Revenue Services ("SRS") and Devices businesses. Our SRS business provides value-added services to mobile operators in India and Brazil ("Mobile Operator Services") and voicemail transcription services to mobile operators in the rest of the world ("Voicemail-to-Text"). Our Devices business provides speech recognition solutions and predictive text technologies for handset devices. Our Mobile Operator Services has experienced dramatic market disruptions during fiscal year 2018. Our Devices revenue has been declining due to the ongoing consolidation of our handset manufacturer customer base and continued erosion of our penetration of the remaining market. During the fourth quarter of fiscal 2018, in connection with our comprehensive portfolio and business review efforts, we commenced a wind-down of our Devices and Mobile Operator Services businesses.

Cybersecurity & Data Privacy Matters

On June 27, 2017, Nuance was a victim of the global NotPetya malware incident (the "2017 Malware Incident"), which primarily impacted our medical transcription services. For fiscal year 2017, we estimated that our Healthcare segment lost approximately \$65.0 million in revenues, primarily due to the service disruption and the reserves we established for customer refund credits related to the incident. Additionally, we incurred incremental costs of approximately \$24.0 million for fiscal year 2017 as a result of our remediation and restoration efforts, as well as incremental amortization expenses.

Also, in December 2017, an unauthorized third party illegally accessed certain reports hosted on a Nuance transcription platform. This incident was limited in scope to records of approximately 45,000 individuals and was isolated to a single transcription platform that was promptly shutdown. Customers using that platform were notified of the incident and were migrated to our eScription transcription platforms. We also notified law enforcement authorities and have cooperated in their investigation into the matter. The law enforcement investigation resulted in the identification of the third party, and the accessed reports have been recovered. This incident did not have a material effect on our financial results for fiscal year 2018 and is not expected to have a material effect on our financial results for future periods. See "*Risk Factors - Cybersecurity and data privacy incidents or breaches may damage client relations and inhibit our growth*."

Key Metrics

In evaluating the financial condition and operating performance of our business, management focuses on revenue, net income, gross margins, operating margins, cash flow from operations, and changes in deferred revenue. A summary of these key financial metrics is as follows:

For the fiscal year 2018, as compared to the fiscal year 2017:

- Total revenue increased by \$112.3 million from \$1,939.4 million to \$2,051.7 million;
- Net loss increased by \$8.9 million to \$159.9 million;
- Gross margins increased by 1.4 percentage points to 57.4%;
- Operating margins decreased by 6.9 percentage points to (4.2)%;
- Cash provided by operating activities for the fiscal year 2018 was \$444.4 million, an increase of \$65.6 million from fiscal year 2017.

As of September 30, 2018, as compared to September 30, 2017:

- Total deferred revenue increased by 10.5% to \$873.0 million, primarily driven by the continued growth of our Automotive connected solutions and Healthcare bundled offerings.

A summary of other key operating metrics for fiscal year 2018, as compared to the fiscal year 2017, is as follows:

- Net new bookings increased by 4.9% from the prior fiscal year to \$1.7 billion. The net new bookings growth benefited from strong bookings performance primarily in our Automotive and Enterprise segments.

Bookings represent the estimated gross revenue value of transactions at the time of contract execution, except for maintenance and support offerings. For fixed price contracts, the bookings value represents the gross total contract value. For contracts where revenue is based on transaction volume, the bookings value represents the contract price multiplied by the estimated future transaction volume during the contract term, whether or not such transaction volumes are guaranteed under a minimum commitment clause. Actual results could be different than our initial estimate. The maintenance and support bookings value

represents the amount the customer is invoiced in the period. Because of the inherent estimates required to determine bookings and the fact that the actual revenue may differ from our initial bookings estimates, we consider bookings one indicator of potential future revenue and not as an arithmetic measure of backlog.

Net new bookings represent the estimated revenue value at the time of contract execution from new contractual arrangements or the estimated revenue value incremental to the portion of value that will be renewed under pre-existing arrangements.

- Recurring revenue represented 71.4% for fiscal year 2018 and 72.5% for fiscal year 2017. Recurring revenue represents the sum of recurring product and licensing, hosting, and maintenance and support revenues as well as the portion of professional services revenue delivered under ongoing contracts. Recurring product and licensing revenue comprises term-based and ratable licenses as well as revenues from royalty arrangements.
- Annualized line run-rate in our on-demand healthcare solutions decreased by 4% from a year ago to approximately 2.8 billion lines per year. The annualized line run-rate for the fourth quarter of fiscal year 2017 reflected the negative impact of the 2017 Malware Incident, whereas the annualized run-rate for the fourth quarter of fiscal year 2018 reflected the continued erosion of our medical transcription services. The annualized line run-rate is determined using billed equivalent line counts in a given quarter, multiplied by four.
- Estimated three-year value of total on-demand contracts increased 5.0% from the prior fiscal year to approximately \$2.4 billion, primarily by growth in our Dragon Medical cloud-based solutions and automotive connected car businesses, offset by decreases in SRS and Devices as well as the continued erosion of our medical transcription services. We determine this value as of the end of the period reported, by using our estimate of three years of anticipated future revenue streams under signed on-demand contracts then in place, whether or not they are guaranteed through a minimum commitment clause. Our estimate is based on assumptions used in evaluating the contracts and determining sales compensation, adjusted for changes in estimated launch dates, actual volumes achieved, and other factors deemed relevant. For contracts with an expiration date beyond three years, we include only the value expected within three years. For other contracts, we assume renewal consistent with historic renewal rates unless there is a known cancellation. Contracts are generally priced by volume of usage and typically have no or low minimum commitments. Actual revenue could vary from our estimates due to factors such as cancellations, non-renewals or volume fluctuations.

RESULTS OF OPERATIONS

Total Revenues

The following tables show total revenues by product type and revenue by geographic location, based on the location of our customers, in dollars and percentage change (dollars in millions):

	Fiscal Year 2018	Fiscal Year 2017	Fiscal Year 2016	% Change 2018 vs. 2017	% Change 2017 vs. 2016
Professional services and hosting	\$ 1,049.4	\$ 976.9	\$ 955.3	7.4 %	2.3 %
Product and licensing	684.2	635.4	669.2	7.7 %	(5.1)%
Maintenance and support	318.0	327.1	324.3	(2.8)%	0.9 %
Total Revenues	\$ 2,051.7	\$ 1,939.4	\$ 1,948.9	5.8 %	(0.5)%
United States	\$ 1,470.7	\$ 1,352.0	\$ 1,385.3	8.8 %	(2.4)%
International	581.0	587.3	563.6	(1.1)%	4.2 %
Total Revenues	\$ 2,051.7	\$ 1,939.4	\$ 1,948.9	5.8 %	(0.5)%

Fiscal Year 2018 Compared with Fiscal Year 2017

The geographic split for fiscal year 2018 was 72% of total revenue in the United States and 28% internationally, as compared to 70% of total revenue in the United States and 30% internationally for the prior fiscal year.

Fiscal Year 2017 Compared with Fiscal Year 2016

The geographic split for fiscal years 2017 was 70% of total revenue in the United States and 30% internationally, as compared to 71% of total revenue in the United States and 29% internationally for the prior fiscal year.

Professional Services and Hosting Revenue

Professional services revenue primarily consists of consulting, implementation and training services for customers. Hosting revenue primarily relates to delivering on-demand hosted services, such as medical transcription, automated customer care applications, mobile operator services, and mobile infotainment and search and transcription, over a specified term. The following table shows professional services and hosting revenue, in dollars and as a percentage of total revenues (dollars in millions):

	Fiscal Year 2018	Fiscal Year 2017	Fiscal Year 2016	% Change 2018 vs. 2017	% Change 2017 vs. 2016
Professional services revenue	\$ 278.3	\$ 243.1	\$ 225.2	14.5%	7.9%
Hosting revenue	771.1	733.8	730.2	5.1%	0.5%
Professional services and hosting revenue	<u>\$ 1,049.4</u>	<u>\$ 976.9</u>	<u>\$ 955.3</u>	7.4%	2.3%
As a percentage of total revenues	<u>51.2%</u>	<u>50.4%</u>	<u>49.0%</u>		

Fiscal Year 2018 Compared with Fiscal Year 2017

Professional services revenue increased by \$35.3 million, or 14.5%, primarily driven by a \$49.4 million increase in Healthcare, offset in part by a \$6.5 million decrease in Imaging and a \$4.2 million decrease in Automotive. Healthcare professional services revenue increased primarily due to higher revenue from EHR implementation and optimization services. Imaging professional services decreased primarily due to certain nonrecurring implementation services that occurred in fiscal year 2017. Automotive professional services revenue decreased primarily due to a shift towards connected services.

Hosting revenue increased by \$37.3 million, or 5.1%, primarily driven by a \$41.9 million increase in Healthcare, a \$14.5 million increase in Automotive, and a \$6.7 million increase in Enterprise, offset in part by a \$25.8 million decrease in Other. Healthcare hosting revenue increased as the segment recovered from the 2017 Malware Incident throughout the year; also contributing to the increase was the continued market penetration and growth of our Dragon Medical cloud-based solutions, offset in part by the continued erosion of our transcription services. Automotive hosting revenue increased primarily due to the continued growth in our ASR and infotainment platform services. Enterprise hosting revenue increased primarily due to the growth in our omni-channel hosting solutions. Other segment hosting revenue decreased primarily driven by the declines in both of our SRS and Devices businesses.

As a percentage of total revenue, professional services and hosting revenue increased from 50.4% for fiscal year 2017 to 51.2% for fiscal year 2018.

Fiscal Year 2017 Compared with Fiscal Year 2016

Professional services revenue increased by \$17.9 million, or 7.9%, primarily due to acquisitions in our Healthcare segment and the continued growth in voice biometrics offerings in our Enterprise segment.

Hosting revenue increased by \$3.7 million, or 0.5%, primarily driven by a \$48.3 million increase in Enterprise and a \$13.2 million increase in Automotive segments, offset in part by a \$57.7 million decrease in Healthcare. Enterprise hosting revenue increased primarily due to the incremental revenue from acquisitions, growth in our omni-channel cloud offerings, and the continued strength in our on-premise and service portfolios. Automotive hosting revenue increased primarily due to the continued growth in our ASR and infotainment platform services. Healthcare hosting revenue declined primarily due to the 2017 Malware Incident and the continued erosion of our transcription services, offset in part by the continued market penetration and growth of our Dragon Medical cloud-based solutions.

As a percentage of total revenue, professional services and hosting revenue increased from 49.0% for fiscal year 2016 to 50.4% for fiscal year 2017.

Product and Licensing Revenue

Product and licensing revenue primarily consists of sales and licenses of our technology. The following table shows product and licensing revenue, in dollars and as a percentage of total revenues (dollars in millions):

	Fiscal Year 2018	Fiscal Year 2017	Fiscal Year 2016	% Change 2018 vs. 2017	% Change 2017 vs. 2016
Product and licensing revenue	\$ 684.2	\$ 635.4	\$ 669.2	7.7%	(5.1)%
As a percentage of total revenues	33.4%	32.8%	34.3%		

Fiscal Year 2018 Compared with Fiscal Year 2017

Product and licensing revenue increased by \$48.8 million, or 7.7%, primarily driven by a \$16.3 million increase in Automotive, a \$14.5 million increase in Healthcare, and a \$12.8 million increase in Enterprise. Automotive product and licensing revenue increased primarily due to higher royalties from existing and new customers. Healthcare product and licensing revenue increased primarily due to higher revenue from diagnostics solutions due to recent acquisitions. Enterprise product and licensing revenue increased primarily due to higher contact center license revenue.

As a percentage of total revenue, product and licensing revenue increased from 32.8% for fiscal year 2017 to 33.4% for fiscal year 2018.

Fiscal Year 2017 Compared with Fiscal Year 2016

Product and licensing revenue decreased by \$33.8 million, or 5.1%, primarily driven by a \$25.6 million decrease in Imaging, a \$16.7 million decrease in Healthcare, and a \$16.7 million decrease in Other, offset in part by a \$23.0 million increase in Automotive. Imaging product and licensing revenue decreased primarily due to lower sales of our multi-functional printer ("MFP") solutions. Healthcare product and licensing revenue decreased primarily due to the continuing customer transition from product licenses to cloud-based solutions. Other product and licensing revenue decreased primarily driven by the ongoing consolidation of our handset manufacturer customer base and continued erosion of our penetration of the remaining market. Automotive product and licensing revenue increased primarily due to higher royalties from existing and new customers.

As a percentage of total revenue, product and licensing revenue decreased from 34.3% for fiscal year 2016 to 32.8% for fiscal year 2017.

Maintenance and Support Revenue

Maintenance and support revenue primarily consists of technical support and maintenance services. The following table shows maintenance and support revenue, in dollars and as a percentage of total revenues (dollars in millions):

	Fiscal Year 2018	Fiscal Year 2017	Fiscal Year 2016	% Change 2018 vs. 2017	% Change 2017 vs. 2016
Maintenance and support revenue	\$ 318.0	\$ 327.1	\$ 324.3	(2.8)%	0.9%
As a percentage of total revenues	15.5%	16.9%	16.6%		

Fiscal Year 2018 Compared with Fiscal Year 2017

Maintenance and support revenue decreased by \$9.1 million, or 2.8%, primarily due to a \$18.1 million decrease in Healthcare, offset in part by a \$6.0 million increase in Imaging and a \$4.6 million increase in Enterprise. The decrease in Healthcare was primarily driven by the continuing customer transition from product licenses to cloud-based solutions. The increase in Imaging was primarily driven by the contract renewal from existing customers. The increase in Enterprise was primarily driven by higher volume of contact center license transactions with maintenance and support.

Fiscal Year 2017 Compared with Fiscal Year 2016

Maintenance and support revenue increased by \$2.7 million, or 0.9%, primarily due to a \$6.7 million increase in our Enterprise segment due to maintenance renewals, offset in part by a \$4.1 million decrease in Healthcare primarily due to the continuing customer transition from product licenses to cloud-based solutions.

COSTS AND EXPENSES**Cost of Professional Services and Hosting Revenue**

Cost of professional services and hosting revenue primarily consists of compensation for services personnel, outside consultants and overhead, as well as the hardware, infrastructure and communications fees that support our hosting solutions. The following table shows the cost of professional services and hosting revenue, in dollars and as a percentage of professional services and hosting revenue (dollars in millions):

	Fiscal Year 2018	Fiscal Year 2017	Fiscal Year 2016	% Change 2018 vs. 2017	% Change 2017 vs. 2016
Cost of professional services and hosting revenue	\$ 681.5	\$ 660.8	\$ 626.2	3.1%	5.5%
As a percentage of professional services and hosting revenue	64.9%	67.6%	65.5%		

Fiscal Year 2018 Compared with Fiscal Year 2017

The increase in cost of professional services and hosting revenue was primarily due to higher professional services costs in our Healthcare segment related to EHR implementation and optimization services and higher hosting costs related to the growth of our automotive connected car services, offset in part by lower costs of medical transcription services. Gross margins increased by 2.7 percentage points as our Healthcare segment recovered from the 2017 Malware Incident throughout the year. Also contributing to the margin improvement was a favorable shift in revenue mix towards higher margin Dragon Medical cloud-based offerings, offset in part by margin compression in our medical transcription services and the increase in EHR implementation and optimization services which carried lower margins.

Fiscal Year 2017 Compared with Fiscal Year 2016

The increase in cost of professional services and hosting revenue was primarily driven by higher employee and infrastructure-related costs due to higher revenues in our Enterprise segment. Gross margins decreased by 2.1 percentage points primarily due to the negative impact of the 2017 Malware Incident, the continued erosion of our medical transcription services in Healthcare, and lower margins in Enterprise due to recent acquisitions. Partially offsetting the margin declines was the favorable shift in revenue mix to higher margin professional services in Imaging.

Cost of Product and Licensing Revenue

Cost of product and licensing revenue primarily consists of material and fulfillment costs, manufacturing and operations costs and third-party royalty expenses. The following table shows the cost of product and licensing revenue, in dollars and as a percentage of product and licensing revenue (dollars in millions):

	Fiscal Year 2018	Fiscal Year 2017	Fiscal Year 2016	% Change 2018 vs. 2017	% Change 2017 vs. 2016
Cost of product and licensing revenue	\$ 77.1	\$ 74.0	\$ 86.4	4.2%	(14.4)%
As a percentage of product and licensing revenue	11.3%	11.6%	12.9%		

Fiscal Year 2018 Compared with Fiscal Year 2017

The increase in cost of product and licensing revenue was due to higher costs related to our clinical documentation and diagnostic solutions. Gross margins increased by 0.3 percentage points, or essentially flat year-over-year.

Fiscal Year 2017 Compared to Fiscal Year 2016

The decrease in cost of product and licensing revenue was driven by lower costs related to Dragon medical and Dragon consumer perpetual licenses, as well as our MFP solutions. Gross margins increased by 1.3 percentage points, due to a favorable shift in revenue mix towards higher margin products Healthcare and Imaging.

Cost of Maintenance and Support Revenue

Cost of maintenance and support revenue primarily consists of compensation for product support personnel and overhead. The following table shows cost of maintenance and support revenue, in dollars and as a percentage of maintenance and support revenue (dollars in millions):

	Fiscal Year 2018	Fiscal Year 2017	Fiscal Year 2016	% Change 2018 vs. 2017	% Change 2017 vs. 2016
Cost of maintenance and support revenue	\$ 58.1	\$ 54.1	\$ 54.1	7.4%	—%
As a percentage of maintenance and support revenue	18.3%	16.5%	16.7%		

Fiscal Year 2018 Compared with Fiscal Year 2017

Cost of maintenance and support revenue increased by \$4.0 million, or 7.4%, primarily driven by higher compensation costs in Imaging. Gross margins decreased by 1.8 percentage points primarily due to lower margin on Dragon Medical software maintenance and support services in Healthcare.

Fiscal Year 2017 Compared with Fiscal Year 2016

Cost and the gross margin of maintenance and support revenue remained essentially flat during fiscal year 2017.

Research and Development Expenses

Research and development ("R&D") expenses primarily consist of salaries, benefits, and overhead relating to engineering staff as well as third party engineering costs. The following table shows research and development expense, in dollars and as a percentage of total revenues (dollars in millions):

	Fiscal Year 2018	Fiscal Year 2017	Fiscal Year 2016	% Change 2018 vs. 2017	% Change 2017 vs. 2016
Research and development expense	\$ 305.3	\$ 266.1	\$ 271.1	14.7%	(1.8)%
As a percentage of total revenues	14.9%	13.7%	13.9%		

Fiscal Year 2018 Compared with Fiscal Year 2017

R&D expense increased by \$39.2 million, primarily due to higher compensation expenses as we continue to invest in product innovation and new technologies to support our long-term growth.

Fiscal Year 2017 Compared with Fiscal Year 2016

R&D expense decreased by \$5.0 million, primarily due to our continued cost-savings initiatives to reduce headcount and move R&D activities to lower-cost locations, offset in part by higher compensation expenses in our Enterprise segment due to acquisitions.

Sales and Marketing Expenses

Sales and marketing expenses include salaries and benefits, commissions, advertising, direct mail, public relations, tradeshow costs and other costs of marketing programs, travel expenses associated with our sales organization and overhead. The following table shows sales and marketing expense, in dollars and as a percentage of total revenues (dollars in millions):

	Fiscal Year 2018	Fiscal Year 2017	Fiscal Year 2016	% Change 2018 vs. 2017	% Change 2017 vs. 2016
Sales and marketing expense	\$ 388.3	\$ 398.1	\$ 390.9	(2.5)%	1.8%
As a percentage of total revenues	18.9%	20.5%	20.1%		

Fiscal Year 2018 Compared with Fiscal Year 2017

The decrease in sales and marketing expense was primarily driven by lower commission expenses due to recent changes in our commission plans.

Fiscal Year 2017 Compared with Fiscal Year 2016

The increase in sales and marketing expense was primarily due to higher compensation and commission expenses on increased headcount in our Enterprise segment, offset in part by lower marketing spend in our Healthcare segment.

General and Administrative Expenses

General and administrative expenses primarily consist of personnel costs for administration, finance, human resources, general management, fees for external professional advisers including accountants and attorneys, and provisions for doubtful accounts. The following table shows general and administrative expense, in dollars and as a percentage of total revenues (dollars in millions):

	Fiscal Year 2018	Fiscal Year 2017	Fiscal Year 2016	% Change 2018 vs. 2017	% Change 2017 vs. 2016
General and administrative expense	\$ 229.8	\$ 166.7	\$ 168.5	37.9%	(1.1)%
As a percentage of total revenues	11.2%	8.6%	8.6%		

Fiscal Year 2018 Compared with Fiscal Year 2017

General and administrative expense increased by \$63.1 million primarily due to professional services fees related to evaluating strategic alternatives for certain businesses, establishing the Automotive business as a separate operating segment, and legal expenses related to enforcing our intellectual property rights.

Fiscal Year 2017 Compared with Fiscal Year 2016

General and administrative expense decreased by \$1.8 million as the effect of higher administrative headcount was more than offset by lower stock-based compensation and lower professional fees related to identifying and evaluating strategic initiatives.

Amortization of Intangible Assets

Amortization of acquired patents and core technology are included within cost of revenues whereas the amortization of other intangible assets, such as acquired customer relationships, trade names and trademarks, are included within operating expenses. Customer relationships are amortized on an accelerated basis based upon the pattern in which the economic benefits of the customer relationships are being realized. Other identifiable intangible assets are amortized on a straight-line basis over their estimated useful lives. Amortization expense was recorded as follows (dollars in millions):

	Fiscal Year 2018	Fiscal Year 2017	Fiscal Year 2016	% Change 2018 vs. 2017	% Change 2017 vs. 2016
Cost of revenues	\$ 56.9	\$ 64.9	\$ 62.9	(12.3)%	3.2%
Operating expense	91.1	113.9	108.0	(20.0)%	5.5%
Total amortization expense	\$ 148.0	\$ 178.7	\$ 170.9	(17.2)%	4.6%
As a percentage of total revenues	7.2%	9.2%	8.8%		

Fiscal Year 2018 Compared with Fiscal Year 2017

Amortization of intangible assets expense for fiscal year 2018 decreased by \$30.8 million from \$178.7 million for fiscal year 2017, as certain intangible assets became fully amortized in fiscal years 2017 and 2018.

Fiscal Year 2017 Compared with Fiscal Year 2016

Amortization of intangible assets expense for fiscal year 2017 increased by \$7.9 million from \$170.9 million for fiscal year 2016. The increase was primarily due to the amortization of customer relationship assets acquired in acquisitions.

Acquisition-Related Costs, Net

Acquisition-related costs include costs related to business and other acquisitions, including potential acquisitions. These costs consist of (i) transition and integration costs, including retention payments, transitional employee costs, earn-out payments, and other costs related to integration activities; (ii) professional service fees, including financial advisory, legal, accounting, and other outside services incurred in connection with acquisition activities, and disputes and regulatory matters related to acquired entities; and (iii) fair value adjustments to acquisition-related contingencies. A summary of the acquisition-related costs is as follows (dollars in millions):

	<u>Fiscal Year 2018</u>	<u>Fiscal Year 2017</u>	<u>Fiscal Year 2016</u>	<u>% Change 2018 vs. 2017</u>	<u>% Change 2017 vs. 2016</u>
Transition and integration costs	\$ 16.1	\$ 15.2	\$ 6.1	5.9 %	149.2 %
Professional service fees	3.5	12.6	10.9	(72.2)%	15.6 %
Acquisition-related adjustments	(3.4)	(0.1)	0.2	3,300.0 %	(150.0)%
Total Acquisition-related costs, net	<u>\$ 16.1</u>	<u>\$ 27.7</u>	<u>\$ 17.2</u>	<u>(41.9)%</u>	<u>61.0 %</u>
As a percentage of total revenue	<u>0.8%</u>	<u>1.4%</u>	<u>0.9%</u>		

Fiscal Year 2018 Compared with Fiscal Year 2017

Acquisition-related costs, net for fiscal year 2018 decreased by \$11.6 million , primarily due to reduced acquisition activities during fiscal year 2018.

Fiscal Year 2017 Compared with Fiscal Year 2016

Acquisition-related costs, net for fiscal year 2017 increased by \$10.5 million primarily due to higher contingent retention payments related to acquisitions, which is included within transition and integration costs.

Restructuring and Other Charges, Net

While restructuring and other charges, net are excluded from our calculation of segment profit, the table below presents the restructuring and other charges, net associated with each segment (dollars in thousands):

	Personnel	Facilities	Total Restructuring Expenses	Other Charges	Total
Fiscal Year 2018					
Healthcare	\$ 11,563	\$ 25	\$ 11,588	\$ —	\$ 11,588
Enterprise	4,217	2,243	6,460	—	6,460
Automotive	4,160	20	4,180	—	4,180
Imaging	5,304	1,168	6,472	—	6,472
Other	1,473	647	2,120	7,103	9,223
Corporate	10,107	953	11,060	14,515	25,575
Total fiscal year 2018	\$ 36,824	\$ 5,056	\$ 41,880	\$ 21,618	\$ 63,498
Fiscal Year 2017					
Healthcare	\$ 4,283	\$ 870	\$ 5,153	\$ 8,758	\$ 13,911
Enterprise	2,141	3,480	5,621	—	5,621
Automotive	1,838	—	1,838	—	1,838
Imaging	744	387	1,131	—	1,131
Other	2,954	(15)	2,939	10,773	13,712
Corporate	1,337	2,013	3,350	21,491	24,841
Total fiscal year 2017	\$ 13,297	\$ 6,735	\$ 20,032	\$ 41,022	\$ 61,054
Fiscal Year 2016					
Healthcare	\$ 3,531	\$ 1,398	\$ 4,929	\$ —	\$ 4,929
Enterprise	1,214	2,782	3,996	—	3,996
Automotive	1,967	—	1,967	—	1,967
Imaging	284	478	762	—	762
Other	3,870	1,557	5,427	(486)	4,941
Corporate	2,267	5,391	7,658	971	8,629
Total fiscal year 2016	\$ 13,133	\$ 11,606	\$ 24,739	\$ 485	\$ 25,224

Fiscal Year 2018

For fiscal year 2018, we recorded restructuring charges of \$41.9 million, which included \$36.8 million related to the termination of approximately 1,495 employees and \$5.1 million charge related to certain excess facilities, including adjustment to sublease assumptions associated with these facilities. These actions were part of our strategic initiatives focused on investment rationalization, process optimization and cost reduction. We expect the remaining outstanding severance of \$10.6 million to be substantially paid by the end of the first quarter of fiscal year 2019, and the remaining of \$7.6 million for the excess facilities to be made through fiscal year 2027, in accordance with the terms of the applicable leases.

Additionally, during fiscal year 2018, we recorded \$5.7 million for costs related to the transition agreement of our former CEO, \$4.8 million professional services fees related to assessment and establishment of our corporate transformational efforts, \$4.0 million related to our remediation and restoration effort after the 2017 Malware Incident, and fixed asset impairment charges of \$7.1 million for SRS and Devices, as more fully described in Note 4. The cash payments associated with the CEO transition agreement are expected to be made through fiscal year 2020.

Fiscal Year 2017

For fiscal year 2017, we recorded restructuring charges of \$20.0 million, which included \$13.3 million related to the termination of approximately 807 terminated employees and \$6.7 million charge related to certain excess facilities, including adjustment to sublease assumptions associated with these facilities. These actions were part of our initiatives to reduce costs and optimize processes.

[Table of Contents](#)

Additionally, during fiscal year 2017, we recorded \$8.1 million for costs related to the transition agreement of our former CEO, \$18.1 million of professional services fees and \$4.0 million of fixed asset and inventory write-down as a result of the Malware Incident, and an impairment charge of \$10.8 million related to an internally developed software.

Fiscal Year 2016

For fiscal year 2016, we recorded restructuring charges of \$24.7 million, which included \$13.1 million related to the termination of approximately 452 employees as part of our initiatives to reduce costs and optimize processes, and \$11.6 million charge related to certain excess facility space, including adjustment to sublease assumptions associated with these facilities.

Additionally, during fiscal year 2016, we recorded certain other charges that totaled \$0.5 million for litigation contingency reserves.

Impairment of Goodwill and Other Intangible Assets

As more fully described in Note 4 of the accompanying consolidated financial statements, we recorded \$170.9 million impairment charges of goodwill and other intangible assets for Devices and SRS for fiscal year 2018.

Other Expenses, net

Other expenses, net consists primarily of interest income, interest expense, foreign exchange gains (losses), and net gain (loss) from other non-operating activities. A summary of Other expenses, net is as follows (dollars in millions):

	Fiscal Year 2018	Fiscal Year 2017	Fiscal Year 2016	% Change 2018 vs. 2017	% Change 2017 vs. 2016
Interest income	\$ 9.3	\$ 6.9	\$ 4.4	34.7%	56.0%
Interest expense	(137.3)	(156.9)	(132.7)	(12.5)%	18.2%
Other expense, net	(1.9)	(21.0)	(8.5)	(91.1)%	147.6%
Total other expenses, net	<u>\$ (129.8)</u>	<u>\$ (171.0)</u>	<u>\$ (136.8)</u>		

Fiscal Year 2018 Compared with Fiscal Year 2017

Interest expense decreased by \$19.6 million primarily due to the repurchase of \$331.2 million outstanding 2.75% convertible debentures in November 2017. Other expense, net decreased by \$19.2 million primarily due to an \$18.6 million loss on extinguishment of debt resulting from the repurchase of our 2020 Senior Notes in fiscal year 2017.

Fiscal Year 2017 Compared with Fiscal Year 2016

Interest expense increased by \$24.2 million primarily driven by the issuance of the 2026 Senior Notes and the 2025 Convertible Debenture, offset in part by the repurchase of \$600 million principal of our 2020 Senior Notes in fiscal year 2017. Other expense, net increased by \$12.5 million primarily due to an \$18.6 million loss on extinguishment of debt resulting from the repurchase of our 2020 Senior Notes discussed above, offset in part by extinguishment losses of \$4.9 million recorded in fiscal year 2016.

Provision for Income Taxes

The following table shows the provision for income taxes and the effective income tax rate (dollars in millions):

	Fiscal Year 2018	Fiscal Year 2017	Fiscal Year 2016	% Change 2018 vs. 2017	% Change 2017 vs. 2016
(Benefit) Provision for income taxes	\$ (56.8)	\$ 32.0	\$ 14.2	(277.6)%	125.3%
Effective income tax rate	<u>26.2%</u>	<u>(26.9)%</u>	<u>816.4%</u>		

Fiscal Year 2018 Compared with Fiscal Year 2017

Our effective income tax rate was 26.2% in fiscal year 2018, compared to (26.9)% in fiscal year 2017. The effective tax rate of 26.2% in fiscal year 2018 differed from the U.S. statutory rate, primarily due to the net tax benefits resulting from the Tax Cuts and Jobs Act ("TCJA") remeasurement of deferred tax assets and liabilities at the lower enacted rate, and our foreign earnings being subject to lower tax rates, offset in part by additional valuation allowance related to current period losses, the tax effect of goodwill impairment charges that are not deductible, and the provision for the deemed repatriation of foreign cash and earnings. The effective tax rate of (26.9)% in fiscal year 2017 differed from the U.S. statutory rate, primarily due to additional valuation

allowance related to current period losses in the United States and an increase in deferred tax liabilities related to goodwill, partially offset by our earnings in foreign operations that are subject to significantly lower tax rates than U.S. statutory tax rate.

Provision for income taxes decreased by \$88.8 million in fiscal year 2018, primarily due to the lower valuation allowance provided related to the losses incurred for the current fiscal year, the net tax benefits resulting from the TCJA remeasurement of deferred tax assets and liabilities at the lower enacted rate, offset in part by the tax effect of goodwill impairment charges that are not deductible, and the provision for the deemed repatriation of foreign cash and earnings.

Fiscal Year 2017 Compared with Fiscal Year 2016

Our effective income tax rate was (26.9)% in fiscal year 2017, compared to 816.4% in fiscal year 2016. The effective tax rate of (26.9)% in fiscal year 2017 differed from the U.S. statutory rate, primarily due to additional valuation allowance related to current period losses in the United States and an increase in deferred tax liabilities related to goodwill, partially offset by our earnings in foreign operations that are subject to significantly lower tax rates than U.S. statutory tax rate. The effective income tax rates in fiscal year 2016 differs from the U.S. federal statutory rate of 35% primarily due to additional valuation allowance related to current period losses in the United States, an increase in the deferred tax liabilities related to goodwill, and an increase in current tax provisions due to the one-time repatriation of foreign earnings offset by the utilization of previously unbenefited domestic loss and credit carryforwards. These were offset in part by our foreign earnings subject to significantly lower tax rates, and a \$22.1 million release of domestic valuation allowance as a result of tax benefits recorded in connection with our acquisitions during the period for which a deferred tax liability was established in purchase accounting.

Provision for income taxes increased by \$17.8 million in fiscal year 2017 as compared to fiscal year 2016, primarily due to the additional valuation allowance provided related to the losses incurred for the current fiscal year and an increase in deferred tax liabilities related to goodwill in fiscal year 2017, offset in part by the effect of one-time repatriated foreign earnings in fiscal year 2016.

SEGMENT ANALYSIS

During the first quarter of fiscal year 2018, we commenced a review of our segment reporting structure to better align our Chief Operating Decision Maker's ("CODM") long-term strategic focus with our organizational structure. During the second quarter of fiscal year 2018, we implemented a number organizational changes to align our segment reporting structure with our long-term strategic focuses, including (i) establishing our Automotive business as a separate operating segment, (ii) moving our Dragon TV business from our former Mobile operating segment into our Enterprise operating segment to consolidate our telecommunications market resources, and (iii) establishing an Other segment that includes our SRS and Devices businesses, previously reported within our former Mobile operating segment. As a result, segment information for fiscal years 2018, 2017 and 2016 has been recast to reflect the new segment reporting structure.

[Table of Contents](#)

For further details of financial information about our operating segments, see Note 20 to the accompanying consolidated financial statements included in Item 8 of this Annual Report on Form 10-K. The following table presents certain financial information about our operating segments (dollars in millions).

	Fiscal Year 2018	Fiscal Year 2017	Fiscal Year 2016	% Change 2018 vs. 2017	% Change 2017 vs. 2016
Segment Revenues					
Healthcare	\$ 984.8	\$ 899.3	\$ 973.3	9.5 %	(7.6)%
Enterprise	483.2	474.3	396.0	1.9 %	19.8 %
Automotive	279.4	252.2	214.3	10.8 %	17.7 %
Imaging	212.9	217.7	241.6	(2.2)%	(9.9)%
Other	109.1	133.8	154.4	(18.5)%	(13.4)%
Total segment revenues	2,069.4	1,977.4	1,979.6	4.7 %	(0.1)%
Less: acquisition related revenue adjustments ^(a)	(17.7)	(38.0)	(30.7)	(53.4)%	23.9 %
Total revenues	\$ 2,051.7	\$ 1,939.4	\$ 1,948.9	5.8 %	(0.5)%
Segment Profit					
Healthcare	\$ 331.4	\$ 262.1	\$ 313.5	26.4 %	(16.4)%
Enterprise	142.4	135.6	129.3	5.0 %	4.9 %
Automotive	109.9	118.9	95.7	(7.6)%	24.3 %
Imaging	67.4	79.5	100.8	(15.2)%	(21.1)%
Other	28.4	41.6	38.4	(31.6)%	8.2 %
Total segment profit	\$ 679.5	\$ 637.7	\$ 677.6	6.5 %	(5.9)%
Segment Profit Margin					
Healthcare	33.6%	29.1%	32.2%	4.5	(3.1)
Enterprise	29.5%	28.6%	32.6%	0.9	(4.0)
Automotive	39.3%	47.1%	44.6%	(7.8)	2.5
Imaging	31.7%	36.5%	41.7%	(4.8)	(5.2)
Other	26.1%	31.1%	24.9%	(5.0)	6.2
Total segment profit margin	32.8%	32.3%	34.2%	0.5	(1.9)

^(a) Segment revenues differ from reported revenues due to certain revenue adjustments related to acquisitions that would otherwise have been recognized but for the purchase accounting treatment of the business combinations. These revenues are included to allow for more complete comparisons to the financial results of historical operations and in evaluating management performance.

Segment Revenues

Fiscal Year 2018 Compared with Fiscal Year 2017

- Healthcare segment revenues increased by \$85.5 million during fiscal year 2018 as the segment recovered from the 2017 Malware Incident throughout the year, as well as the continued market penetration and growth of our Dragon Medical cloud-based solutions and higher revenue from EHR implementation and optimization services, offset in part by the continued erosion of our transcription services.
- Enterprise segment revenues increased by \$8.9 million during fiscal year 2018 primarily due to higher contact center license and services revenue, offset in part by lower revenue from our inbound and outbound on-demand solutions.
- Automotive segment revenues increased by \$27.2 million during fiscal year 2018 primarily due to higher royalties and revenues from our hosting solutions driven by continued growth in our ASR and infotainment platform services.
- Imaging segment revenues decreased by \$4.8 million during fiscal year 2018 primarily due to lower revenue from our scanning and print management solutions, offset in part by higher revenue from our core Imaging solutions due to new product launch.
- Other segment revenue decreased by \$24.7 million primarily due to the accelerated declines in both SRS and Devices businesses during fiscal year 2018. The decline in SRS was primarily due to the recent market disruptions in India and Brazil. These markets have experienced a dramatic recent disruption as a result of accelerated change in competition and business models for our SRS mobile operator customers, which has reduced demand for our services. The decline in our Devices business was

primarily due to the ongoing consolidation of our handset manufacturer customer base, as well as continued erosion of our penetration of the remaining market.

As more fully described in Note 4 to the accompanying consolidated financial statements, during the fourth quarter of fiscal 2018, in connection with our comprehensive portfolio and business review efforts, we commenced a wind-down of our Devices and Mobile Operator Services businesses.

Fiscal Year 2017 Compared with Fiscal Year 2016

- Healthcare segment revenues decreased by \$74.0 million during fiscal year 2017 primarily due to decreases in hosting revenue and product and licensing revenue. Hosting revenue decreased by \$58.2 million primarily due to the negative impact of the 2017 Malware Incident throughout the year, and the continued erosion of the transcription services, offset in part by the positive effect of customers' transition to cloud-based offerings. Product and licensing revenue decreased by \$17.9 million primarily as a result of lower revenues from our licensed Dragon Medical product sales as we transition from product licensing to subscription and cloud-based offerings. We estimated the revenue impact of the Malware Incident due to the service interruption to be approximately \$65 million for fiscal year 2017.
- Enterprise segment revenues increased by \$78.3 million during fiscal year 2017 primarily due to the incremental revenue from recent acquisitions, increases in our omni-channel cloud offerings, and the continued strength in our on-premise and on-demand service portfolios.
- Automotive segment revenues increased by \$37.9 million during fiscal year 2017 primarily due to higher royalties and revenues from our hosting solutions driven by continued growth in our speech recognition and infotainment platform services.
- Imaging segment revenues decreased by \$23.8 million during fiscal year 2017 primarily due to the lower sales from our MFP solutions.
- Other segment revenues decreased by \$20.7 million during fiscal year 2017 primarily due to declines in both the SRS and Devices business.

Segment Profit

Fiscal Year 2018 Compared with Fiscal Year 2017

- Healthcare segment profit increased by \$69.2 million , or 26.4% , primarily due to higher segment revenue and higher gross margin. Healthcare operating results for fiscal year 2017 was negatively impacted by the 2017 Malware Incident. The gross margin for fiscal year 2018 reflected a favorable shift in revenue mix towards higher margin Dragon Medical cloud-based offerings, offset in part by the increase in EHR implementation and optimization services which carried lower margins. As a result, segment profit margin increased by 4.5 percentage points, to 33.6% for fiscal year 2018.
- Enterprise segment profit increased by \$6.8 million , or 5.0% , primarily due to higher segment revenue, offset in part by lower gross margin. The lower gross margin was primarily due to higher infrastructure costs and increased headcount to support future growth. As a result, segment profit margin increased by 0.9 percentage points to 29.5% for fiscal year 2018 from 28.6% for fiscal year 2017.
- Automotive segment profit decreased by \$9.0 million , or 7.6% , primarily due to lower gross margin and higher R&D expenses, offset in part by higher revenue. The lower gross margin was primarily driven by increased professional services headcount to support implementation of our connected solutions across existing and new customer base. The higher R&D expense was primarily driven by our increased investment in new technologies. As a result, segment profit margin decreased by 7.8 percentage points to 39.3% for fiscal year 2018 from 47.1% for fiscal year 2017.
- Imaging segment profit decreased by \$12.1 million , or 15.2% , primarily due to lower segment revenue, lower gross margin, and higher operating expenses. Gross margin declined as a result of an unfavorable shift in revenue mix from higher margin software revenue to lower margin hardware revenue. Operating expenses increased primarily due to higher sales and marketing expenses to support new products and solutions, and drive greater market penetration. As a result, segment profit margin decreased by 4.8 percentage points to 31.7% for fiscal year 2018 from 36.5% for fiscal year 2017.
- Other segment profit decreased by \$13.2 million , or 31.6% , primarily due to lower revenue and the margin compression in SRS and Devices. Segment profit margin declined primarily due to lower revenues and relatively fixed costs and expenses

structure. As more fully described in Note 4 to the accompanying consolidated financial statements, during the fourth quarter of fiscal 2018, in connection with our comprehensive portfolio and business review efforts, we commenced a wind-down of our Devices and Mobile Operator Services businesses.

Fiscal Year 2017 Compared with Fiscal Year 2016

- Healthcare segment profit decreased by \$51.3 million, or 16.4%, primarily due to lower segment revenue and lower gross margin as a result of the negative impact of the 2017 Malware Incident and the continued erosion of the transcription services, offset in part by the positive effect of customers' transition to cloud based offerings. Segment profit margin decreased by 3.1 percentage points, to 29.1% for fiscal year 2017 from 32.2% for fiscal year 2016, primarily due to lower gross margin.
- Enterprise segment profit increased by \$6.4 million, or 4.9%, primarily due to higher segment revenue, offset in part by lower gross margin and higher R&D expenses. Gross margin was lower as our recently acquired entities carried lower gross margins. R&D expenses increased as a result of increased R&D headcount due to recent acquisitions. Segment profit margin decreased by 4.0 percentage points to 28.6% for fiscal year 2017 from 32.6% for fiscal year 2016, primarily due to lower gross margin and higher operating expenses margin.
- Automotive segment profit increased by \$23.2 million, or 24.3%, primarily due to higher revenues and gross margin. The gross margin improvement was primarily due to a favorable shift to higher margin cloud-based and licensing offerings. Segment profit margin increased by 2.5 percentage points to 47.1% for fiscal year 2017 from 44.6% for fiscal year 2016, primarily due to higher gross margin and lower operating expense margin as the segment continued to benefit from our costs savings and process optimization initiatives.
- Imaging segment profit decreased by \$21.3 million, or 21.1%, primarily due to lower segment revenue. Segment profit margin decreased by 5.2 percentage points to 36.5% during fiscal year 2017 from 41.7% during fiscal year 2016, primarily due to relatively flat operating expenses on lower revenues.
- Other segment profit increased by \$3.1 million, or 8.2%, primarily due to higher gross margin, offset in part by lower revenue. Higher gross margin was primarily driven by the timing of product and licensing revenue. Segment profit margin increased by 6.2 percentage points to 31.1% during fiscal year 2017 from 24.9% during fiscal year 2016.

LIQUIDITY AND CAPITAL RESOURCES

Liquidity

We had cash and cash equivalents and marketable securities of \$473.5 million as of September 30, 2018, a decrease of \$400.6 million from \$874.1 million as of September 30, 2017. Our working capital, as defined by total current assets less total current liabilities, was \$164.5 million as of September 30, 2018, compared to \$216.4 million as of September 30, 2017. Additionally, we had availability of \$242.5 million under our revolving credit facility as of September 30, 2018. We believe that our existing sources of liquidity are sufficient to support our operating needs, capital requirements and any debt service requirements for the next twelve months.

Cash and cash equivalents and marketable securities held by our international operations totaled \$112.8 million as of September 30, 2018 and \$148.6 million as of September 30, 2017. We utilize a variety of financing strategies to ensure that our worldwide cash is available to meet our liquidity needs. We expect the cash held overseas to be permanently invested in our international operations, and our U.S. operation to be funded through its own operating cash flows, cash and marketable securities within the U.S., and if necessary, borrowing under our revolving credit facility.

Corporate Transformation Program and Strategic Business Review

During the third quarter of fiscal year 2018, we commenced a strategic and operational review of our business with the goal of improving our focuses on leveraging our core strengths in key vertical markets and sustaining our long-term growth and profitability.

In connection with the business review, we commenced a wind-down of our Mobile Operator Services and Devices businesses during the fourth quarter of fiscal year 2018. On November 11, 2018, we entered into a definitive stock purchase agreement, pursuant to which we agreed to sell our Imaging business and associated assets for a total cash consideration of approximately \$400 million. The transaction, which is subject to regulatory review and other customary closing conditions, is expected to close by the end of the second quarter of fiscal year 2019. Additionally, on November 19, 2018, we announced our intent to spin off our Automotive business into an independent publicly-traded company through a pro rata distribution to our common stock holders. Completion of the proposed spin-off is subject to certain conditions, including final approval by our Board of Directors. We are targeting to complete the separation of the business by the end of fiscal year 2019.

We expect to spend \$50 million to \$75 million to effect the separation and stand-up of the businesses in fiscal year 2019. In addition, as part of the transformation initiatives, we incurred approximately \$4.8 million expense related to the assessment of operational efficiency and the establishment of the program during fiscal year 2018. We expect to incur \$60 million to \$70 million of restructuring related expenditures in fiscal year 2019.

Cash provided by operating activities

Fiscal Year 2018 Compared with Fiscal Year 2017

Cash provided by operating activities for fiscal year 2018 was \$444.4 million, an increase of \$65.6 million, or 17%, from \$378.9 million for fiscal year 2017. The net increase was primarily due to:

- An increase of \$25.0 million driven by favorable changes in working capital, primarily due to the timing of billing and collections; and
- An increase in cash inflows of \$39.3 million from deferred revenue. Deferred revenue contributed cash inflow of \$86.2 million in fiscal year 2018, as compared to \$46.9 million in fiscal year 2017, primarily driven by continued growth of our Automotive connected solutions and Healthcare bundled offerings.

Fiscal Year 2017 Compared to Fiscal Year 2016

Cash provided by operating activities for fiscal year 2017 was \$378.9 million, a decrease of \$186.9 million, or 33%, from \$565.8 million for fiscal year 2016. The net decrease was primarily due to:

- A decrease of \$77.1 million in cash flows resulting from a higher net loss, exclusive of non-cash adjustment items;
- A decrease of \$95.0 million in cash flows resulting from unfavorable changes in working capital, excluding deferred revenue; and
- A decrease in cash inflows of \$14.9 million from deferred revenue. Deferred revenue contributed cash inflow of \$46.9 million in fiscal year 2017, as compared to \$61.7 million in fiscal year 2016. The deferred revenue growth in fiscal year 2017 was driven primarily by our hosting solutions in automotive connected services within our Mobile segment and bundled offerings within our Healthcare segment.

Cash used in investing activities

Fiscal Year 2018 Compared with Fiscal Year 2017

Cash used in investing activities for fiscal year 2018 was \$37.3 million, a decrease of \$296.9 million, or 89%, from \$334.2 million for fiscal year 2017. The net decrease was primarily due to:

- An increase of \$280.3 million in net proceeds from the sale and purchase of marketable securities and other investments; and
- A decrease of \$13.0 million in capital expenditures.

Fiscal Year 2017 Compared to Fiscal Year 2016

Cash used in investing activities for fiscal year 2017 was \$334.2 million, an increase of \$71.2 million, or 27%, from \$263.0 million for fiscal year 2016. The net increase was primarily due to:

[Table of Contents](#)

- An increase in cash outflows of \$214.8 million for payments of marketable securities and other investments, offset in part by;
- An increase in cash inflows of \$91.6 million for proceeds from marketable securities and other investment; and
- A decrease in cash outflows of \$59.0 million for business and technology acquisitions.

Cash (used in) provided by financing activities

Fiscal Year 2018 Compared with Fiscal Year 2017

Cash used by financing activities for fiscal year 2018 was \$680.3 million, an increase of \$747.4 million, or 1,115%, from cash provided by financing activities of \$67.1 million for fiscal year 2017. The net increase was primarily due to:

- A decrease in cash inflows of \$837.5 million from debt issuance. During fiscal year 2017, the cash inflows from debt activities includes \$495.0 million net proceeds from the issuance of 5.625% Senior Notes due 2026; and \$343.6 million net proceeds from the issuance of our 1.25% 2025 Convertible Debentures;
- An increase in cash outflows of \$37.0 million related to share repurchases. During fiscal year 2018 and 2017, we repurchased 9.7 million shares and 5.8 million shares for \$136.1 million and \$99.1 million, respectively; and
- An increase in cash outflows of \$24.8 million related to acquisition payments with extended payment terms, offset in part by,
- A decrease in cash outflows of \$152.9 million from the redemption and repayment of debt. During fiscal year 2018, holders of approximately \$331.2 million in aggregate principal amount of the 2.75% 2031 Debentures exercised their right to require us to repurchase such debentures, and we repurchased \$150.0 million in aggregate principal amount of our 2020 Senior Notes. During fiscal year 2017, we repurchased \$600.0 million in aggregate principal amount of our 2020 Senior Notes and \$17.8 million in aggregate principal amount of our 2031 Convertible Debentures.

Fiscal Year 2017 Compared to Fiscal Year 2016

Cash used in financing activities for fiscal year 2017 was \$67.1 million, an increase of \$372.2 million, or 122%, from cash used in financing activities of \$305.1 million for fiscal year 2016. The net increase was primarily due to:

- A decrease in cash outflows of \$600.4 million related to share repurchases. We repurchased 5.8 million shares of our common stock for \$99.1 million in fiscal year 2017 as compared to 9.4 million shares repurchased under our share repurchase program and 26.3 million shares repurchased from the Icahn Group for total cash outflow of \$699.5 million in fiscal year 2016;
- A decrease in net cash inflows of \$244.1 million from debt activities. The fiscal year 2017 activity included approximately \$495.0 million net proceeds from the issuance of our 2026 Senior Notes, approximately \$343.6 million net proceeds from the issuance of our 1.25% 2025 Debentures, offset by the repurchases of \$600.0 million in aggregate principal of our 2020 Senior Notes and \$17.8 million in aggregate principal of our 2031 Convertible Debentures. The fiscal year 2016 activity included proceeds of \$663.8 million, net of issuance costs, from the issuance of our 1.0% 2035 Debentures offset by the repurchase of \$38.3 million in aggregate principal on our 2.75% Senior Convertible Debentures due in 2031 and repayment of \$472.5 million on our term loan under the amended and restated credit agreement; and
- An increase in cash outflows of \$14.5 million as a result of higher cash payments required to net share settle employee equity awards due to the increase in the intrinsic value of shares vested during fiscal year 2017 as compared to fiscal year 2016.

Debt

For a detailed description of the terms and restrictions of the debt and revolving credit facility, see Note 9 to the accompanying consolidated financial statements.

We expect to incur cash interest payment on outstanding debt of \$78.8 million in fiscal year 2019, based on the outstanding balance as of September 30, 2018 and the holders' right of redemption discussed above. We expect to fund our debt service requirements through existing sources of liquidity and our operating cash flows.

Share Repurchases

On April 29, 2013, our Board of Directors approved a share repurchase program for up to \$500.0 million, which was increased by \$500.0 million on April 29, 2015. On August 1, 2018, our Board of Directors approved additional \$500.0 million under our share repurchase program. Under the terms of the share repurchase program, we have the ability to repurchase shares through a variety of methods, which may include open market purchases, privately negotiated transactions, block trades, accelerated

[Table of Contents](#)

stock repurchase transactions, or any combination of such methods. The share repurchase program does not require us to acquire any specific number of shares and may be modified, suspended, extended or terminated by us at any time without prior notice. The timing and the amount of any purchases will be determined by management based on an evaluation of market conditions, capital allocation alternatives, and other factors.

We spent \$136.1 million, \$99.1 million and \$197.5 million on share repurchases during the fiscal years 2018, 2017 and 2016, respectively. Approximately \$557.3 million remained available for share repurchases as of September 30, 2018 pursuant to our share repurchase program.

Off-Balance Sheet Arrangements, Contractual Obligations, Contingent Liabilities and Commitments

Contractual Obligations

The following table outlines our contractual payment obligations as of September 30, 2018 (dollars in millions):

Contractual Obligations	Payments Due by Fiscal Year Ended September 30,				
	Total	2019	2020 and 2021	2022 and 2023	Thereafter
Convertible Debentures ⁽¹⁾	\$ 1,337.0	\$ —	\$ —	\$ 987.0	\$ 350.0
Senior Notes	1,100.0	—	300.0	—	800.0
Interest payable on long-term debt ⁽²⁾	458.7	78.8	141.0	113.8	125.1
Letter of Credit ⁽³⁾	6.9	6.8	0.1	—	—
Lease obligations and other liabilities:					
Operating leases	165.0	29.1	39.5	32.0	64.4
Operating leases under restructuring ⁽⁴⁾	60.9	10.1	17.9	17.2	15.7
Purchase commitments for inventory, property and equipment ⁽⁵⁾	32.6	8.0	13.8	10.8	—
Total contractual cash obligations	\$ 3,161.1	\$ 132.8	\$ 512.3	\$ 1,160.8	\$ 1,355.2

⁽¹⁾ Pursuant to the terms of each convertible instrument, holders have the right to redeem the debt on specific dates prior to maturity. The repayment schedule above assumes that payment is due on the next redemption date after September 30, 2018.

⁽²⁾ Interest per annum is due and payable semi-annually and is determined based on the outstanding principal as of September 30, 2018, the stated interest rate of each debt instrument and the assumed redemption dates discussed above.

⁽³⁾ Letters of Credit are in place primarily to secure future operating lease payments.

⁽⁴⁾ Obligations include contractual lease commitments related to facilities that were part of restructuring plans. As of September 30, 2018, we have subleased certain of the facilities with total sublease income of \$42.8 million through fiscal year 2027.

⁽⁵⁾ These amounts include non-cancelable purchase commitments for property and equipment as well as inventory in the normal course of business to fulfill customer backlog.

The summary above does not include unrecognized tax benefits of \$30.4 million and the one-time mandatory repatriation tax of \$5.8 million as of September 30, 2018. We do not expect a significant change in the amount of unrecognized tax benefits within the next 12 months. We estimate that none of this amount will be paid within the next year and we are currently unable to reasonably estimate the timing of payments for the remainder of the liability.

Contingent Liabilities and Commitments

Certain acquisition payments to selling stockholders were contingent upon the achievement of pre-determined performance targets over a period of time after the acquisition. Such contingent payments were recorded at estimated fair values upon the acquisition and re-measured in subsequent reporting periods. As of September 30, 2018, we may be required to pay the selling stockholders up to \$12.4 million contingent upon achieving specified performance goals, including the achievement of future bookings and sales targets related to the products of the acquired entities. In addition, certain deferred compensation payments to selling stockholders contingent upon their continued employment after the acquisition were recorded as compensation expense over the requisite service period. Additionally, as of September 30, 2018, the remaining deferred payment obligations of \$19.9 million to certain former stockholders, which are contingent upon their continued employment, will be recognized ratably as compensation expense over the remaining requisite service periods.

Financial Instruments

We use financial instruments to manage our foreign exchange risk. We operate our business in countries throughout the world and transact business in various foreign currencies. Our foreign currency exposures typically arise from transactions denominated in currencies other than the functional currency of our operations. We have a program that primarily utilizes foreign currency forward contracts to offset the risks associated with the effect of certain foreign currency exposures. Our program is designed so that increases or decreases in our foreign currency exposures are offset by gains or losses on the foreign currency forward contracts in order to mitigate the risks and volatility associated with our foreign currency transactions. Generally, we enter into such contracts for less than 90 days and have no cash requirements until maturity. At September 30, 2018 and 2017, we had outstanding contracts with a total notional value of \$117.1 million and \$69.0 million, respectively.

Defined Benefit Plans

We sponsor certain defined benefit plans that are offered primarily by certain of our foreign subsidiaries. Many of these plans were assumed through our acquisitions or are required by local regulatory requirements. We may deposit funds for these plans with insurance companies, third party trustees, or into government-managed accounts consistent with local regulatory requirements, as applicable. Our total defined benefit plan pension expenses were \$0.3 million, \$0.4 million and \$0.1 million for fiscal years 2018, 2017 and 2016, respectively. The aggregate projected benefit obligation as of September 30, 2018 and September 30, 2017 was \$34.7 million and \$37.2 million, respectively. The aggregate net liability of our defined benefit plans as of September 30, 2018 and September 30, 2017 was \$11.1 million and \$13.2 million, respectively.

Off-Balance Sheet Arrangements

Through September 30, 2018, we have not entered into any off-balance sheet arrangements or material transactions with unconsolidated entities or other persons.

CRITICAL ACCOUNTING POLICIES, JUDGMENTS AND ESTIMATES

The preparation of financial statements in conformity with U.S. generally accepted accounting principles, requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, and the disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenue and expenses during the reporting period. On an ongoing basis, we evaluate our estimates, assumptions and judgments, including those related to revenue recognition; allowance for doubtful accounts and sales returns; accounting for deferred costs; accounting for internally developed software; the valuation of goodwill and intangible assets; accounting for business combinations, including contingent consideration; accounting for stock-based compensation; accounting for derivative instruments; accounting for income taxes and related valuation allowances; and loss contingencies. Our management bases its estimates on historical experience, market participant fair value considerations, projected future cash flows and various other factors that are believed to be reasonable under the circumstances. Actual results could differ from these estimates.

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

Revenue Recognition. We derive revenue from the following sources: (1) software license agreements, including royalty and other usage-based arrangements, (2) professional services, (3) hosting services and (4) post-contract customer support ("PCS"). Our hosting services are generally provided through on-demand, usage-based or per transaction fee arrangements. Our revenue recognition policies for these revenue streams are discussed below.

The sale and/or license of software solutions and technology is deemed to have occurred when a customer either has taken possession of or has access to take immediate possession of the software or technology. In select situations, we sell or license intellectual property in conjunction with, or in place of, embedding our intellectual property in software. We also have non-software arrangements including hosting services where the customer does not take possession of the software at the outset of the arrangement either because they have no contractual right to do so or because significant penalties preclude them from doing so. Generally, we recognize revenue when (i) persuasive evidence of an arrangement exists, (ii) delivery has occurred, (iii) the fee is fixed or determinable and (iv) collectibility is probable.

Revenue from royalties on sales of our software products by original equipment manufacturers ("OEMs"), where no services are included, is recognized in the quarter earned so long as we have been notified by the OEM that such royalties are due, and provided that all other revenue recognition criteria are met.

[Table of Contents](#)

Software arrangements generally include PCS, which includes telephone support and the right to receive unspecified upgrades/enhancements on a when-and-if-available basis, typically for one to five years. Revenue from PCS is recognized ratably on a straight-line basis over the term that the maintenance service is provided. When PCS renews automatically, we provide a reserve based on historical experience for contracts expected to be canceled for non-payment. All known and estimated cancellations are recorded as a reduction to revenue and accounts receivable.

For our software and software-related multiple element arrangements, where customers purchase both software related products and software related services, we use vendor-specific objective evidence ("VSOE") of fair value for software and software-related services to separate the elements and account for them separately. VSOE exists when a company can support the fair value of its software and/or software-related services based on evidence of the prices charged when the same elements are sold separately. For the undelivered elements, VSOE of fair value is required in order to separate the accounting for various elements in a software and related services arrangement. We have established VSOE of fair value for the majority of our PCS, professional services, and training.

When we provide professional services considered essential to the functionality of the software, we recognize revenue from the professional services as well as any related software licenses on a percentage-of-completion basis whereby the arrangement consideration is recognized as the services are performed, as measured by an observable input. In these circumstances, we separate license revenue from professional service revenue for income statement presentation by allocating VSOE of fair value of the professional services as professional services and hosting revenue and the residual portion as product and licensing revenue. We generally determine the percentage-of-completion by comparing the labor hours incurred to-date to the estimated total labor hours required to complete the project. We consider labor hours to be the most reliable, available measure of progress on these projects. Adjustments to estimates to complete are made in the periods in which facts resulting in a change become known. When the estimate indicates that a loss will be incurred, such loss is recorded in the period identified. Significant judgments and estimates are involved in determining the percent complete of each contract. Different assumptions could yield materially different results.

We offer some of our products via a Software-as-a-Service ("SaaS") model also known as a hosted model. In this type of arrangement, we are compensated in three ways: (1) fees for up-front setup of the service environment, (2) fees charged on a usage or per transaction basis, and (3) fees charged for on-demand service. Our up-front setup fees are nonrefundable. We recognize the up-front setup fees ratably over the longer of the contract lives, or the expected lives of the customer relationships. The usage-based or per transaction fees are due and payable as each individual transaction is processed through the hosting service and is recognized as revenue in the period the services are provided. The on-demand service fees are recognized ratably over our estimate of the useful life of devices on which the hosting service is provided.

We enter into multiple-element arrangements that may include a combination of our various software related and non-software related products and services offerings including software licenses, post contract support ("PCS"), professional services, and our hosting services. In such arrangements, we allocate total arrangement consideration to software or software-related elements and any non-software element separately based on the selling price hierarchy group following our policies. Where determined we determine the selling price for each deliverable using VSOE of selling price, if it exists, or Third Party Evidence ("TPE") of selling price. Typically, we are unable to determine TPE of selling price. Therefore, when neither VSOE nor TPE of selling price exist for a deliverable, we use our Estimate of Selling Price ("ESP") for the purposes of allocating the arrangement consideration. We determine ESP for a product or service by considering multiple factors including, but not limited to, major project groupings, market conditions, competitive landscape, price list and discounting practices. Revenue allocated to each element is then recognized when the basic revenue recognition criteria are met for each element.

When products are sold through distributors or resellers, title and risk of loss generally passes upon shipment, at which time the transaction is invoiced and the payment is due. Shipments to distributors and resellers without right of return are recognized as revenue upon shipment, provided all other revenue recognition criteria are met. Certain distributors and resellers have been granted rights of return for as long as the distributors or resellers hold the inventory. We cannot estimate historical returns from these distributors and resellers; and therefore, cannot use such estimates as the basis upon which to estimate future sales returns. As a result, we recognize revenue from sales to these distributors and resellers when the products are sold through to retailers and end-users.

When products are sold directly to retailers or end-users, we make an estimate of sales returns based on historical experience. The provision for these estimated returns is recorded as a reduction of revenue and accounts receivable at the time that the related revenue is recorded. If actual returns differ significantly from our estimates, such differences could have a material impact on our results of operations for the period in which the actual returns become known.

We record consideration given to a reseller as a reduction of revenue to the extent we have recorded cumulative revenue from the customer or reseller. However, when we receive an identifiable benefit in exchange for the consideration and can reasonably estimate the fair value of the benefit received, the consideration is recorded as an operating expense.

We record reimbursements received for out-of-pocket expenses as revenue, with offsetting costs recorded as cost of revenue. Out-of-pocket expenses generally include, but are not limited to, expenses related to transportation, lodging and meals. We record shipping and handling costs billed to customers as revenue with offsetting costs recorded as cost of revenue.

Our revenue recognition policies require management to make significant estimates. Management analyzes various factors, including a review of specific transactions, historical experience, creditworthiness of customers and current market and economic conditions. Changes in judgments based upon these factors could impact the timing and amount of revenue and cost recognized and thus affects our results of operations and financial condition.

Business Combinations. We determine and allocate the purchase price of an acquired company to the tangible and intangible assets acquired and liabilities assumed as of the business combination date. The purchase price allocation process requires us to use significant estimates and assumptions, including fair value estimates, as of the business acquisition date, including:

- estimated fair values of intangible assets;
- estimated fair market values of legal performance commitments to customers, assumed from the acquiree under existing contractual obligations (classified as deferred revenue) at the date of acquisition;
- estimated fair market values of stock awards assumed from the acquiree that are included in the purchase price;
- estimated fair market value of required payments under contingent consideration provisions;
- estimated income tax assets and liabilities assumed from the acquiree; and
- estimated fair value of pre-acquisition contingencies assumed from the acquiree.

While we use our best estimates and assumptions to determine the fair values of assets acquired and liabilities assumed at the date of acquisition, our estimates and assumptions are inherently uncertain and subject to refinement. As a result, within the measurement period, which is generally one year from the date of acquisition, we record adjustments to the assets acquired and liabilities assumed against goodwill in the period the amounts are determined. Adjustments identified subsequent to the measurement period are recorded within Acquisition-related costs, net.

Although we believe the assumptions and estimates we have made in the past have been reasonable and appropriate, they are based in part on historical experience and information obtained from the management of the acquired companies and are inherently uncertain. Examples of critical estimates in valuing certain of the intangible assets we have acquired or may acquire in the future include but are not limited to:

- future expected cash flows from software license sales, support agreements, consulting contracts, hosting services, other customer contracts and acquired developed technologies and patents;
- expected costs to develop in-process research and development projects into commercially viable products and the estimated cash flows from the projects when completed;
- the acquired company's brand and competitive position, as well as assumptions about the period during which the acquired brand will continue to be used in the combined company's product portfolio; and
- discount rates.

Unanticipated events and circumstances may occur which may affect the accuracy or validity of such assumptions, estimates or actual results.

In connection with the purchase price allocations for our acquisitions, we estimate the fair market value of legal performance commitments to customers, which are classified as deferred revenue. The estimated fair market value of these obligations is determined and recorded as of the acquisition date.

We may identify certain pre-acquisition contingencies. If, during the purchase price allocation period, we are able to determine the fair values of a pre-acquisition contingencies, we will include that amount in the purchase price allocation. If we are unable to determine the fair value of a pre-acquisition contingency at the end of the measurement period, we will evaluate whether to include an amount in the purchase price allocation based on whether it is probable a liability had been incurred and whether an amount can be reasonably estimated. Subsequent to the end of the measurement period, any adjustment to amounts recorded for a pre-acquisition contingency will be included within acquisition-related cost, net in the period in which the adjustment is determined.

Goodwill Impairment Analysis. Goodwill represents the excess of the purchase price in a business combination over the fair value of net tangible and intangible assets acquired. Goodwill and intangible assets with indefinite lives are not amortized, but rather the carrying amounts of these assets are assessed for impairment at least annually or whenever events or changes in circumstances indicate that the carrying value of these assets may not be recoverable. Goodwill is tested for impairment annually on July 1, the first day of the fourth quarter of the fiscal year. In fiscal year 2017, we elected to early adopt ASU 2017-04, "Simplifying the Test for Goodwill Impairment" for its annual goodwill impairment test. ASU 2017-04 removes Step 2 of the goodwill impairment test requiring a hypothetical purchase price allocation. Goodwill impairment, if any, is determined by comparing the reporting unit's fair value to its carrying value. An impairment loss is recognized in an amount equal to the excess of the reporting unit's carrying value over its fair value, up to the amount of goodwill allocated to the reporting unit. There is no goodwill impairment for fiscal years 2017 and 2016. See Note 4 to the accompanying consolidated financial statements for the impairment losses recorded in fiscal year 2018.

For the purpose of testing goodwill for impairment, all goodwill acquired in a business combination is assigned to one or more reporting units. A reporting unit represents an operating segment or a component within an operating segment for which discrete financial information is available and is regularly reviewed by segment management for performance assessment and resource allocation. Components of similar economic characteristics are aggregated into one reporting unit for the purpose of goodwill impairment assessment. Reporting units are identified annually and re-assessed periodically for recent acquisitions or any changes in segment reporting structure.

Corporate assets and liabilities are allocated to each reporting unit based on the reporting unit's revenue, total operating expenses or operating income as a percentage of the consolidated amounts. Corporate debt and other financial liabilities that are not directly attributable to the reporting unit's operations and would not be transferred to hypothetical purchasers of the reporting units are excluded from a reporting unit's carrying amount.

The fair value of a reporting unit is generally determined using a combination of the income approach and the market approach. For the income approach, fair value is determined based on the present value of estimated future after-tax cash flows, discounted at an appropriate risk-adjusted rate. We use our internal forecasts to estimate future after-tax cash flows and estimate the long-term growth rates based on our most recent views of the long-term outlook for each reporting unit. Actual results may differ from those assumed in our forecasts. We derive our discount rates using a capital asset pricing model and analyzing published rates for industries relevant to our reporting units to estimate the weighted average cost of capital. We adjust the discount rates for the risks and uncertainty inherent in the respective businesses and in our internally developed forecasts. For the market approach, we use a valuation technique in which values are derived based on valuation multiples of comparable publicly traded companies. We assess each valuation methodology based upon the relevance and availability of the data at the time we perform the valuation and weight the methodologies appropriately.

Long-Lived Assets with Definite-Lives. Our long-lived assets consist principally of technology, customer relationships, internally developed software, land, and building and equipment. Customer relationships are amortized over their estimated economic lives based on the pattern of economic benefits expected to be generated from the use of the asset. Other definite-lived assets are amortized over their estimated economic lives using the straight-line method. The remaining useful lives of long-lived assets are re-assessed periodically at the asset group level for any events and circumstances that may change the future cash flows expected to be generated from the long-lived asset or asset group.

Internally developed software consists of capitalized costs incurred during the application development stage, which include costs related design of the software configuration and interfaces, coding, installation and testing. Costs incurred during the preliminary project stage and post-implementation stage are expensed as incurred. Internally developed software is amortized over the estimated useful life, commencing on the date when the asset is ready for its intended use. Land, building and equipment are stated at cost and depreciated over their estimated useful lives. Leasehold improvements are depreciated over the shorter of the related lease term or the estimated useful life. Depreciation is computed using the straight-line method. Repair and maintenance costs are expensed as incurred. The cost and related accumulated depreciation of sold or retired assets are removed from the accounts and any gain or loss is included in the results of operations for the period.

Long-lived assets with definite lives are tested for impairment whenever events or changes in circumstances indicate the carrying value of a specific asset or asset group may not be recoverable. We assess the recoverability of long-lived assets with definite-lives at the asset group level. Asset groups are determined based upon the lowest level for which identifiable cash flows are largely independent of the cash flows of other assets and liabilities. When the asset group is also a reporting unit, goodwill assigned to the reporting unit is also included in the carrying amount of the asset group. For the purpose of the recoverability test, we compare the total undiscounted future cash flows from the use and disposition of the assets with its net carrying amount. When the carrying value of the asset group exceeds the undiscounted future cash flows, the asset group is deemed to be impaired. The amount of the impairment loss represents the excess of the asset or asset group's carrying value over its estimated fair value, which is generally determined based upon the present value of estimated future pre-tax cash flows that a market participant would expect from use and disposition of the long-lived asset or asset group. See Note 4 for the impairment charges recorded in fiscal year 2018.

Accounting for Stock-Based Compensation. We recognize stock-based compensation expense over the requisite service period, based on the grant date fair value of the awards and the number of the awards expected to be vested based upon service and performance conditions. The fair value of restricted stock units is determined based on the number of shares granted and the quoted price of our common stock, and the fair value of stock options is estimated on the date of grant using the Black-Scholes model. Determining the fair value of share-based awards at the grant date requires judgment, including estimating expected dividends, share price volatility, forfeiture rates and the number of performance-based restricted stock units expected to be granted. If actual results differ significantly from these estimates, the actual stock-based compensation expense may significantly differ from our estimates.

Income Taxes. Deferred tax assets and liabilities are recognized for the estimated future tax consequences attributable to differences between the financial statement carrying amounts of assets and liabilities and their respective tax bases. This method also requires the recognition of future tax benefits such as net operating loss carryforwards, to the extent that realization of such benefits is more likely than not after consideration of all available evidence. As the income tax returns are not due and filed until after the completion of our annual financial reporting requirements, the amounts recorded for the current period reflect estimates for the tax-based activity for the period. In addition, estimates are often required with respect to, among other things, the appropriate state and foreign income tax rates to use, the potential utilization of operating loss carry-forwards and valuation allowances required, if any, for tax assets that may not be realizable in the future. Tax laws and tax rates vary substantially in these jurisdictions, and are subject to change given the political and economic climate. We report and pay income tax based on operational results and applicable law. Our tax provision contemplates tax rates currently in effect to determine both our current and deferred tax provisions.

Any significant fluctuation in rates or changes in tax laws could cause our estimates of taxes we anticipate either paying or recovering in the future to change. Such changes could lead to either increases or decreases in our effective tax rate.

We have historically estimated the future tax consequence of certain items, including bad debts, inventory valuation, and accruals that cannot be deducted for income tax purposes until such expenses are paid or the related assets are disposed. We believe the procedures and estimates used in our accounting for income taxes are reasonable and in accordance with established tax law. The income tax estimates used have not resulted in material adjustments to income tax expense in subsequent periods when the estimates are adjusted to the actual filed tax return amounts.

Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the fiscal years in which those temporary differences are expected to be recovered or settled. With respect to earnings expected to be indefinitely reinvested offshore, we do not accrue tax for the repatriation of such foreign earnings.

We regularly review our deferred tax assets for recoverability considering historical profitability, projected future taxable income, the expected timing of the reversals of existing temporary differences and tax planning strategies. In assessing the need for a valuation allowance, we consider both positive and negative evidence related to the likelihood of realization of the deferred tax assets. The weight given to the positive and negative evidence is commensurate with the extent to which the evidence may be objectively verified. If positive evidence regarding projected future taxable income, exclusive of reversing taxable temporary

differences, existed it would be difficult for it to outweigh objective negative evidence of recent financial reporting losses. Generally, cumulative loss in recent years is a significant piece of negative evidence that is difficult to overcome in determining that a valuation allowance is not needed.

As of September 30, 2018, we have \$183.3 million of valuation allowances recorded against all U.S. deferred tax assets and certain foreign deferred tax assets. If we are subsequently able to utilize all or a portion of the deferred tax assets for which the remaining valuation allowance has been established, then we may be required to recognize these deferred tax assets through the reduction of the valuation allowance which could result in a material benefit to our results of operations in the period in which the benefit is determined.

We recognize tax benefits from uncertain tax positions only if it is more likely than not that the tax position will be sustained on examination by the taxing authorities, based on the technical merits of the position. The tax benefits recognized in the financial statements from such positions are then measured based on the largest benefit which is more likely than not to be realized upon ultimate settlement.

Loss Contingencies. We are subject to legal proceedings, lawsuits and other claims relating to labor, service and other matters arising in the ordinary course of business, as discussed in Note 16 of Notes to our Consolidated Financial Statements. On a quarterly basis, we review the status of each significant matter and assess our potential financial exposure. If the potential loss from any claim or legal proceeding is considered probable and the amount can be reasonably estimated, we accrue a liability for the estimated loss. Significant judgments are required for the determination of probability and the range of the outcomes. Due to the inherent uncertainties, estimates are based only on the best information available at the time. Actual outcomes may differ from our estimates. As additional information becomes available, we reassess the potential liability related to our pending claims and litigation and may revise our estimates. Such revisions may have a material impact on our results of operations and financial position.

RECENTLY ADOPTED ACCOUNTING STANDARDS

See Note 2 to the accompanying consolidated financial statements for a description of recently adopted accounting standards.

ISSUED ACCOUNTING STANDARDS NOT YET ADOPTED

See Note 2 to the accompanying consolidated financial statements 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 Disclosures about Market Risk*

We are exposed to market risk from changes in foreign currency exchange rates, interest rates and equity prices which could affect operating results, financial position and cash flows. We manage our exposure to these market risks through our regular operating and financing activities and, when appropriate, through the use of derivative financial instruments.

Exchange Rate Sensitivity

We are exposed to changes in foreign currency exchange rates. Any foreign currency transaction, defined as a transaction denominated in a currency other than the local functional currency, will be reported in the functional currency at the applicable exchange rate in effect at the time of the transaction. A change in the value of the functional currency compared to the foreign currency of the transaction will have either a positive or negative impact on our financial position and results of operations.

Assets and liabilities of our foreign entities are translated into U.S. dollars at exchange rates in effect at the balance sheet date and income and expense items are translated at average rates for the applicable period. Therefore, the change in the value of the U.S. dollar compared to foreign currencies will have either a positive or negative effect on our financial position and results of operations. Historically, our primary exposure has related to transactions denominated in the euro, British pound, Brazilian real, Canadian dollar, Japanese yen, Indian rupee and Hungarian forint.

A hypothetical change of 10% in appreciation or depreciation in foreign currency exchange rates from the quoted foreign currency exchange rates at September 30, 2018 would not have a material impact on our revenue, operating results or cash flows in the coming year.

Periodically, we enter into forward exchange contracts to hedge against foreign currency fluctuations. These contracts may or may not be designated as cash flow hedges for accounting purposes. We have in place a program which primarily uses forward contracts to offset the risks associated with foreign currency exposures that arise from transactions denominated in currencies other than the functional currencies of our worldwide operations. The program is designed so that increases or decreases in our foreign currency exposures are offset by gains or losses on the foreign currency forward contracts. The outstanding contracts are not designated as cash flow hedges and generally are for periods less than 90 days. The notional contract amount of outstanding foreign currency exchange contracts not designated as cash flow hedges was \$117.1 million at September 30, 2018 . Based on the nature of the transactions for which the contracts were purchased, a hypothetical change of 10% in exchange rates would not have a material impact on our financial results.

Interest Rate Sensitivity

We are exposed to interest rate risk as a result of our cash and cash equivalents and marketable securities.

At September 30, 2018 , we held approximately \$473.5 million of cash and cash equivalents and marketable securities consisting of cash, money-market funds, bank deposits and a separately managed investment portfolio. Assuming a one percentage point increase in interest rates, our interest income on our investments classified as cash and cash equivalents and marketable securities would increase by approximately \$3.7 million per annum, based on the September 30, 2018 reported balances of our investment accounts.

At September 30, 2018 , we had no outstanding debt exposed to variable interest rates.

Convertible Debentures

The fair values of our convertible debentures are dependent on the price and volatility of our common stock as well as movements in interest rates. The fair market values of these debentures will generally increase as the market price of our common stock increases and will decrease as the market price of our common stock decreases. The fair market values of these debentures will generally increase as interest rates fall and decrease as interest rates rise. The market value and interest rate changes affect the fair market values of these debentures, but do not impact our financial position, results of operations or cash flows due to the fixed nature of the debt obligations. However, increases in the value of our common stock above the stated trigger price for each issuance for a specified period of time may provide the holders of these debentures the right to convert each bond using a conversion ratio and payment method as defined in the debenture agreement.

The following tables summarizes the fair value and conversion value of our convertible debentures, and the estimated increase in the fair value and conversion value with a hypothetical 10% increase in the stock price of \$17.32 as of September 30, 2018 (dollars in millions):

	September 30, 2018			
	Fair value	Conversion value	Increase to fair value	Increase to conversion value
2.75% 2031 Debentures	\$46.4	\$25.0	\$0.1	\$2.5
1.5% 2035 Debentures	\$267.8	\$196.5	\$9.7	\$19.7
1.0% 2035 Debentures	\$634.1	\$430.4	\$19.9	\$43.0
1.25 % 2025 Debentures	\$361.0	\$272.9	\$19.1	\$27.3

Item 8. Financial Statements and Supplementary Data

Nuance Communications, Inc. Consolidated Financial Statements

**NUANCE COMMUNICATIONS, INC.
INDEX TO CONSOLIDATED FINANCIAL STATEMENTS**

	Page
Reports of Independent Registered Public Accounting Firm	48
Consolidated Statements of Operations	50
Consolidated Statements of Comprehensive Loss	51
Consolidated Balance Sheets	52
Consolidated Statements of Stockholders' Equity	53
Consolidated Statements of Cash Flows	54
Notes to Consolidated Financial Statements	55

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Stockholders and Board of Directors
Nuance Communications, Inc.
Burlington, Massachusetts

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Nuance Communications, Inc. (the "Company") and subsidiaries as of September 30, 2018 and 2017, the related consolidated statements of operations and comprehensive loss, stockholders' equity, and cash flows for each of the three years in the period ended September 30, 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 and subsidiaries at September 30, 2018 and 2017, and the results of their operations and their cash flows for each of the three years in the period ended September 30, 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 September 30, 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 November 20, 2018 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 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.

BDO USA, LLP

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

Boston, Massachusetts
November 20, 2018

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Stockholders and Board of Directors
Nuance Communications, Inc.
Burlington, Massachusetts

Opinion on Internal Control over Financial Reporting

We have audited Nuance Communication, Inc.'s (the "Company's") internal control over financial reporting as of September 30, 2018, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (the "COSO criteria"). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of September 30, 2018 based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the consolidated balance sheets of the Company as of September 30, 2018 and 2017, the related consolidated statements of operations and comprehensive loss, stockholders' equity, and cash flows for each of the three years in the period ended September 30, 2018, and the related notes and our report dated November 20, 2018 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Item 9A, Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit of internal control over financial reporting in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

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

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

BDO USA, LLP

Boston, Massachusetts
November 20, 2018

NUANCE COMMUNICATIONS, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS

	Year Ended September 30,		
	2018	2017	2016
(In thousands, except per share amounts)			
Revenues:			
Professional services and hosting	\$ 1,049,448	\$ 976,893	\$ 955,329
Product and licensing	684,230	635,391	669,227
Maintenance and support	317,983	327,078	324,347
Total revenues	<u>2,051,661</u>	<u>1,939,362</u>	<u>1,948,903</u>
Cost of revenues:			
Professional services and hosting	681,516	660,849	626,168
Product and licensing	77,086	74,004	86,379
Maintenance and support	58,095	54,094	54,077
Amortization of intangible assets	56,873	64,853	62,876
Total cost of revenues	<u>873,570</u>	<u>853,800</u>	<u>829,500</u>
Gross profit	<u>1,178,091</u>	<u>1,085,562</u>	<u>1,119,403</u>
Operating expenses:			
Research and development	305,323	266,097	271,130
Sales and marketing	388,305	398,130	390,866
General and administrative	229,774	166,677	168,473
Amortization of intangible assets	91,093	113,895	108,021
Acquisition-related costs, net	16,101	27,740	17,166
Restructuring and other charges, net	63,498	61,054	25,224
Impairment of goodwill and other intangible assets	170,941	—	—
Total operating expenses	<u>1,265,035</u>	<u>1,033,593</u>	<u>980,880</u>
(Loss) income from operations	<u>(86,944)</u>	<u>51,969</u>	<u>138,523</u>
Other income (expense):			
Interest income	9,327	6,922	4,438
Interest expense	(137,253)	(156,889)	(132,732)
Other expense, net	(1,865)	(21,017)	(8,490)
(Loss) income before income taxes	<u>(216,735)</u>	<u>(119,015)</u>	<u>1,739</u>
(Benefit) provision for income taxes	<u>(56,807)</u>	<u>31,981</u>	<u>14,197</u>
Net loss	<u>\$ (159,928)</u>	<u>\$ (150,996)</u>	<u>\$ (12,458)</u>
Net loss per share:			
Basic	<u>\$ (0.55)</u>	<u>\$ (0.52)</u>	<u>\$ (0.04)</u>
Diluted	<u>\$ (0.55)</u>	<u>\$ (0.52)</u>	<u>\$ (0.04)</u>
Weighted average common shares outstanding:			
Basic	<u>291,318</u>	<u>289,348</u>	<u>292,129</u>
Diluted	<u>291,318</u>	<u>289,348</u>	<u>292,129</u>

See accompanying notes.

NUANCE COMMUNICATIONS, INC.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS

	Year Ended September 30,		
	2018	2017	2016
	(In thousands)		
Net loss	\$ (159,928)	\$ (150,996)	\$ (12,458)
Other comprehensive income (loss):			
Foreign currency translation adjustment	(23,973)	13,027	2,421
Pension adjustments	2,644	1,774	(1,741)
Unrealized (loss) gain on marketable securities	(192)	(9)	131
Total other comprehensive (loss) income, net	(21,521)	14,792	811
Comprehensive loss	\$ (181,449)	\$ (136,204)	\$ (11,647)

See accompanying notes.

**NUANCE COMMUNICATIONS, INC.
CONSOLIDATED BALANCE SHEETS**

	September 30, 2018	September 30, 2017
	(In thousands, except per share amounts)	
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 315,963	\$ 592,299
Marketable securities	135,579	251,981
Accounts receivable, less allowances for doubtful accounts of \$11,724 and \$14,333	378,832	395,392
Prepaid expenses and other current assets	98,257	88,269
Total current assets	928,631	1,327,941
Marketable securities	21,932	29,844
Land, building and equipment, net	155,894	176,548
Goodwill	3,504,457	3,590,608
Intangible assets, net	549,508	664,474
Other assets	141,957	142,508
Total assets	\$ 5,302,379	\$ 5,931,923
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Current portion of long-term debt	\$ —	\$ 376,121
Contingent and deferred acquisition payments	14,211	28,860
Accounts payable (including \$416 due to a related party as of September 30, 2018, as more fully described in Note 19)	84,516	94,604
Accrued expenses and other current liabilities	281,644	245,901
Deferred revenue	383,793	366,042
Total current liabilities	764,164	1,111,528
Long-term debt	2,185,361	2,241,283
Deferred revenue, net of current portion	489,177	423,929
Deferred tax liabilities	49,931	131,320
Other liabilities	96,250	92,481
Total liabilities	3,584,883	4,000,541
Commitments and contingencies (Note 16)		
Stockholders' equity:		
Common stock, \$0.001 par value per share; 560,000 shares authorized; 291,504 and 293,938 shares issued and 287,753 and 290,187 shares outstanding, respectively	291	294
Additional paid-in capital	2,597,693	2,629,245
Treasury stock, at cost (3,751 shares)	(16,788)	(16,788)
Accumulated other comprehensive loss	(122,863)	(101,342)
Accumulated deficit	(740,837)	(580,027)
Total stockholders' equity	1,717,496	1,931,382
Total liabilities and stockholders' equity	\$ 5,302,379	\$ 5,931,923

See accompanying notes.

NUANCE COMMUNICATIONS, INC.
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

	Common Stock		Additional Paid-In Capital	Treasury Stock		Accumulated Other Comprehensive Loss	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount		Shares	Amount			
	(In thousands)							
Balance at September 30, 2015	313,531	\$ 314	\$2,815,244	3,751	\$ (16,788)	\$ (116,945)	\$ (416,573)	\$ 2,265,252
Issuance of common stock under employee stock plans	11,131	11	16,839	—	—	—	—	16,850
Cancellation of restricted stock, and repurchase of common stock at cost for employee tax withholding	(3,619)	(4)	(68,666)	—	—	—	—	(68,670)
Stock-based compensation	—	—	162,884	—	—	—	—	162,884
Repurchase and retirement of common stock	(35,753)	(36)	(698,658)	—	—	—	—	(698,694)
Net issuance of common stock in connection with acquisitions and collaboration agreements	6,094	6	89,785	—	—	—	—	89,791
Equity portion of convertible debt issuance/retirement, net of tax effect	—	—	175,564	—	—	—	—	175,564
Net loss	—	—	—	—	—	—	(12,458)	(12,458)
Other comprehensive loss	—	—	—	—	—	811	—	811
Balance at September 30, 2016	291,384	291	2,492,992	3,751	(16,788)	(116,134)	(429,031)	1,931,330
Issuance of common stock under employee stock plans	10,709	11	17,372	—	—	—	—	17,383
Cancellation of restricted stock, and repurchase of common stock at cost for employee tax withholding	(3,377)	(3)	(55,129)	—	—	—	—	(55,132)
Stock-based compensation	—	—	160,575	—	—	—	—	160,575
Repurchase and retirement of common stock	(5,797)	(6)	(99,071)	—	—	—	—	(99,077)
Net issuance of common stock in connection with acquisitions and charitable contributions	1,019	1	16,346	—	—	—	—	16,347
Equity portion of convertible debt issuance/retirement, net of tax effect	—	—	96,160	—	—	—	—	96,160
Net loss	—	—	—	—	—	—	(150,996)	(150,996)
Other comprehensive income	—	—	—	—	—	14,792	—	14,792
Balance at September 30, 2017	293,938	294	2,629,245	3,751	(16,788)	(101,342)	(580,027)	1,931,382
Prior period adjustment related to early adoption of ASU 2016-16	—	—	—	—	—	—	(882)	(882)
Issuance of common stock under employee stock plans	10,568	10	18,374	—	—	—	—	18,384
Cancellation of restricted stock, and repurchase of common stock at cost for employee tax withholding	(3,304)	(3)	(52,333)	—	—	—	—	(52,336)
Stock-based compensation	—	—	138,487	—	—	—	—	138,487
Repurchase and retirement of common stock	(9,698)	(10)	(136,080)	—	—	—	—	(136,090)
Net loss	—	—	—	—	—	—	(159,928)	(159,928)
Other comprehensive income	—	—	—	—	—	(21,521)	—	(21,521)
Balance at September 30, 2018	291,504	\$ 291	\$2,597,693	3,751	\$ (16,788)	\$ (122,863)	\$ (740,837)	\$ 1,717,496

See accompanying notes.

NUANCE COMMUNICATIONS, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year Ended September 30,		
	2018	2017	2016
	(In thousands)		
Cash flows from operating activities:			
Net loss	\$ (159,928)	\$ (150,996)	\$ (12,458)
Adjustments to reconcile net loss to net cash provided by operating activities:			
Depreciation and amortization	210,316	234,413	231,474
Stock-based compensation	150,785	154,272	163,828
Non-cash interest expense	49,091	59,295	47,105
Deferred tax (benefit) provision	(87,217)	4,855	(12,014)
(Gain) loss on extinguishment of debt	(348)	18,565	4,851
Impairment of goodwill and other intangible assets	170,941	—	—
Impairment of fixed assets	10,550	16,351	2,480
Other	2,230	8,403	(3,055)
Changes in operating assets and liabilities, excluding effects of acquisitions:			
Accounts receivable	19,641	(6,349)	25,450
Prepaid expenses and other assets	(20,389)	(14,661)	(9,645)
Accounts payable	(14,315)	(1,207)	38,206
Accrued expenses and other liabilities	26,847	9,040	27,826
Deferred revenue	86,222	46,886	61,747
Net cash provided by operating activities	444,426	378,867	565,795
Cash flows from investing activities:			
Capital expenditures	(48,845)	(61,835)	(54,883)
Payments for business and technology acquisitions, net of cash acquired (including cash payments of \$5,725 to a related party for fiscal 2018, see Note 19)	(110,170)	(113,769)	(172,763)
Purchases of marketable securities and other investments	(201,995)	(332,470)	(117,640)
Proceeds from sales and maturities of marketable securities and other investments	323,695	173,864	82,285
Net cash used in investing activities	(37,315)	(334,210)	(263,001)
Cash flows from financing activities:			
Repayment and redemption of debt	(481,172)	(634,055)	(511,844)
Proceeds from issuance of long-term debt, net of issuance costs	—	837,482	959,358
Payments for repurchase of common stock	(136,090)	(99,077)	(699,472)
Acquisition payments with extended payment terms	(24,842)	—	—
Proceeds from issuance of common stock from employee stock plans	18,384	17,383	16,850
Payments for taxes related to net share settlement of equity awards	(55,396)	(54,099)	(68,636)
Other financing activities	(1,232)	(583)	(1,371)
Net cash (used in) provided by financing activities	(680,348)	67,051	(305,115)
Effects of exchange rate changes on cash and cash equivalents	(3,099)	(1,029)	4,492
Net (decrease) increase in cash and cash equivalents	(276,336)	110,679	2,171
Cash and cash equivalents at beginning of year	592,299	481,620	479,449
Cash and cash equivalents at end of year	\$ 315,963	\$ 592,299	\$ 481,620

See accompanying notes.

NUANCE COMMUNICATIONS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Organization and Presentation

Nuance Communications, Inc. (“we,” “Nuance,” or “the Company”) is a leading provider of voice recognition and natural language understanding solutions. We work with companies around the world, from banks and hospitals to airlines, telecommunications carriers, and automotive manufacturers and suppliers, who use our solutions and technologies to create better experiences for their customers and their users by enhancing the users' experience, increasing productivity and customer satisfaction. We offer our customers high accuracy in automated speech recognition, capabilities for natural language understanding, dialog and information management, biometric speaker authentication, text-to-speech, optical character recognition capabilities, and domain knowledge, along with professional services and implementation support. Using advanced analytics and algorithms, our technologies create personalized experiences and transform the way people interact with information and the technology around them. We market and sell our solutions and technologies around the world directly through a dedicated sales force, through our e-commerce website and also through a global network of resellers, including system integrators, independent software vendors, value-added resellers, distributors, hardware vendors, and telecommunications carriers. We have five reportable segments: Healthcare, Enterprise, Automotive, Imaging and Other. See Note 20 for a description of each of these segments.

2. Summary of Significant Accounting Policies

Use of Estimates

The consolidated financial statements are prepared in accordance with United States (“U.S.”) generally accepted accounting principles (“GAAP”), which requires management to make estimates and assumptions. These estimates, judgments and assumptions can affect the reported amounts in the financial statements and the footnotes thereto. Actual results could differ materially from these estimates. On an ongoing basis, we evaluate our estimates, assumptions and judgments. Significant estimates inherent to the preparation of financial statements include: revenue recognition; the allowances for doubtful accounts and sales returns; accounting for deferred costs; accounting for internally developed software; the valuation of goodwill and intangible assets; accounting for business combinations, including contingent consideration; accounting for stock-based compensation; accounting for derivative instruments; accounting for income taxes and related valuation allowances; and loss contingencies. We base our estimates on historical experience, market participant fair value considerations, projected future cash flows, and various other factors that are believed to be reasonable under the circumstances. Actual amounts could differ significantly from these estimates.

Basis of Consolidation

The consolidated financial statements include our accounts and those of our wholly-owned domestic and foreign subsidiaries. Intercompany transactions and balances have been eliminated.

Revenue Recognition

We derive revenue from the following sources: (1) software license agreements, including royalty and other usage-based arrangements, (2) professional services, (3) hosting services and (4) post-contract customer support (“PCS”). Our hosting services are generally provided through on-demand, usage-based or per transaction fee arrangements. Generally, we recognize revenue when (i) persuasive evidence of an arrangement exists, (ii) delivery has occurred, (iii) the fee is fixed or determinable and (iv) collectibility is probable. Our revenue recognition policies for these revenue streams are discussed below.

The sale and/or license of software solutions and technology is deemed to have occurred when a customer either has taken possession of or has access to take immediate possession of the software or technology. In select situations, we sell or license intellectual property in conjunction with, or in place of, embedding our intellectual property in software. We also have non-software arrangements including hosting services where the customer does not take possession of the software at the outset of the arrangement either because they have no contractual right to do so or because significant penalties preclude them from doing so.

Revenue from royalties on sales of our software products by original equipment manufacturers (“OEMs”), where no services are included, is recognized in the quarter earned so long as we have been notified by the OEM that such royalties are due, and provided that all other revenue recognition criteria are met.

Software arrangements generally include PCS, which includes telephone support and the right to receive unspecified upgrades/enhancements on a when-and-if-available basis, typically for one to five years. Revenue from PCS is generally recognized ratably on a straight-line basis over the term that the maintenance service is provided. When PCS renews automatically, we provide a reserve based on historical experience for contracts expected to be canceled for non-payment. All known and estimated cancellations are recorded as a reduction to revenue and accounts receivable.

NUANCE COMMUNICATIONS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

For our software and software-related multiple element arrangements, where customers purchase both software related products and software related services, we use vendor-specific objective evidence (“VSOE”) of fair value for software and software-related services to separate the elements and account for them separately. VSOE exists when a company can support the fair value of its software and/or software-related services based on evidence of the prices charged when the same elements are sold separately. For the undelivered elements, VSOE of fair value is required in order to separate the accounting for various elements in a software and related services arrangement. We have established VSOE of fair value for the majority of our PCS, professional services, and training.

When we provide professional services considered essential to the functionality of the software, we recognize revenue from the professional services as well as any related software licenses on a percentage-of-completion basis whereby the arrangement consideration is recognized as the services are performed, as measured by an observable input. In these circumstances, we separate license revenue from professional service revenue for income statement presentation by allocating VSOE of fair value of the professional services as professional services and hosting revenue and the residual portion as product and licensing revenue. We generally determine the percentage-of-completion by comparing the labor hours incurred to-date to the estimated total labor hours required to complete the project. We consider labor hours to be the most reliable, available measure of progress on these projects. Adjustments to estimates to complete are made in the periods in which facts resulting in a change become known. When the estimate indicates that a loss will be incurred, such loss is recorded in the period identified. Significant judgments and estimates are involved in determining the percentage of completion of each contract. Different assumptions could yield materially different results.

We offer some of our products via a Software-as-a-Service (“SaaS”) model also known as a hosting model. In this type of arrangement, we are compensated in three ways: (1) fees for up-front setup of the service environment, (2) fees charged on a usage or per transaction basis, and (3) fees charged for on-demand service. Our up-front setup fees are nonrefundable. We recognize the up-front setup fees ratably over the longer of the contract lives or the expected lives of the customer relationships. The usage-based or per transaction fees are due and payable as each individual transaction is processed through the hosting service and is recognized as revenue in the period the services are provided. The on-demand service fees are recognized ratably over our estimate of the useful life of devices on which the hosting service is provided.

We enter into multiple-element arrangements that may include a combination of our various software related and non-software related products and services offerings including software licenses, PCS, professional services, and our hosting services. In such arrangements, we allocate total arrangement consideration to software or software-related elements and any non-software element separately based on the selling price hierarchy group following our policies. Where possible, we determine the selling price for each deliverable using VSOE of selling price, if it exists, or Third Party Evidence (“TPE”) of selling price. Typically, we are unable to determine TPE of selling price. Therefore, when neither VSOE nor TPE of selling price exist for a deliverable, we use our Estimate of Selling Price (“ESP”) for the purposes of allocating the arrangement consideration. We determine ESP for a product or service by considering multiple factors including, but not limited to, major project groupings, market conditions, competitive landscape, price list and discounting practices. Revenue allocated to each element is then recognized when the basic revenue recognition criteria are met for each element.

When products are sold through distributors or resellers, title and risk of loss generally passes upon shipment, at which time the transaction is invoiced and the payment is due. Shipments to distributors and resellers without right of return are recognized as revenue upon shipment, provided all other revenue recognition criteria are met. Certain distributors and resellers have been granted rights of return for as long as the distributors or resellers hold the inventory. We cannot use historical returns from these distributors and resellers as a basis upon which to estimate future sales returns. As a result, we recognize revenue from sales to these distributors and resellers when the products are sold through to retailers and end-users.

When products are sold directly to retailers or end-users, we make an estimate of sales returns based on historical experience. The provision for these estimated returns is recorded as a reduction of revenue and accounts receivable at the time that the related revenue is recorded. If actual returns differ significantly from our estimates, such differences could have a material impact on our results of operations for the period in which the actual returns become known.

We record consideration given to a reseller as a reduction of revenue to the extent we have recorded cumulative revenue from the customer or reseller. However, when we receive an identifiable benefit in exchange for the consideration, and can reasonably estimate the fair value of the benefit received, the consideration is recorded as an operating expense.

NUANCE COMMUNICATIONS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

We record reimbursements received for out-of-pocket expenses as revenue, with offsetting costs recorded as cost of revenue. Out-of-pocket expenses generally include, but are not limited to, expenses related to transportation, lodging and meals. We record shipping and handling costs billed to customers as revenue with offsetting costs recorded as cost of revenue.

Business Combinations

We determine and allocate the purchase price of an acquired company to the tangible and intangible assets acquired and liabilities assumed as of the date of acquisition. Results of operations and cash flows of acquired companies are included in our operating results from the date of acquisition. The purchase price allocation process requires us to use significant estimates and assumptions, which include:

- estimated fair values of intangible assets;
- estimated fair values of legal performance commitments to customers, assumed from the acquiree under existing contractual obligations (classified as deferred revenue);
- estimated fair values of stock awards assumed from the acquiree that are included in the purchase price;
- estimated fair value of required payments under contingent consideration provisions;
- estimated income tax assets and liabilities assumed from the acquiree; and
- estimated fair value of pre-acquisition contingencies assumed from the acquiree.

The fair value of any contingent consideration is established at the acquisition date and included in the total purchase price. The contingent consideration is then adjusted to fair value, with any measurement-period adjustment recorded against goodwill. Adjustments identified subsequent to the measurement period are recorded within Acquisition-related costs, net.

While we use our best estimates and assumptions as part of the purchase price allocation process to accurately value assets acquired and liabilities assumed at the business combination date, our estimates and assumptions are inherently uncertain and subject to refinement. As a result, during the measurement period, which is generally one year from the acquisition date, any adjustment to the assets acquired and liabilities assumed is recorded against goodwill in the period in which the amount is determined. Any adjustment identified subsequent to the measurement period is included in operating results in the period in which the amount is determined.

Goodwill

Goodwill represents the excess of the purchase price in a business combination over the fair value of net tangible and intangible assets acquired. Goodwill and intangible assets with indefinite lives are not amortized, but rather the carrying amounts of these assets are assessed for impairment at least annually or whenever events or changes in circumstances indicate that the carrying value of these assets may not be recoverable. Goodwill is tested for impairment annually on July 1, the first day of the fourth quarter of the fiscal year. In fiscal year 2017, we elected to early adopt ASU 2017-04, "Simplifying the Test for Goodwill Impairment" for its annual goodwill impairment test. ASU 2017-04 removes Step 2 of the goodwill impairment test requiring a hypothetical purchase price allocation. Goodwill impairment, if any, is determined by comparing the reporting unit's fair value to its carrying value. An impairment loss is recognized in an amount equal to the excess of the reporting unit's carrying value over its fair value, up to the amount of goodwill allocated to the reporting unit. There is no goodwill impairment for fiscal years 2017 and 2016. See Note 4 for the impairment charges recorded in fiscal year 2018.

For the purpose of testing goodwill for impairment, all goodwill acquired in a business combination is assigned to one or more reporting units. A reporting unit represents an operating segment or a component within an operating segment for which discrete financial information is available and is regularly reviewed by segment management for performance assessment and resource allocation. Components of similar economic characteristics are aggregated into one reporting unit for the purpose of goodwill impairment assessment. Reporting units are identified annually and re-assessed periodically for recent acquisitions or any changes in segment reporting structure.

Corporate assets and liabilities are allocated to each reporting unit based on the reporting unit's revenue, total operating expenses or operating income as a percentage of the consolidated amounts. Corporate debt and other financial liabilities that are not directly attributable to the reporting unit's operations and would not be transferred to hypothetical purchasers of the reporting units are excluded from a reporting unit's carrying amount.

The fair value of a reporting unit is generally determined using a combination of the income approach and the market approach. For the income approach, fair value is determined based on the present value of estimated future after-tax cash flows, discounted

NUANCE COMMUNICATIONS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

at an appropriate risk-adjusted rate. We use our internal forecasts to estimate future after-tax cash flows and estimate the long-term growth rates based on our most recent views of the long-term outlook for each reporting unit. Actual results may differ from those assumed in our forecasts. We derive our discount rates using a capital asset pricing model and analyzing published rates for industries relevant to our reporting units to estimate the weighted average cost of capital. We adjust the discount rates for the risks and uncertainty inherent in the respective businesses and in our internally developed forecasts. For the market approach, we use a valuation technique in which values are derived based on valuation multiples of comparable publicly traded companies. We assess each valuation methodology based upon the relevance and availability of the data at the time we perform the valuation and weight the methodologies appropriately.

Long-Lived Assets with Definite-Lives

Our long-lived assets consist principally of technology, customer relationships, internally developed software, land, and building and equipment. Customer relationships are amortized over their estimated economic lives based on the pattern of economic benefits expected to be generated from the use of the asset. Other definite-lived assets are amortized over their estimated economic lives using the straight-line method. The remaining useful lives of long-lived assets are re-assessed periodically for any events and circumstances that may change the future cash flows expected to be generated from the long-lived asset or asset group.

Internally developed software consists of capitalized costs incurred during the application development stage, which include costs related design of the software configuration and interfaces, coding, installation and testing. Costs incurred during the preliminary project stage and post-implementation stage are expensed as incurred. Internally developed software is amortized over the estimated useful life, commencing on the date when the asset is ready for its intended use. Land, building and equipment are stated at cost and depreciated over their estimated useful lives. Leasehold improvements are depreciated over the shorter of the related lease term or the estimated useful life. Depreciation is computed using the straight-line method. Repair and maintenance costs are expensed as incurred. The cost and related accumulated depreciation of sold or retired assets are removed from the accounts and any gain or loss is included in the results of operations for the period.

Long-lived assets with definite lives are tested for impairment whenever events or changes in circumstances indicate the carrying value of a specific asset or asset group may not be recoverable. We assess the recoverability of long-lived assets with definite-lives at the asset group level. Asset groups are determined based upon the lowest level for which identifiable cash flows are largely independent of the cash flows of other assets and liabilities. When the asset group is also a reporting unit, goodwill assigned to the reporting unit is also included in the carrying amount of the asset group. For the purpose of the recoverability test, we compare the total undiscounted future cash flows from the use and disposition of the assets with its net carrying amount. When the carrying value of the asset group exceeds the undiscounted future cash flows, the asset group is deemed to be impaired. The amount of the impairment loss represents the excess of the asset or asset group's carrying value over its estimated fair value, which is generally determined based upon the present value of estimated future pre-tax cash flows that a market participant would expect from use and disposition of the long-lived asset or asset group. See Note 4 for the impairment charges recorded in fiscal year 2018.

Cash and Cash Equivalents

Cash and cash equivalents consists of cash on hand, including money market funds and time deposits with original maturities of 90 days or less.

Marketable Securities

Marketable securities consist of time deposits and high-quality corporate debt instruments with stated maturities of more than 90 days. Investments are classified as available-for-sale and are recorded on the balance sheet at fair value with unrealized gains or losses reported as a separate component of accumulated other comprehensive income (loss), net of tax.

Accounts Receivable Allowances

Allowances for Doubtful Accounts: We record allowances for doubtful accounts for the estimated probable losses on uncollectible accounts receivable. The allowance is based upon the credit worthiness of our customers, our historical experience, the age of the receivable and current market and economic conditions. Receivables are written off against these allowances in the period they are determined to be uncollectible.

Allowances for Sales Returns: We record allowances for sales returns from customers for which we have the ability to estimate returns based on historical experience. The returns allowance is recorded as a reduction to revenue and accounts receivable at the time the related revenue is recorded. Receivables are written off against the allowance in the period the return is received.

NUANCE COMMUNICATIONS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

For the years ended September 30, 2018 , 2017 and 2016 , the activity related to accounts receivable allowances was as follows (dollars in thousands):

	Allowance for Doubtful Accounts	Allowance for Sales Returns
Balance at September 30, 2015	\$ 9,184	\$ 8,172
Bad debt provision	3,103	—
Write-offs, net of recoveries	(1,249)	—
Revenue adjustments, net	—	(616)
Balance at September 30, 2016	11,038	7,556
Bad debt provisions	3,792	—
Write-offs, net of recoveries	(497)	—
Revenue adjustments, net ^(a)	—	27,750
Balance at September 30, 2017	14,333	35,306
Bad debt provisions	2,666	—
Write-offs, net of recoveries	(5,275)	—
Revenue adjustments, net ^(b)	—	(23,982)
Balance at September 30, 2018	\$ 11,724	\$ 11,324

^(a) The increase in provisions primarily relates to accommodations made to our customers in connection with our Healthcare transcription service interruption due to the global NotPetya malware incident (the "2017 Malware Incident")

^(b) The decrease in provisions was primarily due to the resolution of the reserves related to the 2017 Malware Incident.

Inventories

Inventories are stated at the lower of cost, computed using the first-in, first-out method, or market value and are included in other current assets. We regularly review inventory quantities on hand and record a provision for excess and/or obsolete inventory primarily based on future purchase commitments with our suppliers, and the estimated utility of our inventory as well as other factors including technological changes and new product development. Inventories are included within Prepaid expenses and other current assets on the Consolidated balance sheets.

Inventories, net of allowances, consisted of the following (dollars in thousands):

	September 30, 2018	September 30, 2017
Components and parts	\$ 6,948	\$ 5,684
Finished products	610	404
Total Inventories	\$ 7,558	\$ 6,088

Research and Development Expenses

Research and development costs related to software that is or will be sold or licensed externally to third-parties, or for which a substantive plan exists to sell or license such software in the future, incurred subsequent to the establishment of technological feasibility, but prior to the general release of the product, are capitalized and amortized to cost of revenue over the estimated useful life of the related products. We have determined that technological feasibility is reached shortly before the general release of our software products. Costs incurred after technological feasibility is established have not been material. We expense research and development costs as incurred.

Acquisition-Related Costs, net

Acquisition-related costs include costs related to business and other acquisitions, including potential acquisitions. These costs consist of (i) transition and integration costs, including retention payments, transitional employee costs and earn-out payments, and other costs related to integration activities; (ii) professional service fees, including financial advisory, legal, accounting, and

NUANCE COMMUNICATIONS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

other outside services incurred in connection with acquisition activities, and disputes and regulatory matters related to acquired entities; and (iii) fair value adjustments to acquisition-related contingencies.

The components of acquisition-related costs, net are as follows (dollars in thousands):

	2018	2017	2016
Transition and integration costs	\$ 16,067	\$ 15,224	\$ 6,070
Professional service fees	3,450	12,622	10,876
Acquisition-related adjustments	(3,416)	(106)	220
Total	\$ 16,101	\$ 27,740	\$ 17,166

Advertising Costs

Advertising costs are expensed as incurred and recorded within sales and marketing expenses. The advertising costs capitalized as of September 30, 2018 and 2017 are de minimis. We incurred advertising costs of \$ 19.5 million , \$ 22.8 million and \$ 27.8 million for fiscal years 2018 , 2017 and 2016 , respectively.

Convertible Debt

We bifurcate the debt and equity (the contingently convertible feature) components of our convertible debt instruments in a manner that reflects our nonconvertible debt borrowing rate at the time of issuance. The equity components of our convertible debt instruments are recorded within stockholders' equity with an allocated issuance premium or discount. The debt issuance premium or discount is amortized to interest expense in our consolidated statement of operations using the effective interest method over the expected term of the convertible debt.

Income Taxes

Deferred tax assets and liabilities are recognized for the estimated future tax consequences attributable to differences between the carrying amounts of assets and liabilities and their respective tax bases. This method also requires the recognition of future tax benefits related to net operating loss carryforwards, to the extent that realization of such benefits is more likely than not after consideration of all available evidence. Deferred tax assets and liabilities are measured using the expected enacted tax rates applicable to the taxable income in the future periods in which those temporary differences are expected to be recovered or settled. We do not accrue income taxes for foreign earnings that are expected to be indefinitely reinvested.

We regularly review our deferred tax assets for recoverability considering historical profitability, projected future taxable income, the expected timing of the reversals of existing temporary differences and tax planning strategies. In assessing the need for a valuation allowance, we consider both positive and negative evidence related to the likelihood of realization of the deferred tax assets. The weights assigned to the positive and negative evidences are commensurate with the extent to which the evidence may be objectively verified. If positive evidence regarding projected future taxable income, exclusive of reversing taxable temporary differences, existed it would be difficult for it to outweigh objective negative evidence of recent financial reporting losses. Generally, cumulative loss in recent years is a significant piece of negative evidence that is difficult to overcome in determining that a valuation allowance is not needed.

As of September 30, 2018 and 2017 , valuation allowances have been established for all U.S. and for certain foreign deferred tax assets which we believe do not meet the "more likely than not" criteria for recognition. If we are subsequently able to utilize all or a portion of the deferred tax assets for which a valuation allowance has been established, then we may be required to recognize these deferred tax assets through the reduction of the valuation allowance which could result in a material benefit to our results of operations in the period in which the benefit is determined.

NUANCE COMMUNICATIONS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Accumulated Other Comprehensive Loss

The components of accumulated other comprehensive loss, reflected in the consolidated statements of stockholders' equity, consisted of the following (dollars in thousands):

	2018	2017	2016
Foreign currency translation adjustment	\$ (118,220)	\$ (94,247)	\$ (107,274)
Unrealized (losses) gains on marketable securities	(115)	77	86
Net unrealized losses on post-retirement benefits	(4,528)	(7,172)	(8,946)
Accumulated other comprehensive loss	<u>\$ (122,863)</u>	<u>\$ (101,342)</u>	<u>\$ (116,134)</u>

No income tax provisions or benefits is recorded for foreign currency translation adjustment as the undistributed earnings in our foreign subsidiaries are expected to be indefinitely reinvested.

Concentration of Risk

Financial instruments that are potentially subject to significant concentrations of credit risk principally consist of cash, cash equivalents, marketable securities and trade accounts receivable. We place our cash and cash equivalents and marketable securities with financial institutions with high credit ratings. As part of our cash and investment management processes, we perform periodic evaluations of the credit standing of the financial institutions with whom we maintain deposits, and have not recorded any credit losses to-date. For trade accounts receivable, we perform ongoing credit evaluations of our customers' financial condition and limit the amount of credit extended when deemed appropriate. No customer accounted for more than 10% of our net accounts receivable balance at September 30, 2018 and 2017 or 10% of our revenue for fiscal years 2018 , 2017 or 2016 .

Foreign Currency Translation

The functional currency of a foreign subsidiary is generally the local currency. We translate the financial statements of foreign subsidiaries to U.S. dollars using month-end exchange rates for assets and liabilities, and average rates for the reporting period for revenues, costs, and expenses. We record translation gains and losses in accumulated other comprehensive loss as a component of stockholders' equity. We record net foreign exchange transaction gains and losses resulting from the conversion of the transaction currency to the functional currency within in other expense, net . Foreign currency transaction losses for fiscal years 2018 , 2017 and 2016 were \$1.1 million , \$1.4 million and \$1.5 million , respectively.

Financial Instruments and Hedging Activities

We use forward currency exchange contracts to manage our exposure to fluctuations in foreign currency for certain transactions. In order for instruments to be designated as hedges, specific criteria must be met, including (i) formal documentation must exist for both the hedging relationship and our risk management objectives and strategies for undertaking the hedging activities, (ii) at the inception and on an ongoing basis, the hedging relationship is expected to be highly effective in offsetting changes in fair value attributed to the hedged risk during the period that the hedge is designated, and (iii) an assessment of effectiveness is required whenever financial statements or earnings are reported.

The effective portion of changes in the fair values of contracts designated as cash flow hedges is recorded in equity as a component of accumulated other comprehensive income (loss) until the hedged item effects earnings. Once the underlying forecasted transaction is realized, the changes of fair vales of instruments designated as hedges reclassified from accumulated other comprehensive loss to the statement of operations, in the appropriate income statement line items. Any ineffective portion of the instruments designated as cash flow hedges is recognized in current earnings. We report cash flows arising from derivative financial instruments designated as fair value or cash flow hedges consistent with the classification of the cash flows from the underlying hedged items that these derivatives are hedging.

No forward exchange contracts are designated as hedges for fiscal year 2018 , 2017 , or 2016 . Changes in the fair values of the forward currency exchange contracts are recorded within other expense, net . Cash flows related to investments and settlements of forward currency exchange contracts are included within cash flows from investing activities.

NUANCE COMMUNICATIONS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Stock-Based Compensation

We recognize stock-based compensation expense over the requisite service period, based on the grant date fair value of the awards and the number of the awards expected to be vested based upon service and performance conditions, net of forfeitures. The fair value of restricted stock units is determined based on the number of shares granted and the quoted price of our common stock, and the fair value of stock options is estimated on the date of grant using the Black-Scholes model. Historically, we recognized excess tax benefit within Additional Paid-in Capital to the extent that the benefit was utilized to reduce current tax payables. We record any tax effect related to stock-based awards through the consolidated statements of operations. Excess tax benefits are recognized as deferred tax assets upon settlement and are subject to regular review for valuation allowance.

Net Loss Per Share

Basic net loss or income per share is computed using the weighted-average number of common shares outstanding during the period. Diluted net income per share is computed using the weighted-average number of common shares, giving effect to potentially dilutive securities outstanding during the period. Potentially dilutive securities consist of stock options, restricted stock units, contingently issuable shares under earn-out agreements, and potential issuance of stock upon conversion of our convertible debentures, as more fully described in Note 9. In the event of conversion, each convertible debenture entitles the holder to receive in cash the principal amount with any accrued interest, and in cash or common stock, at our election, any excess of conversion value over the principal amount plus accrued interest. Therefore, only the shares of common stock potentially issuable upon conversion, if any, are considered dilutive to the weighted average common shares calculation.

For fiscal year 2018, 2017 and 2016, respectively, 9.1 million, 7.8 million, and 8.8 million shares of common stock equivalent securities were excluded from the computation of diluted net loss per share as the inclusion would be anti-dilutive due to the net loss reported for these periods.

Recently Adopted Accounting Standards

In October 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2016-16, "Income Taxes (Topic 740): Intra-Entity Transfers of Assets Other Than Inventory" ("ASU 2016-16"), which requires income tax consequences of inter-company transfers of assets other than inventory to be recognized when the transfer occurs. ASU 2016-16 is effective for fiscal years beginning after December 15, 2017, with early adoption permitted. We early adopted the guidance during the first quarter of fiscal year 2018. As a result, deferred tax liabilities of \$0.9 million arising from inter-company transfers in prior years were recognized and recorded against the beginning balance of accumulated deficit in the first quarter of fiscal year 2018. The adoption of the guidance did not have a material impact on our consolidated financial statements for any period presented.

Issued Accounting Standards Not Yet Adopted

From time to time, new accounting pronouncements are issued by the FASB and are adopted by us as of the specified effective dates. Unless otherwise discussed, such pronouncements did not have or will not have a significant impact on our consolidated financial position, results of operations or cash flows, or do not apply to our operations.

Revenue Recognition

In May 2014, the FASB issued ASU No. 2014-09, "Revenue from Contracts with Customers: Topic 606" ("ASU 2014-09"), under which revenue is recognized when a customer obtains control of promised goods or services in an amount that reflects the consideration the entity expects to receive for those goods or services. ASU 2014-09 defines a five-step process to achieve this core principle and, in doing so, it is possible more judgment and estimates may be required within the revenue recognition process than required under existing U.S. GAAP including identifying performance obligations in the contract, estimating the amount of variable consideration to include in the transaction price and allocating the transaction price to each separate performance obligation. ASU 2014-09 permits two methods of adoption: (i) retrospective to each prior reporting period presented; or (ii) retrospective with the cumulative effect of initially applying the guidance recognized at the date of initial application. In August 2015, the FASB issued ASU No. 2015-14, Revenue from Contracts with Customers: Deferral of the Effective Date, which deferred the effective date of the new revenue standard for periods beginning after December 15, 2016 to December 15, 2017, with early adoption permitted but not earlier than the original effective date. ASU 2014-09 is effective for us beginning on October 1, 2018 and we plan to adopt ASU 2014-09 using the cumulative catch-up transition method, with a cumulative adjustment to retained earnings as opposed to retrospectively adjusting prior periods.

NUANCE COMMUNICATIONS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

In the first quarter of fiscal 2017, we commenced a project to assess the potential impact of the new standard on our consolidated financial statements and related disclosures. This project also included the assessment and enhancement of our internal processes, controls and systems to address the new standard.

While we are continuing to assess all potential impacts of ASU 2014-09, we currently believe the most significant impact relates to our accounting for arrangements that include term-based software licenses bundled with other performance obligations including (i) maintenance and support and (ii) professional services. A significant number of our Healthcare and Imaging customer contracts include term-based software licenses bundled with other performance obligations. Under current GAAP, the revenue attributable to these software licenses is recognized ratably over the term of the arrangement because vendor-specific objective evidence ("VSOE") does not exist for the undelivered maintenance and support element as it is not sold separately. Under ASU 2014-09, the requirement to have VSOE for undelivered elements to enable the separation of revenue for the delivered software licenses is eliminated. Accordingly, under the new standard we will be required to recognize term-based software revenue as control is transferred and based upon the amount proportionally allocated to the term-based software license from the contract transaction price. We do not currently expect ASU 2014-09 to have a significant effect on the timing of revenue related to our renewal maintenance, professional services and cloud offerings.

We currently expect to record a pre-tax cumulative adjustment to decrease deferred revenues by approximately \$80 million to \$110 million upon the adoption. The adjustment primarily relates to the timing of revenue recognition, as noted above, and the allocation of the transaction price to the performance obligations on a relative standalone selling price basis.

Additionally, the new guidance requires direct and incremental costs to acquire a contract be capitalized and amortized over the pattern of transfer of the goods and services to which the asset relates, whereas we expense sales commissions as incurred under the existing guidance. We expect to record a pre-tax cumulative adjustment to capitalize sales commission costs of approximately \$35 million to \$45 million upon the adoption, with a corresponding decrease to retained earnings. The tax effect of the adjustments have not been reflected in the amounts. We expect to complete our analysis for the impact of the implementation by December 31, 2018.

Leases

In February 2016, the FASB issued ASU No. 2016-02, "Leases" ("ASU 2016-02"), which will become effective for fiscal years beginning after December 15, 2018 and interim periods therein, with early adoption permitted. The guidance requires lessees to recognize on the balance sheet a right-of-use asset, representing its right to use the underlying asset for the lease term, and a lease liability for all leases with terms greater than 12 months. The accounting applied by the lessor is largely unchanged from that applied under the existing lease standard. The guidance also requires qualitative and quantitative disclosures designed to assess the amount, timing, and uncertainty of cash flows arising from leases. The guidance requires the use of a modified retrospective transition approach, which includes a number of optional practical expedients that entities may elect to apply. We are currently evaluating the impact of the guidance on our consolidated financial statements and related processes and internal controls. While we expect the implementation to result in the recognition of right-of-use assets and lease liabilities for most of our operating lease commitments, we do not expect the guidance to have material impact on our consolidated statements of cash flows.

In August 2018, the FASB issued Accounting Standards Updates ("ASU") 2018-15, "Intangibles—Goodwill and Other—Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract", which is effective for fiscal year beginning after December 15, 2019, and interim periods within those fiscal years, with early adoption permitted. The guidance requires that implementation costs related to a hosting arrangement that is a service contract be capitalized and amortized over the term of the hosting arrangement, starting when the module or component of the hosting arrangement is ready for its intended use. The guidance will be applied retrospectively to each period presented. We do not expect the implementation to have a material impact on our consolidated financial statements.

Other Accounting Pronouncements

In January 2018, the FASB issued ASU 2018-02, "Income Statement - Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income ("AOCI")", which is effective for fiscal years beginning after December 15, 2018 and interim periods therein, with early adoption permitted. The guidance gives entities the option to reclassify to retained earnings the tax effects resulting from the Tax Cuts and Jobs Act ("TCJA") related to items in AOCI. The new guidance may be applied retrospectively to each period in which the effect of the Act is recognized in the period of adoption. We do not expect the implementation to have a material impact on our consolidated financial statements.

NUANCE COMMUNICATIONS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

In August 2016, the FASB issued ASU 2016-15, "Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments" ("ASU 2016-15"), which is effective for fiscal years beginning after December 15, 2017 and the interim periods therein, with early adoption permitted. The guidance requires cash flows with multiple characteristics to be classified using a three-step process, including (i) determining whether explicit guidance is applicable, (ii) separating each identifiable source or use of cash flows, and (iii) determining the predominant source or use of cash flows when the source or use of cash flows cannot be separately identifiable. The guidance will be applied retrospectively to each period presented. We do not expect the implementation to have a material impact on our consolidated financial statements.

In January 2016, the FASB issued ASU No. 2016-01, "Recognition and Measurement of Financial Assets and Financial Liabilities" ("ASU 2016-01"). ASU 2016-01 amends the guidance on the classification and measurement of financial instruments. Although ASU 2016-01 retains many current requirements, it significantly revises accounting related to the classification and measurement of investments in equity securities and the presentation of certain fair value changes for financial liabilities measured at fair value. ASU 2016-01 also amends certain disclosure requirements associated with the fair value of financial instruments and is effective for us in the first quarter of fiscal year 2019. Based on the composition of our investment portfolio, we do not believe the adoption of ASU 2016-01 will have a material impact on our consolidated financial statements.

3. Business Acquisitions

As part of our business strategy, we have acquired, and may acquire in the future, certain businesses and technologies primarily to expand our products and service offerings.

Fiscal Year 2018 Acquisitions

In fiscal year 2018, we completed several acquisitions in our Healthcare and Automotive segments for a total consideration of \$129.5 million, including \$114.6 million in cash, \$2.0 million estimated fair value for future contingent payments, and effective settlement of preexisting relationship with the acquiree of \$12.9 million. As a result, we recognized goodwill of \$62.9 million, including immaterial measurement-period adjustments through September 30, 2018, and other intangible assets of \$60.8 million, with a weighted average life of 6.0 years.

We are still finalizing the fair value estimates of assets acquired and liabilities assumed in these acquisitions. These fair value estimates are subject to change as we obtain additional information during the measurement periods up to one year from the acquisitions. There were no significant changes to the fair value estimates during fiscal year 2018.

We have not furnished pro forma financial information or the acquired entities' results of operations for the post-acquisition periods, as such acquisitions were not material, individually or in the aggregate, to our consolidated financial statements.

Fiscal Year 2017 Acquisitions

In fiscal year 2017, we acquired several businesses in our Enterprise, Healthcare and Other segments for a total consideration of \$97.4 million, including \$75.7 million in cash, issuance of 0.8 million shares of our common stock valued at \$13.4 million, and \$8.3 million estimated fair value for future contingent payments. As a result, we recognized goodwill of \$62.3 million and other intangible assets of \$39.1 million, with a weighted average life of 5.9 years. The results of operations of the acquired entities have been included within our consolidated results of operations from the acquisition dates. Such acquisitions were not significant individually or in the aggregate to our consolidated financial statements.

Fiscal Year 2016 Acquisitions

Acquisition of TouchCommerce, Inc.

In August 2016, we acquired all of the outstanding stock of TouchCommerce. TouchCommerce is a provider of omni-channel solutions to engage their customers on any device through online chat, guides, personalized content, and other automated tools, resulting in enhanced customer experience, increased revenue and reduced support costs. We expected this acquisition to expand our customer care solutions with a range of new digital engagement offerings, including live chat, customer analytics and personalization solutions within our Enterprise segment. We expected to be able to provide an end-to-end engagement platform that merges intelligent self-service with assisted service to increase customer satisfaction, strengthen customer loyalty and improve business results. The aggregate consideration for this transaction was \$217.5 million, which included \$132.5 million paid in cash and \$85.0 million paid in our common stock. The acquisition was a stock purchase and the goodwill resulting from this acquisition is not deductible for tax purposes. The results of operations of TouchCommerce was included within our Enterprise segment from the acquisition date.

NUANCE COMMUNICATIONS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

A summary of the final allocation of the purchase consideration for our TouchCommerce acquisition is as follows (dollars in thousands):

	<u>TouchCommerce</u>
Purchase consideration:	
Cash	\$ 113,008
Common stock ^(a)	85,000
Deferred acquisition payment	19,458
Total purchase consideration	<u>\$ 217,466</u>
Allocation of the purchase consideration:	
Cash	\$ 137
Accounts receivable ^(b)	14,897
Goodwill	117,576
Identifiable intangible assets ^(c)	110,800
Other assets	1,521
Total assets acquired	244,931
Current liabilities	(4,134)
Deferred tax liability	(19,913)
Deferred revenue	(2,784)
Other long-term liabilities	(634)
Total liabilities assumed	<u>(27,465)</u>
Net assets acquired	<u>\$ 217,466</u>

(a) 5,749,807 shares of our common stock valued at \$14.78 per share were issued at closing.

(b) Accounts receivable have been recorded at their estimated fair values and the fair value reserve was not material.

(c) The following are the identifiable intangible assets acquired and their respective weighted average useful lives, as determined based on preliminary valuations (dollars in thousands):

	<u>TouchCommerce</u>	
	<u>Amount</u>	<u>Weighted Average Life (Years)</u>
Core and completed technology	\$ 26,000	6.0
Customer relationships	81,600	10.0
Trade names	3,200	5.0
Total	<u>\$ 110,800</u>	

Other Fiscal Year 2016 Acquisitions

During fiscal year 2016, we acquired several businesses in our Healthcare segment for a total consideration of \$50.4 million, including an estimated fair value for future contingent payments. The results of operations of these acquisitions have been included in our financial results since their respective acquisition dates. Such acquisitions were not significant individually or in the aggregate to our consolidated financial statements.

NUANCE COMMUNICATIONS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

4. Goodwill and Intangible Assets

The changes in the carrying amount of goodwill for our reportable segments for fiscal years 2018 and 2017 were as follows (in thousands):

	Healthcare	Enterprise	Imaging	Mobile	Automotive	Other	Total
Balance as of September 30, 2016	\$ 1,381,076	\$ 653,368	\$ 257,038	\$ 1,217,397	\$ —	\$ —	\$ 3,508,879
Acquisitions	32,985	14,415	—	13,660	—	—	61,060
Purchase accounting adjustments	(49)	(463)	—	—	—	—	(512)
Effect of foreign currency translation	4,322	6,152	754	9,953	—	—	21,181
Balance as of September 30, 2017	1,418,334	673,472	257,792	1,241,010	—	—	3,590,608
Acquisitions	14,936	—	—	—	50,193	—	65,129
Purchase accounting adjustments	(705)	—	—	2,697	(3,275)	—	(1,283)
Effect of foreign currency translation	(2,240)	(2,116)	(440)	5,344	(7,424)	(1,340)	(8,216)
Reorganization (Note 19)	—	11,991	—	(1,249,051)	1,080,453	156,607	—
Impairment charge ^(a)	—	—	—	—	—	(141,781)	(141,781)
Balance as of September 30, 2018	\$ 1,430,325	\$ 683,347	\$ 257,352	\$ —	\$ 1,119,947	\$ 13,486	\$ 3,504,457

^(a) Represents accumulated impairment charge as of September 30, 2018 .

Intangible assets consist of the following as of September 30, 2018 and 2017 , which includes licensed technology with a net book value of \$47.6 million and \$67.3 million , respectively (dollars in thousands):

	September 30, 2018			
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount ^(a)	Weighted Average Remaining Life (Years)
Customer relationships	\$ 765,571	\$ (372,121)	\$ 393,450	6.3
Technology and patents	327,695	(189,344)	138,351	3.8
Trade names, trademarks, and other	57,809	(40,102)	17,707	2.2
Total	\$ 1,151,075	\$ (601,567)	\$ 549,508	

^(a) As more fully described below, the balance as of September 30, 2018 reflected impairment charges of \$29.2 million related to Mobile Operator Services and Devices intangible assets that we recorded during the fourth quarter of fiscal year 2018.

	September 30, 2017			
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Weighted Average Remaining Life (Years)
Customer relationships	\$ 790,846	\$ (338,511)	\$ 452,335	7.2
Technology and patents	447,119	(264,562)	182,557	4.6
Trade names, trademarks, and other	58,923	(29,341)	29,582	2.9
Total	\$ 1,296,888	\$ (632,414)	\$ 664,474	6.3

Amortization expense for acquired technology and patents is included in the cost of revenue in the accompanying statements of operations and was \$56.9 million , \$64.9 million and \$62.9 million in fiscal 2018 , 2017 and 2016 , respectively. Amortization expense for customer relationships, trade names, trademarks, and other, and non-competition agreements is included in operating expenses and was \$91.1 million , \$113.9 million and \$108.0 million in fiscal 2018 , 2017 and 2016 , respectively.

NUANCE COMMUNICATIONS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Estimated amortization expense for each of the five succeeding years as of September 30, 2018, is as follows (in thousands):

Year Ending September 30,	Cost of Revenue	Other Operating Expenses	Total
2019	\$ 41,444	\$ 82,384	\$ 123,828
2020	36,303	74,500	110,803
2021	27,960	68,156	96,116
2022	19,466	61,854	81,320
2023	10,131	48,701	58,832
Thereafter	3,047	75,562	78,609
Total	\$ 138,351	\$ 411,157	\$ 549,508

Interim Impairment Analysis

Effective in the second quarter of fiscal year 2018, our Automotive business, which was previously included within our former Mobile segment, became a standalone operating segment. In addition, we moved our Dragon TV business from our former Mobile operating segment into our Enterprise operating segment.

As a result of the reorganization, the original Mobile reporting unit was separated into three discrete lines of business - Automotive, Dragon TV, and Devices. We assigned \$1,080.5 million, \$12.0 million, and \$36.0 million of goodwill to Automotive, Dragon TV and Devices, respectively, based on their relative fair values as of March 31, 2018, and assessed the assigned goodwill for impairment by comparing each component's fair value to its carrying amount. The fair values of Automotive and Dragon TV significantly exceeded their carrying amounts. However, the carrying value of Devices exceeded its fair value by \$35.1 million due to the standalone multi-year operating plan reflecting the ongoing consolidation of our handset manufacturer customer base and continued erosion of our penetration of the remaining market. As a result, we recorded a \$35.1 million goodwill impairment for the second quarter of fiscal 2018. After the impairment charge, the goodwill assigned to Devices as of March 31, 2018 was immaterial. The reorganization did not result in any impairment charge of other intangible assets.

Also during the second quarter of fiscal 2018, our Subscriber Revenue Services ("SRS") reporting unit, originally included within our former Mobile operating segment, recorded significantly lower revenue and profitability due to market disruptions in certain markets that we serve. Our SRS business provides value-added services to mobile operators in emerging markets, primarily in India and Brazil. These markets had experienced dramatic disruption as a result of accelerated change in competition and business models for our mobile operator customers. Specifically, the rapid shift away from a model where voice, data and text are offered separately toward unlimited bundled services at considerably lower costs has significantly reduced mobile operators' demand for our services. This reduced demand materially impacted our future expectations for SRS revenues. As a result, executive management performed an updated strategic assessment and reduced the long-term growth rates and profitability contemplated in SRS's multi-year operating plan. We concluded that these financial results coupled with the rapid market shifts being experienced in the industry were factors that represented impairment indicators, triggering a review of goodwill and indefinite-lived intangible assets for impairment during the second quarter of fiscal 2018. Based on the result of the impairment assessment, the carrying value of SRS exceeded its fair value by \$94.3 million. In addition, we recorded an \$8.5 million deferred tax benefit related to SRS's goodwill, which is amortized over time for tax purposes, and therefore increased the impairment charge by the same amount. As a result, we recorded a goodwill impairment charge of \$102.8 million related to SRS for the second quarter of fiscal 2018. After the impairment charge, goodwill assigned to SRS was \$17.8 million as of March 31, 2018. The assessment did not result in any impairment charge of other intangible assets.

The fair value of a reporting unit is generally determined using a combination of the income approach and the market approach, where the income approach is weighted 50% and the market approach 50%. The fair values of Devices and Dragon TV, however, were determined solely based upon the income approach due to the lack of comparable public companies or comparable acquisitions.

Wind-down of Devices and Mobile Operator Services and Annual Goodwill Impairment Analysis

During the fourth quarter of fiscal 2018, in connection with our strategic business review announced in our earnings release issued on May 9, 2018, we restructured our SRS business by separating the voicemail transcription services business ("Voice-to-Text"), which will continue to operate as part of the Other Segment, and commenced a wind-down of the SRS Mobile Operator Services in India and Brazil, and our Devices businesses. As a result, we revised our multi-year operating plans of Mobile Operator Services and Devices, as part of our fiscal 2019 budgeting process, to reflect a significant decline in revenue and operating income. The wind-down decision has resulted in significantly lower estimated future cash flows over a considerably shorter time horizon, which triggered a review of goodwill and long-lived asset groups for impairment.

NUANCE COMMUNICATIONS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

We first assessed the long-lived asset groups within the businesses for impairment, and then compared a reporting unit's carrying amount after the long-lived asset group impairment, if any, with its estimated fair value. Mobile Operator Services and Voicemail-to-Text, which were included within the former SRS reporting unit, were assessed for the impairment of goodwill and long-lived asset groups separately. For the purpose of the goodwill impairment assessment, total goodwill of the former SRS reporting unit was assigned to Mobile Operator Services and Voice-to-text services based on their relative fair values as of July 1, 2018. As a result, \$3.4 million of goodwill was assigned to Mobile Operator Services and \$13.5 million goodwill was assigned to Voicemail-to-Text.

As a result of the impairment review, we recorded \$15.0 million impairment charge for Devices for the fourth quarter of fiscal year 2018, including \$7.6 million related to acquired trade names and customer relationships, \$0.8 million related to acquired technology assets, \$6.2 million related to fixed assets, and \$0.4 million related to its remaining goodwill; additionally, we recorded \$25.1 million impairment charge for our Mobile Operator Services for the fourth quarter of fiscal year 2018, including \$12.9 million related to acquired trade names and customer relationships, \$7.9 million related to acquired technology assets, \$0.9 million related to fixed assets, and \$3.4 million related to goodwill.

For the annual goodwill impairment analysis, the estimated fair value of each of Healthcare, Enterprise, Automotive, Imaging and Voice-to-Text significantly exceeded their carrying amounts. The fair value of a reporting unit is generally determined using a combination of the income approach and the market approach, where the income approach is weighted 50% and the market approach 50%.

Determining the fair value of a long-lived asset group or a reporting unit requires the use of significant estimates and assumptions, all of which we believe are reasonable but nevertheless inherently uncertain. These estimates and assumptions include revenue growth rates and operating margins used to estimate future cash flows, risk-adjusted discount rates, future economic and market conditions, and the use of market comparables. Also, if we experience lower-than-expected growth or fail to sustain our profitability due to changing market dynamics, competition or technological obsolescence, it could adversely impact the long-term assumptions used in our impairment analysis. Such changes in assumptions and estimates may result in additional impairment of our goodwill and/or other long-lived assets, which could materially impact our future results of operations and financial conditions. Additionally, as we continue our product portfolio review and implement organizational changes to better align with our long-term strategies, decisions from such efforts may trigger additional impairment reviews of goodwill and other long-lived assets, which may result in additional impairment charges in the future periods.

5. Accounts Receivable

Accounts receivable, net consisted of the following (in thousands):

	<u>September 30, 2018</u>	<u>September 30, 2017</u>
Trade accounts receivable	\$ 368,467	\$ 417,516
Unbilled accounts receivable under long-term contracts	33,413	27,515
Gross accounts receivable	401,880	445,031
Less: allowance for doubtful accounts	(11,724)	(14,333)
Less: allowance for sales returns	(11,324)	(35,306)
Accounts receivable, net	<u>\$ 378,832</u>	<u>\$ 395,392</u>

NUANCE COMMUNICATIONS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

6. Land, Building and Equipment, Net

Land, building and equipment, net consisted of the following (dollars in thousands):

	Useful Life (In Years)	September 30, 2018	September 30, 2017
Land	—	\$ 2,400	\$ 2,400
Building	30	5,409	5,456
Machinery and equipment	3-5	164,089	144,130
Computers, software and equipment	3-5	183,904	187,732
Leasehold improvements	2-15	37,393	34,478
Furniture and fixtures	5-7	18,322	19,171
Construction in progress	—	2,088	9,121
Subtotal		413,605	402,488
Less: accumulated depreciation		(257,711)	(225,940)
Land, building and equipment, net		<u>\$ 155,894</u>	<u>\$ 176,548</u>

As of September 30, 2018 and 2017, the net book value of capitalized internal-use software costs was \$14.5 million and \$27.0 million, respectively, which are included within computers, software and equipment and construction in progress.

Depreciation expense for fiscal years 2018, 2017 and 2016 was \$62.4 million, \$55.7 million and \$60.6 million, respectively, which included amortization expense of \$11.0 million, \$11.9 million and \$12.7 million, respectively, for internally developed software costs.

7. Accrued Expenses and Other Current Liabilities

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

	September 30, 2018	September 30, 2017
Compensation	\$ 181,992	\$ 159,951
Accrued interest payable	21,326	26,285
Cost of revenue related liabilities	32,667	20,124
Consulting and professional fees	21,441	12,649
Facilities related liabilities	5,340	7,158
Sales and marketing incentives	2,904	3,655
Sales and other taxes payable	6,602	3,125
Other	9,372	12,954
Total	<u>\$ 281,644</u>	<u>\$ 245,901</u>

NUANCE COMMUNICATIONS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

8. Deferred Revenue

Deferred maintenance revenue consists of prepaid fees received for post-contract customer support for our products, including telephone support and the right to receive unspecified upgrades/updates on a when-and-if-available basis. Unearned revenue includes fees for up-front set-up of the service environment; fees charged for on-demand service; certain software arrangements for which we do not have fair value of post-contract customer support, resulting in ratable revenue recognition for the entire arrangement on a straight-line basis; and fees in excess of estimated earnings on percentage-of-completion service contracts.

Deferred revenue consisted of the following (dollars in thousands):

	September 30, 2018	September 30, 2017
Current Liabilities:		
Deferred maintenance revenue	\$ 160,146	\$ 162,958
Unearned revenue	223,647	203,084
Total current deferred revenue	\$ 383,793	\$ 366,042
Long-term Liabilities:		
Deferred maintenance revenue	\$ 59,800	\$ 60,298
Unearned revenue	429,377	363,631
Total long-term deferred revenue	\$ 489,177	\$ 423,929

9. Debt

At September 30, 2018 and 2017, we had the following borrowing obligations (dollars in thousands):

	September 30, 2018	September 30, 2017
5.625% Senior Notes due 2026, net of deferred issuance costs of \$5.1 million and \$5.7 million, respectively. Effective interest rate 5.625%.	\$ 494,915	\$ 494,298
5.375% Senior Notes due 2020, net of deferred issuance costs of \$1.2 million and \$2.3 million, respectively, and unamortized premium of \$- and \$1.0 million, respectively. Effective interest rate 5.375%.	298,759	448,630
6.000% Senior Notes due 2024, net of deferred issuance costs of \$1.8 million and \$2.1 million, respectively. Effective interest rate 6.000%.	298,220	297,910
1.00% Convertible Debentures due 2035, net of unamortized discount of \$116.9 million and \$140.9 million, respectively, and deferred issuance costs of \$5.6 million and \$6.9 million, respectively. Effective interest rate 5.622%.	553,973	528,690
2.75% Convertible Debentures due 2031, net of unamortized discount of \$1.5 million and deferred issuance costs of \$0.1 million as of September 30, 2017. Effective interest rate 7.432%.	46,568	376,121
1.25% Convertible Debentures due 2025, net of unamortized discount of \$82.4 million and \$92.7 million, respectively, and deferred issuance costs of \$3.7 million and \$4.3 million, respectively. Effective interest rate 5.578%.	263,863	253,054
1.50% Convertible Debentures due 2035, net of unamortized discount of \$32.8 million and \$42.5 million, respectively, and deferred issuance costs of \$1.1 million and \$1.5 million, respectively. Effective interest rate 5.394%.	229,906	219,875
Deferred issuance costs related to our Revolving Credit Facility	(843)	(1,174)
Total debt	2,185,361	2,617,404
Less: current portion	—	376,121
Total long-term debt	\$ 2,185,361	\$ 2,241,283

NUANCE COMMUNICATIONS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

The following table summarizes the maturities of our borrowing obligations as of September 30, 2018 (dollars in thousands):

Fiscal Year	Convertible Debentures ⁽¹⁾	Senior Notes	Total
2019	\$ —	\$ —	\$ —
2020	—	300,000	300,000
2021	—	—	—
2022	310,463	—	310,463
2023	676,488	—	676,488
Thereafter	350,000	800,000	1,150,000
Total before unamortized discount	1,336,951	1,100,000	2,436,951
Less: unamortized discount and issuance costs	(242,641)	(8,949)	(251,590)
Total long-term debt	<u>\$ 1,094,310</u>	<u>\$ 1,091,051</u>	<u>\$ 2,185,361</u>

⁽¹⁾ Pursuant to the terms of each convertible instrument, holders have the right to redeem the debt on specific dates prior to maturity. The repayment schedule above assumes that payment is due on the next redemption date after September 30, 2018 .

5.625% Senior Notes due 2026

In December 2016, we issued \$500.0 million aggregate principal amount of 5.625% Senior Notes due on December 15, 2026 (the "2026 Senior Notes") in a private placement. The proceeds from the 2026 Senior Notes were approximately \$493.8 million , net of issuance costs, and we used the proceeds to repurchase a portion of our 2020 Senior Notes. The 2026 Senior Notes bear interest at 5.625% per year, payable in cash semi-annually in arrears.

The 2026 Senior Notes are unsecured senior obligations and are guaranteed on an unsecured senior basis by certain of our domestic subsidiaries ("Subsidiary Guarantors"). The 2026 Senior Notes and the guarantees rank equally in right of payment with all of our and the Subsidiary Guarantors' existing and future unsecured senior debt and rank senior in right of payment to all of our and the Subsidiary Guarantors' future unsecured subordinated debt. The 2026 Senior Notes and guarantees effectively rank junior to all our secured debt and that of the Subsidiary Guarantors to the extent of the value of the collateral securing such debt and to all liabilities, including trade payables, of our subsidiaries that have not guaranteed the 2026 Senior Notes.

At any time before December 15, 2021, we may redeem all or a portion of the 2026 Senior Notes at a redemption price equal to 100% of the aggregate principal amount of the 2026 Senior Notes to be redeemed, plus a "make-whole" premium and accrued and unpaid interest to, but excluding, the redemption date. At any time on or after December 15, 2021, we may redeem all or a portion of the 2026 Senior Notes at certain redemption prices expressed as percentages of the principal amount, plus accrued and unpaid interest to, but excluding, the redemption date. At any time and from time to time before December 15, 2021, we may redeem up to 35% of the aggregate outstanding principal amount of the 2026 Senior Notes with the net cash proceeds received by us from certain equity offerings at a price equal to 105.625% of the aggregate principal amount, plus accrued and unpaid interest to, but excluding, the redemption date, provided that the redemption occurs no later than 120 days after the closing of the related equity offering, and at least 50% of the original aggregate principal amount of the 2026 Senior Notes remains outstanding immediately thereafter.

Upon the occurrence of certain asset sales or a change in control, we must offer to repurchase the 2026 Senior Notes at a price equal to 100% in the case of an asset sale, or 101% in the case of a change of control, of the principal amount plus accrued and unpaid interest to, but excluding, the repurchase date.

5.375% Senior Notes due 2020

On August 14, 2012 , we issued \$700.0 million aggregate principal amount of 5.375% Senior Notes due on August 15, 2020 in a private placement. The net proceeds were approximately \$689.1 million , net of issuance costs, and bear interest at 5.375% per year, payable in cash semi-annually in arrears. On October 22, 2012, we issued, in a private placement, an additional \$350.0 million aggregate principal amount of our 5.375% Senior Notes due 2020 (collectively the "Notes"). The Notes were issued pursuant to the indenture agreement dated August 14, 2012. Total proceeds received, net of issuance costs, were \$351.7 million .

The Notes are our unsecured senior obligations and are guaranteed (the "Guarantees") on an unsecured senior basis by Subsidiary

NUANCE COMMUNICATIONS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Guarantors. The Notes and Guarantees rank equally in right of payment with all of our and the Subsidiary Guarantors' existing and future unsecured senior debt and rank senior in right of payment to all of our and the Subsidiary Guarantors' future unsecured subordinated debt. The Notes and Guarantees effectively rank junior to all secured debt of our and the Subsidiary Guarantors to the extent of the value of the collateral securing such debt and to all liabilities, including trade payables, of our subsidiaries that have not guaranteed the Notes.

At any time, we may redeem all or a portion of the Notes at certain redemption prices expressed as percentages of the principal amount, plus accrued and unpaid interest to, but excluding, the redemption date.

Upon the occurrence of certain asset sales or a change in control, we must offer to repurchase the Notes at a price equal to 100% , in the case of an asset sale, or 101% , in the case of a change of control, of the principal amount plus accrued and unpaid interest to, but excluding, the repurchase date.

In January 2017, we repurchased \$600.0 million in aggregate principal amount of our 2020 Senior Notes using cash and cash equivalents and the net proceeds from our 2026 Senior Notes issued in December 2016. As a result, we recorded an extinguishment loss of \$18.6 million in fiscal year 2017.

In September 2018, we repurchased \$150.0 million in aggregate principal amount of our 2020 Senior Notes at par. As a result, we wrote off the remaining unamortized premium and deferred issuance costs related to the repayment and recorded an extinguishment gain of \$0.3 million in fiscal year 2018. Following this activity, \$300.0 million in aggregate principal amount of our 2020 Senior Notes remains outstanding as of September 30, 2018 .

6.0% Senior Notes due 2024

In June 2016 , we issued \$300.0 million aggregate principal amount of 6.0% Senior Notes due on July 1, 2024 (the "2024 Senior Notes") in a private placement. The proceeds from the 2024 Senior Notes were approximately \$297.5 million , net of issuance costs. The 2024 Senior Notes bear interest at 6.0% per year, payable in cash semi-annually in arrears.

The 2024 Senior Notes are unsecured senior obligations and are guaranteed on an unsecured senior basis by our Subsidiary Guarantors. The 2024 Senior Notes and the guarantees rank equally in right of payment with all of our and the Subsidiary Guarantors' existing and future unsecured senior debt, including our obligations and those of each such Subsidiary Guarantor under our senior credit facility, and rank senior in right of payment to all of our and the Subsidiary Guarantors' future unsecured subordinated debt. The 2024 Senior Notes and guarantees effectively rank junior to all our secured debt and that of the Subsidiary Guarantors to the extent of the value of the collateral securing such debt and to all liabilities, including trade payables, of our subsidiaries that have not guaranteed the 2024 Senior Notes.

At any time before July 1, 2019 , we may redeem all or a portion of the 2024 Senior Notes at a redemption price equal to 100% of the aggregate principal amount of the 2024 Senior Notes to be redeemed, plus a "make-whole" premium and accrued and unpaid interest to, but excluding, the redemption date. At any time on or after July 1, 2019 , we may redeem all or a portion of the 2024 Senior Notes at certain redemption prices expressed as percentages of the principal amount, plus accrued and unpaid interest to, but excluding, the redemption date. At any time and from time to time before July 1, 2019 , we may redeem up to 35% of the aggregate outstanding principal amount of the 2024 Senior Notes with the net cash proceeds received by us from certain equity offerings at a price equal to 106% of the aggregate principal amount, plus accrued and unpaid interest to, but excluding, the redemption date, provided that the redemption occurs no later than 120 days after the closing of the related equity offering, and at least 50% of the original aggregate principal amount of the 2024 Senior Notes remains outstanding immediately thereafter.

Upon the occurrence of certain asset sales or a change in control, we must offer to repurchase the 2024 Senior Notes at a price equal to 100% in the case of an asset sale, or 101% in the case of a change of control, of the principal amount plus accrued and unpaid interest to, but excluding, the repurchase date.

1.0% Convertible Debentures due 2035

In December 2015, we issued \$676.5 million in aggregate principal amount of 1.0% Senior Convertible Debentures due in 2035 (the "1.0% 2035 Debentures"). Total proceeds were \$663.8 million , net of issuance costs, and we used a portion to repurchase \$38.3 million in aggregate principal on our 2.75% Senior Convertible Debentures due in 2031 (the "2031 Debentures") and to repay the aggregate principal balance of \$472.5 million on our term loan under the amended and restated credit agreement. The 1.0% 2035 Debentures bear interest at 1.0% per year, payable in cash semi-annually in arrears. In addition to ordinary interest and default additional interest, beginning with the semi-annual interest period commencing on December 15, 2022, contingent interest will accrue during any regular semi-annual interest period where the average trading price of our 1.0% 2035 Debentures

NUANCE COMMUNICATIONS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

for the ten trading day period immediately preceding the first day of such semi-annual period is greater than or equal to \$1,200 per \$1,000 principal amount of our 1.0% 2035 Debentures, in which case, contingent interest will accrue at a rate of 0.50% per annum of such average trading price. The 1.0% 2035 Debentures mature on December 15, 2035, subject to the right of the holders to require us to redeem the 1.0% 2035 Debentures on December 15, 2022, 2027, or 2032. The 1.0% 2035 Debentures are general senior unsecured obligations and rank equally in right of payment with all of our existing and future unsecured, unsubordinated indebtedness and senior in right of payment to any indebtedness that is contractually subordinated to the 1.0% 2035 Debentures. The 1.0% 2035 Debentures will be effectively subordinated to indebtedness and other liabilities of our subsidiaries.

We account separately for the liability and equity components of the 1.0% 2035 Debentures in accordance with authoritative guidance for convertible debt instruments that may be settled in cash upon conversion. The guidance requires the carrying amount of the liability component to be estimated by measuring the fair value of a similar liability that does not have an associated conversion feature and record the remainder in stockholders' equity. At issuance, we allocated \$495.4 million to long-term debt, and \$181.1 million has been recorded as additional paid-in capital, which is being amortized to interest expense using the effective interest rate method through December 2022.

If converted, the principal amount of the 1.0% 2035 Debentures is payable in cash and any amounts payable in excess of the principal amount will (based on an initial conversion rate, which represents an initial conversion price of approximately \$27.22 per share, subject to adjustment) be paid in cash or shares of our common stock, at our election, only in the following circumstances and to the following extent: (i) prior to June 15, 2035, on any date during any fiscal quarter (and only during such fiscal quarter) if the closing sale price of our common stock was more than 130% of the then current conversion price for at least 20 trading days in the period of the 30 consecutive trading days ending on the last trading day of the previous fiscal quarter; (ii) during the five consecutive business-day period following any five consecutive trading-day period in which the trading price for \$1,000 principal amount of the 1.0% 2035 Debentures for each day during such five trading-day period was less than 98% of the closing sale price of our common stock multiplied by the then current conversion rate; (iii) upon the occurrence of specified corporate transactions, as described in the indenture for the 1.0% 2035 Debentures; or (iv) at the option of the holder at any time on or after June 15, 2035. Additionally, we may redeem the 1.0% 2035 Debentures, in whole or in part, on or after December 20, 2022 for cash at a price equal to 100% of the principal amount of the 1.0% 2035 Debentures to be purchased plus any accrued and unpaid interest, including any additional interest to, but excluding, the repurchase date. Each holder shall have the right, at such holder's option, to require us to repurchase all or any portion of the 1.0% 2035 Debentures held by such holder on December 15, 2022, December 15, 2027, or December 15, 2032 at par plus accrued and unpaid interest. If we undergo a fundamental change or non-stock change of control (as described in the indenture for the 1.0% 2035 Debentures) prior to maturity, holders will have the option to require us to repurchase all or any portion of their debentures for cash at a price equal to 100% of the principal amount of the 1.0% 2035 Debentures to be purchased plus any accrued and unpaid interest, including any additional interest to, but excluding, the repurchase date. As of September 30, 2018, none of the conversion criteria were met for the 1.0% 2035 Debentures. If the conversion criteria were met, we could be required to repay all or some of the aggregate principal amount in cash prior to the maturity date.

2.75% Convertible Debentures due 2031

On October 24, 2011, we sold \$690.0 million of 2.75% Convertible Debentures due in 2031 in a private placement. Total proceeds, net of issuance costs, were \$676.1 million. The 2031 Debentures bear interest at 2.75% per year, payable in cash semi-annually in arrears. The 2031 Debentures mature on November 1, 2031, subject to the right of the holders to require us to redeem the 2031 Debentures on November 1, 2017, 2021, and 2026. The 2031 Debentures are general senior unsecured obligations and rank equally in right of payment with all of our existing and future unsecured, unsubordinated indebtedness and senior in right of payment to any indebtedness that is contractually subordinated to the 2031 Debentures. The 2031 Debentures will be effectively subordinated to indebtedness and other liabilities of our subsidiaries.

We account separately for the liability and equity components of the 2031 Debentures in accordance with authoritative guidance for convertible debt instruments that may be settled in cash upon conversion. At issuance, we allocated \$533.6 million to long-term debt, and \$156.4 million has been recorded as additional paid-in capital, which was amortized to interest expense using the effective interest rate method through November 2017.

In June 2015, we entered into separate privately negotiated agreements with certain holders of our 2031 Debentures to exchange, in a private placement, \$256.2 million in aggregate principal amount of our 2031 Debentures for approximately \$263.9 million in aggregate principal amount of our 1.5% 2035 Debentures. Upon repurchase we recorded an extinguishment loss of \$17.7 million in other expense, net, in the accompanying consolidated statements of operations. In December 2015, we entered into separate privately negotiated agreements with certain holders of our 2031 Debentures to repurchase \$38.3 million in aggregate principal with proceeds received from the issuance of our 1.0% 2035 Debentures. Upon repurchase we recorded an extinguishment

NUANCE COMMUNICATIONS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

loss of \$2.4 million in other expense, net, in the accompanying consolidated statements of operations. In accordance with the authoritative guidance for convertible debt instruments, a loss on extinguishment is equal to the difference between the reacquisition price and the net carrying amount of the extinguished debt for our 2031 Debentures, including any unamortized debt discount or issuance costs. Following this activity, \$395.5 million in aggregate principal amount of our 2031 Debentures remain outstanding. The aggregate debt discount was amortized to interest expense using the effective interest rate method through November 2017.

If converted, the principal amount of the 2031 Debentures is payable in cash and any amounts payable in excess of the principal amount will (based on an initial conversion rate, which represents an initial conversion price of approximately \$32.30 per share, subject to adjustment) be paid in cash or shares of our common stock, at our election, only in the following circumstances and to the following extent: (i) on any date during any fiscal quarter (and only during such fiscal quarter) if the closing sale price of our common stock was more than 130% of the then current conversion price for at least 20 trading days in the period of the 30 consecutive trading days ending on the last trading day of the previous fiscal quarter; (ii) during the five consecutive business-day period following any five consecutive trading-day period in which the trading price for \$1,000 principal amount of the 2031 Debentures for each day during such five trading-day period was less than 98% of the closing sale price of our common stock multiplied by the then current conversion rate; (iii) upon the occurrence of specified corporate transactions, as described in the indenture for the 2031 Debentures; or (iv) at the option of the holder at any time on or after May 1, 2031. Additionally, we may redeem the 2031 Debentures, in whole or in part, at par plus accrued and unpaid interest. Each holder shall have the right, at such holder's option, to require us to repurchase all or any portion of the 2031 Debentures held by such holder on November 1, 2021 and November 1, 2026 at par plus accrued and unpaid interest. If we undergo a fundamental change (as described in the indenture for the 2031 Debentures) prior to maturity, holders will have the option to require us to repurchase all or any portion of their debentures for cash at a price equal to 100% of the principal amount of the debentures to be purchased plus any accrued and unpaid interest, including any additional interest to, but excluding, the repurchase date. As of September 30, 2018, no conversion triggers were met. If the conversion triggers were met, we could be required to repay all or some of the aggregate principal amount in cash prior to the maturity date.

In November 2017, holders of approximately \$331.2 million in aggregate principal amount of the outstanding 2031 Debentures exercised their right to require us to repurchase such debentures. Following the repurchase, \$46.6 million in aggregate principal amount of the 2031 Debentures remains outstanding. On or after November 6, 2017, we have the right to call for redemption of some or all of the remaining outstanding 2031 Debentures.

1.25% Convertible Debentures due 2025

In March 2017, we issued \$350.0 million in aggregate principal amount of 1.25% Senior Convertible Debentures due in 2025 (the "1.25% 2025 Debentures") in a private placement. The proceeds were approximately \$343.6 million, net of issuance costs. We used a portion of the proceeds to repurchase 5.8 million shares of our common stock for \$99.1 million and \$17.8 million in aggregate principal on our 2031 Debentures. The 1.25% 2025 Debentures bear interest at 1.25% per year, payable in cash semi-annually in arrears, beginning on October 1, 2017. The 1.25% 2025 Debentures mature on April 1, 2025. The 1.25% 2025 Debentures are general senior unsecured obligations and rank equally in right of payment with all of our existing and future unsecured, unsubordinated indebtedness and senior in right of payment to any indebtedness that is contractually subordinated to the 1.25% 2025 Debentures. The 1.25% 2025 Debentures will be effectively subordinated to indebtedness and other liabilities of our subsidiaries.

We account separately for the liability and equity components of the 1.25% 2025 Debentures in accordance with authoritative guidance for convertible debt instruments that may be settled in cash upon conversion. The guidance requires the carrying amount of the liability component to be estimated by measuring the fair value of a similar liability that does not have an associated conversion feature and record the remainder in stockholders' equity. At issuance, we allocated \$252.1 million to long-term debt, and \$97.9 million has been recorded as additional paid-in capital, which is being amortized to interest expense using the effective interest rate method through April 1, 2025.

If converted, the principal amount of the 1.25% 2025 Debentures is payable in cash and any amounts payable in excess of the principal amount will (based on an initial conversion rate, which represents an initial conversion price of approximately \$22.22 per share, subject to adjustment under certain circumstances) be paid in cash or shares of our common stock, at our election, only in the following circumstances and to the following extent: (i) prior to October 1, 2024, on any date during any fiscal quarter (and only during such fiscal quarter) if the closing sale price of our common stock was more than 130% of the then current conversion price for at least 20 trading days in the period of the 30 consecutive trading days ending on the last trading day of the previous fiscal quarter; (ii) at any time on or after October 1, 2024, (iii) during the five consecutive business-day period immediately following any five consecutive trading-day period in which the trading price for \$1,000 principal amount of the 1.25% 2025 Debentures for each day during such five trading-day period was less than 98% of the closing sale price of our common stock

NUANCE COMMUNICATIONS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

multiplied by the then current conversion rate; or (iv) upon the occurrence of specified corporate transactions, as described in the indenture for the 1.25% 2025 Debentures. We may not redeem the 1.25% 2025 Debentures prior to the maturity date. If we undergo a fundamental change or non-stock change of control (as described in the indenture for the 1.25% 2025 Debentures) prior to maturity, holders will have the option to require us to repurchase all or any portion of their debentures for cash at a price equal to 100% of the principal amount of the 1.25% 2025 Debentures to be purchased plus any accrued and unpaid interest, including any additional interest to, but excluding, the repurchase date. As of September 30, 2018, none of the conversion criteria were met for the 1.25% 2025 Debentures. If the conversion criteria were met, we could be required to repay all or some of the aggregate principal amount in cash prior to the maturity date.

1.50% Convertible Debentures due 2035

In June 2015, we issued \$263.9 million in aggregate principal amount of 1.50% Senior Convertible Debentures due in 2035 (the “1.5% 2035 Debentures”) in exchange for \$256.2 million in aggregate principal amount of our 2031 Debentures. Total proceeds, net of issuance costs, were \$253.2 million. The 1.5% 2035 Debentures were issued at 97.09% of the principal amount, which resulted in a discount of \$7.7 million. The 1.5% 2035 Debentures bear interest at 1.50% per year, payable in cash semi-annually in arrears. In addition to ordinary interest and default additional interest, beginning with the semi-annual interest period commencing on November 1, 2021, contingent interest will accrue during any regular semi-annual interest period where the average trading price of our 1.5% 2035 Debentures for the ten trading day period immediately preceding the first day of such semi-annual period is greater than or equal to \$1,200 per \$1,000 principal amount of our 1.5% 2035 Debentures, in which case, contingent interest will accrue at a rate of 0.50% per annum of such average trading price. The 1.5% 2035 Debentures mature on November 1, 2035, subject to the right of the holders to require us to redeem the 1.5% 2035 Debentures on November 1, 2021, 2026, or 2031. The 1.5% 2035 Debentures are general senior unsecured obligations and rank equally in right of payment with all of our existing and future unsecured, unsubordinated indebtedness and senior in right of payment to any indebtedness that is contractually subordinated to the 1.5% 2035 Debentures. The 1.5% 2035 Debentures will be effectively subordinated to indebtedness and other liabilities of our subsidiaries.

We account separately for the liability and equity components of the 1.5% 2035 Debentures in accordance with authoritative guidance for convertible debt instruments that may be settled in cash upon conversion. At issuance, we allocated \$208.6 million to long-term debt, and \$55.3 million has been recorded as additional paid-in capital, which is being amortized to interest expense using the effective interest rate method through November 2021.

If converted, the principal amount of the 1.5% 2035 Debentures is payable in cash and any amounts payable in excess of the principal amount, will (based on an initial conversion rate, which represents an initial conversion price of approximately \$23.26 per share, subject to adjustment) be paid in cash or shares of our common stock, at our election, only in the following circumstances and to the following extent: (i) prior to May 1, 2035, on any date during any fiscal quarter beginning after September 30, 2015 (and only during such fiscal quarter) if the closing sale price of our common stock was more than 130% of the then current conversion price for at least 20 trading days in the period of the 30 consecutive trading days ending on the last trading day of the previous fiscal quarter; (ii) during the five consecutive business-day period following any five consecutive trading-day period in which the trading price for \$1,000 principal amount of the 1.5% 2035 Debentures for each day during such five trading-day period was less than 98% of the closing sale price of our common stock multiplied by the then current conversion rate; (iii) upon the occurrence of specified corporate transactions, as described in the indenture for the 1.5% 2035 Debentures; or (iv) at the option of the holder at any time on or after May 1, 2035. Additionally, we may redeem the 1.5% 2035 Debentures, in whole or in part, on or after November 5, 2021 for cash at a price equal to 100% of the principal amount of the 1.5% 2035 Debentures to be purchased plus any accrued and unpaid interest, including any additional interest to, but excluding, the repurchase date. Each holder shall have the right, at such holder’s option, to require us to repurchase all or any portion of the 1.5% 2035 Debentures held by such holder on November 1, 2021, November 1, 2026, or November 1, 2031 at par plus accrued and unpaid interest. Upon repurchase, we will pay the principal amount in cash and any amounts payable in excess of the principal amount will be paid in cash or shares of our common stock, at our election, with the exception that we may not elect to pay cash in lieu of more than 80% of the number of our common shares we would be obligated to deliver. If we undergo a fundamental change (as described in the indenture for the 1.5% 2035 Debentures) prior to maturity, holders will have the option to require us to repurchase all or any portion of their debentures for cash at a price equal to 100% of the principal amount of the 1.5% 2035 Debentures to be purchased plus any accrued and unpaid interest, including any additional interest to, but excluding, the repurchase date. As of September 30, 2018, none of the conversion criteria were met for the 1.5% 2035 Debentures. If the conversion criteria were met, we could be required to repay all or some of the aggregate principal amount in cash prior to the maturity date.

NUANCE COMMUNICATIONS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Revolving Credit Facility

Our revolving credit agreement (the “Revolving Credit Facility”), which expires on April 15, 2021, provides for aggregate borrowing commitments of \$242.5 million, including the revolving facility loans, the swingline loans and issuance of letters of credit. As of September 30, 2018, after taking into account the outstanding letters of credit of \$6.9 million, we had \$235.6 million available for additional borrowing under the Revolving Credit Facility. The borrowing outstanding under the Revolving Credit Facility bears interest at either (i) LIBOR plus an applicable margin of 1.50% or 1.75%, or (ii) the alternative base rate plus an applicable margin of 0.50% or 0.75%. The Revolving Credit Facility is secured by substantially all our assets. The Revolving Credit Facility contains customary affirmative and negative covenants and conditions to borrowing, as well as customary events of default. As of September 30, 2018, we are in compliance with all the debt covenants.

10. Financial Instruments and Hedging Activities**Derivatives not Designated as Hedges***Forward Currency Contracts*

We have operations in a number of international locations, including certain developing markets where currency exchange rates can be volatile. We utilize foreign currency forward contracts to mitigate the risks associated with changes in foreign currency exchange rates so that our exposure to foreign currencies will be mitigated or offset by the gains or losses on the foreign currency forward contracts. Generally, we enter into such contracts for less than 90 days and have no cash requirements until maturity. As of September 30, 2018 and 2017, we had outstanding contracts with a total notional value of \$117.1 million and \$69.0 million, respectively.

We did not designate any forward contracts as hedging instruments for fiscal years 2018, 2017 and 2016. Therefore, changes in fair value of foreign currency forward contracts were recognized within other expense, net in our condensed consolidated statements of operations. The cash flows related to the settlement of forward contracts not designated as hedging instruments are included in cash flows from investing activities within our condensed consolidated statement of cash flows.

A summary of our derivative instruments is as follows (dollars in thousands):

Derivatives Not Designated as Hedges:	Balance Sheet Classification	September 30, 2018	September 30, 2017
Foreign currency contracts	Prepaid expenses and other current assets	\$ 143	\$ 220
Foreign currency contracts	Accrued expenses and other liabilities	(1,192)	(373)

A summary of gains (losses) recognized from the derivative instruments is as follows (dollars in thousands):

Derivatives Not Designated as Hedges:	Income Statement Classification	Income	2018	2017	2016
	(loss) recognized				
Foreign currency contracts	Other expense, net		\$ (3,616)	\$ 6,811	\$ 2,021

11. Fair Value Measures

Fair value is defined as the price that would be received to sell an asset, or paid to transfer a liability, in an orderly transaction between market participants at the measurement date. Valuation techniques must maximize the use of observable inputs and minimize the use of unobservable inputs. When determining the fair value measurements for assets and liabilities required to be recorded at fair value, we consider the principal or most advantageous market in which we would transact and consider assumptions that market participants would use when pricing the asset or liability, such as inherent risk, transfer restrictions, and risk of nonperformance.

The determination of the applicable level within the hierarchy of a particular financial asset or liability depends on the lowest level of inputs that are significant to the fair value measurement as of the measurement date as follows:

- *Level 1:* Quoted prices for identical assets or liabilities in active markets.
- *Level 2:* Observable inputs other than those described as Level 1.

NUANCE COMMUNICATIONS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

- *Level 3:* Unobservable inputs that are supportable by little or no market activities and are based on significant assumptions and estimates.

Assets and liabilities measured at fair value on a recurring basis at September 30, 2018 and 2017 consisted of (in thousands):

	September 30, 2018			
	Level 1	Level 2	Level 3	Total
Assets:				
Money market funds ^(a)	\$ 200,004	\$ —	\$ —	\$ 200,004
Time deposits ^(b)	—	88,158	—	88,158
Commercial paper, \$27,194 at cost ^(b)	—	27,363	—	27,363
Corporate notes and bonds, \$57,563 at cost ^(b)	—	57,417	—	57,417
Foreign currency exchange contracts ^(b)	—	143	—	143
Total assets at fair value	<u>\$ 200,004</u>	<u>\$ 173,081</u>	<u>\$ —</u>	<u>\$ 373,085</u>
Liabilities:				
Foreign currency exchange contracts ^(b)	\$ —	\$ (1,192)	\$ —	\$ (1,192)
Contingent acquisition payments ^(c)	—	—	(4,000)	(4,000)
Total liabilities at fair value	<u>\$ —</u>	<u>\$ (1,192)</u>	<u>\$ (4,000)</u>	<u>\$ (5,192)</u>

	September 30, 2017			
	Level 1	Level 2	Level 3	Total
Assets:				
Money market funds ^(a)	\$ 381,899	\$ —	\$ —	\$ 381,899
Time deposits ^(b)	—	85,570	—	85,570
Commercial paper, \$41,805 at cost ^(b)	—	41,968	—	41,968
Corporate notes and bonds, \$74,150 at cost ^(b)	—	74,067	—	74,067
Foreign currency exchange contracts ^(b)	—	220	—	220
Total assets at fair value	<u>\$ 381,899</u>	<u>\$ 201,825</u>	<u>\$ —</u>	<u>\$ 583,724</u>
Liabilities:				
Foreign currency exchange contracts ^(b)	\$ —	\$ (373)	\$ —	\$ (373)
Contingent acquisition payments ^(c)	—	—	(8,648)	(8,648)
Total liabilities at fair value	<u>\$ —</u>	<u>\$ (373)</u>	<u>\$ (8,648)</u>	<u>\$ (9,021)</u>

^(a) Money market funds and time deposits with original maturity of 90 days or less are included within cash and cash equivalents in the consolidated balance sheets and are valued at quoted market prices in active markets.

^(b) Time deposits, commercial paper, corporate notes and bonds, and foreign currency exchange contracts are recorded at fair market values, which are determined based on the most recent observable inputs for similar instruments in active markets or quoted prices for identical or similar instruments in markets that are not active or are directly or indirectly observable. Time deposits are generally for terms of one year or less. Commercial paper and corporate notes and bonds generally mature within three years and had a weighted average maturity of 0.61 years as of September 30, 2018.

^(c) The fair values of our contingent consideration arrangements were determined using either the option pricing model with Monte Carlo simulation or the probability-weighted discounted cash flow method.

As of September 30, 2017, \$80.2 million of debt securities included within marketable securities were designated as held-to-maturity investments, which had a weighted average maturity of 0.27 years and an estimated fair value of \$80.4 million based on Level 2 measurements. No debt instruments were designated as held-to-maturity investments as of September 30, 2018.

The estimated fair value of our long-term debt approximated \$2,423.6 million (face value \$2,437.0 million) as of September 30, 2018 and \$2,930.9 million (face value \$2,918.1 million) as of September 30, 2017, based on Level 2 measurements. The fair value of each borrowing was estimated using the average of the bid and ask trading quotes at the end of the reporting periods. There was no balance outstanding under our revolving credit agreement as of September 30, 2018 and September 30, 2017.

NUANCE COMMUNICATIONS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Additionally, contingent acquisition payments are recorded at fair values upon the acquisition, and remeasured in subsequent reporting periods with the changes in fair values recorded within acquisition-related costs, net. Such payments are contingent upon the achievement of specified performance targets and are valued using the option pricing model with Monte Carlo simulation or the probability-weighted discounted cash flow model (Level 3 measurement).

The following table provides a summary of changes in fair value of our Level 3 financial instruments for the years ended September 30, 2018 and 2017 (dollars in thousands):

	Amount
Balance as of September 30, 2016	\$ 8,240
Earn-out liability established at time of acquisition	8,253
Payments and foreign currency translation	(7,830)
Adjustments to fair value included in acquisition-related costs, net	(15)
Balance as of September 30, 2017	8,648
Earn-out liability established at time of acquisition	2,000
Payments and foreign currency translation	(8,188)
Adjustments to fair value included in acquisition-related costs, net	1,540
Balance as of September 30, 2018	<u>\$ 4,000</u>

Contingent acquisition payment liabilities are scheduled to be paid in periods through fiscal year 2021. As of September 30, 2018, we could be required to pay up to \$12.4 million if the specified performance targets are achieved.

12. Restructuring and Other Charges, Net

Restructuring and other charges, net include restructuring expenses as well as other charges that are unusual in nature, are the result of unplanned events, and arise outside the ordinary course of our business. Restructuring expenses consist of employee severance costs, charges for the closure of excess facilities and other contract termination costs. Other charges include litigation contingency reserves, costs related to the transition agreement of our former CEO, asset impairment charges, expenses associated with the 2017 Malware Incident and gains or losses on the sale or disposition of certain non-strategic assets or product lines.

The components of restructuring and other charges, net are as follows:

	2018	2017	2016
Severance costs	\$ 36,824	\$ 13,297	\$ 13,133
Costs of consolidating duplicate facilities	5,056	6,735	11,606
Total restructuring charges	41,880	20,032	24,739
Other charges	21,618	41,022	485
Total restructuring and other charges, net	<u>\$ 63,498</u>	<u>\$ 61,054</u>	<u>\$ 25,224</u>

NUANCE COMMUNICATIONS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

The following table sets forth accrual activity relating to restructuring reserves for fiscal years 2018 , 2017 and 2016 (in thousands):

	Personnel	Facilities	Total
Balance at September 30, 2015	\$ 635	\$ 6,222	\$ 6,857
Restructuring charges, net	13,133	11,606	24,739
Non-cash adjustment	(57)	164	107
Cash payments	(11,050)	(6,860)	(17,910)
Balance at September 30, 2016	2,661	11,132	13,793
Restructuring charges, net	13,297	6,735	20,032
Non-cash adjustment	—	(1,374)	(1,374)
Cash payments	(14,412)	(7,334)	(21,746)
Balance at September 30, 2017	1,546	9,159	10,705
Restructuring charges, net	36,824	5,056	41,880
Non-cash adjustment	—	(998)	(998)
Cash payments	(27,778)	(5,599)	(33,377)
Balance at September 30, 2018	<u>\$ 10,592</u>	<u>\$ 7,618</u>	<u>\$ 18,210</u>

Restructuring and other charges, net by segment are as follows (dollars in thousands):

	Personnel	Facilities	Total Restructuring	Other Charges	Total
Fiscal Year 2018					
Healthcare	\$ 11,563	\$ 25	\$ 11,588	\$ —	\$ 11,588
Enterprise	4,217	2,243	6,460	—	6,460
Automotive	4,160	20	4,180	—	4,180
Imaging	5,304	1,168	6,472	—	6,472
Other	1,473	647	2,120	7,103	9,223
Corporate	10,107	953	11,060	14,515	25,575
Total fiscal year 2018	<u>\$ 36,824</u>	<u>\$ 5,056</u>	<u>\$ 41,880</u>	<u>\$ 21,618</u>	<u>\$ 63,498</u>
Fiscal Year 2017					
Healthcare	\$ 4,283	\$ 870	\$ 5,153	\$ 8,758	\$ 13,911
Enterprise	2,141	3,480	5,621	—	5,621
Automotive	1,838	—	1,838	—	1,838
Imaging	744	387	1,131	—	1,131
Other	2,954	(15)	2,939	10,773	13,712
Corporate	1,337	2,013	3,350	21,491	24,841
Total fiscal year 2017	<u>\$ 13,297</u>	<u>\$ 6,735</u>	<u>\$ 20,032</u>	<u>\$ 41,022</u>	<u>\$ 61,054</u>
Fiscal Year 2016					
Healthcare	\$ 3,531	\$ 1,398	\$ 4,929	\$ —	\$ 4,929
Enterprise	1,214	2,782	3,996	—	3,996
Automotive	1,967	—	1,967	—	1,967
Imaging	284	478	762	—	762
Other	3,870	1,557	5,427	(486)	4,941
Corporate	2,267	5,391	7,658	971	8,629
Total fiscal year 2016	<u>\$ 13,133</u>	<u>\$ 11,606</u>	<u>\$ 24,739</u>	<u>\$ 485</u>	<u>\$ 25,224</u>

Fiscal Year 2018

For fiscal year 2018 , we recorded restructuring charges of \$41.9 million , which included \$36.8 million related to the termination of approximately 1,495 employees and \$5.1 million charge related to certain excess facilities, including adjustment to sublease assumptions associated with these facilities. These actions were part of our strategic initiatives focused on investment rationalization, process optimization and cost reduction. We expect the remaining outstanding severance of \$10.6 million to be

NUANCE COMMUNICATIONS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

substantially paid by the end of the first quarter of fiscal year 2019 , and the remaining of \$7.6 million for the excess facilities to be made through fiscal year 2027 , in accordance with the terms of the applicable leases.

Additionally, during fiscal year 2018, we recorded \$5.7 million for costs related to the transition agreement of our former CEO, \$4.8 million professional services fees related to assessment and establishment of our corporate transformational efforts, \$4.0 million related to our remediation and restoration effort after the 2017 Malware Incident, and fixed asset impairment charges of \$7.1 million for SRS and Devices, as more fully described in Note 4. The cash payments associated with the CEO transition agreement are expected to be made through fiscal year 2020.

Fiscal Year 2017

For fiscal year 2017, we recorded restructuring charges of \$20.0 million , which included \$13.3 million related to the termination of approximately 807 terminated employees and \$6.7 million charge related to certain excess facilities, including adjustment to sublease assumptions associated with these facilities. These actions were part of our initiatives to reduce costs and optimize processes.

Additionally, during fiscal year 2017, we recorded \$8.1 million for costs related to the transition agreement of our former CEO, \$18.1 million of professional services fees and \$4.0 million of fixed asset and inventory write-down as a result of the 2017 Malware Incident, and an impairment charge of \$10.8 million related to an internally developed software.

Fiscal Year 2016

For fiscal year 2016, we recorded restructuring charges of \$24.7 million , which included \$13.1 million related to the termination of approximately 452 employees as part of our initiatives to reduce costs and optimize processes, and \$11.6 million charge related to certain excess facility space, including adjustment to sublease assumptions associated with these facilities.

Additionally, during fiscal year 2016, we recorded certain other charges that totaled \$0.5 million for litigation contingency reserves.

13. Supplemental Cash Flow Information

Cash paid for Interest and Income Taxes:

	Year Ended September 30,		
	2018	2017	2016
	(Dollars in thousands)		
Interest paid	\$ 93,121	\$ 91,718	\$ 77,010
Income taxes paid	\$ 20,802	\$ 24,359	\$ 21,068

Non-Cash Investing and Financing Activities:

From time to time, we issue shares of our common stock in connection with our business and asset acquisitions, including shares issued as payment for acquisitions, shares initially held in escrow, and shares issued as payment for contingent consideration, which is discussed in Notes 2 and 3 . In addition, in connection with certain collaboration agreements, we issued shares of our common stock to our partners in satisfaction of our payment obligations under the terms of the agreements, as discussed in Note 2 .

14. Stockholders' Equity

Share Repurchases

On April 29, 2013 , our Board of Directors approved a share repurchase program for up to \$500.0 million , which was increased by \$500.0 million on April 29, 2015. On August 1, 2018 , our Board of Directors approved an additional \$500.0 million under our share repurchase program. Under the terms of the share repurchase program, we have the ability to repurchase shares from time to time through a variety of methods, which may include open market purchases, privately negotiated transactions, block trades, accelerated share repurchase transactions, or any combination of such methods. The share repurchase program does not require us to acquire any specific number of shares and may be modified, suspended, extended or terminated by us at any time without prior notice. The timing and the amount of any purchases will be determined by management based on an evaluation of market conditions, capital allocation alternatives, and other factors.

NUANCE COMMUNICATIONS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

We repurchased 9.7 million shares, 5.8 million shares and 9.4 million shares for \$136.1 million, \$99.1 million and \$197.5 million during the fiscal years ended September 30, 2018, 2017 and 2016, respectively, under the program. The amount paid in excess of par value is recognized in additional paid in capital and these shares were retired upon repurchase. Since the commencement of the program, we have repurchased 56.2 million shares for \$942.7 million, including 1.0 million shares repurchased from our Chief Executive Officer in fiscal year 2016. Approximately \$557.3 million remained available for share repurchases as of September 30, 2018 pursuant to our share repurchase program.

Related Party Share Repurchases

In December 2015, as part of our share repurchase program, we repurchased 1.0 million shares from our former CEO, composed of 649,649 outstanding shares and 800,000 vested stock options with a net share equivalent of 350,351 shares, for an aggregate purchase price of \$21.4 million, which approximated the fair value of our common stock on the day of the repurchase.

In March 2016, our Board of Directors approved a repurchase agreement with the Icahn Group to repurchase 26.3 million shares of our common stock at a price of \$19.00 per share, which approximated the fair value of our common stock on the day of the repurchase, for a total purchase price of \$500.0 million (the "Repurchase"). At the closing of the Repurchase, we paid \$375.0 million in cash and issued a promissory note in the amount of \$125.0 million. The promissory note bore interest at a rate per annum equal to approximately 2.64% and had a maturity date of June 13, 2016. On April 15, 2016, we fully repaid the promissory note. Immediately prior to the Repurchase, the Icahn Group owned approximately 60.8 million shares, or approximately 20%, of our outstanding common stock. In connection with the Repurchase, David Schechter and Brett Icahn, the Icahn Group representatives on our Board of Directors, resigned from our Board of Directors.

Stock Issuances

During the year ended September 30, 2017, we issued 844,108 shares of our common stock valued at \$13.4 million in connection with a business acquisition and 175,000 shares of our common stock valued at \$2.9 million associated with charitable contributions. During fiscal year 2016, we issued 403,325 shares of our common stock valued at \$6.5 million to our partner in a healthcare collaboration agreement as settlement for a buy-out option and 5,749,807 shares of our common stock valued at \$85.0 million as consideration for our acquisition of TouchCommerce, which are discussed in Notes 2 and 3.

Preferred Stock

We are authorized to issue up to 40,000,000 shares of preferred stock, par value \$0.001 per share. The undesignated shares of preferred stock will have rights, preferences, privileges and restrictions, including voting rights, dividend rights, conversion rights, redemption privileges and liquidation preferences, as shall be determined by the Board of Directors upon issuance of the preferred stock. There were no outstanding shares of preferred stock as of September 30, 2018 or September 30, 2017.

Series A Preferred Stock

We have designated 1,000,000 shares as Series A Preferred Stock, par value \$0.001 per share. The Series A Preferred Stock is entitled to receive dividends equal to the greater of \$1.00 and 1,000 times the aggregate per share amount of all dividends declared on our Common Stock. Holders of each share of the Series A Preferred Stock are entitled to 1,000 votes on all matters submitted to a vote of the stockholders of the Corporation, and shall vote as one class. The Series A Preferred Stock is not redeemable, and has the right to certain liquidation preferences over our Common Stock. The Series A Preferred Stock ranks junior to all other series of the Preferred Stock as to the payment of dividends and the distribution of assets. There were no outstanding shares of preferred stock as of September 30, 2018 or September 30, 2017.

Series B Preferred Stock

We have designated 15,000,000 shares as Series B Preferred Stock, par value \$0.001 per share. The Series B Preferred Stock is convertible into shares of common stock on a one-for-one basis and has a liquidation preference of \$1.30 per share plus all declared but unpaid dividends. The holders of Series B Preferred Stock are entitled to non-cumulative dividends at the rate of \$0.05 per annum per share, payable when, and if, declared by the Board of Directors. To date, no dividends have been declared by the Board of Directors. Holders of Series B Preferred Stock have no voting rights, except those rights provided under Delaware law. There were no outstanding shares of preferred stock as of September 30, 2018 or September 30, 2017.

NUANCE COMMUNICATIONS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

15. Stock-Based Compensation

On February 28, 2018, our stockholders approved amendments to the Company’s amended and restated 2000 Stock Plan (the “Amended and Restated 2000 Stock Plan”). The Amended and Restated 2000 Stock Plan (i) increases the number of shares issuable by 6,400,000 to 82,250,000 shares; (ii) prohibits the payment of dividends relating to unvested awards unless and until such awards become vested; and (iii) prohibits shares that are withheld for taxes or to pay the exercise price of options or stock appreciation rights, or that are reacquired on the open market or otherwise using cash from option exercises, from becoming available for future grant under the Amended and Restated 2000 Stock Plan.

As of September 30, 2018, we had 13.4 million shares available for future grants under the Amended and Restated 2000 Stock Plan. We recognize stock-based compensation expenses over the requisite service periods. Our share-based awards are classified within equity. The amounts included in the condensed consolidated statements of operations related to stock-based compensation are as follows (in thousands):

	2018	2017	2016
Cost of professional services and hosting	\$ 31,299	\$ 28,962	\$ 31,054
Cost of product and licensing	816	348	376
Cost of maintenance and support	5,126	3,767	4,138
Research and development	40,087	33,061	35,671
Sales and marketing	39,656	45,813	49,064
General and administrative	33,801	42,321	43,525
Total	\$ 150,785	\$ 154,272	\$ 163,828

Stock Options

We have share-based award plans under which employees, officers and directors may be granted stock options to purchase our common stock, generally at the fair market value of the grant date. Our plans do not allow for options to be granted at below fair market value, nor can they be re-priced at any time. Options granted under our plans generally become exercisable over a period of two to four years and have a maximum term of ten years. We have also assumed options and option plans in connection with certain of our acquisitions. These stock options are governed by the plans and agreements that they were originally issued under but are now exercisable for shares of our common stock.

NUANCE COMMUNICATIONS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

The table below summarizes activities related to stock options for the years ended September 30, 2018 , 2017 and 2016 :

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term	Aggregate Intrinsic Value ^(a)
Outstanding at September 30, 2015	2,923,989	\$ 14.01		
Granted	—	\$ —		
Exercised	(955,060)	\$ 11.96		
Forfeited	—	\$ —		
Expired	(3,103)	\$ 10.42		
Outstanding at September 30, 2016	1,965,826	\$ 15.01		
Granted	—	\$ —		
Exercised/Repurchased ^(b)	(1,932,286)	\$ 14.98		
Forfeited	—	\$ —		
Expired	(9,733)	\$ 20.01		
Outstanding at September 30, 2017	23,807	\$ 15.39		
Granted	—	\$ —		
Exercised	(2,963)	\$ 2.61		
Forfeited	—	\$ —		
Expired	(1,700)	\$ 15.99		
Outstanding at September 30, 2018	19,144	\$ 17.31	3.1 years	\$ 0.1 million
Exercisable at September 30, 2018	19,144	\$ 17.31	3.1 years	\$ 0.1 million
Exercisable at September 30, 2017	23,798			
Exercisable at September 30, 2016	1,965,817			

^(a) The aggregate intrinsic value represents any excess of the closing price of our common stock of \$17.32 on September 30, 2018 over the exercise price of the underlying options.

^(b) We repurchased 1.0 million shares owned directly or indirectly by our Chief Executive Officer, including 649,649 outstanding shares and 800,000 vested stock options with a net share equivalent of 350,351 shares, for an aggregate purchase price of \$21.4 million .

As of September 30, 2018 , there was no unamortized fair value of stock options. A summary of intrinsic value of stock options exercised is as follows:

	2018	2017	2016
Total intrinsic value of stock options exercised (in millions)	\$ 0.04	\$ 3.59	\$ 8.63

Restricted Awards

We are authorized to issue equity incentive awards in the form of Restricted Awards, including Restricted Units and Restricted Stock, which are individually discussed below. Unvested Restricted Awards may not be sold, transferred or assigned. The fair value of the Restricted Awards is measured based upon the market price of the underlying common stock as of the date of grant, reduced by the purchase price of \$0.001 per share of the awards. Restricted Awards generally vest over a period of two to four years. We also issued certain Restricted Awards with vesting solely dependent on the achievement of specified performance targets. The fair value of the Restricted Awards is amortized to expense over the awards' applicable requisite service periods using the straight-line method. In the event that the employees' employment with us terminates, or in the case of awards with only performance goals, if those goals are not met, any unvested shares are forfeited and revert to us.

In order to satisfy our employees' withholding tax liability as a result of the vesting of Restricted Awards, we have historically repurchased shares upon the employees' vesting. In fiscal year 2018 , we withheld payroll taxes totaling \$52.3 million related to 3.3 million shares of common stock that were repurchased or canceled.

NUANCE COMMUNICATIONS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Restricted Units

Restricted Units are not included in issued and outstanding common stock until the shares are vested and released. The table below summarizes activity relating to Restricted Units:

	Number of Shares Underlying Restricted Units — Contingent Awards	Number of Shares Underlying Restricted Units — Time-Based Awards
Outstanding at September 30, 2015	4,700,210	7,007,839
Granted	2,533,389	7,146,415
Earned/released	(2,254,445)	(7,243,615)
Forfeited	(754,666)	(1,026,616)
Outstanding at September 30, 2016	4,224,488	5,884,023
Granted	3,224,696	8,457,761
Earned/released	(1,790,514)	(7,150,783)
Forfeited	(614,739)	(713,837)
Outstanding at September 30, 2017	5,043,931	6,477,164
Granted	2,175,537	8,876,712
Earned/released	(2,092,862)	(7,156,468)
Forfeited	(2,087,038)	(1,325,321)
Outstanding at September 30, 2018	3,039,568	6,872,087
Weighted average remaining recognition period of outstanding Restricted Units	1.0 year	2.2 years
Unrecognized stock-based compensation expense of outstanding Restricted Units	\$33.1 million	\$82.3 million
Aggregate intrinsic value of outstanding Restricted Units ⁽¹⁾	\$52.6 million	\$119.1 million

⁽¹⁾ The aggregate intrinsic value represents any excess of the closing price of our common stock of \$17.32 on September 30, 2018 over the exercise price of the underlying Restricted Units.

A summary of the weighted-average grant-date fair value of Restricted Units granted, and the aggregate intrinsic value of Restricted Units vested for each fiscal year is as follows:

	2018	2017	2016
Weighted-average grant-date fair value per share	\$ 15.47	\$ 16.31	\$ 18.93
Total intrinsic value of shares vested (in millions)	\$ 146.5	\$ 146.0	\$ 179.7

NUANCE COMMUNICATIONS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Restricted Stock Awards

Restricted stock awards ("Restricted Stock") are included within the issued and outstanding common stock at the date of the grant. The table below summarizes activities related to Restricted Stock:

	Number of Shares Underlying Restricted Stock	Weighted Average Grant Date Fair Value
Outstanding at September 30, 2015	250,000	\$ 15.71
Granted	—	\$ —
Vested	(250,000)	\$ 15.71
Outstanding at September 30, 2016	—	\$ —
Granted	250,000	\$ 15.55
Vested	(250,000)	\$ 15.55
Outstanding at September 30, 2017	—	\$ —
Granted	—	\$ —
Vested	—	\$ —
Outstanding at September 30, 2018	—	\$ —

A summary of the weighted-average grant-date fair value of Restricted Stock granted, and the aggregate intrinsic value of Restricted Stock vested for each fiscal year is as follows:

	2018	2017	2016
Weighted-average grant-date fair value per share	\$ —	\$ 15.55	\$ —
Total intrinsic value of shares vested (in millions)	\$ —	\$ 3.9	\$ 4.3

1995 Employee Stock Purchase Plan

Our 1995 Employee Stock Purchase Plan (the "Plan"), as amended and restated on January 27, 2015, authorizes the issuance of a maximum of 20,000,000 shares of common stock in semi-annual offerings to employees at a price equal to the lower of 85% of the closing price on the applicable offering commencement date or 85% of the closing price on the applicable offering termination date. Stock-based compensation expense for the employee stock purchase plan is recognized for the fair value benefit accorded to participating employees. At September 30, 2018, we have reserved 5,099,834 shares for future issuance. A summary of the weighted-average grant-date fair value, shares issued and total stock-based compensation expense recognized related to the Plan are as follows:

	2018	2017	2016
Weighted-average grant-date fair value per share	\$ 4.00	\$ 3.84	\$ 3.97
Total shares issued (in millions)	1.3	1.3	1.2
Total stock-based compensation expense (in millions)	\$ 5.2	\$ 4.9	\$ 4.8

The fair value of the purchase rights granted under this plan was estimated on the date of grant using the Black-Scholes option-pricing model that uses the following weighted-average assumptions, which were derived in a manner similar to those discussed above relative to stock options:

	2018	2017	2016
Dividend yield	0.0%	0.0%	0.0%
Expected volatility	32.1%	29.3%	34.0%
Average risk-free interest rate	2.0%	0.9%	0.5%
Expected term (in years)	0.5	0.5	0.5

NUANCE COMMUNICATIONS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

16. Commitments and Contingencies

Operating Leases

We have various operating leases for office space around the world. In connection with many of our acquisitions, we assumed facility lease obligations. Among these assumed obligations are lease payments related to office locations that were vacated by certain of the acquired companies prior to the acquisition date. Additionally, certain of our lease obligations have been included in various restructuring charges (Note 12).

The following table outlines our gross future minimum payments under all non-cancelable operating leases as of September 30, 2018 (dollars in thousands):

Year Ending September 30,	Operating Leases	Operating leases under restructuring	Total
2019	\$ 29,119	\$ 10,128	\$ 39,247
2020	21,299	9,359	30,658
2021	18,216	8,536	26,752
2022	16,449	8,456	24,905
2023	15,572	8,734	24,306
Thereafter	64,310	15,663	79,973
Total	\$ 164,965	\$ 60,876	\$ 225,841

As of September 30, 2018, we have subleased certain office space that is included in the above table to third parties. As of September 30, 2018, the aggregate sublease income to be recognized during the remaining lease terms for restructured facilities is \$42.8 million, with approximately \$5.9 million annually for each of the next five fiscal years and approximately \$13.3 million thereafter.

Total rent expense, including rent expense for our data centers, was approximately \$45.7 million, \$38.5 million and \$38.3 million for the years ended September 30, 2018, 2017 and 2016, respectively.

Litigation and Other Claims

Similar to many companies in the software industry, we are involved in a variety of claims, demands, suits, investigations and proceedings that arise from time to time relating to matters incidental to the ordinary course of our business, including actions with respect to contracts, intellectual property, employment, benefits and securities matters. If the potential loss from any claim or legal proceeding is considered probable and the amount can be reasonably estimated, we accrue a liability for the estimated loss. Significant judgments are required for the determination of probability and the range of the outcomes. Due to the inherent uncertainties, estimates are based only on the best information available at the time. Actual outcomes may differ from our estimates. As additional information becomes available, we reassess the potential liability related to our pending claims and litigation and may revise our estimates. Such revisions may have a material impact on our results of operations and financial position. As of September 30, 2018 and 2017, accrued losses were not material to our consolidated financial statements, and we do not expect any pending matter to have a material impact on our consolidated financial statements.

Guarantees and Other

We include indemnification provisions in the contracts we enter into with customers and business partners. Generally, these provisions require us to defend claims arising out of our products' infringement of third-party intellectual property rights, breach of contractual obligations and/or unlawful or otherwise culpable conduct. The indemnity obligations generally cover damages, costs and attorneys' fees arising out of such claims. In most, but not all cases, our total liability under such provisions is limited to either the value of the contract or a specified, agreed upon amount. In some cases, our total liability under such provisions is unlimited. In many, but not all cases, the term of the indemnity provision is perpetual. While the maximum potential amount of future payments we could be required to make under all the indemnification provisions is unlimited, we believe the estimated fair value of these provisions is minimal due to the low frequency with which these provisions have been triggered.

NUANCE COMMUNICATIONS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

We indemnify our directors and officers to the fullest extent permitted by Delaware law, which provides among other things, indemnification to directors and officers for expenses, judgments, fines, penalties and settlement amounts incurred by such persons in their capacity as a director or officer of the company, regardless of whether the individual is serving in any such capacity at the time the liability or expense is incurred. Additionally, in connection with certain acquisitions, we agreed to indemnify the former officers and members of the boards of directors of those companies, on similar terms as described above, for a period of six years from the acquisition date. In certain cases, we purchase director and officer insurance policies related to these obligations, which fully cover the six -year period. To the extent that we do not purchase a director and officer insurance policy for the full period of any contractual indemnification, and such directors and officers do not have coverage under separate insurance policies, we would be required to pay for costs incurred, if any, as described above.

17. Pension and Other Post-Retirement Benefits

Defined Contribution Plans

We have established a retirement savings plan under Section 401(k) of the Internal Revenue Code (the “401(k) Plan”). The 401(k) Plan covers substantially all of our U.S. employees who meet minimum age and service requirements, and allows participants to defer a portion of their annual compensation on a pre-tax basis. We match 50% of employee contributions up to 4% of eligible salary. Employer's contributions vest one-third annually over a three -year period. Our contributions to the 401(k) Plan that covers substantially all of our U.S. employees who meet the minimum requirements totaled \$6.7 million , \$6.7 million and \$6.6 million for fiscal years 2018 , 2017 and 2016 , respectively. We make contributions to various other plans in certain of our foreign operations; total contributions to these plans are not material.

Defined Benefit Plans

We sponsor certain defined benefit plans that are offered primarily by our foreign subsidiaries. Many of these plans were assumed through our acquisitions or are required by local regulatory requirements. We may deposit funds for these plans with insurance companies, third party trustees, or into government-managed accounts consistent with local regulatory requirements, as applicable. Our total defined benefit pension expenses were \$0.3 million , \$0.4 million and \$0.1 million for fiscal years 2018 , 2017 and 2016 , respectively. The aggregate projected benefit obligation as of September 30, 2018 and September 30, 2017 was \$34.7 million and \$37.2 million , respectively. The aggregate net liability of our defined benefit plans as of September 30, 2018 and September 30, 2017 was \$11.1 million and \$13.2 million , respectively.

18. Income Taxes

Recent Tax Legislation

On December 22, 2017, the Tax Cuts and Jobs Act ("TCJA") was signed into law. The TCJA significantly revises the U.S. corporate income tax by, among other things, lowering corporate income tax rates, implementing a hybrid territorial tax system, and imposing a mandatory one-time repatriation tax on foreign cash and earnings.

As a result of the TCJA, we remeasured certain deferred tax assets and liabilities at the lower rates and recorded approximately \$92.9 million of tax benefits for fiscal year 2018. Additionally, as of September 30, 2018 , we recorded a \$5.8 million provision for the deemed repatriation of foreign cash and earnings, which is estimated based upon estimated foreign earnings and foreign income taxes. We are in the process of finalizing our assessment, which will be completed in December 2018.

Provision for Income Taxes

The components of (loss) income before income taxes are as follows (in thousands):

	Year Ended September 30,		
	2018	2017	2016
Domestic	\$ (187,616)	\$ (228,406)	\$ (118,410)
Foreign	(29,119)	109,391	120,149
(Loss) income before income taxes	<u>\$ (216,735)</u>	<u>\$ (119,015)</u>	<u>\$ 1,739</u>

NUANCE COMMUNICATIONS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

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

	Year Ended September 30,		
	2018	2017	2016
Current:			
Federal	\$ 4,189	\$ —	\$ —
State	598	2,185	3,230
Foreign	25,623	24,941	22,981
Total current	<u>30,410</u>	<u>27,126</u>	<u>26,211</u>
Deferred:			
Federal	(83,319)	7,291	(7,235)
State	2,303	1,133	(1,962)
Foreign	(6,201)	(3,569)	(2,817)
Total deferred	<u>(87,217)</u>	<u>4,855</u>	<u>(12,014)</u>
(Benefit) provision for income taxes	<u>\$ (56,807)</u>	<u>\$ 31,981</u>	<u>\$ 14,197</u>
Effective income tax rate	<u>26.2%</u>	<u>(26.9)%</u>	<u>816.4%</u>

The (benefit) provision for income taxes differed from the amount computed by applying the federal statutory rate to our (loss) income before income taxes as follows (in thousands):

	Year Ended September 30,		
	2018	2017	2016
Federal tax benefit at statutory rate	\$ (53,165)	\$ (41,655)	\$ 609
State tax provision, net of federal benefit	1,698	2,560	137
Foreign tax rate and other foreign related tax items	(13,539)	(20,415)	(25,976)
Repatriated earnings, net of foreign tax credits	—	—	71,343
Stock-based compensation	3,290	6,934	6,154
Non-deductible expenditures	2,546	3,247	3,235
Change in U.S. and foreign valuation allowance	56,557	72,318	(53,079)
TCJA impact	(87,057)	—	—
Goodwill impairment	28,640	—	—
Executive compensation	503	5,492	4,749
Other	3,720	3,500	7,025
(Benefit) provision for income taxes	<u>\$ (56,807)</u>	<u>\$ 31,981</u>	<u>\$ 14,197</u>

The effective income tax rate is based upon the income for the year, the composition of the income in different countries, changes relating to valuation allowances for certain countries if and as necessary, and adjustments, if any, for the potential tax consequences, benefits or resolutions of audits or other tax contingencies. Our aggregate income tax rate in foreign jurisdictions is lower than our income tax rate in the United States; the majority of our income before provision for income taxes from foreign operations has been earned by subsidiaries in Ireland. Our effective tax rate may be adversely affected by earnings being lower than anticipated in countries where we have lower statutory tax rates and higher than anticipated in countries where we have higher statutory tax rates.

The effective income tax rate in fiscal year 2018 differs from the U.S. federal statutory rate of 24.5% primarily due to the net tax benefits resulting from the TCJA remeasurement of deferred tax assets and liabilities at the lower enacted rate, and our foreign earnings subject to lower tax rates, offset in part by additional valuation allowance related to current period losses, the tax effect of goodwill impairment charges that are not deductible, and the provision for the deemed repatriation of foreign cash and earnings.

The effective income tax rate in fiscal year 2017 differs from the U.S. federal statutory rate of 35% primarily due to additional valuation allowance related to current period losses in the United States, and an increase in deferred tax liabilities related to goodwill, partially offset by our earnings in foreign operations that are subject to significantly lower tax rates than U.S. statutory tax rate.

NUANCE COMMUNICATIONS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

The effective income tax rates in fiscal year 2016 differs from the U.S. federal statutory rate of 35% primarily due to additional valuation allowance related to current period losses in the United States, an increase in the deferred tax liabilities related to goodwill, and an increase in current tax provisions due to the one-time repatriation of foreign earnings offset by the utilization of previously unbenefited domestic loss and credit carryforwards. These were offset in part by our foreign earnings subject to significantly lower tax rates, and a \$22.1 million release of domestic valuation allowance as a result of tax benefits recorded in connection with our acquisitions during the period for which a deferred tax liability was established in purchase accounting.

As of September 30, 2018, we have not provided taxes on \$310.5 million of undistributed earnings of our foreign subsidiaries, which may be subject to foreign withholding taxes upon repatriation, as we consider these earnings indefinitely reinvested. Our indefinite reinvestment determination is based on the future operational and capital requirements of our domestic and foreign operations. We expect our international cash and cash equivalents and marketable securities of \$112.8 million will continue to be used for our foreign operations and therefore do not anticipate repatriating these funds. As of September 30, 2018, it is not practical to calculate the unrecognized deferred tax liability on these earnings due to the complexities of the utilization of foreign tax credits and other tax assets.

Deferred tax assets (liabilities) consist of the following as of September 30, 2018 and 2017 (in thousands):

	<u>2018</u>	<u>2017</u>
Deferred tax assets:		
Net operating loss carryforwards	\$ 192,017	\$ 269,495
Federal and state credit carryforwards	46,721	58,803
Accrued expenses and other reserves	41,371	53,795
Difference in timing of revenue related items	81,647	100,971
Deferred compensation	19,315	30,528
Other	13,802	20,424
Total deferred tax assets	<u>394,873</u>	<u>534,016</u>
Valuation allowance for deferred tax assets	(183,295)	(229,449)
Net deferred tax assets	<u>211,578</u>	<u>304,567</u>
Deferred tax liabilities:		
Depreciation	(15,729)	(36,016)
Convertible debt	(92,452)	(136,609)
Acquired intangibles	(131,959)	(221,707)
Unremitted earnings of foreign subsidiaries	—	(20,850)
Net deferred tax liabilities	<u>\$ (28,562)</u>	<u>\$ (110,615)</u>
Reported as:		
Other assets	\$ 21,369	\$ 20,705
Long-term deferred tax liabilities	(49,931)	(131,320)
Net deferred tax liabilities	<u>\$ (28,562)</u>	<u>\$ (110,615)</u>

Deferred tax assets are reduced by a valuation allowance if, based on the weight of available positive and negative evidence, it is more likely than not that some portion or all the deferred tax assets will not be realized. During fiscal year 2018, the valuation allowance for deferred tax assets decreased by \$46.2 million. This decrease mainly relates to the remeasurement of deferred tax assets and liabilities at the TCJA lower federal tax rate of 21% and the reduction of foreign tax credit carryforwards utilized and the TCJA mandatory repatriation of foreign earnings tax. The decrease was partially offset by reduction of deferred tax liabilities due to intangible asset impairments, establishment of valuation allowance related to current period losses, and reversal of deferred tax liabilities on foreign earnings. As of September 30, 2018, we have \$142.8 million and \$40.5 million in valuation allowance against our net domestic and foreign deferred tax assets, respectively. As of September 30, 2017, we had \$202.3 million and \$27.1 million in valuation allowance against our net domestic and foreign deferred tax assets, respectively.

The majority of deferred tax assets relate to net operating losses, the use of which may not be available as a result of limitations on the use of acquired losses. With respect to these operating losses, there is no assurance that they will be used given the current assessment of the limitations on their use or our current projection of future taxable income in the entities for which these losses relate. Based on our analysis, we have concluded that it is not more likely than not that the majority of our deferred tax assets can

NUANCE COMMUNICATIONS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

be realized and therefore a valuation allowance has been assigned to these deferred tax assets. If we are subsequently able to utilize all or a portion of the deferred tax assets for which a valuation allowance has been established, then we may be required to recognize these deferred tax assets through the reduction of the valuation allowance which could result in a material benefit to our results of operations in the period in which the benefit is determined.

At September 30, 2018 and 2017, we had U.S. federal net operating loss carryforwards of \$692.9 million and \$642.0 million, respectively. At September 30, 2018 and 2017, we had state net operating loss carryforwards of \$259.1 million and \$262.7 million, respectively. The net operating loss and credit carryforwards are subject to an annual limitation due to the ownership change limitations provided by the Internal Revenue Code of 1986 and similar state tax provisions. As of September 30, 2018 and 2017, we had foreign net operating loss carryforwards of \$164.9 million and \$168.8 million, respectively. These carryforwards will expire at various dates beginning in 2018 and extending up to an unlimited period.

As of September 30, 2018 and 2017, we had federal research and development carryforwards and foreign tax credit carryforwards of \$30.2 million and \$43.5 million, respectively. As of September 30, 2018 and 2017, we had state research and development credit and investment tax credit carryforwards of \$5.3 million and \$6.2 million, respectively. As of September 30, 2018 and 2017, we had foreign investment tax credit carryforwards of \$14.7 million and \$14.8 million, respectively.

Uncertain Tax Positions

We recognize tax benefits from uncertain tax positions only if it is more likely than not that the tax position will be sustained on examination by the taxing authorities, based on the technical merits of the position. The tax benefits recognized in the financial statements from such positions are then measured based on the largest benefit which is more likely than not to be realized upon ultimate settlement. We recognize interest and penalties related to uncertain tax positions in our provision for income taxes line of our consolidated statements of operations.

The aggregate changes in the balance of our gross unrecognized tax benefits were as follows (in thousands):

	September 30,	
	2018	2017
Balance at the beginning of the year	\$ 34,058	\$ 31,955
Increases related to tax positions from prior fiscal years	1,720	2,745
Decreases related to tax positions from prior fiscal years	(2,281)	(602)
Increases for tax positions taken during current period	1,709	1,676
Decreases for tax settlements and lapse in statutes	(4,083)	(1,083)
Cumulative translation adjustments	(724)	(633)
Balance at the end of the year	\$ 30,399	\$ 34,058

As of September 30, 2018, \$30.4 million of the unrecognized tax benefits, if recognized, would impact our effective tax rate. We do not expect a significant change in the amount of unrecognized tax benefits within the next 12 months. We recognized interest and penalties related to uncertain tax positions in our provision for income taxes of \$1.4 million, \$2.1 million, and \$2.2 million during fiscal years 2018, 2017, and 2016, respectively. We recorded interest and penalties of \$10.8 million and \$9.9 million as of September 30, 2018 and 2017, respectively.

We are subject to U.S. federal income tax, various state and local taxes, and international income taxes in numerous jurisdictions. The federal tax returns for 1999 through 2014 remain subject to examination for the purpose of determining the amount of remaining tax NOL and other carryforwards. Additionally, the federal tax returns for 2015 through 2018 years remain open for all purposes of examination by the IRS and other taxing authorities in material jurisdictions.

19. Related Party Transaction

In January 2018, we entered into a software and license agreement (the "License Agreement") with Magnet Systems, Inc. ("Magnet") which was pre-approved by our Board of Directors. A member of the Magnet board of directors also served on our board of directors at the time of the transaction. Pursuant to the License Agreement, Magnet granted us a perpetual software license to certain technology for a one-time payment of \$5.0 million in cash, with \$3.5 million paid immediately upon the effective date of the License Agreement and \$1.5 million payable upon the earlier of (i) the 120-day period following the effective date of the License Agreement or (ii) signature of a statement of work for the engineering services described below.

NUANCE COMMUNICATIONS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Additionally, we entered into a service agreement (the "Service Agreement") with Magnet, pursuant to which, Magnet will provide engineering services to assist in integrating the licensed technology into certain of our Enterprise solutions. Based upon the statement of work signed on April 19, 2018, total fees under the Service Agreement should not exceed \$2.0 million and are payable within thirty days after receipt of each invoice for services performed and accepted in accordance with the terms of the Service Agreement.

For fiscal year 2018, we made a total payment of \$5.7 million to Magnet, with \$5.0 million related to the license and \$0.7 million related to the integration services. As of September 30, 2018, \$0.4 million was included within Accounts payable.

20. Segment and Geographic Information

During the first quarter of fiscal year 2018, we commenced a review of our segment reporting structure to better align our Chief Operating Decision Maker's ("CODM") long-term strategic focus with our organizational structure. During the second quarter of fiscal year 2018, we implemented a number organizational changes to align our segment reporting structure with our long-term strategic focuses, including (i) establishing our Automotive business as a separate operating segment, (ii) moving our Dragon TV business from our former Mobile operating segment into our Enterprise operating segment to consolidate our telecommunications market resources, and (iii) establishing an Other segment that includes our SRS and Devices businesses, previously reported within our former Mobile operating segment. As a result, segment information for fiscal years 2018, 2017 and 2016 has been recast to reflect the new segment reporting structure.

Our CODM regularly reviews segment revenues and segment profits for performance evaluation and resources allocation. Segment revenues include certain acquisition-related adjustments for revenues that would otherwise have been recognized without the acquisition. Segment profits reflect controllable costs directly related to each segment and the allocation of certain corporate expenses such as, corporate sales and marketing expenses and research and development project costs that benefit multiple segments. Certain items such as stock-based compensation, amortization of intangible assets, acquisition-related costs, net, restructuring and other charges, net, other expenses, net and certain unallocated corporate expenses are excluded from segment profits, which allow for more meaningful comparisons to the financial results of the historical operations for performance evaluation and resources allocation by our CODM.

- The Healthcare segment is primarily engaged in providing clinical speech and clinical language understanding solutions that improve the clinical documentation process, from capturing the complete patient record to improving clinical documentation and quality measures for reimbursement.
- The Enterprise segment is primarily engaged in using speech, natural language understanding, and artificial intelligence to provide automated customer solutions and services for voice, mobile, web and messaging channels.
- The Automotive segment is primarily engaged in providing automotive manufacturers and their suppliers branded and personalized virtual assistants and connected car services built on our voice recognition and natural language understanding technologies.
- The Imaging segment is primarily engaged in software solutions and expertise that help professionals and organizations to gain optimal control of their document and information processes through scanning and print management.
- Other segment includes our SRS and Devices businesses. Our SRS business provides value-added services to mobile operators in India and Brazil ("Mobile Operator Services") and voicemail transcription services to mobile operators in the rest of the world ("Voicemail-to-Text"). Our Devices business provides speech recognition solutions and predictive text technologies for handset devices.

NUANCE COMMUNICATIONS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

As we do not track our assets by operating segment, we do not include total assets or depreciation expenses by operating segment. The following table presents segment results along with a reconciliation of segment profits to (loss) income before income taxes (in thousands):

	Year Ended September 30,		
	2018	2017	2016
Segment revenues:			
Healthcare	\$ 984,819	\$ 899,341	\$ 973,297
Enterprise	483,194	474,317	396,026
Automotive	279,402	252,218	214,267
Imaging	212,903	217,749	241,569
Other	109,064	133,766	154,434
Total segment revenues	2,069,382	1,977,391	1,979,593
Acquisition related revenue adjustments ^(a)	(17,721)	(38,029)	(30,690)
Total consolidated revenue	2,051,661	1,939,362	1,948,903
Segment profit:			
Healthcare	331,382	262,149	313,466
Enterprise	142,422	135,638	129,259
Automotive	109,867	118,869	95,660
Imaging	67,391	79,512	100,823
Other	28,417	41,568	38,434
Total segment profit	679,479	637,736	677,642
Corporate expenses and other, net	(199,411)	(125,924)	(128,239)
Acquisition-related revenues and costs of revenues adjustment	(17,721)	(38,029)	(29,765)
Stock-based compensation	(150,785)	(154,272)	(163,828)
Amortization of intangible assets	(147,966)	(178,748)	(170,897)
Acquisition-related costs, net	(16,101)	(27,740)	(17,166)
Restructuring and other charges, net	(63,498)	(61,054)	(25,224)
Impairment of goodwill and other intangible assets	(170,941)	—	—
Costs associated with IP collaboration agreements ^(b)	—	—	(4,000)
Other expenses, net	(129,791)	(170,984)	(136,784)
(Loss) income before income taxes	\$ (216,735)	\$ (119,015)	\$ 1,739

^(a) Segment revenues differ from reported revenues due to certain revenue adjustments related to acquisitions that would otherwise have been recognized but for the purchase accounting treatment of the business combinations. These revenues are included to allow for more complete comparisons to the financial results of historical operations and in evaluating management performance.

^(b) We entered into certain collaboration agreements in order to gain access to a third party's extensive speech recognition technology, natural language technology, and semantic processing technology. Pursuant to these agreements, we had sole rights to commercialize such intellectual property for periods ranging between two to six years. For fiscal year 2016, we recognized \$4.0 million as sales and marketing expense for the exclusive commercialization rights related to one of these collaboration agreements in our consolidated statements of operations. No expenses were recognized for fiscal years 2018 and 2017.

No country outside of the United States provided greater than 10% of our total revenue. Revenue, classified by the major geographic areas in which our customers are located, was as follows (dollars in thousands):

	2018	2017	2016
United States	\$ 1,470,669	\$ 1,352,039	\$ 1,385,265
International	580,992	587,323	563,638
Total	\$ 2,051,661	\$ 1,939,362	\$ 1,948,903

NUANCE COMMUNICATIONS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

No country outside of the United States held greater than 10% of our long-lived or total assets. Our long-lived assets, including intangible assets and goodwill, were located as follows (dollars in thousands):

	September 30, 2018	September 30, 2017
United States	\$ 3,378,698	\$ 3,604,140
International	995,050	999,842
Total	\$ 4,373,748	\$ 4,603,982

21. Subsequent Event

During the third quarter of fiscal year 2018, we commenced a strategic and operational review of our business with the goal of improving our focuses on leveraging our core strengths in key vertical markets and sustaining our long-term growth and profitability.

In connection with our strategic business review, our Board of Directors approved the divestiture of our Imaging business on November 7, 2018. On November 11, 2018, we entered into a definitive stock purchase agreement, pursuant to which we agreed to sell our Imaging business and associated assets for a total cash consideration of approximately \$400 million. The transaction, which is subject to regulatory review and other customary closing conditions, is expected to close by the end of the second quarter of fiscal year 2019.

Additionally, on November 19, 2018, we announced our intent to spin off our Automotive business into an independent publicly-traded company through a pro rata distribution to our common stock holders. Completion of the proposed spin-off is subject to certain conditions, including final approval by our Board of Directors. We are targeting to complete the separation of the business by the end of fiscal year 2019.

22. Quarterly Data (Unaudited)

The following information has been derived from unaudited consolidated financial statements that, in the opinion of management, include all recurring adjustments necessary for a fair statement of such information (dollars in thousands, except per share amounts):

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Fiscal Year
2018					
Total revenue	\$ 501,645	\$ 514,224	\$ 502,887	\$ 532,905	\$ 2,051,661
Gross profit	\$ 280,451	\$ 285,236	\$ 289,449	\$ 322,955	\$ 1,178,091
Net income (loss)	\$ 53,228	\$ (164,053)	\$ (14,037)	\$ (35,066)	\$ (159,928)
Net income (loss) per share:					
Basic	\$ 0.18	\$ (0.56)	\$ (0.05)	\$ (0.12)	\$ (0.55)
Diluted	\$ 0.18	\$ (0.56)	\$ (0.05)	\$ (0.12)	\$ (0.55)
Weighted average common shares outstanding:					
Basic	291,367	294,103	292,663	287,052	291,318
Diluted	295,995	294,103	292,663	287,052	291,318
2017					
Total revenue	\$ 487,658	\$ 499,573	\$ 486,221	\$ 465,910	\$ 1,939,362
Gross profit	\$ 275,248	\$ 286,155	\$ 270,008	\$ 254,151	\$ 1,085,562
Net loss	\$ (23,929)	\$ (33,808)	\$ (27,836)	\$ (65,423)	\$ (150,996)
Net loss per share:					
Basic	\$ (0.08)	\$ (0.12)	\$ (0.10)	\$ (0.23)	\$ (0.52)
Diluted	\$ (0.08)	\$ (0.12)	\$ (0.10)	\$ (0.23)	\$ (0.52)
Weighted average common shares outstanding:					
Basic	288,953	291,021	287,856	288,718	289,348
Diluted	288,953	291,021	287,856	288,718	289,348

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

Not applicable.

Item 9A. *Controls and Procedures*

Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of our disclosure controls and procedures. Our disclosure controls and procedures are designed (i) to ensure that information required to be disclosed by us in the reports that we file or submit under the Securities Exchange Act of 1934, as amended (the "Exchange Act") is recorded, processed and summarized and reported within the time periods specified in the SEC's rules and forms and (ii) to ensure that information required to be disclosed in the reports we file or submit under the Exchange Act is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, to allow timely decisions regarding required disclosure. Based on that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that, as of September 30, 2018, our disclosure controls and procedures were effective.

Management Report on Internal Control Over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. Our internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external reporting purposes in accordance with generally accepted accounting principles. Our internal control over financial reporting includes those policies and procedures that:

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

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

Management has assessed the effectiveness of our internal control over financial reporting as of September 30, 2018, utilizing the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") in the 2013 Internal Control-Integrated Framework. Based on the results of this assessment, management (including our Chief Executive Officer and our Chief Financial Officer) has concluded that, as of September 30, 2018, our internal control over financial reporting was effective.

The attestation report concerning the effectiveness of our internal control over financial reporting as of September 30, 2018 issued by BDO USA, LLP, an independent registered public accounting firm, appears in Item 8 of this Annual Report on Form 10-K.

Changes in Internal Controls Over Financial Reporting

There have been no changes in our internal controls over financial reporting during the fourth quarter of fiscal 2018 that have materially affected, or are reasonably likely to materially affect, our internal controls over financial reporting.

Item 9B. Other Information

On November 19, 2018, the Compensation Committee of the Board of Directors approved the payment of a \$1 million transaction bonus to Alvaro Monserrat, the Executive Vice President and General Manager of the Imaging business, upon and subject to the occurrence of the closing of the sale of the Imaging business, in recognition of Mr. Monserrat's integral role in the transaction. The Committee also approved the payment of a bonus under the Company's annual incentive plan, upon and subject to the closing of the transaction, to Mr. Monserrat in the amount of 100% of target in the event that the closing occurs on or before March 31, 2019, and in an amount based on the Company's projected fiscal year forecast in the event the closing occurs after March 31, 2019, in each case pro-rated for the portion of the fiscal year that runs to and including the closing date. Each such bonus may be paid to Mr. Monserrat in cash or equity, at the Company's option. The Committee also approved the acceleration and vesting of all of Mr. Monserrat's outstanding performance stock units, at target, and restricted stock units, scheduled to vest through November 30, 2019, such acceleration and vesting to occur upon and subject to the closing of the transaction. Mr. Monserrat must remain continuously employed with the Company and work diligently and in good faith through the closing of the transaction in order to be eligible for the bonuses and accelerated vesting summarized above.

PART III

Certain information required by Part III is omitted from this Annual Report on Form 10-K since we intend to file our definitive Proxy Statement for our next Annual Meeting of Stockholders, pursuant to Regulation 14A of the Securities Exchange Act of 1934, as amended (the "Proxy Statement"), within 120 days of the end of the fiscal year covered by this report, and certain information to be included in the Proxy Statement is incorporated herein by reference.

Item 10. Directors, Executive Officers and Corporate Governance

The information required by this item concerning our directors is incorporated by reference to the information set forth in the section titled "Election of Directors" in our Proxy Statement. Information required by this item concerning our executive officers is incorporated by reference to the information set forth in the section entitled "Executive Compensation, Management and Other Information" in our Proxy Statement. Information regarding Section 16 reporting compliance is incorporated by reference to the information set forth in the section entitled "Section 16(a) Beneficial Ownership Reporting Compliance" in our Proxy Statement.

Our Board of Directors adopted a Code of Business Conduct and Ethics for all of our directors, officers and employees on September 15, 2015. Our Code of Business Conduct and Ethics can be found at our website: www.nuance.com. We will provide to any person without charge, upon request, a copy of our Code of Business Conduct and Ethics. Such a request should be made in writing and addressed to Investor Relations, Nuance Communications, Inc., 1 Wayside Road, Burlington, MA 01803.

To date, there have been no waivers under our Code of Business Conduct and Ethics. We will post any waivers, if and when granted, of our Code of Business Conduct and Ethics on our website at www.nuance.com.

Item 11. Executive Compensation

The information required by this item regarding executive compensation is incorporated by reference to the information set forth in the section titled "Executive Compensation, Management and Other Information" in our Proxy Statement.

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

The information required by this item regarding security ownership of certain beneficial owners and management is incorporated by reference to the information set forth in the sections titled "Security Ownership of Certain Beneficial Owners and Management" and "Equity Compensation Plan Information" in our Proxy Statement.

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

It is the policy of the Board that all transactions required to be reported pursuant to Item 404 of Regulation S-K be subject to approval by the Audit Committee of the Board. In furtherance of relevant Nasdaq rules and our commitment to corporate governance, the charter of the Audit Committee provides that the Audit Committee shall review and approve any proposed related party transactions including, transactions required to be reported pursuant to Item 404 of Regulation S-K for potential conflict of interest situations. The Audit Committee reviews the material facts of all transactions that require the committee's approval and either approves or disapproves of the transaction. In determining whether to approve a transaction, the Audit Committee will take into account, among other factors it deems appropriate, whether the transaction is on terms no less favorable than terms generally available to an unaffiliated third-party under the same or similar circumstances.

The additional information required by this item regarding certain relationships and related party transactions is incorporated by reference to the information set forth in the sections titled "Transactions with Related Persons" and "Corporate Governance-Board Independence" in our Proxy Statement.

Item 14. *Principal Accountant Fees and Services*

The information required by this section is incorporated by reference from the information in the section entitled "Ratification of Appointment of Independent Registered Public Accounting Firm" in our Proxy Statement.

PART IV

Item 15. *Exhibits and Financial Statement Schedules*

(a) The following documents are filed as a part of this Report:

- (1) Financial Statements — See Index to Financial Statements in Item 8 of this Report.
- (2) Financial Statement Schedules — All schedules have been omitted as the requested information is inapplicable or the information is presented in the financial statements or related notes included as part of this Report.
- (3) Exhibits — See Item 15(b) of this Report below.

(b) Exhibits.

EXHIBIT INDEX

Exhibit Index #	Exhibit Description	Incorporated by Reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
3.1	Amended and Restated Certificate of Incorporation of the Registrant.	10-Q	0-27038	3.2	5/11/2001	
3.2	Certificate of Amendment of the Amended and Restated Certificate of Incorporation of the Registrant.	10-Q	0-27038	3.1	8/9/2004	
3.3	Certificate of Ownership and Merger.	8-K	0-27038	3.1	10/19/2005	
3.4	Amended and Restated Bylaws of the Registrant.	8-K	0-27038	3.1	11/9/2018	X
3.5	Certificate of Amendment of the Amended and Restated Certificate of Incorporation of the Registrant, as amended.	S-3	333-142182	3.3	4/18/2007	
3.6	Certificate of Elimination of the Series A Participating Preferred Stock.	8-K	0-27038	3.1	8/20/2013	

[Table of Contents](#)

Exhibit Index #	Exhibit Description	Incorporated by Reference				
		Form	File No.	Exhibit	Filing Date	Filed Herewith
3.7	Certificate of Designation of Rights, Preferences and Privileges of Series A Participating Preferred Stock.	8-K	0-27038	3.2	8/20/2013	
4.1	Specimen Common Stock Certificate.	8-A	0-27038	4.1	12/6/1995	
4.2	Indenture, dated as of October 24, 2011, by and between Nuance Communications, Inc. and U.S. Bank National Association as Trustee relating to 2.75% Convertible Debentures due 2031.	8-K	0-27038	4.1	10/24/2011	
4.3	Indenture, dated August 14, 2012, among Nuance Communications, Inc., the guarantors party thereto and U.S. Bank National Association, relating to 5.375% Senior Notes due 2020.	8-K	0-27038	4.1	8/14/2012	
4.4	Preferred Shares Rights Agreement, dated as of August 19, 2013, by and between Nuance Communications, Inc. and American Stock Transfer & Trust Company, LLC, as rights agent.	8-K	0-27038	4.1	8/20/2013	
4.5	First Amendment to Preferred Shares Rights Agreement, dated as of August 18, 2014, by and between Nuance Communications, Inc. and American Stock Transfer & Trust Company, LLC, as rights agent.	8-K	001-36056	4.2	8/18/2014	
4.6	Indenture, dated June 16, 2015, between Nuance Communications, Inc., and U.S. Bank National Association as Trustee, relating to 1.50% Convertible Debentures due 2035.	8-K	001-36056	4.1	6/22/2015	
4.7	Indenture, dated December 7, 2015, between Nuance Communications, Inc., and U.S. Bank National Association as Trustee, relating to 1.00% Senior Convertible Debentures Due 2035.	8-K	001-36056	4.1	12/7/2015	
4.8	Indenture, dated as of June 21, 2016, among Nuance Communications, Inc., the guarantors party thereto and U.S. Bank National Association as Trustee relating to 6% Senior Notes due 2024.	8-K	001-36056	4.1	6/22/2016	
10.1	Form of Indemnification Agreement.	S-8	333-108767		5/10/2018	
10.2	Amended and Restated 1995 Employee Stock Purchase Plan.	S-8	001-36056	4.2	2/6/2015	
10.3	Nuance Communications, Inc. 2000 Stock Plan (as amended January 27, 2016)	8-K	001-36056	10.1	3/6/2018	
10.4	Form of Restricted Stock Purchase Agreement for use under Nuance Communications, Inc. 2000 Stock Plan.*	10-K/A	0-27038	10.17	12/15/2006	
10.5	Form of Restricted Stock Unit Purchase Agreement for use under Nuance Communications, Inc. 2000 Stock Plan.*	10-K/A	0-27038	10.18	12/15/2006	
10.6	Form of Stock Option Agreement for use under Nuance Communications, Inc. 2000 Stock Plan.*	10-K/A	0-27038	10.19	12/15/2006	
10.7	Amended and Restated 1995 Directors Stock Plan.	10-Q	001-36056	10.3	8/9/2018	
10.8	Amended & Restated Employment Agreement dated November 17, 2016 between the Registrant and Paul Ricci.*	8-K	0-27038	10.1	11/17/2016	
10.9	Form of Executive Officer Employment Offer Letter*	10-K	001-36056	10.9	11/22/2016	
10.10	Form of Change of Control and Severance Agreement for Executive Officers.*	10-Q	001-36056	10.2	8/9/2018	

[Table of Contents](#)

Exhibit Index #	Exhibit Description	Incorporated by Reference				
		Form	File No.	Exhibit	Filing Date	Filed Herewith
10.11	Purchase Agreement, dated as of December 1, 2015 by and between Nuance Communications, Inc. and Barclays Capital Inc. and Morgan Stanley & Co. LLC as representatives of the several initial purchasers listed on Schedule I thereto.	8-K	001-36056	10.1	12/2/2015	
10.12	Revolving Credit Agreement, dated April 15, 2016, among Nuance Communications, Inc., the lenders party thereto and Barclays Bank PLC as Administrative Agent.	8-K	001-36056	10.1	4/19/2016	
10.13	Guarantee and Collateral Agreement, dated April 15, 2016 among Nuance Communications, Inc., certain Nuance subsidiaries and Barclays Bank PLC as Administrative Agent.	8-K	001-36056	10.2	4/19/2016	
10.14	Purchase Agreement, dated as of June 14, 2016, by and among Nuance Communications, Inc., the subsidiary guarantors party thereto and Morgan Stanley & Co. LLC and Barclays Capital Inc., as representatives of the several initial purchasers named therein.	8-K	001-36056	10.1	6/17/2016	
10.15	Transition and Severance Agreement between Nuance Communications, Inc. and Earl H. Devanny III dated August 31, 2016.	8-K	001-36056	10.1	9/7/2016	
10.16	Change of Control and Severance Agreement between Nuance Communications, Inc. and Daniel Tempesta dated August 8, 2018.					X
10.17	Employment Agreement between Nuance Communications, Inc. and Mark D. Benjamin dated March 19, 2018.	8-K	001-36056	10.1	3/22/2018	
10.18	Sale Agreement by and between Nuance Communications, Inc. and Project Leopard AcquireCo Limited dated November 11, 2018	8-K	001-36056	2.1	11/14/2018	
14.1	Registrant's Code of Business Conduct and Ethics					X
21.1	Subsidiaries of the Registrant.					X
23.1	Consent of BDO USA, LLP.					X
24.1	Power of Attorney. (See Signature Page).					X
31.1	Certification of Chief Executive Officer Pursuant to Rule 13a-14(a) or 15d-14(a).					X
31.2	Certification of Chief Financial Officer Pursuant to Rule 13a-14(a) or 15d-14(a).					X
32.1	Certification Pursuant to 18 U.S.C. Section 1350.					X
101	The following materials from Nuance Communications, Inc.'s Annual Report on Form 10-K for the fiscal year ended September 30, 2018, formatted in XBRL (Extensible Business Reporting Language): (i) the Consolidated Statements of Operations, (ii) the Consolidated Statements of Comprehensive Loss, (iii) the Consolidated Balance Sheets, (iv) the Consolidated Statements of Cash Flows, and (v) Notes to Unaudited Condensed Consolidated Financial Statements.					

* Denotes management compensation plan or arrangement

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each individual whose signature appears below constitutes and appoints Mark Benjamin and Daniel D. Tempesta, and each of them acting individually, as his or her true and lawful attorneys-in-fact and agents, each with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments to this Annual Report on Form 10-K and to file the same with all exhibits thereto, and all documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done, as fully to all intents and purposes as he or she might or could do in person, and hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or their or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof. This power of attorney may be executed in counterparts.

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

[Table of Contents](#)

Date: 11/20/2018	<hr/> <i>/s/ Mark Benjamin</i> <hr/> Mark Benjamin, Chief Executive Officer (Principal Executive Officer)
Date: 11/20/2018	<hr/> <i>/s/ Daniel D. Tempesta</i> <hr/> Daniel D. Tempesta Executive Vice President and Chief Financial Officer (Principal Financial Officer)
Date: 11/20/2018	<hr/> <i>/s/ Arthur Giterman</i> <hr/> Arthur Giterman Senior Vice President, Chief Accounting Officer and Corporate Controller (Principal Accounting Officer)
Date: 11/20/2018	<hr/> <i>/s/ Daniel J. Brennan</i> <hr/> Daniel J. Brennan, Director
Date: 11/20/2018	<hr/> <i>/s/ Laura S. Kaiser</i> <hr/> Laura S. Kaiser, Director
Date: 11/20/2018	<hr/> <i>/s/ Lloyd A. Carney</i> <hr/> Lloyd A. Carney, Chairman of the Board
Date: 11/20/2018	<hr/> <i>/s/ Mark R. Laret</i> <hr/> Mark R. Laret, Director
Date: 11/20/2018	<hr/> <i>/s/ Michal Katz</i> <hr/> Michal Katz, Director
Date: 11/20/2018	<hr/> <i>/s/ Robert J. Finocchio, Jr</i> <hr/> Robert J. Finocchio, Jr., Director
Date: 11/20/2018	<hr/> <i>/s/ Sanjay N. Vaswani</i> <hr/> Sanjay N. Vaswani, Director
Date: 11/20/2018	<hr/> <i>/s/ Thomas D. Ebling</i> <hr/> Thomas D. Ebling, Director

[Table of Contents](#)

Item 16. *Form 10-K Summary*

Not applicable.

BYLAWS
OF
NUANCE COMMUNICATIONS, INC.
(As Amended & Restated November 7, 2018)

TABLE OF CONTENTS

	<u>Page</u>
ARTICLE I OFFICES	1
ARTICLE II MEETINGS OF STOCKHOLDERS	1
ARTICLE III DIRECTORS	11
MEETINGS OF THE BOARD OF DIRECTORS	12
COMMITTEES OF DIRECTORS	13
COMPENSATION OF DIRECTORS	13
REMOVAL OF DIRECTORS	14
ARTICLE IV NOTICES	14
ARTICLE V OFFICERS	14
THE CHAIRMAN OF THE BOARD	15
THE CHIEF EXECUTIVE OFFICER, PRESIDENT AND VICE- PRESIDENTS	15
THE SECRETARY AND ASSISTANT SECRETARY	15
THE TREASURER AND ASSISTANT TREASURERS	16
ARTICLE VI CERTIFICATE OF STOCK	16
LOST CERTIFICATES	17
TRANSFER OF STOCK	17
FIXING RECORD DATE	18
REGISTERED STOCKHOLDERS	18
ARTICLE VII GENERAL PROVISIONS	18
DIVIDENDS	18
CHECKS	18
FISCAL YEAR	19
SEAL	19
INDEMNIFICATION	19
PROHIBITION ON TOXICS	20
ARTICLE VIII AMENDMENTS	21

ARTICLE I

OFFICES

Section 1. The registered office shall be in the City of Dover, County of Kent, State of Delaware.

Section 2. The corporation may also have offices at such other places both within and without the State of Delaware as the Board of Directors may from time to time determine or the business of the corporation may require.

ARTICLE II

MEETINGS OF STOCKHOLDERS

Section 1. All meetings of the stockholders for the election of directors shall be held at such place as may be fixed from time to time by the Board of Directors, or at such other place either within or without the State of Delaware as shall be designated from time to time by the Board of Directors and stated in the notice of the meeting. Meetings of stockholders for any other purpose may be held at such time and place, within or without the State of Delaware, as shall be stated in the notice of the meeting or in a duly executed waiver of notice thereof.

Section 2.

(a) Annual meetings of stockholders shall be held at such date and time as shall be designated from time to time by the Board of Directors and stated in the notice of the meeting, at which they shall elect a board of directors, and transact such other business as may properly be brought before the meeting.

(b) A nominee for director shall be elected to the board of directors if the votes cast for such nominee's election exceed the votes against and withheld from such nominee's election; provided, however, that directors shall be elected by a plurality of the votes cast by the holders of the shares present in person or represented by proxy and entitled to vote on the election of directors at any meeting of stockholders where the number of director nominees exceeds the number of directors to be elected at such meeting and for which (i) the secretary has received a notice that a stockholder intends to nominate a person for election to the board of directors in compliance with the notice requirements set forth in Article II, Section 11 or Section 15 of these bylaws, as applicable; and (ii) such nomination has not been withdrawn by such stockholder on or before the fourteenth (14th) day preceding the date that the corporation first files its definitive proxy statement for such meeting (regardless of whether or not such proxy statement is thereafter revised or supplemented) with the Securities and Exchange Commission. If directors are to be elected by a plurality of the votes cast, stockholders shall not be permitted to vote against a nominee. With respect to the election of directors only, "abstentions" and "broker non-votes," although counted for quorum purposes, shall not be included in the total number of votes cast or be counted as votes "for" or "against" any nominee's election.

(c) The Nominating & Governance Committee has established procedures under which any director nominated for reelection shall tender his or her contingent resignation to the Board of Directors. If a nominee for director fails to receive the required number of votes for reelection, the Nominating & Governance Committee will make a recommendation to the Board of Directors on whether to accept or reject the resignation, or whether other action should be taken. The Board of Directors will act on the Nominating & Governance Committee's recommendation and publicly disclose its decision and the rationale behind it within ninety (90) days from the date of the certification of the election results.

Section 3. Written notice of the annual meeting stating the place, date and hour of the meeting shall be given to each stockholder entitled to vote at such meeting not less than ten (10) nor more than sixty (60) days before the date of the meeting.

Section 4. The officer who has charge of the stock ledger of the corporation shall prepare and make, at least ten (10) days before every meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting, arranged in alphabetical order, and showing the address of each stockholder and the number of shares registered in the name of each stockholder. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting, during ordinary business hours, for a period of at least ten (10) days prior to the meeting, either at a place within the city where the meeting is to be held, which place shall be specified in the notice of the meeting, or, if not so specified, at the place where the meeting is to be held. The list shall also be produced and kept at the time and place of the meeting during the whole time thereof, and may be inspected by any stockholder who is present.

Section 5.

(a) Special meetings of the stockholders, for any purpose or purposes, unless otherwise prescribed by statute or by the certificate of incorporation, may be called by the Board of Directors, the Chairman of the Board, the Chief Executive Officer or the Secretary, acting pursuant to a resolution duly adopted by a majority of the Whole Board (as defined below). Subject to the satisfaction of the requirements of these bylaws, a special meeting of the stockholders shall be called by the Chairman of the Board, the Chief Executive Officer or the Secretary upon the written request of holders of an aggregate of at least twenty percent 20% of all of the votes entitled to be cast on any issue to be considered at the proposed special meeting (such a meeting, a “Stockholder Requested Special Meeting”). The term “Whole Board” shall mean the total number of authorized directors of the corporation whether or not there exist any vacancies in previously authorized directorships.

(b) Any request for a Stockholder Requested Special Meeting shall (i) be signed and dated by each stockholder (or their duly authorized agents) and delivered to the Secretary at the principal executive offices of the corporation, (ii) set forth a statement of the specific purpose or purposes of the proposed meeting and the matters proposed to be acted on at such meeting, and (iii) include the information required by Article II, Section 11(c) of these bylaws with respect to the stockholders requesting the Stockholder Requested Special Meeting, and any business proposed to be conducted and any nominations proposed to be presented at such meeting. In addition, the stockholder and any duly authorized agent shall promptly provide any other information reasonably requested by the corporation. A stockholder providing a request for business proposed to be brought before a Stockholder Requested Special Meeting shall update and supplement such request, if necessary, so that the information provided or required to be provided in such request pursuant to this Section 5(c) shall be true and correct and such update or supplement shall be delivered to, and received by, the Secretary at the principal executive offices of the corporation.

(c) Any Stockholder Requested Special Meeting shall be held at such date, time and place within or without the State of Delaware as may be fixed by the Board of Directors; provided, however, that the date of any Stockholder Requested Special Meeting shall be not more than sixty (60) days after the record date for such meeting, which shall be fixed in accordance with Article VI, Section V of these bylaws.

(d) Notwithstanding the foregoing, the Chairman of the Board, the Chief Executive Officer or the Secretary shall not be required to call a Stockholder Requested Special Meeting if (i) the Board of Directors has called or calls an annual meeting of stockholders to be held not later than ninety (90) days

after the Delivery Date where the Board of Directors determines in good faith that the business of such annual meeting (among any other matters properly brought before the annual meeting) includes the business specified in the stockholders' request; (ii) an annual or special meeting that included the business specified in the request (as determined by the Board of Directors in good faith) was held not more than ninety (90) days before the Delivery Date; (iii) the request relates to an item of business that is not a proper subject for action by the stockholders of the corporation under applicable law; or (iv) was made in a manner that involved a violation of applicable law.

(e) A stockholder may revoke a request for a Stockholder Requested Special Meeting at any time by written revocation delivered to the Secretary, and if, following such revocation there are un-revoked requests from stockholders holding in the aggregate less than the requisite number of shares entitling the stockholders to request the calling of a Stockholder Requested Special Meeting, the Board of Directors, in its discretion, may cancel the Stockholder Requested Special Meeting. If none of the stockholders who submitted the request for a Stockholder Requested Special Meeting appears or sends a qualified representative to present the nominations proposed to be presented or other business proposed to be conducted at such meeting, the corporation need not present such nominations or other business for a vote at such meeting. Section 6. Written notice of a special meeting stating the place, date and hour of the meeting and the purpose or purposes for which the meeting is called, shall be given not fewer than ten (10) nor more than sixty (60) days before the date of the meeting, to each stockholder entitled to vote at such meeting.

Section 7. Business transacted at any special meeting of stockholders shall be limited to the purposes stated in the notice. Business transacted at a Stockholder Requested Special Meeting shall be limited to the purposes described in the special meeting requested; provided, however, that nothing herein shall prohibit the corporation from submitting matters to a vote of the stockholders at any Stockholder Requested Special Meeting.

Section 8. The holders of a majority of the stock issued and outstanding and entitled to vote thereat, present in person or represented by proxy, shall constitute a quorum, at all meetings of the stockholders for the transaction of business except as otherwise provided by statute or by the certificate of incorporation. If, however, such quorum shall not be present or represented at any meeting of the stockholders, the stockholders entitled to vote thereat, present in person or represented by proxy, shall have the power to adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum shall be present or represented. At such adjourned meeting at which a quorum shall be present or represented, any business may be transacted that might have been transacted at the meeting as originally notified. If the adjournment is for more than thirty (30) days, or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting.

Section 9. When a quorum is present at any meeting, except as provided in Article II, Section 2(b) of these bylaws for the election of directors, the vote of the holders of a majority of the stock having voting power present in person or represented by proxy shall decide any question brought before such meeting, unless the question is one upon which by express provision of the statutes or of the certificate of incorporation or of the applicable rules of any stock exchange or automatic quotation system upon which the corporation's shares are traded, a different vote is required, in which case such express provision shall govern and control the decision of such question.

Section 10. Unless otherwise provided in the certificate of incorporation each stockholder shall at every meeting of the stockholders be entitled to one vote in person or by proxy for each share of the

capital stock having voting power held by such stockholder, but no proxy shall be voted on after three (3) years from its date, unless the proxy provides for a longer period.

Section 11.

(a) Nominations of persons for election to the Board of Directors and the proposal of business to be considered by the stockholders may be made at an annual meeting of stockholders (A) pursuant to the corporation's notice with respect to such meeting, (B) by or at the direction of the Board of Directors, or (C) by any stockholder of record of the corporation who was a stockholder of record at the time of the giving of the notice provided for in these bylaws, who is entitled to vote at the meeting and who has complied with the notice procedures set forth in this Section 11.

(b) For nominations or other proposals of business to be properly brought before an annual meeting by a stockholder pursuant to clause (C) of the preceding paragraph, (i) the stockholder must have given timely notice thereof in writing to the Secretary of the corporation (as provided in the third paragraph below of this Section 11), (ii) such business must be a proper matter for stockholder action under the General Corporation Law of Delaware, (iii) if the stockholder, or the beneficial owner on whose behalf any such proposal or nomination is made, has (1) provided the corporation with a Solicitation Notice (as defined below), then (2) such stockholder or beneficial owner must, in the case of a proposal, have delivered a proxy statement and form of proxy to holders of at least the percentage of the corporation's voting shares required under these bylaws and applicable law to carry any such proposal, or, in the case of a nomination(s), have delivered a proxy statement and form of proxy to holders of a percentage of the corporation's voting shares sufficient to elect the nominee(s) proposed to be nominated by such stockholder, and must, in either case, have included in such materials the Solicitation Notice, and (iv) if no Solicitation Notice relating thereto has been timely provided pursuant to this Section 11, the stockholder or beneficial owner proposing such business or nomination must not have solicited a number of proxies sufficient to have required the delivery of such a Solicitation Notice under this Section 11.

(c) To be timely, a stockholder's notice relating to nominations or other proposals of business to be properly brought before an annual meeting shall be delivered to the Secretary at the principal executive offices of the corporation (a) not later than the close of business on the ninetieth (90th) calendar day, nor earlier than the close of business on the one hundred and twentieth (120th) calendar day, prior to the first anniversary of the preceding year's annual meeting, or (b) not later than the close of business on the forty-fifth (45th) calendar day, nor earlier than the close of business on the seventy-fifth (75th) calendar day, prior to the first anniversary (the "Anniversary") of the date on which the corporation first mailed its proxy materials for the preceding year's annual meeting, whichever period described in clause (a) or (b) of this sentence occurs first; provided, however, that if the date of the annual meeting is advanced more than thirty (30) calendar days prior to, or delayed by more than sixty (60) calendar days after, the anniversary of the preceding year's annual meeting. Such stockholder's notice shall set forth (a) as to each person whom the stockholder proposes to nominate for election or reelection as a director, (i) all information relating to such person as would be required to be disclosed in solicitations of proxies for the election of such nominee(s) as directors pursuant to Regulation 14A under the Securities Exchange Act of 1934, as amended or any successor thereto (the "Exchange Act"), (ii) a description of all arrangements or understandings between or among the stockholder and, each nominee and/or any other person or persons (naming such person or persons) pursuant to which the nominations are to be made by the stockholder or pertaining to the nominee's service on the Board of Directors and (iii) such nominee's written consent to be named in the proxy statement as a nominee and to serve as a director for the term for which such nominee is standing for election if elected, as well as a written statement executed by such person acknowledging that as a director of the corporation, such person will owe a fiduciary duty under the General Corporation Law of Delaware exclusively to the corporation and its stockholders, (b) as to

any other business that the stockholder proposes to bring before the meeting, a brief description of such business, the reasons for conducting such business at the meeting and any material interest in such business of such stockholder and the beneficial owner, if any, on whose behalf the proposal is made, and (c) as to the stockholder giving the notice and the beneficial owner, if any, on whose behalf the nomination or proposal is made (i) the name and address of such stockholder, as they appear on the corporation's books, and of such beneficial owner, (ii) the class and number of shares of the corporation that are owned beneficially and of record by such stockholder and such beneficial owner, and (iii) whether either such stockholder or beneficial owner intends to deliver a proxy statement and form of proxy to holders of, in the case of a proposal, at least the percentage of the corporation's voting shares required under applicable law to carry the proposal or, in the case of a nomination(s), a sufficient number of holders of the corporation's voting shares to elect such nominee(s) (an affirmative statement of such intent, a "Solicitation Notice").

(d) Notwithstanding anything in the first sentence of the third paragraph of this Section 11 to the contrary, in the event that the number of directors to be elected to the Board of Directors is increased and there is no Public Announcement naming all of the nominee(s) for director or specifying the size of the increased Board of Directors made by the corporation at least fifty-five (55) calendar days prior to the Anniversary, a stockholder's notice required by this bylaw shall also be considered timely, but only with respect to nominee(s) for any new positions created by such increase, if it shall be delivered to the Secretary at the principal executive offices of the corporation not later than the close of business on the tenth (10th) calendar day following the day on which such Public Announcement is first made by the corporation.

(e) Only such persons nominated in accordance with the procedures set forth in this Section 11 or Section 15 of this Article II shall be eligible to serve as directors and only such business shall be conducted at an annual meeting of stockholders as shall have been brought before the meeting in accordance with the procedures set forth in this Section 11. The Chairman of the meeting shall have the power and the duty to determine whether a nomination or any business proposed to be brought before the meeting has been made in accordance with the procedures set forth in these bylaws and, if any proposed nomination or business is not in compliance with these bylaws, to declare that such defective proposed business or nomination shall not be presented for stockholder action at the annual meeting and shall be disregarded.

(f) Nominations of persons for election to the Board of Directors may be made at a special meeting of stockholders at which directors are to be elected pursuant to the corporation's notice (as provided in Section 6 above) of meeting (a) by or at the direction of the Board of Directors, or (b) by any stockholder of record of the corporation who is a stockholder of record at the time of giving of notice provided for in this paragraph, who shall be entitled to vote at the meeting and who complies with the notice procedures set forth in this Section 11. Nominations by stockholders of persons for election to the Board of Directors, where permitted, may be made at such a special meeting of stockholders if the Solicitation Notice required by paragraph (c) of this Section 11 shall be delivered to the Secretary at the principal executive offices of the corporation not earlier than the close of business on the one hundred and twentieth (120th) calendar day prior to the special meeting and not later than the close of business on the later of (i) the ninetieth (90th) calendar day prior to such special meeting, and (ii) the tenth (10th) calendar day following the day on which Public Announcement is first made of the date of the special meeting and of the nominee(s) proposed by the Board of Directors to be elected at such meeting.

(g) For purposes of this Section 11, "Public Announcement" shall mean disclosure in a press release reported by the Dow Jones News Service, Associated Press or a comparable national news service or in a document publicly filed by the corporation with the Securities and Exchange Commission (the

“Commission”) pursuant to Section 13, 14 or 15(d) of the Exchange Act. In no event shall the Public Announcement of an adjournment of stockholders meeting commence a new time period for the giving of stockholder’s notice as described above.

(h) Notwithstanding the foregoing provisions of this Section 11, a stockholder shall also comply with all applicable requirements of the Exchange Act and the rules and regulations thereunder with respect to matters set forth in this Section 11. Nothing in this Section 11 shall be deemed to contravene any express rights of stockholders to request inclusion of proposals in the corporation’s proxy statement pursuant to Rule 14a-8 under the Exchange Act.

Section 12. The stockholders of the corporation may not take action by written consent without a meeting but must take any such actions at a duly called annual or special meeting.

Section 13. With respect to any meeting of stockholders, the Board of Directors may appoint an inspector or inspectors of election to act at the meeting or its adjournment. If no inspector of election is so appointed, then the Chairman of the meeting may appoint an inspector or inspectors of election to act at the meeting. If any person appointed as inspector fails to appear or fails or refuses to act, then the Chairman of the meeting may appoint a person to fill that vacancy. Such inspectors may, at the direction of the Board of Directors or the Chairman of the meeting, be directed to do any or all of the following: (a) determine the number of shares outstanding and the voting power of each, the number of shares represented at the meeting, the existence of a quorum, and the authenticity, validity, and effect of proxies; (b) receive votes, ballots or consents; (c) hear and determine challenges and questions in any way arising in connection with the right to vote; (d) count and tabulate all votes; (e) determine when the polls shall close; (f) determine the result; and (g) do any other acts that may be proper to conduct the election or vote with fairness to all stockholders.

Section 14. The Chief Executive Officer, or in the absence of the Chief Executive Officer, the Chairman of the Board, or, in the absence of the Chief Executive Officer and the Chairman of the Board, the President or one of the corporation’s Vice-Presidents, or, in the absence of any of the foregoing such other person as shall be appointed by the Board of Directors, shall call all meetings of stockholders to order and shall act as Chairman of the meeting. The Chairman of any meeting of stockholders shall determine the order of business and the procedures at the meeting, including such matters as the regulation of the manner of voting and the conduct of business.

Section 15.

(a) Subject to the terms of this Section 15, the corporation shall include in its proxy statement and form of proxy card (together, “Proxy Materials”) for an annual meeting of stockholders the name, together with the Required Information (as defined below), of any person nominated for election (a “Stockholder Nominee”) to the Board of Directors by a stockholder that satisfies, or by a group of no more than twenty (20) stockholders that satisfy, the requirements of this Section 15 (such stockholder or group of stockholders, including each member thereof to the extent the context so requires, an “Eligible Stockholder”), and that expressly elects at the time of providing the notice required by this Section 15 (the “Nomination Notice”) to have its nominee included in the Proxy Materials pursuant to this Section 15. In the event that an Eligible Stockholder consists of a group of stockholders, any and all requirements and obligations for an individual Eligible Stockholder that are set forth in these bylaws shall apply to each member of such group, except that the Required Shares (as defined below) shall apply to the ownership of the group in the aggregate.

(b) In order to validly submit a Nomination Notice, an Eligible Stockholder must have owned continuously for at least three (3) years that number of shares of common stock of the corporation as shall constitute three percent (3%) or more of the outstanding common stock of the corporation (the “Required Shares”) as of both (i) a date within seven (7) calendar days prior to the date of the Nomination Notice and (ii) the record date for determining stockholders entitled to vote at the annual meeting of stockholders. In addition, such Eligible Stockholder must continue to hold the Required Shares through the date of the annual meeting of stockholders or any adjournment or postponement thereof. For purposes of satisfying the foregoing ownership requirement under this Section 15: (A) the shares of the common stock of the corporation owned by one or more stockholders, or by the person or persons who own shares of the common stock of the corporation and on whose behalf any stockholder is acting, may be aggregated, but the number of stockholders and other persons whose ownership of shares of common stock of the corporation is aggregated for such purpose shall not exceed twenty (20); (B) two (2) or more funds that are (1) under common management and investment control, (2) under common management and funded primarily by the same employer, or (3) a “group of investment companies,” as such term is defined in Section 12(d)(1)(G)(ii) of the Investment Company Act of 1940, as amended, shall be treated as one stockholder or beneficial owner, provided that such funds otherwise meet the requirements under this Section 15 and, provided, further, that such funds provide to the Secretary documentation reasonably satisfactory to the Board of Directors that demonstrates that the funds satisfy this Section 15; and (C) no stockholder or person may be a member of more than one group of persons constituting an Eligible Stockholder under this Section 15. For avoidance of doubt, a stockholder may withdraw from a group of stockholders at any time prior to the annual meeting of stockholders or any adjournment or postponement thereof. If, as a result of such withdrawal, the Eligible Stockholder no longer owns the Required Shares, then all nominations by such Eligible Stockholder shall be disregarded. For purposes of this Section 15, an Eligible Stockholder shall be deemed to “own” only those outstanding shares of common stock of the corporation as to which the stockholder possesses both (i) the full voting and investment rights pertaining to the shares and (ii) the full economic interest in (including the opportunity for profit and risk of loss on) such shares. The number of shares calculated in accordance with clauses (i) and (ii) of the previous sentence shall not include any shares (a) sold by such stockholder or any of its affiliates in any transaction that has not been settled or closed; (b) borrowed by such stockholder or any of its affiliates for any purposes or purchased by such stockholder or any of its affiliates pursuant to an agreement to resell; or (c) subject to any option, warrant, forward contract, swap, contract of sale, or other derivative or similar agreement entered into by such stockholder or any of its affiliates, whether any such instrument or agreement is to be settled with shares or with cash based on the notional amount or value of shares of outstanding common stock of the corporation, in any such case which instrument or agreement has, or is intended to have, the purpose or effect of either or both of (x) reducing in any manner, to any extent or at any time in the future, such stockholder’s or its affiliates’ full right to vote or direct the voting of any such shares; or (y) hedging, offsetting or altering to any degree gain or loss arising from the full economic ownership of such shares by such stockholder or affiliate. For purposes of this Section 15, a stockholder shall “own” shares held in the name of a nominee or other intermediary so long as the stockholder retains the right to instruct how the shares are voted with respect to the election of directors and possesses the full economic interest in the shares. For purposes of this Section 15, a person’s ownership of shares of common stock of the corporation shall be deemed to continue during any period in which the person has loaned such shares so long as the person has the power to recall such loaned shares on five (5) business days’ notice, and has recalled the loaned shares by the record date of the relevant annual meeting and the person holds the recalled shares through the date of the annual meeting of stockholders or any adjournment or postponement thereof. For purposes of this Section 15, a person’s ownership of shares of common stock of the corporation shall be deemed to continue during any period in which the person has delegated any voting power by means of a proxy, power of attorney, or other instrument or arrangement that is revocable at any time by the person without condition. The terms “owned,” “owning” and other

variations of the word “own” shall have correlative meanings. Whether outstanding shares of common stock of the corporation are “owned” for these purposes shall be determined by the Board of Directors in good faith, and such determination shall be conclusive and binding on the corporation and its stockholders.

(c) For purposes of this Section 15, the “Required Information” that the corporation will include in its proxy statement is: (i) the information concerning the Stockholder Nominee and the Eligible Stockholder that is required to be disclosed in the corporation’s proxy statement by the regulations promulgated under the Exchange Act; and (ii) if the Eligible Stockholder so elects, a written statement, not to exceed 500 words, in support of the Stockholder Nominee’s candidacy (the “Statement”). Notwithstanding anything to the contrary contained in this Section 15, the corporation may omit from the Proxy Materials any information or Statement (or portion thereof) that it, in good faith, believes would violate any applicable law or regulation. Nothing in this Section 15 shall limit the corporation’s ability to solicit against and include in its Proxy Materials its own statements relating to any Eligible Stockholder or Stockholder Nominee.

(d) To be timely, a Nomination Notice and the Required Information must be delivered to or mailed and received by the Secretary at the principal executive offices of the corporation not later than the close of business on the 120th day and not earlier than the close of business on the 150th day prior to the anniversary of the date (as stated in the corporation’s Proxy Materials) the definitive proxy statement with respect to the preceding year’s annual meeting was first sent to stockholders; provided, however, that in the event that the date of the annual meeting is more than thirty (30) days before or more than sixty (60) days after the anniversary of the preceding year’s annual meeting, notice by the stockholder to be timely must be so received not earlier than the ninetieth (90th) day prior to such annual meeting and not later than the close of business on the later of (i) the sixtieth (60th) day prior to such annual meeting or (ii) the tenth (10th) day following the day on which Public Announcement of the date of such meeting is first made by the corporation. In no event shall the Public Announcement of an adjournment or postponement of an annual meeting commence a new time period (or extend any time period) for the delivery or receipt of a Nomination Notice and Required Information as described above.

(e) The Nomination Notice shall set forth the following information: (i) one or more written statements from the record holder(s) of the shares (and from each intermediary through which the shares are or have been held during the requisite three (3) year holding period) verifying that, as of a date within seven (7) calendar days prior to the date of the Nomination Notice, the Eligible Stockholder (including each member of any group of stockholders that together is an Eligible Stockholder) owns, and has owned continuously for the preceding three (3) years, the Required Shares; (ii) the Eligible Stockholder’s agreement to provide, within five (5) business days after the record date for the annual meeting of stockholders, written statements from the record holder and intermediaries verifying the continuous ownership by such Eligible Stockholder (including each member of any group of stockholders that together is an Eligible Stockholder) of the Required Shares through the record date; (iii) the information (including with respect to the Stockholder Nominees of such Eligible Stockholder) that would be required to be set forth in a stockholder’s notice of a nomination pursuant to Section 11; (iv) the written consent of each Stockholder Nominee to being named in the corporation’s proxy statement as a nominee and to serving as a director if elected; (v) a copy of the Schedule 14N that has been filed with the Securities and Exchange Commission as required by Rule 14a-18 under the Exchange Act, as such rule may be amended; (vi) in the case of a nomination by a group of stockholders that together is such an Eligible Stockholder, the designation by all group members of one group member that is authorized to act on behalf of all members of the nominating stockholder group with respect to the nomination and matters related thereto, including withdrawal of the nomination; (vii) a representation that the Eligible

Stockholder (including each member of any group of stockholders that together is an Eligible Stockholder) (A) acquired the Required Shares in the ordinary course of business and not with the intent to change or influence control at the corporation, and does not presently have such intent; (B) has not nominated and will not nominate for election to the Board of Directors at the annual meeting of stockholders any person other than the Stockholder Nominee(s) being nominated pursuant to this Section 15; (C) has not engaged and will not engage in, and has not and will not be a “participant” in another person’s, “solicitation” within the meaning of Rule 14a-1(l) under the Exchange Act in support of the election of any individual as a director at the annual meeting of stockholders other than its Stockholder Nominee or a nominee of the Board of Directors; (D) will not distribute to any stockholder any form of proxy for the annual meeting other than the form distributed by the corporation; and (E) intends to own the Required Shares through the date of the annual meeting of stockholders; and (viii) an undertaking that the Eligible Stockholder (including each member of any group of stockholders that together is an Eligible Stockholder) agrees to (A) assume all liability stemming from any legal or regulatory violation arising out of the Eligible Stockholder’s communications with the stockholders of the corporation or out of the information that the Eligible Stockholder provided to the corporation; (B) comply with all other laws and regulations applicable to any solicitation in connection with the annual meeting of stockholders; and (C) provide to the corporation prior to the annual meeting of stockholders such additional information as necessary with respect thereto.

(f) Within the time period specified in this Section 15 for delivering the Nomination Notice, a Stockholder Nominee must deliver to the Secretary a written representation that the Stockholder Nominee: (i) is not and will not become a party to any agreement, arrangement, or understanding with, and has not given any commitment or assurance to, any person or entity as to how such Stockholder Nominee, if elected as a director, will act or vote on any issue or question, which such agreement, arrangement, or understanding has not been disclosed to the corporation; (ii) is not and will not become a party to any agreement, arrangement, or understanding with any person with respect to any direct or indirect compensation, reimbursement, or indemnification in connection with service or action as a Stockholder Nominee that has not been disclosed to the corporation, and is not and will not become a party to any agreement, arrangement, or understanding with any person other than the corporation with respect to any direct or indirect compensation, reimbursement, or indemnification in connection with service or action as a director which has not been disclosed to the corporation; and (iii) if elected as a director, will comply with all of the corporation’s corporate governance, conflict of interest, confidentiality, and stock ownership and trading policies and guidelines, and any other corporation policies and guidelines applicable to directors, as well as any applicable law, rule or regulation or listing requirement. At the request of the corporation, the Stockholder Nominee must promptly, but in any event within five (5) business days after such request, submit to the Secretary all completed and signed questionnaires required of the corporation’s directors and officers and provide the corporation with such other information as it shall reasonably request. The corporation may request such additional information as is necessary to permit the Board of Directors to determine if each Stockholder Nominee is independent under the listing standards of the principal U.S. exchange upon which the corporation’s common stock is listed, any applicable rules of the Securities and Exchange Commission and any publicly disclosed standards used by the Board of Directors in determining and disclosing the independence of the corporation’s directors (the “Applicable Independence Standards”).

(g) If any information or communications provided by the Eligible Stockholder or the Stockholder Nominee to the corporation or its stockholders ceases to be true and correct in all material respects or omits a material fact necessary to make the statements made, in light of the circumstances under which they were made, not misleading, then each Eligible Stockholder or Stockholder Nominee, as

the case may be, shall promptly notify the Secretary of any defect in such previously provided information and of the information that is required to correct any such defect.

(h) The Eligible Stockholder (including any person who owns shares of common stock of the corporation that constitute part of the Eligible Stockholder's ownership for purposes of satisfying the requirements of this Section 15) shall file with the Securities and Exchange Commission any solicitation or other communication with the corporation's stockholders relating to the meeting at which the Stockholder Nominee will be nominated, regardless of whether any such filing is required under Regulation 14A of the Exchange Act or whether any exemption from filing is available for such solicitation or other communication under Regulation 14A of the Exchange Act.

(i) The corporation shall not be required to include, pursuant to this Section 15, any Stockholder Nominees in the Proxy Materials for any annual meeting of stockholders: (i) for which the Secretary receives a notice that any stockholder has nominated a person for election to the Board of Directors pursuant to the advance notice requirements for stockholder nominees for director set forth in Section 11 and has not elected to have such nominee included in the Proxy Materials pursuant to this Section 15; (ii) if the Eligible Stockholder who has nominated such Stockholder Nominee has engaged in or is currently engaged in a, or has been or is a "participant" in another person's, "solicitation" within the meaning of Rule 14a-1(l) under the Exchange Act in support of the election of any individual as a director at the annual meeting of stockholders other than its Stockholder Nominee(s) or a nominee of the Board of Directors; (iii) who is not independent under the Applicable Independence Standards, as determined by the Board of Directors; (iv) whose election as a member of the Board of Directors would cause the corporation to be in violation of these bylaws, its certificate of incorporation, the listing standards of the principal exchange upon which the corporation's common stock is traded, or any applicable law, rule or regulation; (v) who is or has been, within the past three (3) years, an officer or director of, or is presently a nominee for director (or comparable position) at, a competitor, as defined in Section 8 of the Clayton Antitrust Act of 1914; (vi) who is a named subject of a pending criminal proceeding (excluding traffic violations and other minor offenses) or has been convicted in such a criminal proceeding; (vii) who is subject to any order of the type specified in Rule 506(d) of Regulation D promulgated under the Securities Act of 1933, as amended; (viii) if such Stockholder Nominee or the applicable Eligible Stockholder shall have provided information to the corporation in respect to such nomination that was untrue in any material respect or omitted to state a material fact necessary in order to make the statement made, in light of the circumstances under which it was made, not misleading, as determined in good faith by the Board of Directors; or (ix) if such Stockholder Nominee or the applicable Eligible Stockholder otherwise contravenes any of the agreements or representations made by such Stockholder Nominee or Eligible Stockholder or fails to comply with its obligations pursuant to this Section 15. Notwithstanding anything to the contrary set forth herein, the Board of Directors or the Chairman presiding at the applicable annual meeting of stockholders shall declare a nomination by an Eligible Stockholder to be invalid, and such nomination shall be disregarded notwithstanding that proxies in respect of such vote may have been received by the corporation, if (x) the Stockholder Nominee(s), the applicable Eligible Stockholder or both shall have breached its or their obligations, agreements or representations under this Section 15, as determined in good faith by the Board of Directors or the Chairman presiding at the annual meeting of stockholders; or (y) the Eligible Stockholder (or a qualified representative thereof) does not appear at the annual meeting of stockholders to present any nomination pursuant to this Section 15.

(j) The number of Stockholder Nominees appearing in the Proxy Materials with respect to an annual meeting of stockholders shall not exceed 20% of the number of directors in office as of the last day on which a Nomination Notice may be delivered pursuant to this Section 15 or, if such amount is not a whole number, the closest whole number below 20%. In the event that (i) one or more vacancies for any

reason occurs on the Board of Directors after the last day on which notice of a nomination in accordance with the procedures set forth in this Section 15 may be delivered pursuant to this Section 15 but before the date of the annual meeting of stockholders and (ii) the Board of Directors resolves to reduce the size of the Board of Directors in connection therewith, then the maximum number of Stockholder Nominees included in the Proxy Materials shall be calculated based on the number of directors in office as so reduced. The following persons shall be considered Stockholder Nominees for purposes of determining when the maximum number of Stockholder Nominees provided for in this Section 15 has been reached: (i) any Stockholder Nominee whom the Board of Directors decides to nominate as a Board of Directors nominee; and (2) any Stockholder Nominee who is subsequently withdrawn. In the event that the number of Stockholder Nominees submitted by Eligible Stockholders pursuant to this Section 15 exceeds the maximum number of Stockholder Nominees that the corporation must include in the Proxy Materials, then each Eligible Stockholder will select one Stockholder Nominee for inclusion in the Proxy Materials until the maximum number is reached, going in order of the amount (largest to smallest) of shares of the common stock of the corporation that each Eligible Stockholder disclosed as owned in its respective Nomination Notice. If the maximum number is not reached after each Eligible Stockholder has selected one Stockholder Nominee, this selection process will continue as many times as necessary, following the same order each time, until the maximum number is reached. Following such determination, if any Stockholder Nominee who satisfies the eligibility requirements in this Section 15 (i) thereafter withdraws from the election (or his or her nomination is withdrawn by the applicable Eligible Stockholder) or (ii) thereafter is not submitted for Director election for any reason (including the Eligible Stockholder's or Stockholder Nominee's failure to comply with this Section 15), no other nominee or nominees shall be included in the Proxy Materials or otherwise submitted for director election pursuant to this Section 15.

(k) The Board of Directors (or a duly authorized committee thereof) shall have the exclusive power and authority to interpret the provisions of this Section 15 and make all determinations deemed necessary or advisable in connection with Section 15. All such actions, interpretations and determinations that are done or made by the Board of Directors (or a duly authorized committee thereof) shall be final, conclusive and binding on the corporation, the stockholders and all other parties. For the avoidance of doubt, this Section 15 shall not prevent any stockholder from nominating any person to the Board of Directors pursuant to and in accordance with Section 11 of these bylaws. However, this Section 15 is the exclusive method for stockholders to include nominees for director in the Proxy Materials.

ARTICLE III

DIRECTORS

Section 1. The number of directors of this corporation that shall constitute the whole board shall be determined by resolution of the Board of Directors or by the stockholders at the annual meeting of the stockholders; provided, however, that no decrease in the number of directors shall have the effect of shortening the term of an incumbent director. Except as provided in Section 2 of this Article, the directors shall be elected at the annual meeting of the stockholders, in accordance with the certificate of incorporation, and each director elected shall hold office until his/her successor is elected and qualified, unless he/she shall resign, become disqualified, disabled or otherwise removed. Directors need not be stockholders.

Section 2. Vacancies and newly created directorships resulting from any increase in the authorized number of directors may be filled by a majority of the directors then in office, though less than a quorum, or by a sole remaining director, and the directors so chosen shall hold office until the next annual election and until their successors are duly elected and qualified or until his earlier resignation or removal. If there are no directors in office, then an election of directors may be held in the manner provided by statute.

Section 3. The business of the corporation shall be managed by or under the direction of the Board of Directors, which may exercise all such powers of the corporation and do all such lawful acts and things as are not by statute or by the certificate of incorporation or by these bylaws directed or required to be exercised or done by the stockholders.

MEETINGS OF THE BOARD OF DIRECTORS

Section 4. The Board of Directors of the corporation may hold meetings, both regular and special, either within or without the State of Delaware.

Section 5. The first meeting of each newly elected Board of Directors shall be held at the same place as the annual meeting immediately following such meeting or as otherwise determined by such newly elected Board of Directors and no notice of such meeting shall be necessary to the newly elected directors in order legally to constitute the meeting, provided a quorum shall be present. In the event of the failure of the stockholders to fix the time or place of such first meeting of the newly elected Board of Directors, or in the event such meeting is not held at the time and place so fixed by the stockholders, the meeting may be held at such time and place as shall be specified in a notice given as hereinafter provided for special meetings of the Board of Directors, or as shall be specified in a written waiver signed by all of the directors.

Section 6. Regular meetings of the Board of Directors may be held without notice at such time and at such place as shall from time to time be determined by the Board of Directors.

Section 7.

(a) Special meetings of the Board of Directors for any purpose(s) may be called at any time by the Chairman of the Board, the Chief Executive Officer or a majority of the members of the Board of Directors then in office. The person(s) authorized to call special meetings of the Board of Directors may fix the place and time of the meetings.

(b) The Secretary shall give notice of any special meeting to each director personally or by telephone, facsimile transmission or electronic mail, or sent by first-class mail, overnight mail, or courier service, postage or charges prepaid, addressed to each director at that director's address as it is shown on the records of the corporation. If the notice is mailed, it shall be deposited in the United States mail at least four (4) calendar days before the time of the holding of the meeting. If the notice is delivered by overnight mail or courier, it shall be deemed adequately delivered when the notice is delivered to the overnight mail or courier service company at least forty-eight (48) hours before such meeting. If by facsimile transmission or electronic mail, such notice shall be deemed adequately delivered when the notice is transmitted at least twelve (12) hours before such meeting. If by telephone or hand delivery the notice shall be given at least twelve (12) hours prior to the time set for the meeting. Any oral notice given personally or by telephone may be communicated either to the director or to a person at the office of the director who the person giving the notice has reason to believe will promptly communicate it to the director. The notice need not specify the purpose or the place of the meeting, if the meeting is to be held at the principal executive office of the corporation.

Section 8. At all meetings of the Board of Directors, a majority of the directors shall constitute a quorum for the transaction of business and the act of a majority of the directors present at any meeting at which there is a quorum shall be the act of the Board of Directors, except as may be otherwise specifically provided by statute or by the certificate of incorporation. If a quorum shall not be present at any meeting

of the Board of Directors, the directors present thereat may adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum shall be present.

Section 9. Unless otherwise restricted by the certificate of incorporation or these bylaws, any action required or permitted to be taken at any meeting of the Board of Directors or of any committee thereof may be taken without a meeting, if all members of the Board of Directors or committee, as the case may be, consent thereto in writing or by electronic transmission, and the writing or writings or electronic transmission or transmissions are filed with the minutes of proceedings of the Board of Directors or committee.

Section 10. Unless otherwise restricted by the certificate of incorporation or these bylaws, members of the Board of Directors, or any committee designated by the Board of Directors, may participate in a meeting of the Board of Directors, or any committee, by means of conference telephone or similar communications equipment by means of which all persons participating in the meeting can hear each other, and such participation in a meeting shall constitute presence in person at the meeting.

COMMITTEES OF DIRECTORS

Section 11.

(a) The Board of Directors may, by resolution passed by a majority of the Whole Board, designate one (1) or more committees, each committee to consist of one (1) or more of the directors of the corporation. The board may designate one (1) or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee.

(b) In the absence of disqualification of a member of a committee, the member or members thereof present at any meeting and not disqualified from voting, whether or not he or they constitute a quorum, may unanimously appoint another member of the Board of Directors to act at the meeting in the place of any such absent or disqualified member.

(c) Any such committee, to the extent provided in the resolution of the Board of Directors, shall have and may exercise all the powers and authority of the Board of Directors in the management of the business and affairs of the corporation, and may authorize the seal of the corporation to be affixed to all papers that may require it; but no such committee shall have the power or authority in reference to amending the certificate of incorporation, adopting an agreement of merger or consolidation, recommending to the stockholders the sale, lease or exchange of all or substantially all of the corporation's property and assets, recommending to the stockholders a dissolution of the corporation or a revocation of a dissolution, or amending the bylaws of the corporation; and, unless the resolution or the certificate of incorporation expressly so provide, no such committee shall have the power or authority to declare a dividend or to authorize the issuance of stock. Such committee or committees shall have such name or names as may be determined from time to time by resolution adopted by the Board of Directors.

Section 12. Each committee shall keep regular minutes of its meetings and report the same to the Board of Directors when required.

COMPENSATION OF DIRECTORS

Section 13. Unless otherwise restricted by the certificate of incorporation or these bylaws, the Board of Directors shall have the authority to fix the compensation of directors. The directors may be paid their expenses, if any, of attendance at each meeting of the Board of Directors and may be paid a fixed sum for attendance at each meeting of the Board of Directors or a stated salary as director. No such

payment shall preclude any director from serving the corporation in any other capacity and receiving compensation therefor. Members of special or standing committees may be allowed like compensation for attending committee meetings.

REMOVAL OF DIRECTORS

Section 14. Unless otherwise restricted by the certificate of incorporation, any director or the entire Board of Directors may be removed, with or without cause, by the holders of a majority of shares entitled to vote at an election of directors.

ARTICLE IV

NOTICES

Section 1. Whenever, under the provisions of the statutes or of the certificate of incorporation or of these bylaws, notice is required to be given to any director or stockholder, it shall not be construed to mean personal notice (except as provided in Section 7 of Article III of these Bylaws), but such notice may be given in writing, by mail, addressed to such director or stockholder, at his address as it appears on the records of the corporation, with postage thereon prepaid, and such notice shall be deemed to be given at the time when the same shall be deposited in the United States mail. Notice to directors may also be given by telephone, electronic mail, or facsimile or other means specified in Section 7 of Article III of these Bylaws.

Section 2. Whenever any notice is required to be given under the provisions of the statutes or of the certificate of incorporation or of these bylaws, a waiver thereof in writing, signed by the person or persons entitled to said notice, whether before or after the time stated therein, shall be deemed equivalent thereto.

ARTICLE V

OFFICERS

Section 1. The officers of the corporation shall be chosen by the Board of Directors and shall be a Chief Executive Officer, President, Treasurer and a Secretary. The Board of Directors may elect from among its members a Chairman of the Board and a Vice Chairman of the Board. The Board of Directors may also choose one or more Vice-Presidents, Assistant Secretaries and Assistant Treasurers. Any number of offices may be held by the same person, unless the certificate of incorporation or these bylaws otherwise provide.

Section 2. The Board of Directors at its first meeting after each annual meeting of stockholders shall choose a Chief Executive Officer, a President, a Treasurer, and a Secretary, and may choose Vice Presidents, Assistant Secretaries and Assistant Treasurers.

Section 3. The Board of Directors may appoint such other officers and agents as it shall deem necessary, who shall hold their offices for such terms and shall exercise such powers and perform such duties as shall be determined from time to time by the board.

Section 4. The salaries of all officers of the corporation shall be fixed by the Board of Directors. The salaries of agents of the corporation shall, unless fixed by the Board of Directors, be fixed by the Chief Executive Officer, President or any Vice-President of the corporation.

Section 5. The officers of the corporation shall hold office until their successors are chosen and qualify. Any officer elected or appointed by the Board of Directors may be removed at any time by the affirmative vote of a majority of the Board of Directors. Any vacancy occurring in any office of the corporation shall be filled by the Board of Directors.

THE CHAIRMAN OF THE BOARD

Section 6. The Chairman of the Board, if any, shall preside at all meetings of the Board of Directors and of the stockholders at which he shall be present. He/she shall have and may exercise such powers as are, from time to time, assigned to him by the Board of Directors and as may be provided by law.

Section 7. In the absence of the Chairman of the Board, the Vice Chairman of the Board, if any, shall preside at all meetings of the Board of Directors and of the stockholders at which he shall be present. He shall have and may exercise such powers as are, from time to time, assigned to him by the Board of Directors and as may be provided by law.

THE CHIEF EXECUTIVE OFFICER, PRESIDENT AND VICE-PRESIDENTS

Section 8. Subject to such supervisory powers, if any, as the Board of Directors may give to the Chairman of the Board, the Chief Executive Officer, if any, shall, subject to the control of the Board of Directors, have general supervision, direction, and control of the business and affairs of the corporation and shall report directly to the Board of Directors. All other officers, officials, employees and agents shall report directly or indirectly to the Chief Executive Officer. The Chief Executive Officer shall see that all orders and resolutions of the Board of Directors are carried into effect. The Chief Executive Officer shall serve as chairperson of and preside at all meetings of the stockholders. In the absence of a Chairman of the Board or Vice Chairman of the Board, the Chief Executive Officer shall preside at all meetings of the Board of Directors.

Section 9. In the absence of the Chief Executive Officer or in the event of his inability or refusal to act, the President shall perform the duties of the Chief Executive Officer, and when so acting, shall have all the powers of and be subject to all the restrictions upon the Chief Executive Officer. The President shall perform such other duties and have such other powers as the Board of Directors or the Chief Executive Officer may from time to time prescribe.

Section 10. The Chief Executive Officer, President or any Vice President shall execute bonds, mortgages and other contracts requiring a seal, under the seal of the corporation, except where required or permitted by law to be otherwise signed and executed and except where the signing and execution thereof shall be expressly delegated by the Board of Directors to some other officer or agent of the corporation.

Section 11. In the absence of the President or in the event of his inability or refusal to act, the Vice-President, if any, (or in the event there be more than one Vice-President, the Vice-Presidents in the order designated by the directors, or in the absence of any designation, then in the order of their election) shall perform the duties of the President, and when so acting, shall have all the powers of and be subject to all the restrictions upon the President. The Vice- Presidents shall perform such other duties and have such other powers as the Board of Directors or the Chief Executive Officer may from time to time prescribe.

THE SECRETARY AND ASSISTANT SECRETARY

Section 12. The Secretary shall attend all meetings of the Board of Directors and all meetings of the stockholders and record all the proceedings of the meetings of the corporation and of the Board of

Directors in a book to be kept for that purpose and shall perform like duties for the standing committees when required. He/she shall give, or cause to be given, notice of all meetings of the stockholders and special meetings of the Board of Directors, and shall perform such other duties as may be prescribed by the Board of Directors or Chief Executive Officer, under whose supervision he/she shall be. He/she shall have custody of the corporate seal of the corporation and he/she, or an Assistant Secretary, shall have authority to affix the same to any instrument requiring it and when so affixed, it may be attested by his signature or by the signature of such Assistant Secretary. The Board of Directors may give general authority to any other officer to affix the seal of the corporation and to attest the affixing by his signature.

Section 13. The Assistant Secretary, or if there be more than one, the Assistant Secretaries in the order determined by the Board of Directors (or if there be no such determination, then in the order of their election) shall, in the absence of the Secretary or in the event of his inability or refusal to act, perform the duties and exercise the powers of the Secretary and shall perform such other duties and have such other powers as the Board of Directors or the Chief Executive Officer may from time to time prescribe.

THE TREASURER AND ASSISTANT TREASURERS

Section 14. The Treasurer shall have the custody of the corporate funds and securities and shall keep full and accurate accounts of receipts and disbursements in books belonging to the corporation and shall deposit all moneys and other valuable effects in the name and to the credit of the corporation in such depositories as may be designated by the Board of Directors.

Section 15. He/she shall disburse the funds of the corporation as may be ordered by the Board of Directors, taking proper vouchers for such disbursements, and shall render to the Chief Executive Officer and the Board of Directors, at its regular meetings, or when the Board of Directors so requires, an account of all his transactions as Treasurer and of the financial condition of the corporation.

Section 16. If required by the Board of Directors, he/she shall give the corporation a bond (which shall be renewed every six (6) years) in such sum and with such surety or sureties as shall be satisfactory to the Board of Directors for the faithful performance of the duties of his/her office and for the restoration to the corporation, in case of his/her death, resignation, retirement or removal from office, of all books, papers, vouchers, money and other property of whatever kind in his possession or under his/her control belonging to the corporation.

Section 17. The Assistant Treasurer, or if there shall be more than one, the Assistant Treasurers in the order determined by the Board of Directors (or if there be no such determination, then in the order of their election) shall, in the absence of the Treasurer or in the event of his inability or refusal to act, perform the duties and exercise the powers of the Treasurer and shall perform such other duties and have such other powers as the Board of Directors or the Chief Executive Officer may from time to time prescribe.

ARTICLE VI

CERTIFICATE OF STOCK

Section 1.

(a) Certificates for the shares of stock of the corporation shall be issued only to the extent as may be required by applicable law or as otherwise authorized by the Secretary or an Assistant Secretary, and if so issued shall be in such form as is consistent with the certificate of incorporation and applicable

law. Any such certificate shall be signed by, or in the name of the corporation by, the Chairman of the Board or Vice-Chairman of the Board, or the Secretary or an Assistant Secretary. Any or all of the signatures on the certificate may be a facsimile. In case any officer, transfer agent or registrar who has signed or whose facsimile signature has been placed upon a certificate has ceased to be such officer, transfer agent or registrar before such certificate is issued, it may be issued by the corporation with the same effect as if he or she were such officer, transfer agent or registrar at the date of issue.

(b) Certificates may be issued for partly paid shares and in such case upon the face or back of the certificates issued to represent any such partly paid shares, the total amount of the consideration to be paid therefor, and the amount paid thereon shall be specified.

(c) If the corporation shall be authorized to issue more than one class of stock or more than one series of any class, the powers, designations, preferences and relative, participating, optional or other special rights of each class of stock or series thereof and the qualification, limitations or restrictions of such preferences and/or rights shall be set forth in full or summarized on the face or back of the certificate that the corporation shall issue to represent such class or series of stock, provided that, except as otherwise provided in Section 202 of the General Corporation Law of Delaware, in lieu of the foregoing requirements, there may be set forth on the face or back of the certificate that the corporation shall issue to represent such class or series of stock, a statement that the corporation will furnish without charge to each stockholder who so requests the powers, designations, preferences and relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights.

Section 2. Any of or all the signatures on the certificate may be facsimile. In case any officer, transfer agent or registrar who has signed or whose facsimile signature has been placed upon a certificate shall have ceased to be such officer, transfer agent or registrar before such certificate is issued, it may be issued by the corporation with the same effect as if he/she were such officer, transfer agent or registrar at the date of issue.

LOST CERTIFICATES

Section 3. The Board of Directors may direct a new certificate or certificates to be issued in place of any certificate or certificates theretofore issued by the corporation alleged to have been lost, stolen or destroyed, upon the making of an affidavit of that fact by the person claiming the certificate of stock to be lost, stolen or destroyed. When authorizing such issue of a new certificate or certificates, the Board of Directors may, in its discretion and as a condition precedent to the issuance thereof, require the owner of such lost, stolen or destroyed certificate or certificates, or his/her legal representative, to advertise the same in such manner as it shall require and/or to give the corporation a bond in such sum as it may direct as indemnity against any claim that may be made against the corporation with respect to the certificate alleged to have been lost, stolen or destroyed.

TRANSFER OF STOCK

Section 4. Upon surrender to the corporation or the transfer agent of the corporation of a certificate for shares duly endorsed or accompanied by proper evidence of succession, assignation or authority to transfer, it shall be the duty of the corporation to issue a new certificate to the person entitled thereto, cancel the old certificate and record the transaction upon its books.

FIXING RECORD DATE

Section 5. In order that the corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof, or to express consent to corporate action in writing without a meeting, or entitled to receive payment of any dividend or other distribution or allotment of any rights, or entitled to exercise any rights in respect of any change, conversion or exchange of stock or for the purpose of any other lawful action, the Board of Directors may fix, in advance, a record date, which shall not be more than sixty (60) nor less than ten (10) days before the date of such meeting, nor more than sixty (60) days prior to any other action. A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; provided, however, that the Board of Directors may fix a new record date for the adjourned meeting.

REGISTERED STOCKHOLDERS

Section 6. The corporation shall be entitled to recognize the exclusive right of a person registered on its books as the owner of shares to receive dividends, and to vote as such owner, and to hold liable for calls and assessments a person registered on its books as the owner of shares and shall not be bound to recognize any equitable or other claim to or interest in such share or shares on the part of any other person, whether or not it shall have express or other notice thereof, except as otherwise provided by the laws of Delaware.

ARTICLE VII

GENERAL PROVISIONS

DIVIDENDS

Section 1. Dividends upon the capital stock of the corporation, subject to the provisions of the certificate of incorporation, if any, may be declared by the Board of Directors at any regular or special meeting, pursuant to law. Dividends may be paid in cash, in property, or in shares of the capital stock, subject to the provisions of the certificate of incorporation.

Section 2. Before payment of any dividend, there may be set aside out of any funds of the corporation available for dividends such sum or sums as the directors from time to time, in their absolute discretion, think proper as a reserve or reserves to meet contingencies, or for equalizing dividends, or for repairing or maintaining any property of the corporation, or for such other purposes as the directors shall think conducive to the interest of the corporation, and the directors may modify or abolish any such reserve in the manner in which it was created.

CHECKS

Section 3. All checks or demands for money and notes of the corporation shall be signed by such officer or officers or such other person or persons as the Board of Directors may from time to time designate.

FISCAL YEAR

Section 4. The fiscal year of the corporation shall be fixed by resolution of the Board of Directors.

SEAL

Section 5. The Board of Directors may adopt a corporate seal having inscribed thereon the name of the corporation, the year of its organization and the words "Corporate Seal, Delaware." The seal may be used by causing it or a facsimile thereof to be impressed or affixed or reproduced or otherwise.

INDEMNIFICATION

Section 6.

(a) The corporation shall, to the fullest extent authorized under the laws of the State of Delaware, as those laws may be amended and supplemented from time to time, indemnify any director or officer made, or threatened to be made, a party to an action or proceeding, whether criminal, civil, administrative or investigative, by reason of being a director or officer of the corporation or a predecessor corporation or, at the corporation's request, a director, officer, employee or agent of another corporation, provided, however, that the corporation shall indemnify any such agent in connection with a proceeding initiated by such agent only if such proceeding was authorized by the Board of Directors of the corporation. The indemnification provided for in this Section 6 shall: (i) not be deemed exclusive of any other rights to which those indemnified may be entitled under any bylaw, agreement or vote of stockholders or disinterested directors or otherwise, both as to action in their official capacities and as to action in another capacity while holding such office, (ii) continue as to a person who has ceased to be a director or officer, and (iii) inure to the benefit of the heirs, executors and administrators of such a person. The corporation's obligation to provide indemnification under this Section 6 shall be offset to the extent of any payment received under any other source of indemnification or any otherwise applicable insurance coverage under a policy maintained by the corporation or any other person.

(b) Expenses incurred by a director or officer of the corporation in defending a civil or criminal action, suit or proceeding by reason of the fact that he is or was a director of the corporation (or was serving at the corporation's request as a director or officer of another corporation) shall be paid by the corporation in advance of the final disposition of such action, suit or proceeding upon receipt of an undertaking by or on behalf of such director to repay such amount if it shall ultimately be determined that he is not entitled to be indemnified by the corporation as authorized by relevant sections of the General Corporation Law of Delaware. Notwithstanding the foregoing, the corporation shall not be required to advance such expenses to an agent who is a party to an action, suit or proceeding brought by the corporation and approved by a majority of the Board of Directors of the corporation which alleges willful misappropriation of corporate assets by such agent, disclosure of confidential information in violation of such agent's fiduciary or contractual obligations to the corporation or any other willful and deliberate breach in bad faith of such agent's duty to the corporation or its stockholders.

(c) The foregoing provisions of this Section 6 shall be deemed to be a contract between the corporation and each director who serves in such capacity at any time while this bylaw is in effect, and any repeal or modification thereof shall not affect any rights or obligations then existing with respect to any state of facts then or theretofore existing or any action, suit or proceeding theretofore or thereafter brought based in whole or in part upon any such state of facts.

(d) The Board of Directors in its discretion shall have power on behalf of the corporation to indemnify any employee or agent made a party to any action, suit or proceeding by reason of the fact that he, his testator or intestate, is or was an employee or agent of the corporation.

(e) To assure indemnification under this Section 6 of all directors, officers and employees who are determined by the corporation or otherwise to be or to have been “fiduciaries” of any employee benefit plan of the corporation which may exist from time to time, Section 145 of the General Corporation Law of Delaware shall, for the purposes of this Section 6, be interpreted as follows: an “other enterprise” shall be deemed to include such an employee benefit plan, including without limitation, any plan of the corporation which is governed by the Act of Congress entitled “Employee Retirement Income Security Act of 1974,” as amended from time to time; the corporation shall be deemed to have requested a person to serve an employee benefit plan where the performance by such person of his duties to the corporation also imposes duties on, or otherwise involves services by, such person to the plan or participants or beneficiaries of the plan; excise taxes assessed on a person with respect to an employee benefit plan pursuant to such Act of Congress shall be deemed “fines.”

PROHIBITION ON TOXICS

Section 7.

(a) Unless approved by the holders of a majority of the shares present and entitled to vote at a duly convened meeting of stockholders, the corporation shall not:

(i) grant any stock option, including stock appreciation right, with an exercise price that is less than 100% of the fair market value of the underlying stock on the date of grant;

(ii) reduce the exercise price of any stock option, including stock appreciation right, outstanding or to be granted in the future; cancel and re-grant options at a lower exercise price (including entering into any “6 month and 1 day” cancellation and re-grant scheme), whether or not the cancelled options are put back into the available pool for grant; replace underwater options with restricted stock in an exchange, buy-back or other scheme; or replace any options with new options having a lower exercise price or accelerated vesting schedule in an exchange, buy-back or other scheme;

(ii) sell or issue any security of the corporation convertible, exercisable or exchangeable into shares of common stock of the corporation, having a conversion, exercise or exchange price per share which is subject to downward adjustment based on the market price of the common stock at the time of conversion, exercise or exchange of such security into common stock (except for appropriate adjustments made to give effect to any stock splits or stock dividends); or

(iv) enter into (A) any equity line or similar agreement or arrangement; or (B) any agreement to sell common stock of the corporation (or any security convertible, exercisable or exchangeable into shares of common stock (“Common Stock Equivalent”)) at a per share price (or, with respect to a Common Stock Equivalent, at a conversion, exercise or exchange price, as the case may be (“Equivalent Price”)) that is fixed after the execution date of the agreement, whether or not based on any predetermined price-setting formula or calculation method. Notwithstanding the foregoing, however, a price protection clause shall be permitted in an agreement for sale of common stock or Common Stock Equivalent, if such clause provides for an adjustment to the price per share of common stock or, with respect to a Common Stock Equivalent, to the Equivalent Price (provided that such price or Equivalent Price is fixed on or before the execution date of the agreement) (the “Fixed Price”) in the event that the corporation, during the period beginning on the date of the agreement and ending no later than 90 days after the closing date of the transaction, sells shares of common stock or Common Stock Equivalent to another investor at a price or Equivalent Price, as the case may be, below the Fixed Price.

(b) This Section 7 of Article VII may not be further amended or repealed without the affirmative vote of the holders of a majority of the shares present and entitled to vote at a duly convened meeting of stockholders.

ARTICLE VIII

AMENDMENTS

Section 1. Except for Section 7 of Article VII, these bylaws may be altered, amended or repealed or new bylaws may be adopted by the stockholders or by the Board of Directors, when such power is conferred upon the Board of Directors by the certificate of incorporation, at any regular meeting of the stockholders or of the Board of Directors or at any special meeting of the stockholders or of the Board of Directors if notice of such alteration, amendment, repeal or adoption of new bylaws be contained in the notice of such special meeting. If the power to adopt, amend or repeal bylaws is conferred upon the Board of Directors by the certificate or incorporation it shall not divest or limit the power of the stockholders to adopt, amend or repeal bylaws.

CERTIFICATE OF ADOPTION BY THE SECRETARY OF NUANCE COMMUNICATIONS, INC.

The undersigned, Wendy Cassity, hereby certifies that he is the duly elected and acting Secretary of Nuance Communications, Inc., a Delaware corporation (the "Corporation"), and that the Bylaws attached hereto constitute the Bylaws of said Corporation as duly amended and restated by the Board of Directors on November 7, 2018.

IN WITNESS WHEREOF, the undersigned has hereunto subscribed her name this 7th day of November, 2018.

/s/ Wendy Cassity

Secretary

NUANCE COMMUNICATIONS, INC.

CHANGE OF CONTROL AND SEVERANCE AGREEMENT

This Change of Control and Severance Agreement (the “ *Agreement* ”) is made and entered into by and between Daniel Tempesta (“ *Executive* ”) and Nuance Communications, Inc., a Delaware corporation (the “ *Company* ”), effective as of the later date on the signature page of this Agreement (the “ *Effective Date* ”).

RECITALS

1. The Compensation Committee (the “ *Committee* ”) of the Board of Directors of the Company (the “ *Board* ”) has determined that it is in the best interests of the Company and its shareholders to assure that the Company will have the continued dedication and objectivity of Executive, notwithstanding the possibility, threat, or occurrence of a Change of Control.

2. The Committee believes that it is imperative to provide Executive with severance benefits upon Executive’s termination of employment under certain circumstances to provide Executive with enhanced financial security, incentive and encouragement to remain with the Company.

3. Certain capitalized terms used in the Agreement are defined in Section 7 below.

AGREEMENT

NOW, THEREFORE, in consideration of Executive’s continued employment and the mutual covenants contained herein, the parties hereto agree as follows:

1. Term of Agreement. This Agreement will have an initial term commencing on the Effective Date and ending September 30, 2021 (the “ *Initial Term* ”). At the end of the Initial Term, this Agreement will renew automatically for additional three (3) year terms (each an “ *Additional Term* ”), unless either party provides the other party with written notice of non-renewal at least sixty (60) days prior to the date of automatic renewal. Notwithstanding the foregoing provisions of this paragraph, if a Change of Control occurs when there are fewer than twelve (12) months remaining during the Initial Term or an Additional Term, the term of this Agreement will extend automatically through the date that is twelve (12) months following the effective date of the Change of Control. If Executive becomes entitled to benefits under Section 3 during the term of this Agreement, the Agreement will not terminate until all of the obligations of the parties hereto with respect to this Agreement have been satisfied. For avoidance of doubt, Executive will not be entitled to severance benefits under Section 3 due solely to notice of non-renewal or termination of the Agreement due to non-renewal.

2. At-Will Employment. The Company and Executive acknowledge that Executive’s employment is and will continue to be at-will, as defined under applicable law, except as otherwise

specifically provided under the terms of a written employment agreement between the Company and Executive.

3. Severance Benefits.

(a) Termination Other than During Change of Control Period. If Executive's employment with the Company and its subsidiaries is terminated (i) by the Company other than for Cause and for a reason other than Death or Disability, (ii) as a result of Executive's resignation for Good Reason and such termination occurs outside the Change of Control Period, then, subject to Section 4 and the other provisions of this Agreement, Executive will receive from the Company:

(i) Base Salary Severance. A lump sum severance payment equal to one hundred percent (100%) of Executive's annual base salary as in effect immediately prior to the termination date.

(ii) Target Bonus Severance. A lump sum severance payment equal to a prorated percentage of Executive's target bonus as in effect for the fiscal year that includes the termination date. The prorated percentage will be determined by dividing the number of days during the fiscal year for which Executive remained an employee of the Company, by 365. If Executive's target bonus for the fiscal year including the termination date has not been set as of the termination date, Executive instead will receive a prorated percentage of the target bonus for the immediately preceding fiscal year.

(iii) Equity Awards.

(1) Termination on or Before December 31, 2019. Executive's outstanding and unvested time-vesting equity awards covering shares of the Company's common stock that were scheduled to vest on or before December 31, 2019 will become vested in full as of the date of termination, and Executive's outstanding and unvested equity awards covering shares of the Company's common stock the vesting of which was subject to performance goals to be measured at any time on or before December 31, 2019 will become vested in full as of the date of termination as if the performance goals had been achieved at 100% of targeted performance.

(2) Termination on or after January 1, 2020. Vesting of a prorated percentage of each (if any) of Executive's outstanding and unvested time-vesting equity awards (excluding any awards vesting based on performance) covering shares of the Company's common stock that are scheduled to vest in the year that includes the termination date. The prorated percentage will be determined by on a grant-by-grant basis by dividing (A) the number of days during the fiscal year for which Executive remained an employee of the Company, by (B) the number of days from the first day of the fiscal year through the scheduled vesting date during the year of termination. The number of shares vesting (if any) will be rounded to the nearest whole share. As an example only, if Executive remains an employee for the first 30 days of the year that includes the termination date, and 100 shares of a time-based RSU were scheduled to vest on the 90th day of that fiscal year, Executive would receive vesting of thirty-three of the shares that were scheduled to vest on the 90th day. For the avoidance of doubt, the vesting provided in this Section 3(a)(iii)(2) applies only to the portion of an award that is scheduled to vest in the year of termination. No vesting will be provided under

this Section 3(a)(iii)(2) with respect to any shares that are scheduled to vest after the year of Executive's termination.

(iv) Continued Employee Benefits. Continuation coverage under the terms of the Company medical benefit plan pursuant to the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended (" **COBRA** ") for Executive and/or Executive's eligible dependents, subject to Executive timely electing COBRA coverage. For one year from the date of Executive's termination the Company will pay directly on Executive's behalf the COBRA premiums (at the coverage levels in effect immediately prior to Executive's termination). Notwithstanding the preceding sentence, if the Company determines in its sole discretion that it cannot provide the foregoing benefit without potentially violating, or being subject to an excise tax under, applicable law (including, without limitation, Section 2716 of the Public Health Service Act), the Company will in lieu thereof provide to Executive a taxable lump sum cash payment in an amount equal to the product of (x) twelve (12), multiplied by (y) the monthly COBRA premium that Executive otherwise would be required to pay to continue the group health coverage for Executive and Executive's eligible dependents, as applicable, as in effect on the date of Executive's termination of employment (which amount will be based on the premium for the first month of COBRA coverage), which payment will be made regardless of whether Executive elects COBRA continuation coverage. For the avoidance of doubt, the taxable payment in lieu of COBRA reimbursements may be used for any purpose, including, but not limited to continuation coverage under COBRA, and will be subject to all applicable tax withholdings.

(b) Termination Following a Change of Control. If during the Change of Control Period (i) Executive's employment with the Company and its subsidiaries is terminated by the Company other than for Cause and for a reason other than death or Disability or (ii) Executive resigns for Good Reason, then, subject to Section 4 and the other provisions of this Agreement, Executive will receive from the Company:

(i) Severance. A lump sum severance payment equal to one hundred percent (100%) of Executive's annual base salary as in effect immediately prior to the termination date (or, if greater, as in effect immediately prior to the Change of Control).

(ii) Target Bonus. A lump sum severance payment equal to one hundred percent (100%) of the greater of (1) Executive's target bonus for the year in which Executive's termination occurs, or (2) Executive's target bonus in effect immediately prior to the Change of Control.

(iii) Continued Employee Benefits. Continuation coverage under the terms of the Company medical benefit plan pursuant to COBRA for Executive and/or Executive's eligible dependents, subject to Executive timely electing COBRA coverage. For one year from the date of Executive's termination the Company will pay directly on Executive's behalf the COBRA premiums (at the coverage levels in effect immediately prior to Executive's termination). Notwithstanding the preceding sentence, if the Company determines in its sole discretion that it cannot provide the foregoing benefit without potentially violating, or being subject to an excise tax under, applicable law (including, without limitation, Section 2716 of the Public Health Service Act), the Company will in lieu thereof provide to Executive a taxable lump sum cash payment in an amount equal to

the product of (x) twelve (12), multiplied by (y) the monthly COBRA premium that Executive otherwise would be required to pay to continue the group health coverage for Executive and Executive's eligible dependents, as applicable, as in effect on the date of Executive's termination of employment (which amount will be based on the premium for the first month of COBRA coverage), which payment will be made regardless of whether Executive elects COBRA continuation coverage. For the avoidance of doubt, the taxable payment in lieu of COBRA reimbursements may be used for any purpose, including, but not limited to continuation coverage under COBRA, and will be subject to all applicable tax withholdings.

(iv) Vesting of Time-Based Equity Awards. One hundred percent (100%) of Executive's outstanding and unvested time-vesting equity awards (excluding any awards vesting based on performance) covering shares of the Company's common stock will become vested in full.

(c) Vesting of Performance-Based Equity Awards.

(i) Upon a Change of Control, a number of Executive's then-outstanding performance-based restricted stock units granted under the Company's 2000 Stock Plan or any successor thereto (the "**Plan**") that are subject to performance goals for the fiscal year in which the Change of Control occurs will become eligible for time-based vesting as if the performance goals had been achieved at 100% of targeted performance (the "**Eligible Shares**"). Following the Change of Control, the original time-based vesting schedule for the Eligible Shares will cease to apply and the Eligible Shares will instead vest on the last day of the performance period in which the Change of Control occurs, subject to Executive's remaining a Service Provider (as defined in the Plan) through such date, or, if earlier, upon Executive's termination by the Company or its successor other than for Cause or upon Executive's resignation for Good Reason. Upon a Change of Control, Executive's then-outstanding performance-based restricted stock units granted under the Plan that are subject to performance goals for fiscal years after the fiscal year in which the Change of Control occurs will remain subject to the terms of the Plan and the applicable award agreement except that, if during the Change of Control Period, Executive's employment is terminated by the Company or its successor other than for Cause or by Executive for Good Reason, 50% of the performance-based restricted stock units that would have vested at 100% of targeted performance will vest.

(ii) Upon a Change of Control, Executive's then-outstanding performance-based restricted stock units granted under the Plan (or any successor thereto) that are subject to relative total shareholder return performance goals will become eligible for time-based vesting based on the number of shares that would vest based on actual performance determined as of the Change of Control (the "**Eligible TSR Shares**"). Following the Change of Control, the Eligible TSR Shares shall vest on the last day of the performance period, subject to Executive's remaining a Service Provider (as defined in the Plan) through such date, or, if earlier, upon Executive's termination by the Company or its successor other than for Cause or upon Executive's resignation for Good Reason.

(iii) Except as provided in this Section 3(c), all performance-based restricted stock units described in this Section 3(c) remain subject to the terms of the Plan and the applicable award agreement.

(d) Voluntary Resignation; Termination for Cause. If Executive's employment with the Company and its subsidiaries terminates in a voluntary resignation (other than for Good Reason during the Change of Control Period), or if the Executive is terminated for Cause, then Executive shall not be entitled to receive severance or other benefits except as otherwise provided by applicable law or those (if any) as may be available under the Company's severance and benefit plans and policies in effect at the time of such termination.

(e) Termination for Death or Disability. If Executive's employment with the Company and its subsidiaries terminates on account of Executive's death or absence from work due to a disability for a period in excess of ninety (90) days in any twelve-month period that qualifies for benefits under the Company's long-term disability program ("**Disability**"), Executive will receive from the Company:

(i) Continuation coverage under the terms of the Company medical benefit plan pursuant to COBRA for Executive and/or Executive's eligible dependents, subject to Executive or his dependents timely electing COBRA coverage. For one year from the date of Executive's termination the Company will pay directly on Executive's behalf the COBRA premiums (at the coverage levels in effect immediately prior to Executive's termination). Notwithstanding the preceding sentence, if the Company determines in its sole discretion that it cannot provide the foregoing benefit without potentially violating, or being subject to an excise tax under, applicable law (including, without limitation, Section 2716 of the Public Health Service Act), the Company will in lieu thereof provide to Executive a taxable lump sum cash payment in an amount equal to the product of (x) twelve (12), multiplied by (y) the monthly COBRA premium that Executive otherwise would be required to pay to continue the group health coverage for Executive and Executive's eligible dependents, as applicable, as in effect on the date of Executive's termination of employment (which amount will be based on the premium for the first month of COBRA coverage), which payment will be made regardless of whether Executive elects COBRA continuation coverage. For the avoidance of doubt, the taxable payment in lieu of COBRA reimbursements may be used for any purpose, including, but not limited to continuation coverage under COBRA, and will be subject to all applicable tax withholdings.

(ii) One hundred percent (100%) of Executive's outstanding and unvested time-vesting equity awards (excluding any awards vesting based on performance) covering shares of the Company's common stock will become vested. In the case of a termination for Disability, vesting under this Section 3(e) will be subject to Executive's compliance with Section 4 and the other provisions of this Agreement.

(f) Accrued Amounts. Without regard to the reason for, or the timing of, Executive's termination of employment, the Company shall pay Executive: (i) any unpaid base salary due for periods prior to the date of termination, (ii) accrued and unused vacation, as required under the applicable Company policy; and (iii) all expenses incurred by Executive in connection with the business of the Company prior to the date of termination in accordance with the Company's business expense reimbursement policy. These payments shall be made promptly upon termination and within the period of time mandated by law.

(g) Exclusive Remedy. In the event of termination of Executive's employment as set forth in Section 3 of this Agreement, the provisions of Section 3 are intended to be and are exclusive and in lieu of any other rights or remedies to which Executive or the Company may otherwise be entitled, whether at law, tort or contract, in equity, or under this Agreement (other than the payment of accrued but unpaid wages, as required by law, or any unreimbursed reimbursable expenses). During the term of this Agreement, Executive will be entitled to no benefits, compensation or other payments or rights upon termination of employment, including under any offer letter or other agreement with the Company, other than those benefits expressly set forth in Section 3 of this Agreement.

(h) Transfer between Company and any Subsidiary. For purposes of this Section 3, if Executive's employment relationship with the Company or any parent or subsidiary of the Company ceases, Executive will not, solely by virtue thereof, be determined to have been terminated without Cause for purposes of this Agreement if Executive continues to remain employed by the Company or any subsidiary of the Company immediately thereafter (e.g., upon transfer of Executive's employment from the Company to a Company subsidiary).

4. Conditions to Receipt of Severance

(a) Release of Claims Agreement. The receipt of any severance payments or benefits in Section 3 pursuant to this Agreement is subject to Executive signing and not revoking a separation agreement and release of claims in substantially the form attached to this Agreement as Exhibit A (the "**Release**"), which must become effective and irrevocable no later than the sixtieth (60th) day following Executive's termination of employment (the "**Release Deadline**"). If the Release does not become effective and irrevocable by the Release Deadline, Executive will forfeit any right to severance payments or benefits under this Agreement. Any severance payments or benefits otherwise payable to Executive between the termination date and the Release Deadline will be paid on or within fifteen (15) days following the Release Deadline, or, if later, such time as required by Section 5(a), except that acceleration of vesting of equity awards not subject to Section 409A will become effective on the date the Release becomes effective. In no event will severance payments or benefits be paid or provided until the Release actually becomes effective and irrevocable.

(b) Proprietary Information and Non-Competition Agreement. Executive's receipt of any severance payments or benefits under Section 3 will be subject to Executive continuing to comply with the terms of any agreements between Executive and the Company concerning inventions, confidentiality, or restrictive covenants (the "**Confidentiality Agreement**").

5. Section 409A

(a) Notwithstanding anything to the contrary in this Agreement, no Deferred Payments will be paid or otherwise provided until Executive has a "separation from service" within the meaning of Section 409A. Similarly, no severance payable to Executive, if any, pursuant to this Agreement that otherwise would be exempt from Section 409A pursuant to Treasury Regulation Section 1.409A-1(b)(9) will be payable until Executive has a "separation from service" within the meaning of Section 409A. In addition, if Executive is a "specified employee" within the meaning of Section 409A at the time of Executive's separation from service (other than due to death), then

the Deferred Payments, if any, that are payable within the first six (6) months following Executive's separation from service, will become payable on the first payroll date that occurs on or after the date six (6) months and one (1) day following the date of Executive's separation from service. All subsequent Deferred Payments, if any, will be payable in accordance with the payment schedule applicable to each payment or benefit. Notwithstanding anything herein to the contrary, if Executive dies following Executive's separation from service, but before the six (6) month anniversary of the separation from service, then any payments delayed in accordance with this paragraph will be payable in a lump sum as soon as administratively practicable after the date of Executive's death and all other Deferred Payments will be payable in accordance with the payment schedule applicable to each payment or benefit. Each payment and benefit payable under this Agreement is intended to constitute a separate payment under Section 1.409A-2(b)(2) of the Treasury Regulations.

(b) Any amount paid under this Agreement that satisfies the requirements of the "short-term deferral" rule set forth in Section 1.409A-1(b)(4) of the Treasury Regulations will not constitute Deferred Payments for purposes of this Agreement.

(c) Any amount paid under this Agreement that qualifies as a payment made as a result of an involuntary separation from service pursuant to Section 1.409A-1(b)(9)(iii) of the Treasury Regulations that does not exceed the Section 409A Limit (as defined below) will not constitute Deferred Payments for purposes of this Agreement.

(d) The foregoing provisions are intended to comply with, or be exempt from, the requirements of Section 409A so that none of the severance payments and benefits to be provided hereunder will be subject to the additional tax imposed under Section 409A, and any ambiguities or ambiguous terms herein will be interpreted to so comply. Specifically, the payments hereunder are intended to be exempt from the Requirements of Section 409A under the "short-term" deferral rule set forth in Section 1.409A-1(b)(4) of the Treasury Regulations. The Company and Executive agree to work together in good faith to consider amendments to this Agreement and to take such reasonable actions which are necessary, appropriate or desirable to avoid imposition of any additional tax or income recognition before actual payment to Executive under Section 409A. In no event will the Company reimburse Executive for any taxes or other costs that may be imposed on Executive as a result of Section 409A or any other law.

6. Limitation on Payments. In the event that the severance and other benefits provided for in this Agreement or otherwise payable to Executive (i) constitute "parachute payments" within the meaning of Section 280G of the Code, and (ii) would be subject to the excise tax imposed by Section 4999 of the Code (the "**Excise Tax**"), then Executive's benefits under this Agreement shall be either:

(a) delivered in full, or

(b) delivered as to such lesser extent which would result in no portion of such benefits being subject to the Excise Tax,

whichever of the foregoing amounts, taking into account the applicable federal, state and local income taxes and the Excise Tax, results in the receipt by Executive on an after-tax basis, of the

greatest amount of benefits, notwithstanding that all or some portion of such benefits may be taxable under Section 4999 of the Code. If a reduction in severance and other benefits constituting “parachute payments” is necessary so that benefits are delivered to a lesser extent, reduction will occur in the following order: (1) reduction of cash payments, (2) cancellation of equity awards granted within the twelve-month period prior to a “change of control” (as determined under Code Section 280G) that are deemed to have been granted contingent upon the change of control (as determined under Code Section 280G), (3) cancellation of accelerated vesting of equity awards and (4) reduction of continued employee benefits. In the event that accelerated vesting of equity awards is to be cancelled, such vesting acceleration will be cancelled in the reverse chronological order of the award grant dates.

Unless the Company and Executive otherwise agree in writing, any determination required under this Section shall be made in writing by the Company’s independent public accountants (the “*Accountants*”), whose determination shall be conclusive and binding upon Executive and the Company for all purposes. For purposes of making the calculations required by this Section, the Accountants may make reasonable assumptions and approximations concerning applicable taxes and may rely on reasonable, good faith interpretations concerning the application of Section 280G and 4999 of the Code. The Company and Executive shall furnish to the Accountants such information and documents as the Accountants may reasonably request in order to make a determination under this Section. The Company shall bear all costs the Accountants may reasonably incur in connection with any calculations contemplated by this Section.

7. Definition of Terms. The following terms referred to in this Agreement will have the following meanings:

(a) Cause. “*Cause*” will mean (i) any act of dishonesty or fraud taken by Executive in connection with his or her responsibilities as an employee other than immaterial, inadvertent acts that are promptly remedied by Executive following notice by the Company, (ii) Executive’s breach of the fiduciary duty or duty of loyalty owed to the Company, or material breach of the duty to protect the Company’s confidential and proprietary information, (iii) Executive’s conviction or plea of nolo contendere to a felony or to a crime involving fraud, embezzlement, misappropriation of funds or any other act of moral turpitude, (iv) Executive’s gross negligence or willful misconduct in the performance of his or her duties, (v) Executive’s material breach of this Agreement or a written policy of the Company; (vi) Executive’s engagement in conduct or activities that result, or are reasonably likely to result, in negative publicity or public disrespect, contempt or ridicule of the Company; (vii) Executive’s failure to abide by the lawful and reasonable directives of the Company; or (viii) Executive’s repeated failure to materially perform the primary duties of Executive’s position provided, however, that: a termination of the Executive’s employment pursuant to clause (vii) or clause (viii) of this Section shall not be deemed a termination for “Cause” unless the Company notifies Executive in writing of the alleged failure or breach that the Company claims constitutes Cause, and Executive fails to substantially cure such failure or breach within thirty (30) days of such notice; and provided further, however, that clauses (vii) and (viii) of this Section shall not apply during the pendency of a Change of Control Period and therefore no termination for Cause may be made under such clauses during any such period.

(b) Change of Control. “ **Change of Control** ” will mean the occurrence of any of the following events:

(i) any “person” (as such term is used in Sections 13(d) and 14(d) of the Exchange Act) becomes the “beneficial owner” (as defined in Rule 13d-3 under the Exchange Act), directly or indirectly, of securities of the Company representing more than 50% of the total voting power represented by the Company's then outstanding voting securities;

(ii) the consummation by the Company of a merger or consolidation of the Company with any other corporation, other than a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity) more than fifty percent (50%) of the total voting power represented by the voting securities of the Company or such surviving entity outstanding immediately after such merger or consolidation (in substantially the same proportions relative to each other as immediately prior to the transaction); or

(iii) the consummation of the sale or disposition by the Company of all or substantially all of the Company's assets (it being understood that the sale or spinoff of one or more (but not all material) divisions of the Company shall not constitute the sale or disposition of all or substantially all of the Company's assets).

Further and for the avoidance of doubt, a transaction will not constitute a Change of Control if: (i) its sole purpose is to change the state of the Company's incorporation, or (ii) its sole purpose is to create a holding company that will be owned in substantially the same proportions by the persons who held the Company's securities immediately before such transaction.

(c) Change of Control Period. “ **Change of Control Period** ” means the period beginning on a Change of Control and ending on the one-year anniversary of the Change of Control.

(d) Code. “ **Code** ” means the Internal Revenue Code of 1986, as amended.

(e) Deferred Payments. “ **Deferred Payments** ” means any severance pay or benefits to be paid or provided to Executive, if any, pursuant to this Agreement that, in each case, are or when considered together with any other severance payments or separation benefits are, considered deferred compensation under Section 409A.

(f) Exchange Act. “ **Exchange Act** ” means the Securities Exchange Act of 1934, as amended.

(g) Good Reason. “ **Good Reason** ” means Executive's termination of employment within thirty (30) days following the expiration of any cure period (discussed below) following the occurrence of one or more of the following, without Executive's express written consent: (i) a material reduction in Executive's duties, authority or responsibilities; (ii) a material reduction by the Company in the annual base compensation or target bonus opportunity (as a percentage of base salary) of the Executive as in effect immediately prior to such reduction provided, however, that

one or more reductions in base compensation or target bonus opportunity applicable to all executives generally that, cumulatively, total ten percent (10%) or less in base compensation and/or ten (10) percentage points or less in target bonus opportunity will not constitute a material reduction for purposes of this clause (ii); (iii) the relocation of the Executive to a facility or a location more than fifty (50) miles from the Executive's then present location; (iv) the failure of the Company to obtain the assumption of this agreement by any successors contemplated in Section 8 below; or (v) a material breach by the Company of this Agreement or any equity award agreement between Company and the Executive. In order for an event to qualify as Good Reason, Executive must not terminate employment with the Company without first providing the Company with written notice of the acts or omissions constituting the grounds for "Good Reason" within ninety (90) days of the initial existence of the grounds for "Good Reason" and the Company shall have failed to cure during a period of thirty (30) days following the date of such notice.

(h) Section 409A. "**Section 409A**" means Section 409A of the Code and the final Treasury Regulations and any official Internal Revenue Service guidance promulgated thereunder.

(i) Section 409A Limit. "**Section 409A Limit**" means two (2) times the lesser of: (i) Executive's annualized compensation based upon the annual rate of pay paid to Executive during the Executive's taxable year preceding the Executive's taxable year of Executive's termination of employment as determined under, and with such adjustments as are set forth in, Treasury Regulation 1.409A-1(b)(9)(iii)(A)(1) and any Internal Revenue Service guidance issued with respect thereto; or (ii) the maximum amount that may be taken into account under a qualified plan pursuant to Section 401(a)(17) of the Code for the year in which Executive's employment is terminated.

8. Successors.

(a) The Company's Successors. Any successor to the Company (whether direct or indirect and whether by purchase, merger, consolidation, liquidation or otherwise) to all or substantially all of the Company's business and/or assets will assume the obligations under this Agreement and agree expressly to perform the obligations under this Agreement in the same manner and to the same extent as the Company would be required to perform such obligations in the absence of a succession. For all purposes under this Agreement, the term "Company" will include any successor to the Company's business and/or assets which executes and delivers the assumption agreement described in this Section 8(a) or which becomes bound by the terms of this Agreement by operation of law.

(b) Executive's Successors. The terms of this Agreement and all rights of Executive hereunder will inure to the benefit of, and be enforceable by, Executive's personal or legal representatives, executors, administrators, successors, heirs, distributees, devisees and legatees.

9. Notice.

(a) General. Notices and all other communications contemplated by this Agreement will be in writing and will be deemed to have been duly given when personally delivered, when mailed by U.S. registered or certified mail, return receipt requested and postage prepaid, or when

delivered by private courier service such as UPS or Federal Express that has tracking capability. In the case of Executive, mailed notices will be addressed to him or her at the home address which he or she most recently communicated to the Company in writing. In the case of the Company, mailed notices will be addressed to its corporate headquarters, and all notices will be directed to the Chief Executive Officer and General Counsel of the Company.

(b) Notice of Termination. Any termination by the Company for Cause or by Executive for Good Reason will be communicated by a notice of termination to the other party hereto given in accordance with Section 9(a) of this Agreement. Such notice will indicate the specific termination provision in this Agreement relied upon, will set forth in reasonable detail the facts and circumstances claimed to provide a basis for termination under the provision so indicated, and will specify the termination date (which will be not more than thirty (30) days after the giving of such notice or any shorter period required herein).

10. Resignation. Upon the termination of Executive's employment for any reason, Executive will be deemed to have resigned from all officer and/or director positions held at the Company and its affiliates voluntarily, without any further required action by Executive, as of the end of Executive's employment and Executive, at the Board's request, will execute any documents reasonably necessary to reflect Executive's resignation.

11. Miscellaneous Provisions.

(a) No Duty to Mitigate. Executive will not be required to mitigate the amount of any payment contemplated by this Agreement (whether by seeking new employment or in any other manner), nor shall any such payment be reduced by any earnings that Executive may receive from any other source.

(b) Waiver. No waiver by either party of any breach of, or of compliance with, any condition or provision of this Agreement by the other party will be considered a waiver of any other condition or provision or of the same condition or provision at another time.

(c) Headings. All captions and section headings used in this Agreement are for convenient reference only and do not form a part of this Agreement.

(d) Entire Agreement. This Agreement and the Confidentiality Agreement constitute the entire agreement of the parties hereto with respect to the subject matter hereof and thereof. This Agreement supersedes, replaces in their entirety and terminates any prior representations, understandings, undertakings or agreements between the Company and the Executive, whether written or oral and whether expressed or implied, that provided any benefits to Executive upon termination of Executive's employment for any reason. No waiver, alteration, or modification of any of the provisions of this Agreement will be binding unless in writing and signed by duly authorized representatives of the parties hereto and which specifically mention this Agreement. For the avoidance of doubt, it is the intention of the parties that the provisions of this Agreement providing for acceleration or other modification of the vesting provisions of equity awards are intended to supersede the vesting provisions of any equity awards that may outstanding during the term of this Agreement.

(e) Governing Law. If Executive is resident in California, this Agreement shall be governed by the internal substantive laws, but not the choice of law rules, of the State of California, and the Company and the Executive each consent to personal and exclusive jurisdiction and venue in the State of California. If Executive is resident in any state or other jurisdiction other than California, this Agreement shall be governed by the internal substantive laws, but not the choice of law rules, of the Commonwealth of Massachusetts, and the Company and the Executive each consent to personal and exclusive jurisdiction and venue in the Commonwealth of Massachusetts.

(f) Severability. The invalidity or unenforceability of any provision or provisions of this Agreement will not affect the validity or enforceability of any other provision hereof, which will remain in full force and effect.

(g) Withholding. All payments made pursuant to this Agreement will be subject to withholding of applicable income, employment and other taxes.

(h) Counterparts. This Agreement may be executed in counterparts, each of which will be deemed an original, but all of which together will constitute one and the same instrument.

IN WITNESS WHEREOF, each of the parties has executed this Change of Control and Severance Agreement, in the case of the Company by its duly authorized officer, as of the day and year set forth below.

COMPANY NUANCE COMMUNICATIONS, INC.

By: _____

Title: _____

Date: _____

EXECUTIVE _____

Daniel Tempesta

Date: _____

EXHIBIT A
FORM OF SEPARATION & RELEASE AGREEMENT

This Separation & Release Agreement (the “ *Agreement* ”) is made by and between Nuance Communications, Inc., a Delaware corporation (the “ *Company* ”) and _____ (“ *Executive* ”). The Company and Executive are sometimes referred to collectively as the “ *Parties* ” and individually as a “ *Party* .”

WHEREAS, Executive has agreed to enter this Agreement whereby Executive will release any and all claims Executive may have against the Company and other released parties upon certain events specified in the Change of Control and Severance Agreement by and between Company and Executive (the “ *Severance Agreement* ”).

NOW THEREFORE, in consideration of the mutual promises made herein, the Parties hereby agree as follows:

1. Termination. Executive’s employment from the Company terminated on _____ (the “ *Termination Date* ”).
 2. Confidential Information. Subject to Section 13, Executive shall continue to maintain the confidentiality of all confidential and proprietary information of the Company and shall continue to comply with the terms and conditions of the Proprietary Information, Inventions and Non-Competition Agreement (the “ *Confidentiality Agreement* ”) between Executive and the Company. Executive agrees that the above reaffirmation and agreement with the Confidentiality Agreement shall constitute a new and separately enforceable agreement to abide by the terms of the Confidentiality Agreement, entered and effective as of the Effective Date. Executive specifically acknowledges and agrees that any violation of the restrictive covenants in the Confidentiality Agreement shall constitute a material breach of this Agreement. Executive shall return all the Company property and confidential and proprietary information in Executive’s possession to the Company on the Effective Date of this Agreement.
 3. Payment of Salary and Receipt of All Benefits. Executive acknowledges and represents that, other than the severance and benefits to be paid as set forth in the Severance Agreement, the Company has paid or provided all salary, wages, bonuses, accrued vacation, premiums, leaves, relocation costs, interest, fees, reimbursable expenses, commissions, stock, stock options, vesting, and any and all other benefits and compensation due to Executive.
 4. Non-Solicitation. In exchange for the severance pay and other consideration under the Severance Agreement to which Executive would not otherwise be entitled, Executive agrees that for a period of one (1) year after the Termination Date, Executive will not, without the express written consent of the Company, in its sole discretion, [(a) solicit any business that is competitive with the Company’s business from any client or customer of the Company or (b) either in Executive’s individual capacity or on behalf of or through any other entity, either directly or indirectly, hire, engage, recruit or participate in any way in the hiring, engagement or recruitment of, or participate in any effort to hire or solicit, any current or future employees of the Company or any subsidiary thereof.] [Delete bracketed text for employees in California and substitute the following: “directly
-

or indirectly solicit any of the employees of the Company or any subsidiary thereof to leave their employment with the Company or any subsidiary thereof.”]

5. Non-disparagement. In exchange for the severance pay and other consideration under the Severance Agreement to which Executive would not otherwise be entitled, Executive agrees not to disparage the Company, the Company’s officers, directors, employees, shareholders and agents, in any manner likely to be harmful to them or the Company’s business, business reputation or personal reputation. Nothing in this Agreement shall prevent either Executive or the Company employees who are aware of the existence of this Agreement from responding accurately and fully to any question, inquiry or request for information when required by legal process, nor prevent Executive from engaging in Protected Activities (as defined below).

6. [Non-Compete]. In exchange for the severance pay and other consideration under the Severance Agreement to which Executive would not otherwise be entitled, Executive agrees that for a period of one (1) year after the Termination Date, Executive will not, without the express written consent of the Company, in its sole discretion, enter, engage in, participate in, or assist, either as an individual on your own or as a partner, joint venturer, employee, agent, consultant, officer, trustee, director, owner, part-owner, shareholder, or in any other capacity, in the United States of America, directly or indirectly, any other business organization whose activities or products are competitive with the activities or products of the Company then existing or under development. Nothing in this Agreement shall prohibit Executive from working for an employer that is engaged in activities or offers products that are competitive with the activities and products of the Company so long as Executive does not work for or with the department, division, or group in that employer’s organization that is engaging in such activities or developing such products. Executive recognizes that these restrictions on competition are reasonable because of the Company’s investment in goodwill, its customer lists, and other proprietary information and Executive’s knowledge of the Company’s business and business plans. If any period of time or geographical area should be judged unreasonable in any judicial proceeding, then the period of time or geographical area shall be reduced to such extent as may be deemed required so as to be reasonable and enforceable. Nothing in this Agreement shall preclude Executive from making passive investments of not more than two percent (2%) of a class of securities of any business enterprise registered under the Securities Exchange Act of 1934, as amended.][Delete paragraph for employees located in California.]

7. Release of Claims. Executive agrees that the consideration to be paid in accordance with the terms of the Severance Agreement represents settlement in full of all outstanding obligations owed to Executive by the Company. Executive, on behalf of himself, and his respective heirs, family members, executors and assigns, hereby fully and forever releases the Company and its past, present and future officers, agents, directors, employees, investors, shareholders, administrators, affiliates, divisions, subsidiaries, parents, predecessor and successor corporations, and assigns, from, and agrees not to sue or otherwise institute or cause to be instituted any legal or administrative proceedings concerning any claim, duty, obligation or cause of action relating to any matters of any kind, whether presently known or unknown, suspected or unsuspected, that Executive may possess arising from any omissions, acts or facts that have occurred up until and including the Effective Date of this Agreement including, without limitation,

- (a) any and all claims relating to or arising from Executive's employment relationship with the Company and the termination of that relationship;
- (b) any and all claims relating to, or arising from, Executive's right to purchase, or actual purchase of shares of stock of the Company, including, without limitation, any claims for fraud, misrepresentation, breach of fiduciary duty, breach of duty under applicable state corporate law, and securities fraud under any state or federal law;
- (c) any and all claims for wrongful discharge of employment; termination in violation of public policy; discrimination; breach of contract, both express and implied; breach of a covenant of good faith and fair dealing, both express and implied; promissory estoppel; negligent or intentional infliction of emotional distress; negligent or intentional misrepresentation; negligent or intentional interference with contract or prospective economic advantage; unfair business practices; defamation; libel; slander; negligence; personal injury; assault; battery; invasion of privacy; false imprisonment; and conversion;
- (d) any and all claims for violation of any federal, state or municipal statute, including, but not limited to, Title VII of the Civil Rights Act of 1964, the Civil Rights Act of 1991, the Age Discrimination in Employment Act of 1967, the Americans with Disabilities Act of 1990, the Fair Labor Standards Act, the Employee Retirement Income Security Act of 1974, The Worker Adjustment and Retraining Notification Act, the California Family Rights Act; the California Labor Code, the California Workers' Compensation Act, the California Fair Employment and Housing Act, Massachusetts Law Prohibiting Unlawful Discrimination, as amended, Mass. Gen. Laws ch. 151B, § 1 et seq., Massachusetts Discriminatory Wage Rates Penalized Law (Massachusetts Equal Pay Law), as amended, Mass. Gen. Laws ch. 149, § 105A et seq., Massachusetts Right to be Free from Sexual Harassment Law, Mass. Gen. Laws ch. 214, § 1C, Massachusetts Discrimination Against Certain Persons on Account of Age Law, Mass. Gen. Laws ch. 149, § 24A et seq., Massachusetts Equal Rights Law, Mass. Gen. Laws ch. 93, § 102 et seq., Massachusetts Violation of Constitutional Rights Law, Mass. Gen. Laws ch. 12, § 11I, Massachusetts Family and Medical Leave Law, Mass. Gen. Laws ch. 149, § 52D; and the Massachusetts Wage Act, Mass. Gen. Laws ch. 149, § 148, et seq.;
- (e) any and all claims for violation of the federal, or any state, constitution;
- (f) any and all claims arising out of any other laws and regulations relating to employment or employment discrimination; and
- (g) any and all claims for attorneys' fees and costs.

Executive agrees that the release set forth in this section shall be and remain in effect in all respects as a complete general release as to the matters released. This release does not extend to any severance obligations due Executive under the Severance Agreement and does not release claims that cannot be released as a matter of law. Nothing in this Agreement waives Executive's rights to indemnification or any payments under any insurance policy, if any, provided by any act or agreement of the Company, state or federal law or policy of insurance.

8. Acknowledgment of Waiver of Claims under ADEA. Executive acknowledges that Executive is waiving and releasing any rights he or she may have under the Age Discrimination in Employment Act of 1967 (“ADEA”) and that this waiver and release is knowing and voluntary. Executive and the Company agree that this waiver and release does not apply to any rights or claims that may arise under the ADEA after the Effective Date of this Agreement. Executive acknowledges that the consideration given for this waiver and release Agreement is in addition to anything of value to which Executive was already entitled. Executive further acknowledges that Executive has been advised by this writing that (a) Executive should consult with an attorney prior to executing this Agreement; (b) Executive has at least twenty-one (21) days within which to consider this Agreement; (c) Executive has seven (7) days following the execution of this Agreement by the parties to revoke the Agreement; (d) this Agreement shall not be effective until the revocation period has expired; and (e) nothing in this Agreement prevents or precludes Executive from challenging or seeking a determination in good faith of the validity of this waiver under the ADEA, nor does it impose any condition precedent, penalties or costs for doing so, unless specifically authorized by federal law. Any revocation should be in writing and delivered to the General Counsel at the Company by close of business on the seventh day from the date that Executive signs this Agreement. In the event Executive signs this Agreement and returns it to the Company in less than the 21-day period identified above, Executive hereby acknowledges that he/she has freely and voluntarily chosen to waive the time period allotted for considering this Agreement. The parties agree that changes, whether material or immaterial, do not restart the running of the 21-day period.

9. California Civil Code Section 1542. Executive acknowledges that Executive has been advised to consult with legal counsel and is familiar with the provisions of California Civil Code Section 1542, a statute that otherwise prohibits the release of unknown claims, which provides as follows:

A GENERAL RELEASE DOES NOT EXTEND TO CLAIMS WHICH THE CREDITOR DOES NOT KNOW OR SUSPECT TO EXIST IN HIS OR HER FAVOR AT THE TIME OF EXECUTING THE RELEASE, WHICH IF KNOWN BY HIM OR HER MUST HAVE MATERIALLY AFFECTED HIS OR HER SETTLEMENT WITH THE DEBTOR.

Executive, being aware of said code section, agrees to expressly waive any rights Executive may have thereunder, as well as under any other statute or common law principles of similar effect.

10. No Pending or Future Lawsuits. Executive represents that he or she has no lawsuits, claims, or actions pending in her name, or on behalf of any other person or entity, against the Company or any other person or entity referred to herein. Executive also represents that Executive does not intend to bring any claims on his/her own behalf or on behalf of any other person or entity against the Company or any other person or entity referred to herein.

11. No Cooperation. Subject to Section 13, Executive agrees that he or she will not counsel or assist any attorneys or their clients in the presentation or prosecution of any disputes, differences, grievances, claims, charges, or complaints by any third party against the Company and/or any officer, director, employee, agent, representative, shareholder or attorney of the Company, unless under a subpoena or other court order to do so or as related directly to the ADEA waiver in this Agreement.

12. No Admission of Liability. Executive understands and acknowledges that this Agreement constitutes a compromise and settlement of disputed claims. No action taken by the Company, either previously or in connection with this Agreement shall be deemed or construed to be (a) an admission of the truth or falsity of any claims heretofore made or (b) an acknowledgment or admission by the Company of any fault or liability whatsoever to the Executive or to any third party.

13. Protected Activity. Executive understands that nothing in this Agreement or in the Confidentiality Agreement shall in any way limit or prohibit Executive from engaging for a lawful purpose in any Protected Activity. For purposes of this Agreement, “**Protected Activity**” shall mean filing a charge, complaint or report with, or otherwise communicating with, cooperating with or participating in any investigation or proceeding that may be conducted by any federal, state or local government agency or commission, including the Securities and Exchange Commission, the Equal Employment Opportunity Commission, the Occupational Safety and Health Administration, and the National Labor Relations Board (“**Government Agencies**”). Executive understands that in connection with such Protected Activity, Executive is permitted to disclose documents or other information as permitted by law, and without giving notice to, or receiving authorization from, the Company. Executive agrees to take all reasonable precautions to prevent any unauthorized use or disclosure of any information that may constitute Company Proprietary Information under this Agreement or the Confidentiality Agreement to any parties other than the relevant Government Agencies. Executive further understands that Protected Activity does not include the disclosure of any Company attorney-client privileged communications

14. Miscellaneous.

(a) Costs. The Parties shall each bear their own costs, expert fees, attorneys’ fees and other fees incurred in connection with this Agreement.

(b) Authority. Executive represents and warrants that Executive has the capacity to act on his or her own behalf and on behalf of all who might claim through Executive to bind them to the terms and conditions of this Agreement.

(c) No Representations. Executive represents that Executive has had the opportunity to consult with an attorney, and has carefully read and understands the scope and effect of the provisions of this Agreement. Neither Party has relied upon any representations or statements made by the other Party hereto which are not specifically set forth in this Agreement.

(d) Severability. In the event that any provision hereof becomes or is declared by a court of competent jurisdiction to be illegal, unenforceable or void, this Agreement shall continue in full force and effect without said provision.

(e) Attorneys’ Fees. Except with regard to a legal action challenging or seeking a determination in good faith of the validity of the waiver herein under the ADEA, in the event that either Party brings an action to enforce or effect its rights under this Agreement, the prevailing Party shall be entitled to recover its costs and expenses, including the costs of mediation, arbitration, litigation, court fees, and reasonable attorneys’ fees incurred in connection with such an action.

(f) Entire Agreement. This Agreement, along with the Severance Agreement and the Confidentiality Agreement, represents the entire agreement and understanding between the Company and Executive concerning Executive's separation from the Company.

(g) No Oral Modification. This Agreement may only be amended in writing signed by Executive and the Chief Executive Officer of the Company.

(h) Governing Law. [FOR MA RESIDENTS:] [This Agreement shall be governed by the internal substantive laws, but not the choice of law rules, of the Commonwealth of Massachusetts, and the Company and the Executive each consent to personal and exclusive jurisdiction and venue in the Commonwealth of Massachusetts.] [FOR CA RESIDENTS:] [This Agreement shall be governed by the internal substantive laws, but not the choice of law rules, of the State of California, and the Company and the Executive each consent to personal and exclusive jurisdiction and venue in the State of California.]

(i) Effective Date. This Agreement is effective eight (8) days after it has been signed by both Executive, so long as it has been signed by the Parties and has not been revoked by either Party before that date (the "**Effective Date**").

(j) Counterparts. This Agreement may be executed in counterparts, and each counterpart shall have the same force and effect as an original and shall constitute an effective, binding agreement on the part of each of the undersigned.

(k) Voluntary Execution of Agreement. Executive understands and agrees that Executive is executing this Agreement voluntarily and without any duress or undue influence on the part or behalf of the Company or any third party, with the full intent of releasing all of Executive's claims against the Company and other persons referenced herein. Executive acknowledge that:

(i) Executive has read this Agreement;

(ii) Executive has been represented in the preparation, negotiation, and execution of this Agreement by legal counsel of Executive's own choice or has voluntarily declined to seek such counsel;

(iii) Executive understand the terms and consequences of this Agreement and of the releases it contains;
and

(iv) Executive is fully aware of the legal and binding effect of this Agreement.

Signature Page Follows

IN WITNESS WHEREOF, the Parties have executed this Separation & Release Agreement on the respective dates set forth below.

COMPANY: NUANCE COMMUNICATIONS, INC.

By: _____

Title: _____

Date: _____

EXECUTIVE: _____

Date: _____

Nuance Communications, Inc.
Code of Business Conduct and Ethics
(Effective September 15, 2015, modified June 7, 2017)

Policy

The Board of Directors of Nuance Communications, Inc. (the "Company") has adopted this Code of Business Conduct and Ethics (this "Code") for its directors, officers and employees (collectively, "Employees"). All Employees are expected to read and understand this Code, uphold these standards in day-to-day activities, comply with all applicable policies and procedures.

This Code has been reasonably designed to deter wrongdoing and to promote:

- Honest and ethical conduct, including the ethical handling of actual or apparent conflicts of interest between personal and professional relationships;
- Avoidance of conflicts of interest, including disclosure to an appropriate person or persons identified in this Code of any transaction or relationship that reasonably could be expected to give rise to such a conflict;
- Full, fair, accurate, timely, and understandable disclosure in reports and documents that the Company files with, or submits to, the United States Securities and Exchange Commission (the "SEC") and in other public communications made by the Company;
- Compliance with applicable governmental laws, rules and regulations;
- Adherence to all Nuance policies, including but not limited to Foreign Corrupt Trade Practices and Insider Trading policies;
- The prompt internal reporting to an appropriate person or persons identified in this Code of violations of this Code; and
- Accountability for adherence to this Code.

1. Honest and ethical conduct

Employees are expected to act and perform their Company duties ethically and honestly and with the utmost integrity. Honest conduct is considered to be conduct that is free from fraud or deception. Ethical conduct is considered to be conduct conforming to accepted professional standards of conduct. Ethical conduct includes the ethical handling of actual or apparent conflicts of interest between personal and professional relationships as discussed below.

2. Conflicts of interests

Employees should seek to avoid any action or interest that conflicts with the Company's interests. A conflict of interest exists where the interests or benefits of one person or entity conflict or appear to conflict with the interests or benefits of the Company. While it is not possible to describe every situation in which a conflict of interest may arise, Employees must never use or attempt to use their position with the Company to obtain improper personal benefits.

Any Employee who is aware of a conflict of interest, or is concerned that a conflict might develop, is required to discuss the matter with a higher level of management or the General Counsel promptly, and obtain approval from the General Counsel before proceeding with any transaction or action that could reasonably be expected

to give rise to a conflict of interest. Senior financial officers may, in addition to speaking with the General Counsel, also discuss the matter with the Chairperson of the Audit Committee.

3. Disclosure

The Company is required to file periodic and other reports with the SEC and to make other public communications. The Company's reports and documents filed with or submitted to the SEC and its other public communications shall include full, fair, accurate, timely and understandable disclosure to the extent required by applicable law. Any Employee who becomes aware of or suspects any improper transaction, accounting or auditing practice within the Company, or believes that the Company's internal accounting and disclosure controls are deficient or the Company is not providing full, fair, accurate, timely and understandable disclosures in its filings with the SEC or in other public communications, is required to report the matter immediately to the Company's General Counsel or the Chairperson of the Audit Committee or as set forth herein. The General Counsel has primary authority and responsibility for receiving, collecting, reviewing, processing and resolving concerns and reports by Employees and others involving the Company's accounting, auditing and internal controls and disclosure policies, subject to the supervision of the Audit Committee. The General Counsel shall maintain appropriate records of all complaints, tracking their receipt, investigation and resolution and shall prepare a periodic summary report thereof for the Audit Committee.

4. Compliance

It is the Company's policy to comply with all applicable laws, rules and regulations. It is the personal responsibility of each Employee in executing his or her Company duties to adhere to the standards and restrictions imposed by those laws, rules and regulations, and in particular, those relating to accounting and auditing matters. Any Employee who is unsure whether a situation violates any applicable law, rule, regulation or Company policy should discuss the situation with the General Counsel.

5. Accountability, Reporting and Disciplinary Actions

The matters covered in this Code are of the utmost importance to the Company, its stockholders and its business partners, and are essential to the Company's ability to conduct its business in accordance with this Code and the Company's policies. The Company expects all Employees to adhere to this Code and all of the Company's policies in carrying out their responsibilities for the Company.

Situations that may involve a violation of this Code may not always be obvious and may require difficult judgments to be made. Employees should report any concerns or questions about violations of laws, rules, regulations or this Code to the Company's General Counsel or as set forth herein.

Any concerns about violations of laws, rules, regulations or this Code by the Chief Executive Officer, any senior financial officer, any executive officer or director should be reported promptly to the Chairperson of the Audit Committee as set forth herein. Reporting to the Audit Committee may be accomplished by filing a report to www.ethicspoint.com. If appropriate, the Chairperson of the Audit Committee will notify the Board of Directors. Reporting of such violations may also be done anonymously by filing a report at www.ethicspoint.com. An anonymous report should provide enough information about the incident or situation to allow the Company to investigate properly. If concerns or complaints require confidentiality, including keeping an identity anonymous, the Company will endeavor to protect this confidentiality, subject to applicable laws, regulations or legal proceedings.

The Company encourages all Employees to report any suspected violations promptly and intends to investigate thoroughly any good faith reports of violations. The Company will not tolerate any kind of retaliation for

reports or complaints regarding misconduct that were made in good faith. Employees are required to cooperate in internal investigations of misconduct and unethical behavior.

The General Counsel will have primary authority and responsibility for the enforcement of this Code, subject to the supervision of the Audit Committee. The Company will devote the necessary resources to enable the General Counsel or a designee thereof acting under the auspices of the General Counsel to establish such procedures as may be reasonably necessary to create a culture of accountability and facilitate compliance with this Code, and will also maintain appropriate records of all complaints, tracking their receipt, investigation and resolution and shall prepare a periodic summary report thereof for the Audit Committee. The Company will take appropriate action against any Employee whose actions are found to violate these policies or any other policies of the Company. Disciplinary actions may include immediate termination of employment or business relationship at the Company's sole discretion. Where the Company has suffered a loss, it may pursue its remedies against the individuals or entities responsible. Where laws have been violated, the Company will report violators to, and cooperate with, the appropriate authorities.

Where violation of this Code is disputed by an Employee, such alleged violation will be investigated by the General Counsel or a designee thereof acting under the auspices of the General Counsel, who shall make a determination following such investigation as to whether or not such a violation has occurred. Where a violation of this Code is disputed by an executive officer or director, such alleged violation will be investigated by the Board of Directors or a designee thereof, which shall make a determination following such investigation as to whether or not such a violation has occurred. Such a determination by the Company will be final.

6. Waivers and Amendments of the Code

The Company is committed to continuously reviewing and updating our policies and procedures. Therefore, this Code is subject to modification. Any waiver of any provision of this Code for a member of the Board of Directors or an executive officer must be approved in writing by the Board of Directors and promptly disclosed pursuant to applicable laws and regulations. Any waiver of any provision of this Code with respect to any other employee must be approved in writing by the General Counsel. Amendments to this Code will be disclosed as required by the applicable SEC and securities rules and regulations.

7. Violations

If you know or suspect a violation of the Code or applicable laws and regulations or any Company policy, it is your responsibility to promptly report it, and the Company will not tolerate any kind of retaliation for reports or complaints regarding possible violations that were made in good faith. Reports may be made in any of the following ways:

- Contact the General Counsel by telephone (781-565-5000) or by e-mail (GeneralCounsel@nuance.com).
- Contact the Audit Committee of the Company Board of Directors via Ethicspoint
- Contact [Ethicspoint](#) by Internet (www.ethicspoint.com) or by telephone (1-866-ethicsp (384-4277))

Owner

General Counsel

[Contact us](#)

If you have any questions or comments about this Policy, please contact Nuance's Legal Department generalcounsel@nuance.com.

Disclaimer
Nothing herein is intended to constitute a contract between Nuance and any employee and Nuance reserves the right to revise or terminate this Policy at any time. All Nuance employees are expected to comply with all Company policies and the failure to do so may result in remedial action by Nuance as permitted by applicable agreements and law.

Nothing in this Policy should be construed to limit employees' rights to engage in protected whistleblower activity or concerted activity under Section 7 of the U.S. National Labor Relations Act.

Subsidiary Name	Jurisdiction	Type
Agnitio Corp.	Delaware	Domestic
ART Advanced Recognition Technologies, Inc.	Delaware	Domestic
Caere Corporation	Delaware	Domestic
Cognition Technologies, Inc.	Delaware	Domestic
Consolidated Enterprise Corporation	Delaware	Domestic
Consolidated Healthcare Corporation	Delaware	Domestic
Consolidated Imaging Corporation	Delaware	Domestic
Consolidated Mobile Corporation	Delaware	Domestic
Dictaphone Corporation	Delaware	Domestic
Ditech Networks, Inc.	Delaware	Domestic
Ditech Networks International, Inc.	Delaware	Domestic
eCopy, LLC	Delaware	Domestic
iScribes Inc.	Delaware	Domestic
eScription, Inc.	Delaware	Domestic
Language and Computing, Inc.	Delaware	Domestic
Montage Healthcare Solutions, Inc.	Delaware	Domestic
Notable Solutions, Inc.	Delaware	Domestic
Nuance Diagnostics Holding, Inc.	Delaware	Domestic
Nuance Transcription Services, Inc.	Delaware	Domestic
PerSay, Inc.	Delaware	Domestic
Phonetic Systems, Inc.	Delaware	Domestic
Primordial Design, Inc.	Delaware	Domestic
Quadramed Quantim Corporation	Delaware	Domestic
Ruetli Holding Corporation	Delaware	Domestic
SNAPin Software, LLC	Delaware	Domestic
SVOX USA, Inc.	Delaware	Domestic
TouchCommerce, Inc.	Delaware	Domestic
Viecore Federal Systems Division, Inc.	Delaware	Domestic
Viecore, LLC	Delaware	Domestic
VirtuOz, Inc.	Delaware	Domestic
Vlingo Corporation	Delaware	Domestic
VoiceBox Technologies Corporation	Delaware	Domestic
Voice Signal Technologies, Inc.	Delaware	Domestic
Zi Holding Corporation	Delaware	Domestic
Nuance Document Imaging, Inc. f/k/a Equitrac Corporation	Florida	Domestic
J.A. Thomas and Associates, Inc.	Georgia	Domestic
Nuance Healthcare Diagnostics Solutions, Inc.	Georgia	Domestic
Winscribe USA Inc.	Delaware	Domestic
AMS Solutions Corp.	Massachusetts	Domestic
New England Medical Transcription, Inc.	Illinois	Domestic
Accentus U.S., Inc. f/k/a Zylomed Inc.	Nevada	Domestic
Medical Transcription Education Center, Inc.	Ohio	Domestic
Physician Technology Partners, LLC	Ohio	Domestic
Swype, Inc.	Washington	Domestic
Tegic Communications, Inc.	Washington	Domestic
Nuance Enterprise Solutions & Services Corporation f/k/a Varolii Corporation	Washington	Domestic

Subsidiary Name	Jurisdiction	Type
Information Technologies Australia Pty Ltd.	Australia	International
ITA Services Pty Ltd.	Australia	International
Nuance Communications Australia Pty. Ltd.	Australia	International
OTE Pty Limited	Australia	International
VoiceBox Technologies Australia Pty. Ltd.	Australia	International
Winscribe Australasia Pty. Ltd.	Australia	International
Nuance Communications Austria GmbH	Austria	International
Nuance Communications Services Austria GmbH	Austria	International
SpeechMagic Holding GmbH	Austria	International
Language and Computing N.V.	Belgium	International
Nuance Communications Belgium Limited	Belgium	International
Nuance Communications International BVBA	Belgium	International
Nuance Bermuda Automotive, Ltd.	Bermuda	International
Nuance Bermuda Enterprise, Ltd.	Bermuda	International
Nuance Bermuda Healthcare, Ltd.	Bermuda	International
Nuance Bermuda Imaging, Ltd.	Bermuda	International
Nuance Communications Ltda.	Brazil	International
Novitech Tecnologia e Servicos Ltda.	Brazil	International
BlueStar Options Inc.	British Virgin Islands	International
BlueStar Resources Ltd.	British Virgin Islands	International
SpeechWorks BVI Ltd.	British Virgin Islands	International
845162 Alberta Ltd.	Canada	International
Accentus Inc. f/k/a/ 2350111 Ontario Inc.	Canada	International
Ditech Networks Canada, Inc.	Canada	International
Nuance Acquisition ULC	Canada	International
Nuance Communications Auto, Inc.	Canada	International
Nuance Communications Canada, Inc.	Canada	International
Nuance Document Imaging, ULC f/k/a Equitrac Canada ULC	Canada	International
Zi Corporation	Canada	International
Zi Corporation of Canada, Inc.	Canada	International
Foxtrot Acquisition Limited	Cayman Islands	International
Foxtrot Acquisition II Limited	Cayman Islands	International
Huayu Zi Software Technology (Beijing) Co., Ltd.	China	International
Nuance Software Technology (Beijing) Co., Ltd.	China	International
Nuance Communications Technology Shanghai Ltd	China	International
Nuance Communications Denmark ApS	Denmark	International
Nuance Communications Finland OY	Finland	International
Voice Signal Technologies Europe OY	Finland	International
Nuance Communications France Sarl	France	International
VirtuOz S.A.	France	International
VoiceBox Technologies France SAS	France	International
Communology GmbH	Germany	International
HFN Medien GmbH	Germany	International
Nuance Communications Deutschland GmbH f/k/a Dictaphone Deutschland GmbH	Germany	International
Nuance Communications Germany GmbH	Germany	International
Nuance Communications Healthcare Germany GmbH	Germany	International

Subsidiary Name	Jurisdiction	Type
NSi Europe GmbH	Germany	International
SVOX Deutschland GmbH	Germany	International
Asia Translation & Telecommunications Limited	Hong Kong SAR	International
Huayu Zi Software Technology Limited	Hong Kong SAR	International
Nuance Communications Hong Kong Limited	Hong Kong SAR	International
Telecom Technology Corporation Limited	Hong Kong SAR	International
Zi Corporation (H.K.) Limited	Hong Kong SAR	International
Zi Corporation of Hong Kong Limited	Hong Kong SAR	International
Nuance Recognita Corp.	Hungary	International
Ditech Communications India Pvt. Ltd.	India	International
Nuance India Pvt. Ltd.	India	International
Nuance Transcription Services India Private Limited f/k/a/ FocusMT India Private Limited	India	International
ServTech Systems India Pvt. Ltd.	India	International
Transcend India Private Limited	India	International
Transcend MT Services Private Ltd.	India	International
Nuance Communications Services (India) LLP	India	International
mCarbon Tech Innovation PVT Ltd.	India	International
Terra Firma Services Private LTD	India	International
Nuance Communications International Holdings ULC	Ireland	International
Nuance Communications Ireland Limited	Ireland	International
Nuance Communications Services Ireland Ltd.	Ireland	International
Diamond Auto Technologies Ireland Ltd.	Ireland	International
Diamond Auto Technologies Services Ireland Ltd.	Ireland	International
Nuance Communications Healthcare International Ltd formally Voice Signal Ireland Ltd.	Ireland	International
Nuance Communications Israel, Ltd. f/k/a ART-Advanced Recognition Technologies Limited	Israel	International
PerSay Ltd.	Israel	International
Phonetic Systems Ltd.	Israel	International
Loquendo S.p.a.	Italy	International
Nuance Communications Italy Srl	Italy	International
Nuance Communications Japan K.K.	Japan	International
VoiceSignal Japan K.K.	Japan	International
Caere Corporation Branch Mexico	Mexico	International
Nuance Communications Netherlands B.V.	Netherlands	International
X-Solutions Group B.V.	Netherlands	International
Winscribe Inc Ltd.	New Zealand	International
VoiceBox Technologies Europe B.V.	Netherlands	International
Heartland Asia (Mauritius) Ltd.	Republic of Mauritius	International
Nuance Communications Asia Pacific Pte. Ltd.	Singapore	International
Nuance Communications Korea Ltd.	South Korea	International
Nuance Communications Iberica SA	Spain	International
Agnitio S.L.		
Nuance Communications Sweden, A.B.	Sweden	International
Nuance Communications Switzerland AG	Switzerland	International
SVOX AG	Switzerland	International
Winscribe GmbH	Switzerland	International

Subsidiary Name	Jurisdiction	Type
Nuance Communications Taiwan	Taiwan	International
Nuance Communications Illetism Ltd. Sirketi	Turkey	International
Nuance Turkey Iletisim Hizmetleri Ltd. Sirketi	Turkey	International
Nuance Communications UK Limited	United Kingdom	International
SpinVox Limited	United Kingdom	International
Winscribe Europe Ltd.	United Kingdom	International
TouchCommerce UK Ltd.	United Kingdom	International
Mcarbon Tech Innovation Middle East -FX- LLC	UAE	International

Consent of Independent Registered Public Accounting Firm

Nuance Communications, Inc.
Burlington, Massachusetts

We hereby consent to the incorporation by reference in Registration Statements on Form S-3 (Nos. 333-142182, 333-147715, 333-142182, 333-128397, and 333-61862) and Form S-8 (Nos. 333-224825, 333-215966, 333-211272, 333-201933, 333-188397, 333-182459, 333-179399, 333-178436, 333-164955, 333-157579, 333-151088, 333-151087, 333-153911, 333-148684, 333-145971, 333-143465, 333-142183, 333-141819, 333-134687, 333-128396, 333-124856, 333-122718, 333-108767, 333-99729, 333-75406, 333-49656, 333-33464, 333-30518, 333-74343, 333-45425 and 333-04131) of Nuance Communications, Inc. of our reports dated November 20, 2018 relating to the consolidated financial statements and the effectiveness of Nuance Communications, Inc.'s internal control over financial reporting, which appear in this Form 10-K.

/s/ BDO USA, LLP
Boston, Massachusetts
November 20, 2018

