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

CONFIDENTIAL DRAFT SUBMISSION NO. 2
FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

VERTEX, INC.

(Exact name of registrant as specified in its charter)

Pennsylvania (State or other jurisdiction of incorporation or organization)	7372 (Primary Standard Industrial Classification Code Number)	23-2081753 (I.R.S. Employer Identification Number)
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2301 Renaissance Blvd
King of Prussia, Pennsylvania 19406
(800) 355-3500
(Address, including zip code, and telephone number, including
area code, of registrant's principal executive offices)

David DeStefano
President, Chief Executive Officer and Chairperson
Vertex, Inc.
2301 Renaissance Blvd
King of Prussia, Pennsylvania 19406
(800) 355-3500
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

Marc D. Jaffe
Joel H. Trotter
Latham & Watkins LLP
555 Eleventh Street, NW
Washington, DC 20004
(202) 637-2200

Bryan T. R. Rowland
Vertex, Inc.
2301 Renaissance Blvd
King of Prussia, PA 19406
(800) 355-3500

Gregory A. Fernicola
Ryan J. Dzierniejko
Skadden, Arps, Slate, Meagher &
Flom LLP
One Manhattan West
New York, NY 10001
(212) 735-3000

Approximate date of commencement of proposed sale to public:
As soon as practicable after this Registration Statement is declared effective.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

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

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company
Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided to Section 7(a)(2)(B) of the Securities Act.

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Proposed Maximum Aggregate Offering Price ⁽¹⁾⁽²⁾	Amount of Registration Fee ⁽²⁾⁽³⁾
Class A common stock, \$0.0001 par value per share	\$	\$

- (1) Estimated solely for the purpose of computing the amount of the registration fee pursuant to Rule 457(o) under the Securities Act of 1933, as amended (the "Securities Act").
- (2) Includes the additional shares that the underwriters have the option to purchase from the Registrant.
- (3) To be paid in connection with the initial filing of the registration statement.

The Registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act, or until the registration statement shall become effective on such date as the Securities and Exchange Commission (the "SEC"), acting pursuant to said Section 8(a), may determine.

The information in this preliminary prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

Subject to Completion
Preliminary Prospectus dated _____, 2020

PROSPECTUS

Shares



**VERTEX, INC.
Class A Common Stock**

This is Vertex, Inc.'s initial public offering. We are selling _____ shares of our Class A common stock. We expect the public offering price to be between \$ _____ and \$ _____ per share. Currently, no public market exists for our Class A common stock. After pricing of the offering, we expect that the shares of our Class A common stock will trade on the _____ under the symbol " _____."

Following this offering, we will have two classes of authorized common stock, Class A common stock and Class B common stock. The rights of the holders of Class A common stock and Class B common stock will be identical, except with respect to voting, conversion and transfer rights. Each share of Class A common stock will be entitled to one vote per share. Each share of Class B common stock will be entitled to _____ votes per share and will be convertible into one share of Class A common stock. Outstanding shares of Class B common stock will represent approximately _____ % of the voting power of our outstanding capital stock immediately following the completion of this offering, with members of our founder's family, and their respective affiliates, holding approximately _____ % of the voting power of our capital stock following this offering. As a result, we will be a "controlled company" within the meaning of the corporate governance standards of the _____.

We are an "emerging growth company" as defined under the federal securities laws and, as such, have elected to comply with certain reduced public company reporting requirements for this prospectus and future filings.

Investing in our Class A common stock involves risks. See the "Risk Factors" section beginning on page 14 of this prospectus for factors you should consider before investing in our Class A common stock.

	Per Share	Total
Public offering price	\$ _____	\$ _____
Underwriting discounts and commissions ⁽¹⁾	\$ _____	\$ _____
Proceeds, before expenses, to us	\$ _____	\$ _____

(1) See "Underwriting" for additional disclosure regarding underwriting discounts and commissions and estimated offering expenses payable by us.

To the extent that the underwriters sell more than _____ shares of our Class A common stock, the underwriters have the option for a period of 30 days to purchase up to an additional _____ shares of Class A common stock from us at the initial public offering price less underwriting discounts and commissions.

Neither the Securities and Exchange Commission nor any state securities commission has approved, or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The underwriters expect to deliver shares of our Class A common stock against payment in New York, New York on _____, 2020.

(in alphabetical order)

GOLDMAN SACHS & CO. LLC

MORGAN STANLEY

The date of this prospectus is _____, 2020.

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We and the underwriters have not authorized anyone to provide any information or to make any representations other than those contained in this prospectus or in any free writing prospectuses we have prepared or that have been prepared on our behalf, or to which we have referred you. We and the underwriters take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. This prospectus is an offer to sell only the shares offered by this prospectus, but only under circumstances and in jurisdictions where it is lawful to do so. The information contained in this prospectus is current only as of its date. Our business, financial condition, results of operations and prospects may have changed since that date.

For investors outside the United States: We have not, and the underwriters have not, done anything that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the United States. Persons outside of the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of the shares of Class A common stock and the distribution of this prospectus outside of the United States.

MARKET AND INDUSTRY DATA

The market data and other statistical information used throughout this prospectus are based on independent industry publications, reports by market research firms or other published independent sources. Certain market, ranking and industry data included in this prospectus, including the size of certain markets, our size or position and the positions of our competitors within these markets, and our solutions relative to our competitors, are based on estimates of our management. These estimates have been derived from our management's knowledge and experience in the markets in which we operate, as well as information obtained from surveys, reports by market research firms, trade and business organizations and other contacts in the markets in which we operate. Unless otherwise noted, all of our market share and market position information presented in this prospectus is an approximation based on management's knowledge. References herein to our being a leader in a market refer to our belief that we have a leading market share position in each such specified market, unless the context otherwise requires. In addition, the discussion herein regarding our various markets is based on how we define the markets for our solutions.

This prospectus includes industry data that we obtained from periodic industry publications. Such data includes materials published by the Organisation for Economic Cooperation and Development ("OECD"), including the 2019 OECD tax database ("2019 OECD Tax Database") and OECD Revenue Statistics—the United States (2019) ("OECD Revenue Statistics"). Industry publications generally state that the information contained therein has been obtained from sources believed to be reliable, but there can be no assurance as to the accuracy or completeness of included information. We have not independently verified any of the data from third-party sources, nor have we ascertained the underlying economic assumptions relied upon therein.

TRADEMARKS

We own or otherwise have rights to the trademarks, copyrights and service marks, including those mentioned in this prospectus, used in conjunction with the marketing and sale of our solutions. This prospectus includes trademarks, such as VERTEX[™] and O Series[™], which are protected under applicable intellectual property laws and are our property and/or the property of our subsidiaries. This prospectus also contains trademarks, service marks, copyrights and trade names of other companies, which are the property of their respective owners. We do not intend our use or display of other companies' trademarks, service marks, copyrights or trade names to imply a relationship with, or endorsement or sponsorship of us by, any other companies. Solely for convenience, our trademarks and tradenames referred to in this prospectus may appear without the ® or [™] symbols, but such references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights or the rights of the applicable licensor to these trademarks and tradenames.

EXPLANATORY NOTE

Vertex, Inc., the registrant whose name appears on the cover page of this registration statement, is a Pennsylvania corporation. Prior to the sale and issuance of any shares of Class A common stock subject to this registration statement, Vertex, Inc. will reincorporate as a Delaware corporation and will retain its current name, Vertex, Inc.

BASIS OF PRESENTATION

References herein to the "Company," "Registrant," "we," "us," "our" and "our company" refer, prior to the reincorporation, to Vertex, Inc., a Pennsylvania corporation, and, after the reincorporation, to Vertex, Inc., a Delaware corporation.

Certain monetary amounts, percentages and other figures included in this prospectus have been subject to rounding adjustments. Accordingly, figures shown as totals in certain tables or charts and

figures expressed as percentages in the text may not total 100% or, as applicable, when aggregated may not be the arithmetic aggregation of the percentages that precede them.

S CORPORATION STATUS

Since October 1, 1985, we have elected to be taxed for U.S. federal income tax purposes as an "S corporation" or "S Corporation" under the provisions of Sections 1361 to 1379 of the Internal Revenue Code of 1986, as amended (the "Code"). As a result, our taxable earnings have not been subject to, and we have not paid, U.S. federal income tax, and no provision or liability for U.S. federal income tax has been included in our consolidated financial statements. Instead, for U.S. federal income tax purposes, our taxable income is "passed through" to our existing stockholders who are required to pay income tax attributable to such income. Unless specifically noted otherwise, no amount of our consolidated net income or our earnings per share presented in this prospectus, including in our consolidated financial statements and the accompanying notes appearing in this prospectus, reflects any provision for or accrual of any expense for U.S. federal income tax liability for any period presented. In connection with this offering, our status as an S Corporation will terminate. Thereafter, our taxable earnings will be subject to U.S. federal income tax and we will bear the liability for those taxes.

NON-GAAP MEASURES AND OTHER DATA

We believe that our financial statements and the other financial data included in this prospectus have been prepared in a manner that complies, in all material respects, with generally accepted accounting principles in the United States ("GAAP") and the regulations published by the Securities and Exchange Commission ("SEC"). However, we use Adjusted EBITDA, Adjusted EBITDA margin, free cash flow and free cash flow margin, as described in "Prospectus Summary—Summary Consolidated Financial and Operating Information," in various places in this prospectus. These non-GAAP financial measures are presented as supplemental disclosure and should not be considered in isolation from, or as a substitute for, the financial information prepared in accordance with GAAP, and should be read in conjunction with the financial statements included elsewhere in this prospectus. Adjusted EBITDA, Adjusted EBITDA margin, free cash flow and free cash flow margin may differ from similarly titled measures presented by other companies.

See "Prospectus Summary—Summary Consolidated Financial and Operating Information" for a reconciliation of non-GAAP financial measures to the most directly comparable financial measure calculated in accordance with GAAP, and a discussion of our management's use of Adjusted EBITDA, Adjusted EBITDA margin, free cash flow and free cash flow margin.

Throughout this prospectus, we also provide a number of key business metrics used by management and typically used by our competitors in our industry. These and other key business metrics are discussed in more detail in the section entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations—Key Business Metrics."

PROSPECTUS SUMMARY

Overview

Our vision is to accelerate global commerce, one transaction at a time.

Vertex delivers comprehensive tax solutions that enable global businesses to transact, comply and grow with confidence. Companies with complex tax operations rely on Vertex to automate their end-to-end indirect tax processes. Indirect tax is the largest corporate tax category, encompassing sales tax, seller's use tax, consumer use tax and value-added tax ("VAT"), among others. Indirect tax accounts for more than \$3.5 trillion of annual tax revenue, which is 2.5 times the amount of corporate income taxes, according to the 2019 OECD Tax Database. Our software, content and services address the increasing complexities of global commerce and compliance by reducing friction, enhancing transparency and enabling greater confidence in meeting indirect tax obligations. As a result, our software is ubiquitous within our customers' business systems, touching nearly every line item of every transaction that an enterprise can conduct. Today, we have more than 4,000 customers, including over half of the Fortune 500, and provide our customers with tax support in over 130 countries.

Tax complexity is driven by the number of jurisdictions, products, distribution channels and systems of record within an organization. Each transaction must be tax-assessed for compliance purposes in real time and indirect taxes generally require filing each month, in every jurisdiction in which a company does business. Despite these complexities, there are still businesses that attempt to manage the tax lifecycle through a patchwork of static tax rate tables in spreadsheets, home-built systems or business applications, such as enterprise resources planning ("ERP") software, that were not designed for complex tax management. Each of these approaches relies heavily on finance personnel or outside professional services.

The rapid changes taking place in today's global business, technology and regulatory environments are having a compounding effect on the complexity of indirect tax management. As companies expand their business models, enter new geographies and extend their distribution channels, they widen the aperture of their indirect tax obligations. Additionally, as they expand their core offerings to incorporate new digital products and services, they are increasingly impacted by new tax regulations being pursued by jurisdictions. For example, in the United States, nearly 40 states have now enacted marketplace facilitator regulations, requiring online marketplaces to collect and remit taxes for first- and third-party sales on their websites. This complexity demands intelligent solutions that enable businesses to satisfy tax obligations and support growth opportunities.

We have pioneered tax technology for over 40 years. We first began electronic delivery of tax rules in the early 1980s and we first sold transaction tax processing software in 1982. Today, our software enables tax determination, compliance and reporting, tax data management and document management with powerful pre-built integrations to core business applications used by most companies, particularly those applications that have a significant impact on global commerce. Our software is fueled by over 300 million data-driven effective tax rules and supports indirect tax compliance in more than 19,000 jurisdictions worldwide. In order to maintain the quality of our content, our team includes many global tax and regulatory experts from industry and the public sector, who deliver monthly updates to our tax content, which are then incorporated directly into our software. Our solutions can be deployed on-premise, in the cloud, or both, with implementation services available to enable optimal customer outcomes and satisfy unique business requirements.

Our customers include the majority of the Fortune 500, as well as a majority of the top 10 companies by revenue in multiple industries such as retail, technology and manufacturing, in addition to leading marketplaces. As these companies expand geographically and pursue omnichannel business models, their tax determination and compliance requirements increase and become more complex. Our

trusted brand and strong relationships with our customers enable us to capitalize on these sustainable organic growth opportunities.

Our partner ecosystem is a differentiating, competitive strength in both our software development and our sales and marketing activities. We integrate with key technology partners that span ERP, customer relationship management ("CRM"), procurement, billing, point of sale ("POS") and eCommerce. These partners include Adobe/Magento, Coupa, Microsoft Dynamics, NetSuite, Oracle, Salesforce, SAP, SAP Ariba, Workday and Zuora. We also collaborate with numerous accounting firms who have built implementation practices around our software to serve their customer base.

We believe that global commerce and compliance environment provides durable and accelerating growth opportunities for our business. We generated revenue of \$272.4 million in 2018 and \$321.5 million in 2019. We had a net loss of \$6.1 million in 2018 and net income of \$31.1 million in 2019, and our Adjusted EBITDA for 2018 and 2019 was \$61.5 million and \$67.9 million, respectively. Additionally, we generated net cash provided by operating activities and free cash flow of \$80.4 million and \$47.1 million, respectively, in 2018 and \$92.5 million and \$54.9 million, respectively, in 2019. Adjusted EBITDA and free cash flow are non-GAAP financial measures. For more information about how we use these non-GAAP financial measures in our business, the limitations of these measures and reconciliations to the most directly comparable GAAP measures, see "Prospectus Summary—Summary Consolidated Financial and Operating Information." In connection with the offering, we will convert from an S Corporation to a C Corporation ("C Corporation"), which will result in net income of the Company being taxed at the corporate level. For additional information on the effect of such conversion, see "Prospectus Summary—Summary Consolidated Financial and Operating Information."

Industry Background

Indirect taxes are significant and growing revenue streams for governments around the world

Indirect taxes are part of everyday commerce in many countries—they are levied on items such as food, clothing, business supplies and even data transmissions from mobile phones. According to the 2019 OECD Tax Database, more than \$3.5 trillion of indirect taxes were collected by national, state and local governments around the world in 2018, which is 2.5 times the amount of corporate income taxes collected. Indirect taxes on goods and services represented more than 10% of GDP for OECD countries in 2018 and governments continuously seek new ways to increase this revenue stream. In the United States, sales and use taxes are the largest component of indirect taxes. According to OECD Revenue Statistics, the United States collected more than \$800.0 billion in tax revenue from goods and services taxes in 2018.

Tax reporting and compliance pose tenacious challenges for all businesses

In today's global economy, indirect taxation is highly nuanced and growing in its complexity for most businesses. In order to calculate taxes accurately, enterprises must identify every jurisdiction in which they operate, determine and maintain the applicable rates for each of those jurisdictions and map the applicable taxability to the products and services they deliver. Cross-border transactions increase the complexity of taxes. Understanding the variables surrounding transactions and how they change applicable taxes becomes difficult for tax departments to manage given the volume of purchasing, sourcing and sales activities conducted by large enterprises.

Indirect tax returns generally need to be filed on a monthly basis and noncompliance exposes companies to significant monetary liability, poor customer experiences and reputational risk. Tax audits can look back many years, creating a greater level of accountability for managing tax data than for typical business data. Additionally, it is not unusual for a large enterprise to have a substantial number of tax audits across numerous jurisdictions ongoing at any point in time. Each audit may require detailed traceability to individual transactions to defend historical tax positions taken.

Dynamic business, regulatory and technology drivers have a compounding effect on tax compliance

We believe that trends in the digital economy are accelerating the need for adoption of sophisticated tax solutions among a broader and growing number of enterprises and global commerce platforms.

- Governments are increasingly adopting new and expanded indirect tax measures.
- Governments are mandating more frequent and more detailed tax reporting, using advanced technologies to scrutinize business tax filings.
- Businesses' geographic and channel expansion are creating new tax exposures.
- Governments are enacting new taxation on digital goods and services.
- Business-to-consumer ("B2C") and business-to-business ("B2B") marketplaces are increasingly responsible for collecting and remitting taxes for their third-party sellers.
- The expanded number of business applications being used by enterprises has increased the number of data sources necessary for indirect tax compliance.

Legacy approaches are insufficient

Over the past several decades, many tax departments have addressed their indirect tax needs by relying on a patchwork of static tax rate tables in spreadsheets, home-built systems or business applications not designed for tax compliance. Each requires heavy reliance on finance personnel or outside professional services. As taxation becomes more complicated, we believe these approaches will begin to fracture as they are error-prone, inefficient and cannot scale, thus increasing exposure to fines, raising reserves and heightening the risk of tax audits across multiple jurisdictions.

Our Opportunity

We believe the total addressable market for solutions that enable global commerce and compliance is robust, global and growing. We estimate our addressable market among global enterprises and other businesses with greater than \$1.0 million in annual sales to be over \$7.0 billion in the United States. We believe this potentially understates our total addressable market because it does not include businesses domiciled outside of the United States.

Key Benefits of Our Solutions

We deliver comprehensive tax solutions that automate end-to-end indirect tax processes for enterprises and mid-market companies with complex tax operations. Our software includes tax determination, compliance and reporting, tax data management and document management fueled by our powerful and proprietary content database, which includes over 300 million data-driven effective tax rules supporting indirect tax compliance in more than 19,000 jurisdictions worldwide. Our solutions also include powerful pre-built integrations to core business applications, such as SAP and Oracle.

Our solutions deliver the following key benefits to our customers:

Comprehensive, efficient and accurate indirect tax management. Our solutions provide our customers with powerful tools to manage their end-to-end indirect tax processes and manage their indirect tax obligations accurately and efficiently, while reducing risk.

Reduction in tax audit risk and tax audit-induced costs. We believe that customers implement our solutions to increase accuracy and transparency in supporting the tax audit process, and to lower their overall costs of tax audit defense. This is driven by rich documentation and data support during tax audit discovery, which can mitigate tax audit-related adjustments and fines.

Wide jurisdiction coverage to support geographic expansion. Economic nexus for indirect taxes is often based on the geographic location of either operations or sales. We maintain expansive coverage of jurisdictions and continually update our global content database, allowing our customers to expand their operations around the world while maintaining compliance with the relevant indirect tax laws of each jurisdiction.

Support of new business models. As digital transformation continues to change our economy, many enterprises are adopting new business models and incorporating new technology in their products and operations to fuel growth, including diversified supply chains and omnichannel retail strategies. Many of these digital transformations result in new, complex indirect tax challenges. For example, data transmissions from internet-connected devices are subject to telecom taxes, which are often new and unfamiliar obligations to traditional manufacturers and retailers.

Our Competitive Strengths

We have pioneered tax technology for over 40 years. We deliver comprehensive tax solutions that enable global businesses to transact, comply and grow with confidence. Companies with complex tax operations rely on us to automate their end-to-end indirect tax processes. Our key competitive strengths include:

We provide a differentiated portfolio of end-to-end solutions for indirect tax globally. Our solutions automate the end-to-end indirect tax processes for enterprises with complex tax operations and audit risk. Our software includes tax determination, compliance and reporting, tax data management, and document management tools, as well as pre-built integrations to major business applications. Customers can purchase these solutions individually or as part of a broader suite and can choose the delivery model that best aligns to their enterprise technology environments.

Our software is underpinned by a comprehensive proprietary tax content database. Our proprietary tax content database is significant and includes educational content, best practices guidance and over 300 million data-driven effective tax rules supporting indirect tax compliance in more than 19,000 jurisdictions worldwide, which are then embedded into our software. Our tax content provides meaningful insights and guidance to enterprises looking to address their tax exposure and we provide solutions by embedding these tax rules into our software. We employ over 70 tax professionals on our tax content team, which is comprised of subject matter experts with significant experience and includes Certified Public Accountants ("CPAs"), attorneys and chartered accountants, among others. Our content team combines legislative research, analysis, technical logic and automation to embed updated rules into our software. We believe that the knowledge, depth and breadth of our content database is a differentiated asset that gives us a competitive advantage.

Our strong brand makes us a recognized and trusted provider in tax software. We pioneered the first indirect tax software over 40 years ago and since then have built innovative tax software, a marquee customer base and a trusted brand. We continue to adapt to meet our customers' needs—from mainframe-based software to cloud and mobile technologies. Our culture of innovation, the name-brand recognition of our customer base and the mission-critical nature of our software for tax departments, provide leverage to our sales and marketing teams and enable us to successfully attract new customers.

Powerful, robust technology with enterprise-grade scale and speed. Our solutions are built upon a technology foundation purpose-built to meet the needs of highly discerning enterprises with complex indirect tax obligations. For example, our software is used by some of the largest companies in the world to automate indirect tax calculation in hundreds of locations, among thousands of suppliers and millions of customers, across tens of thousands of jurisdictions, and through multiple systems of record. By utilizing a common engine and data design, we offer consistency regardless of the technical infrastructure of our customers and partners. Our technology architecture and engineering expertise

allow us to continue providing solutions with the enterprise scale and speed our customers expect, realizing rapid-time-to-value from our software and monthly content updates.

Flexible delivery and configuration to meet the needs of our customers. Our customers need software that allows them to automate tax but also allows for tax configurability that accommodates their specific company needs. Our configurability allows users to create their own taxability rules that can act as an override providing more flexibility and ensuring that all individual, company-specific tax scenarios can be met. We also offer a flexible delivery model that includes on-premise, cloud or a hybrid of both delivery models, giving our customers the ability to choose how to manage their tax determination and system deployments.

Deep and high-quality partnerships and integrations. Our partner ecosystem is a distinct strength to support both software development and our sales and marketing activities. We integrate with key technology partners that span ERP, CRM, procurement, billing, POS and eCommerce platforms. Our teams are embedded at a deep technical level and we conduct joint roadmap development with our partners. In addition, we collaborate with over 50 tax, accounting and consulting firms, which not only complement our global tax and technology expertise, but also help us identify new growth opportunities.

Our Growth Strategies

We believe today's global commerce environment provides durable growth opportunities for our business. Our growth strategies include:

- ***Expand existing customer revenues.*** The breadth of our solutions allows us to continually meet our customer needs, even as their needs expand in scope. As businesses continue to evolve through acquisitions and expand products and services, enter new geographies or expand their distribution channels, we believe they will need our software, services and content. We plan to continue to invest in new offerings and enhance our solutions to support the ongoing retention and expansion of revenue from our existing customers.
- ***Acquire new customers.*** As enterprise and mid-market companies continue to expand and their tax complexity grows, we expect demand for our solutions to increase among new customers and partners. We also expect these companies to adopt our solutions much earlier in their corporate lifecycle. This adoption is driven by advances in cloud computing and digital commerce, which enable more companies to accelerate new product delivery and scale their business through online marketplaces and emerging commerce platforms.
- ***Broaden and deepen our partner ecosystem.*** Our partners enhance our go-to-market capacity and extend our brand leadership and reach. We leverage our partnerships to maximize the benefits of our solutions for our customers and to identify new growth opportunities. We believe expanding our strategic alliances with emerging participants who are fueling global commerce, such as payment and digital commerce platforms, will create new value for our customers and new sources of revenue.
- ***Extend global footprint.*** We have a significant opportunity to further expand internationally, in terms of our regional operations, content depth and go-to-market coverage. By extending our global footprint, we believe we will also expand account penetration of existing customers with operations around the globe.
- ***Sustained investment in new product innovation.*** Our approach to innovation is driven by our relationships with our customers and partners, with whom we create new solutions, align product roadmaps and embed our software within their platforms. We have also established an innovation lab where we design, test and incubate next-generation tax solutions and adjacent market opportunities like blockchain, payment platforms and machine learning technologies.

Over time, we expect this will bring additional value to existing customers and help us acquire new customers.

Summary Risk Factors

Investing in our Class A common stock involves substantial risk. Our ability to execute our strategy is also subject to certain risks. The risks described under the heading "Risk Factors" in this prospectus may cause us not to realize the full benefits of our strengths or may cause us to be unable to successfully execute all or part of our strategy. Some of the most significant challenges and risks we face include the following:

- A large portion of our revenue depends on maintaining and growing our revenue from existing customers, and if we fail to retain our customers or expand their usage of our solutions, our business, results of operations, financial condition and cash flows would be harmed.
- Our business and success depend in part on our strategic relationships with third parties, including our partner ecosystem, and our business would be harmed if we fail to maintain or expand these relationships.
- If we are unable to adapt to technological change by successfully introducing new and enhanced solutions and services, our business, results of operations, financial condition and cash flows would be adversely affected.
- Any failures in information technology or infrastructure could lead to disruptions of our software, loss of customer data or untimely remittance of taxes, any of which could adversely affect our reputation and financial condition.
- Incorrect or improper implementation, integration or use of our solutions could result in customer dissatisfaction and negatively affect our business, results of operations, financial condition and cash flows.
- If we fail to attract and retain qualified technical and tax-content personnel, our business could be harmed.

The Offering

Class A common stock offered by us	shares (or	shares if the underwriters exercise in full their option to purchase additional shares).
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Class A common stock to be outstanding after this offering	shares (or	shares if the underwriters exercise in full their option to purchase additional shares).
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Class B common stock to be outstanding after this offering	shares.
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Option to purchase additional shares of Class A common stock	The underwriters have an option to purchase up to an aggregate of additional shares of Class A common stock from us at the initial public offering price, less underwriting discounts and commissions. The underwriters can exercise this option at any time within 30 days from the date of this prospectus.
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Use of proceeds	We estimate that the net proceeds to us from the sale of the shares of our Class A common stock in this offering will be approximately \$ million, based upon an initial public offering price of \$ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, after deducting underwriting discounts and commissions and estimated offering expenses payable by us. If the underwriters exercise their option to purchase additional shares in this offering in full, we estimate that our net proceeds will be approximately \$ million, after deducting underwriting discounts and commissions and estimated offering expenses payable by us.
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We intend to use a portion of the net proceeds to repay all outstanding indebtedness under our existing credit agreement (the "New Credit Agreement") and to pay related fees and expenses. The remainder of the net proceeds will be used for working capital and other general corporate purposes, including investments in our solutions, technology and sales force. See "Use of Proceeds."

Dividend policy	Historically, we have been an S Corporation, and, as such, we have paid distributions to our existing stockholders, which have assisted them in paying the U.S. federal and state income taxes on our taxable income that is "passed through" to them, and we have historically made additional distributions to them for returns on capital. After this offering, our dividend policy and practice will change because we will no longer be taxed as an S Corporation. We do not currently anticipate paying dividends on our Class A or Class B common stock. Any declaration and payment of future dividends to holders of our Class A or Class B common stock may be limited by restrictive covenants in the agreements governing our indebtedness, will be at the sole discretion of our board of directors and will depend on many factors, including our financial condition, earnings, capital requirements, level of indebtedness, statutory and contractual restrictions applying to the payment of dividends and other considerations that our board of directors deems relevant. See "Dividend Policy."
Voting rights	Shares of our Class A common stock will be entitled to one vote per share. Shares of our Class B common stock will be entitled to _____ votes per share. The holders of our Class A common stock and Class B common stock will generally vote together as a single class on all matters submitted to a vote of our stockholders unless otherwise required by Delaware law or our amended and restated certificate of incorporation. See "Description of Capital Stock."
Proposed stock exchange symbol	" _____ ."
Risk factors	See "Risk Factors" for a discussion of factors you should carefully consider before deciding to invest in our Class A common stock.

The number of shares of our Class A and Class B common stock to be outstanding after completion of this offering is based on _____ shares of our Class A common stock and _____ shares of our Class B common stock outstanding as of _____, 2020 after giving effect to the reclassification of our existing share capital into shares of Class A and Class B common stock (the "reclassification"), which excludes _____ shares of Class A common stock reserved for issuance under our 2020 Incentive Award Plan (the "2020 Plan"), which we plan to adopt in connection with this offering.

Unless otherwise stated, information in this prospectus (except for the historical financial statements and the related discussion of such financial information) assumes:

- our reincorporation from Pennsylvania to Delaware and the adoption of our amended and restated certificate of incorporation and amended and restated bylaws immediately prior to the closing of this offering;
- consummation of the reclassification;
- the termination of our status as an S Corporation in connection with this offering;
- no exercise by the underwriters of their option to purchase up to an additional shares of our Class A common stock from us; and
- an initial public offering price of \$ per share, which is the midpoint of the price range set forth on the cover page of this prospectus.

Summary Consolidated Financial and Operating Information

The following table sets forth our summary historical consolidated financial information for the periods and dates indicated. The consolidated balance sheet data as of December 31, 2019 and 2018 and the consolidated statements of comprehensive income (loss) for the years ended December 31, 2019 and 2018 have been derived from our audited consolidated financial statements included elsewhere in this prospectus.

The financial information set forth below is not necessarily indicative of future results of operations. In particular, we have historically been taxed as an S Corporation for U.S. federal income tax purposes and for income tax purposes in most states. As a result, net income or loss has been allocated to our stockholders and included on their individual income tax returns. In connection with the offering, we will convert to a C Corporation, which will result in net income of the Company being taxed at the corporate level. As such, our provision for taxes will change. Assuming the conversion to a C Corporation, we estimate that the Company's effective tax rate will be approximately 25%, inclusive of all applicable U.S. federal, state, local and foreign income taxes. In addition, upon such conversion, we anticipate establishing a deferred tax asset of approximately \$3.0 million.

This data should be read in conjunction with, and is qualified in its entirety by reference to, the "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Capitalization" sections of this prospectus and our audited consolidated financial statements and notes thereto for the periods and dates indicated included elsewhere in this prospectus. Revenue is reflected in accordance with Accounting Standards Update ("ASU") 2014-09, *Revenue from Contracts with Customers*, ("ASC 606"), which we adopted on January 1, 2018.

	For the Year Ended December 31,	
	2019	2018
	(In thousands except per share data)	
Revenue:		
Software subscriptions	\$ 275,629	\$ 235,663
Services	45,871	36,740
Total revenues	<u>321,500</u>	<u>272,403</u>
Cost of revenues:		
Software subscriptions	77,259	68,945
Services	33,119	26,753
Total cost of revenues	<u>110,378</u>	<u>95,698</u>
Gross profit	<u>211,122</u>	<u>176,705</u>
Operating expenses:		
Research and development	30,557	23,755
Selling and marketing	68,127	56,898
General and administrative	71,014	58,947
Depreciation and amortization	8,996	7,937
Impairment of asset	—	32,692
Other operating (income) expense, net	573	(691)
Total operating expenses	<u>179,267</u>	<u>179,538</u>
Income (loss) from operations	<u>31,855</u>	<u>(2,833)</u>
Other (income) expense:		
Interest income	(1,083)	(526)
Interest expense	2,036	2,120
Total other expense, net	<u>953</u>	<u>1,594</u>
Income (loss) before income taxes	<u>30,902</u>	<u>(4,427)</u>
Income tax (benefit) expense	(155)	1,679
Net income (loss)	<u>31,057</u>	<u>(6,106)</u>
Other comprehensive (income) loss from foreign currency translation adjustments and revaluations, net of tax	(5)	355
Total comprehensive income (loss)	<u>\$ 31,062</u>	<u>\$ (6,461)</u>
Net income (loss) attributable to Class A stockholders	\$ 38	\$ (7)
Net income (loss) per Class A share, basic and diluted	\$ 0.77	\$ (0.15)
Weighted average Class A common stock, basic and diluted	49	49
Net income (loss) attributable to Class B stockholders	\$ 31,019	\$ (6,099)
Net income (loss) per Class B share, basic	\$ 0.77	\$ (0.15)
Weighted average Class B common stock, basic	40,129	40,160
Net income (loss) per Class B share, diluted	\$ 0.75	\$ (0.15)
Weighted average Class B common stock, diluted	41,373	40,160

	As of December 31,	
	2019	2018
	(In thousands)	
Consolidated Balance Sheet Data:		
Cash and cash equivalents	\$ 75,903	\$ 55,838
Total assets	264,623	215,072
Deferred revenue (current and non-current)	205,791	178,703
Debt (current and non-current)	51,486	54,883
Total liabilities	377,055	326,768
Options for redeemable shares	17,344	14,581
Total stockholders' deficit	(129,776)	(126,277)

	For the Year Ended December 31,	
	2019	2018
	(In thousands)	
Consolidated Statement of Cash Flows		
Net cash provided by operating activities	\$ 92,498	\$ 80,449
Net cash used in investing activities	(37,560)	(33,314)
Net cash used in financing activities	(30,629)	(30,697)
Effect of foreign exchange rate changes	12	(402)
Net increase in cash, cash equivalents and restricted cash	\$ 24,321	\$ 16,036

	For the Year Ended December 31,	
	2019	2018
	(In thousands except percentages)	
Non-GAAP Financial Data (unaudited):		
Adjusted EBITDA ⁽¹⁾	\$ 67,913	\$ 61,471
Adjusted EBITDA margin ⁽¹⁾	21%	23%
Free cash flow ⁽²⁾	54,938	47,135
Free cash flow margin ⁽²⁾	17%	17%

- (1) Adjusted EBITDA and Adjusted EBITDA margin are a non-GAAP financial measure used by our management and board of directors in measuring trends and our financial performance. In addition, we believe that Adjusted EBITDA and Adjusted EBITDA margin are measures widely used by securities analysts and investors to evaluate the financial performance of our company and other companies. We consider Adjusted EBITDA and Adjusted EBITDA margin to be important measures because we believe that they provide useful information in understanding and evaluating our operating results on a period over period basis without the impact of certain expenses that do not directly correlate to our operating performance and that can vary significantly from period to period. In addition, we base certain of our forward-looking estimates and budgets on Adjusted EBITDA and Adjusted EBITDA margin. We define Adjusted EBITDA as net comprehensive income or loss before interest, taxes, depreciation and amortization, asset impairments, gains or losses on assets and liabilities held in a foreign currency, share-based compensation expense and severance charges. We define Adjusted EBITDA margin as Adjusted EBITDA divided by total revenues for the same period.

Our definitions of Adjusted EBITDA and Adjusted EBITDA margin may differ from the definitions used by other companies and therefore comparability may be limited. In addition, other companies may not publish these or similar metrics. Thus, our Adjusted EBITDA and Adjusted EBITDA margin should be considered in addition to, not as a substitute for, or in isolation from, measures prepared in accordance with GAAP. The following table reconciles Adjusted

EBITDA to the most directly comparable GAAP financial performance measure, which is total comprehensive income (loss):

	For the Year Ended	
	December 31,	
	2019	2018
	(In thousands)	
Adjusted EBITDA		
Total comprehensive income (loss)	\$ 31,062	\$ (6,461)
Interest	953	1,594
Income tax (benefit) expense	(155)	1,679
Depreciation and amortization—cost of subscription revenues	16,194	16,964
Depreciation and amortization	8,996	7,937
Impairment charge	—	32,692
Stock-based compensation	9,460	5,108
Severance charges	1,408	1,603
Other comprehensive (income) loss from foreign currency translations	(5)	355
Adjusted EBITDA	\$ 67,913	\$ 61,471
Total revenues	\$ 321,500	\$ 272,403
Adjusted EBITDA Margin	17%	17%

- (2) Free cash flow and free cash flow margin are a non-GAAP financial measures used by our management and board of directors in measuring trends and our financial performance. In addition, we believe that free cash flow and free cash flow margin are measures widely used by securities analysts and investors to evaluate the financial performance of our company and other companies. We consider free cash flow and free cash flow margin to be important measures of liquidity because we believe that they provide useful information in understanding and evaluating our operating results on a period over period basis without the impact of certain expenses that do not directly correlate to our operating performance and that can vary significantly from period to period. In addition, we base certain of our forward-looking estimates and budgets on free cash flow and free cash flow margin. We define free cash flow as the total of net cash provided by operating activities less purchases of property and equipment and capitalized software. We define free cash flow margin as free cash flow divided by total revenues for the same period.

Our definitions of free cash flow and free cash flow margin may differ from the definitions used by other companies and therefore comparability may be limited. In addition, other companies may not publish these or similar metrics. Thus, our free cash flow and free cash flow margin should be considered in addition to, not as a substitute for, or in isolation from, measures prepared in accordance with GAAP. The following table reconciles free cash flow to the most directly comparable GAAP financial performance measure, which is net cash provided by operating activities:

	For the Year Ended	
	December 31,	
	2019	2018
	(In thousands)	
Free cash flow		
Net Cash provided by operating activities	\$ 92,498	\$ 80,449
Property and equipment additions	(20,339)	(21,053)
Capitalized software additions	(17,221)	(12,261)
Free Cash Flow	\$ 54,938	\$ 47,135
Total revenues	\$ 321,500	\$ 272,403
Free Cash Flow Margin	17%	17%

RISK FACTORS

An investment in our Class A common stock involves a high degree of risk. You should consider carefully the following risks, together with the information under the caption "Business—Competition," our financial statements and the related notes and the other information contained in this prospectus before you decide whether to buy our Class A common stock. If any of the events contemplated by the following discussion of risks should occur, our business, results of operations, financial condition and cash flows could suffer significantly. As a result, the market price of our Class A common stock could decline, and you may lose all or part of the money you paid to buy our Class A common stock. The risks described below are those that we believe are the material risks that we face but other risks may arise from time to time. See "Cautionary Note Regarding Forward-Looking Statements" elsewhere in this prospectus.

Risks Relating to Our Business and Industry

A large portion of our revenue depends on maintaining and growing our revenue from existing customers, and if we fail to retain our customers or expand their usage of our solutions, our business, results of operations, financial condition and cash flows would be harmed.

We cannot accurately predict customer behavior. Our customers have no obligation to renew their subscriptions for our solutions after the expiration of their subscription periods and our customers may not renew subscriptions for a similar mix of solutions. Our retention rates would decline as a result of a number of factors, including customer dissatisfaction, decreased customer spending levels, decreased customer transaction volumes, increased competition, changes in tax laws or rules, pricing changes or legislative changes affecting tax compliance providers. If our customers do not renew their subscriptions, or our customers reduce the solutions purchased under their subscriptions, our revenue would decline and our business may be harmed.

Our future success also depends in part on our ability to sell additional solutions to existing customers and on our customers' expanded use of our solutions. If our efforts to sell our additional solutions to our customers are not successful or if our customers do not expand their use of our solutions, it would decrease our revenue growth and harm our business, results of operations, financial condition and cash flows.

Our business and success depend in part on our strategic relationships with third parties, including our partner ecosystem, and our business would be harmed if we fail to maintain or expand these relationships.

We depend in part on, and anticipate that we will continue to depend in part on, various third-party relationships to sustain and grow our business. Our relationships with third-party publishers of software business applications, including accounting, ERP, eCommerce, POS, recurring billing and CRM systems, help drive our business because the integration of our solutions with their applications allows us to reach their sizeable customer bases. Our customers' user experience is dependent on our ability to connect easily to such third-party software applications. We may fail to retain and expand these integrations or relationships for many reasons, including due to failures by third parties to maintain, support or secure their technology platforms in general and our integrations in particular, or errors, bugs or defects in such third party technology, or changes in our technology platform. Any such failure could harm our relationship with our customers, our reputation and brand and our business and results of operations.

In addition, integrating third-party technology can be complex, costly and time-consuming. Third parties may be unwilling to build integrations, and we may be required to devote additional resources to develop integrations for business applications on our own. Providers of business applications with which we have integrations may decide to compete with us or enter into arrangements with our competitors, resulting in such providers withdrawing support for our integrations. In addition, any

failure of our solutions to operate effectively with business applications could reduce the demand for our solutions, resulting in customer dissatisfaction and harm to our business. If we are unable to respond to these changes or failures in a cost-effective manner, our solutions may become less marketable, less competitive or obsolete and our results of operations may be negatively impacted.

If we are unable to adapt to technological change by successfully introducing new and enhanced solutions and services, our business, results of operations, financial condition and cash flows would be adversely affected.

The market for our solutions is characterized by rapid technological change, frequent new product and service introductions and enhancements, changing customer demands and evolving industry standards. The introduction of software embodying new technologies can quickly make existing software obsolete and unmarketable. Software solutions are inherently complex, and it can take a long time and require significant research and development expenditures to develop and test new or enhanced solutions. The success of any enhancements or improvements to our software solutions or any new solutions and services depends on several factors, including timely completion, competitive pricing, adequate quality testing, integration with existing technologies and our platform and overall market acceptance. We cannot be sure that we will succeed in developing, marketing and delivering on a timely and cost-effective basis enhancements or improvements to our software or any new solutions and services that respond to technological change or new customer requirements, nor can we be sure that any enhancements or improvements to our software or any new solutions and services will be free of errors and defects or that they will achieve market acceptance. Moreover, even if we introduce new solutions, we would experience a decline in revenue of our existing solutions that is not offset by revenue from the solutions. Customers may delay making purchases of new solutions to permit them to make a more thorough evaluation of these solutions or until industry and marketplace reviews become widely available. In addition, we may lose existing customers who choose a competitor's solutions rather than migrate to our new solutions. This could result in a temporary or permanent revenue shortfall and adversely affect our business.

Any failures in information technology or infrastructure could lead to disruptions of our software, loss of customer data or untimely remittance of taxes, any of which could adversely affect our reputation and financial condition.

Our software depends on uninterrupted, high-speed access to the internet in order to provide real-time tax determinations and processing of indirect tax data. Failures in our or our customers' and partners' information technology and infrastructure or service outages at third-party internet providers could lead to disruptions to our software. Such failures may be caused by numerous factors, including mechanical failure, power outage, human error, physical or electronic security breaches, war, terrorism, fire, earthquake, hurricane, flood and other natural disasters, sabotage and vandalism. Disruptions to our software could cause customers to lose sensitive or confidential information and could also lead to our or our customers' inability to timely remit taxes to the appropriate authorities. Any of these outcomes could lead customers to switch to our competitors or avoid using our solutions, which would negatively impact our revenue and harm our opportunities for growth.

Incorrect or improper implementation, integration or use of our solutions could result in customer dissatisfaction and negatively affect our business, results of operations, financial condition and cash flows.

Our customers may need training or education in the proper use of, and the variety of benefits that can be derived from, our solutions to maximize their potential benefits. If our solutions are not implemented or used correctly or as intended, inadequate performance may result. Because our customers rely on our solutions to manage a wide range of tax compliance operations, the incorrect or improper implementation or use of our solutions, or our failure to provide adequate support to our customers, may result in negative publicity or legal claims against us, which could harm our business,

results of operations, financial condition and cash flows. Also, as we continue to expand our customer base, any failure by us to properly provide training and support will likely result in lost opportunities for additional subscriptions for our solutions.

If we fail to attract and retain qualified technical and tax-content personnel, our business could be harmed.

Our technology is complex and our success depends in large part on our ability to attract and retain highly qualified personnel, particularly tax-content specialists, software developers, technical support and research and development personnel. Competition for skilled personnel is intense and we may not be successful in attracting, motivating and retaining needed personnel. We also may be unable to attract or integrate into our operations qualified personnel on the schedule we desire. Any inability to attract, integrate, motivate and retain the necessary personnel could harm our business. Dealing with the loss of the services of our executive officers or key personnel and the process to replace any of our executive officers or key personnel may involve significant time and expense, take longer than anticipated, and significantly delay or prevent the achievement of our business objectives, which would harm our financial condition, results of operations, and business.

We face competitive pressures from other tax software and services providers, as well as the challenge of convincing businesses using manual processes and native ERP functions to switch to our software.

We face significant competitive challenges from other tax-specific software vendors and from outsourced transaction tax compliance services offered by accounting and specialized consulting firms. There are a number of competing tax-specific software vendors, some of which have substantially greater revenue, personnel and other resources than we do. Corporate competitors, as well as the state and local tax services offered by accounting firms, have historically targeted our customer base of large enterprise companies. In addition, our competitors who currently focus their tax compliance services on small- to medium-sized businesses may be better positioned to increase their market share with small- to medium-sized businesses and may choose to enter our markets, whether competing based on price, service or otherwise. We also face a growing number of competing private transaction tax compliance businesses focused primarily on eCommerce. Increased competition may impact our ability to add new customers and to retain and expand revenues from existing customers. It is also possible that large enterprises with substantial resources that operate in adjacent compliance, finance or eCommerce verticals may decide to pursue transaction tax compliance automation and become immediate, significant competitors. Our failure to successfully and effectively compete with current or future competitors could lead to lost business and negatively affect our revenue.

In addition, many companies continue to employ manual processes that often rely on transaction-specific research, static tax tables, non-tax specific software or rate calculator services, as well as manual filing and remittance activities. Many businesses using manual approaches believe that these processes are adequate and may be unaware that there is an alternative that is more effective, resulting in an inertia that can be difficult to overcome. In addition, the upfront costs of our solutions can limit our sales to businesses using manual processes.

Our recent success may not be indicative of our future results of operations.

We cannot predict with certainty our customers' future usage or retention given the diversity of our customer base across industries, geographies, customer size and other factors. Accordingly, we may be unable to accurately forecast our revenues notwithstanding our substantial investments in sales and marketing, tax content infrastructure and research and development in anticipation of continued growth in our business. If we do not realize returns on these investments in our growth, our results of operations could differ materially from our prior results, which could cause our stock price to decline.

We currently derive a substantial portion of our revenue from our indirect tax software, and any failure of our software to satisfy customer requirements or to achieve increased market penetration could adversely affect our business, results of operations, financial condition and growth prospects.

We currently derive a substantial portion of our revenue from subscriptions to our indirect tax software. We have added, and will continue to add, additional solutions to expand our offerings, but, at least in the near term, we expect to continue to derive the majority of our revenue from our indirect tax software. As such, the ability of our indirect tax software to meet our customers' requirements is critical to our success. Demand for our solutions is affected by a number of factors, many of which are beyond our control, such as continued market acceptance and continued employment of our solutions by existing and new customers, the timing of the development and release of upgraded or new solutions, the introduction or upgrading of products and services by our competitors, technological change and growth or contraction in our addressable market. If our indirect tax software does not continue to meet customer requirements, our business, results of operations, financial condition and growth prospects will suffer.

Changes to customers' and partners' software systems may impact our ability to offer a specific software deployment method to existing customers, which could cause a termination of customer contracts utilizing that deployment method, or otherwise effect our results of operations, financial condition and cash flow.

Our solutions are integrated with the software systems and complex workflows of our customers and partners. In the event that such software systems are modified or updated in a way that is incompatible with our software, we may be unable to continue to support the operations of our customers and partners. If our customers are unable to implement our solutions successfully or in a timely manner, or if our partners are unable to integrate with our solutions through our integrations, customer perceptions of our solutions may be impaired, our reputation and brand may suffer and customers may choose not to renew or expand the use of our solutions. In addition, if we fail to anticipate technological changes that our customers and partners may look to adopt, our solutions may be perceived as being less effective or obsolete. Any of these changes could have a material adverse effect on our results of operations and financial condition.

We need to continue making significant investments in software development and equipment to improve our business.

To improve the scalability, security and efficiency of our solutions, and to support the expansion of our software into other tax types, we will need to continue making significant capital expenditures and also invest in additional software and infrastructure development. If we experience increasing demand in subscriptions, we may not be able to augment our infrastructure quickly enough to accommodate such increasing demand. In the event of decreases in subscription sales, certain of our fixed costs, such as for capital expenditures, may make it difficult for us to quickly adjust our expenses downward. Additionally, we are continually updating our software and content, which increases expenses for us. We may also need to review or revise our software architecture as we grow, which may require significant resources and investments. As a result, although we may have significant research and development expenditures, which may be incurred and certain of which may be capitalized, there is no guarantee our solutions will be accepted by the market. This could result in increased costs or an impairment of capitalized development costs with no resulting future revenue benefit.

Our continued growth depends in part on our ability to continue to grow our customer base.

Increasing our customer base will depend, to a significant extent, on our ability to effectively expand our sales and marketing activities, as well as our partner ecosystem and other customer referral sources. We may not be able to recruit qualified sales and marketing personnel, train them to perform

and achieve an acceptable level of sales production from them on a timely basis or at all. In the past, it has usually taken new members of our sales force at least six months to integrate into our operations and start converting sales leads at our expected levels. In addition, if we cannot continue to maintain or expand our relationships with our partners, we may receive fewer referrals, the set of integrations we offer may not keep up with the market and our customer expansion strategy may become less effective. If we are unable to maintain effective sales and marketing activities and maintain and expand our partner network, our ability to attract new customers could be harmed and our business, results of operations, financial condition and cash flows would suffer.

If we fail to effectively manage our growth, our business, results of operations, financial condition and cash flows will be harmed.

We have experienced, and may continue to experience, growth in our headcount and operations, both domestically and internationally, which has placed, and may continue to place, significant demands on our management and our administrative, operational and financial reporting resources. We have also experienced significant growth in the number of customers, number of transactions and the amount of tax content that our platform and solutions support. Our growth will require us to hire additional employees and make significant expenditures, particularly in sales and marketing but also in our technology, professional services, finance and administration teams, as well as in our facilities and infrastructure. Our ability to effectively manage our growth will also require the allocation of valuable management and employee resources and improvements to our operational and financial controls and our reporting procedures and systems. In addition, as we seek to continue to expand internationally, we will likely encounter unexpected challenges and expenses due to unfamiliarity with local requirements, practices and markets. Our expenses may increase more than we plan, and we may fail to hire qualified personnel, expand our customer base, enhance our existing solutions, develop new solutions, integrate any acquisitions, satisfy the requirements of our existing customers, respond to competitive challenges or otherwise execute our strategies. If we are unable to effectively manage our growth, our business, results of operations, financial condition and cash flows would likely be harmed.

Future acquisitions of, and investments in, other businesses, software, tax content or technologies may not yield expected benefits, and our inability to successfully integrate acquisitions may negatively impact our business, results of operations, financial condition and cash flows.

We may in the future seek to grow our operations by pursuing acquisitions of businesses, software and technologies. We may not realize the anticipated benefits, or any benefits, from future acquisitions. In addition, if we finance acquisitions by incurring debt or by issuing equity or convertible or debt securities, our existing stockholder may be diluted or we could face constraints related to covenants in the agreements governing the indebtedness, which could affect the market value of our capital stock. To the extent that the acquisition consideration is paid in the form of an earnout on future financial results, the success of such an acquisition will not be fully realized by us for a period of time as it is shared with the sellers. Further, if we fail to properly evaluate and execute acquisitions or investments, our business and prospects may be seriously harmed and the value of your investment may decline. For us to realize the benefits of future acquisitions, we must successfully integrate the acquired businesses, software or technologies with ours. This may take time and divert management's attention from our day-to-day operations, which could negatively impact our business, results of operations, financial condition and cash flows.

Our quarterly and annual results of operations will fluctuate in future periods.

We will experience quarterly or annual fluctuations in our results of operations due to a number of factors, many of which are outside of our control. This makes our future results difficult to predict and

could cause our results of operations to fall below expectations or our predictions. Factors that might cause quarterly or annual fluctuations in our results of operations include:

- our ability to attract new customers and retain and grow revenue from existing customers;
- our ability to maintain, expand, train and achieve an acceptable level of production from our sales and marketing teams;
- our ability to find and nurture successful sales opportunities;
- the timing of our introduction of new solutions or updates to existing solutions;
- our ability to grow and maintain our relationships with our ecosystem of third-party partners, including integration partners and referral partners;
- the success of our customers' businesses;
- the timing of large subscriptions and customer renewal rates;
- new government regulations;
- changes in our pricing policies or those of our competitors;
- the amount and timing of our expenses related to the expansion of our business, operations and infrastructure;
- any impairment of our intangible assets, capitalized software, long-lived assets and goodwill;
- any seasonality in connection with new customer agreements, as well as renewal and upgrade agreements, each of which have historically occurred at a higher rate in the fourth quarter of each year;
- future costs related to acquisitions of content, technologies or businesses and their integration; and
- general economic conditions.

Any one of the factors above, or the cumulative effect of some or all of the factors referred to above, may result in significant fluctuations in our quarterly and annual results of operations. This variability and unpredictability could result in our failure to meet or exceed our internal operating plan. In addition, a percentage of our operating expenses is fixed in nature and is based on forecasted financial performance. In the event of revenue shortfalls, we may not be able to mitigate the negative impact on our results of operations quickly enough to avoid short-term impacts.

We generally recognize revenue from subscription fees paid by customers rateably over the subscription term. As a result, most of the subscription revenue we report in each quarter is the result of agreements entered into during previous quarters. Consequently, a decline in new or renewed subscriptions in any one quarter will not be fully reflected in our revenue results for that quarter. Any such decline, however, will negatively affect our revenue in future quarters. Our subscription model also makes it difficult for us to rapidly increase our revenue through additional sales in any period, as subscription revenue from new customers is generally recognized over the applicable subscription terms.

Operating globally involves challenges that may adversely affect our ability to grow.

We plan to continue expanding our business operations globally and to enter new markets where we have limited or no experience in marketing, selling and deploying our solutions. If we fail to deploy or manage our operations in international markets successfully, our business may suffer. In the future,

as our international operations increase, or more of our expenses are denominated in currencies other than the U.S. dollar, our results of operations may become more sensitive to fluctuations in the exchange rates of the currencies in which we do business. In addition, we are subject to a variety of risks inherent in doing business internationally, including:

- political, social and economic instability;
- risks related to the legal and regulatory environment in foreign jurisdictions, including with respect to privacy, localization and content laws as well as unexpected changes in laws, regulatory requirements and enforcement due to the wide discretion given to some local lawmakers and regulators regarding the enactment, interpretation and implementation of local regulations;
- potential damage to our brand and reputation due to compliance with local laws, including potential censorship and requirements to provide user information to local authorities;
- fluctuations in currency exchange rates;
- higher levels of credit risk and payment fraud;
- complying with the tax laws and regulations of multiple tax jurisdictions;
- enhanced difficulties of integrating any foreign acquisitions;
- complying with a variety of foreign laws, including certain employment laws requiring national collective bargaining agreements that set minimum salaries, benefits, working conditions and termination requirements;
- reduced protection for intellectual property rights in some countries;
- difficulties in staffing and managing global operations and the increased travel, infrastructure and compliance costs associated with multiple international locations;
- regulations that might add difficulties in repatriating cash earned outside our core markets and otherwise prevent us from freely moving cash;
- import and export restrictions and changes in trade regulation;
- complying with statutory equity requirements;
- complying with the U.S. Foreign Corrupt Practices Act (the "FCPA"), the U.K. Bribery Act and similar laws in other jurisdictions; and
- complying with export controls and economic sanctions administered by the relevant local authorities, including in the United States and European Union, in our international business.

If we are unable to expand internationally and manage the complexity of our global operations successfully, our business could be seriously harmed.

We hold significant amounts of money that we remit to taxing authorities on behalf of our customers, and this may expose us to liability from errors, delays, fraud or system failures, which may not be covered by insurance.

We handle significant amounts of our customers' money so that we can remit those amounts to various taxing jurisdictions on their behalf. If we make mistakes in the determination or remittance of tax payments to the appropriate jurisdictions, our reputation and results of operations could suffer. Moreover, if our banks' or our own internal compliance procedures regarding cash management fail,

are hacked or sabotaged, or if our banks or we are the subject of fraudulent behavior by personnel or third parties, we could face significant financial losses. Our efforts to remit tax payments to applicable taxing jurisdictions after receiving the corresponding funds from our customers may fail, which would expose us to the financial risk of collecting from our customers after we have remitted funds on their behalf.

Additionally, we are subject to risk from concentration of cash and cash equivalent accounts, including cash from our customers that is to be remitted to taxing jurisdictions, with financial institutions where deposits routinely exceed federal insurance limits. If the financial institutions in which we deposit our customers' cash were to experience insolvency or other financial difficulty, our access to cash deposits could be limited, any deposit insurance may not be adequate, we could lose our cash deposits entirely and we could be exposed to liability to our customers. Any of these events would negatively impact our liquidity, results of operations and our reputation.

If we are unable to successfully adapt to organizational changes and effectively implement strategic initiatives, our reputation and results of operations could be impacted.

We have a dynamic organization and routinely implement changes to our priorities and workforce in order to keep up with the constantly evolving market in which we operate. We expect these types of changes to continue for the foreseeable future. Successfully managing these changes, including retention of key employees, is critical to our business success. In addition, we are generally a build-from-within company, and our success is dependent on identifying, developing and retaining key employees to provide uninterrupted leadership and direction for our business. This includes developing organizational capabilities in key growth markets where the depth of skilled employees is limited and competition for these resources is intense. Further, business and organizational changes may result in more reliance on third parties for various services, and that reliance may increase reputational, operational and compliance risks.

Errors in our customers' transaction tax determinations and reporting functions, or delays in the remittance of their tax payments, could harm our reputation, results of operations and growth prospects.

The tax determinations functions that our customers have to perform are complicated from a data management standpoint, time-sensitive and dependent on the accuracy of the database of tax content underlying our solutions. Some of our processes are not fully automated, such as our process for monitoring updates to tax rates and rules, and even to the extent our processes are automated, our solutions are not proven to be without any possibility of errors. If errors are made in our customers' tax determinations and reporting functions, or delays occur in the remittance of their tax payments, our customers may be assessed interest and penalties. Although our agreements generally have disclaimers of warranties and limit our liability, a court could determine that such disclaimers and limitations are unenforceable as a matter of law and hold us liable for these errors. Additionally, erroneous tax determinations could result in overpayments to taxing authorities that are difficult to reclaim from the applicable taxing authorities or underpayments that could result in penalties. Any history of erroneous tax determinations for our customers could also harm our reputation, could result in negative publicity, loss of or delay in market acceptance of our solutions, loss of customer renewals and loss of competitive position. In addition, our insurance coverage may not cover all amounts claimed against us if such errors or failures occur. The financial and reputational costs associated with any erroneous tax determinations may be substantial and could harm our results of operations.

Changes in tax laws and regulations, or their interpretation or enforcement, may cause us to invest substantial amounts to modify our software, cause us to change our business model or draw new competitors to the market.

Changes in tax laws or regulations or interpretations of existing taxation requirements in the United States or in other countries may require us to change the manner in which we conduct some aspects of our business and could harm our ability to attract and retain customers. For example, a material portion of our revenue is generated by performing what can be complex transaction tax determinations and the corresponding preparation of tax returns and remittance of taxes. Changes in tax laws or regulations that reduce complexity or decrease the frequency of tax filings could negatively impact our revenue. In addition, there is considerable uncertainty as to if, when and how tax laws and regulations might change. As a result, we may need to invest substantial funds to modify our solutions to adapt to new tax laws or regulations. If our software solutions are not flexible enough to adapt to changes in tax laws and regulations, our financial condition and results of operations may suffer.

A number of states have considered or adopted laws that attempt to require out-of-state retailers to collect sales taxes on their behalf or to provide the jurisdiction with information enabling it to more easily collect use tax. On June 21, 2018, the U.S. Supreme Court issued its opinion in *South Dakota v. Wayfair, Inc.*, upholding South Dakota's economic nexus law, which requires certain out-of-state retailers to collect and remit sales taxes on sales into South Dakota. Following the Supreme Court's decision, certain states with pre-existing economic nexus provisions announced that they would begin enforcing these provisions on out-of-state retailers and additional states have proceeded with similar efforts. There also has been consideration of federal legislation related to taxation of interstate sales, which, if enacted into law, would place guidelines or restrictions on states' authority to require online and other out of state merchants to collect and remit indirect tax on products and services that they may sell. Similar issues exist outside of the United States, where the application of value-added taxes or other indirect taxes on online retailers is uncertain and evolving. The effect of changes in tax laws and regulations is uncertain and dependent on a number of factors. Depending on the content of any indirect tax legislation, the role of third-party compliance vendors may change, we may need to invest substantial amounts to modify our solutions or our business model, we could see a decrease in demand, we could see new competitors enter the market, or we could be negatively impacted by such legislation in a way not yet known.

We are exposed to cybersecurity and data privacy risks that, if realized, could expose us to legal liability, damage our reputation and harm our business.

We face risks of cyber-attacks, computer hacks, theft, viruses, malicious software, phishing, employee error, denial-of-service attacks and other security breaches that could jeopardize the performance of our software and expose us to financial and reputational harm. Any of these occurrences could create liability for us, put our reputation in jeopardy, and harm our business. Such harm could be in the form of theft of our or our customers' confidential information, the inability of our customers to access our systems or the improper re-routing of customer funds through fraudulent transactions or other frauds perpetrated to obtain inappropriate payments. In some cases, we rely on the safeguards put in place by third parties to protect against security threats. These third parties, including vendors that provide products and services for our operations, could also be a source of security risk to us in the event of a failure or a security incident affecting their own security systems and infrastructure. Our network of ecosystem partners could also be a source of vulnerability to the extent their applications interface with ours, whether unintentionally or through a malicious backdoor. We do not review the software code included in third-party integrations in all instances. 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 or these third parties may be unable to anticipate these techniques or to implement adequate preventative measures. We have internal controls designed

to prevent cyber-related frauds related to authorizing the transfer of funds, but such internal controls may not be adequate. With the increasing frequency of cyber-related frauds to obtain inappropriate payments and other threats related to cyber-attacks, we may find it necessary to expend resources to remediate cyber-related incidents or to enhance and strengthen our cybersecurity. Our remediation efforts may not be successful and could result in interruptions, delays or cessation of service. Although we have insurance coverage for losses associated with cyber-attacks, as with all insurance policies, there are coverage exclusions and limitations, and our coverage may not be sufficient to cover all possible claims, and we may still suffer losses that could have a material adverse effect on our reputation and business.

Our customers provide us with information that our solutions store, some of which may be confidential information about them or their financial transactions. In addition, we store personal information about our employees and, to a lesser extent, those who purchase products or services from our customers. We have security systems and information technology infrastructure designed to protect against unauthorized access to such information. The security systems and infrastructure we maintain may not be successful in protecting against all security breaches and cyber-attacks, social-engineering attacks, computer break-ins, theft and other improper activity. Threats to our information technology security can take various forms, including viruses, worms and other malicious software programs that attempt to attack our solutions or platform or to gain access to the data of our customers or their customers. Like other companies, we have on occasion and will continue to experience threats to our data and systems. Any significant data breach could result in the loss of business, litigation and regulatory investigations, loss of customers and fines and penalties that could damage our reputation and brand and adversely affect the growth of our business.

We may become involved in material legal proceedings and audits, the outcomes which could adversely affect our business, results of operations, financial condition and cash flows.

From time to time, we are involved in claims, suits, investigations, audits and proceedings arising in the ordinary course of our business, and we may in the future become involved in legal proceedings and audits that could have a material adverse effect on our business, results of operations, financial condition and cash flows. Claims, suits, investigations, audits and proceedings are inherently difficult to predict and their results are subject to significant uncertainties, many of which are outside of our control. Regardless of the outcome, such legal proceedings could have a negative impact on us due to legal costs, diversion of management resources and other factors. In addition, it is possible that a resolution of one or more such proceedings could result in reputational harm, substantial settlements, judgments, fines or penalties, criminal sanctions, consent decrees or orders preventing us from offering certain features, functionalities, products or services, requiring us to change our development process or other business practices.

There is also inherent uncertainty in determining reserves for these matters. There is significant judgment required in the analysis of these matters, including assessing the probability of potential outcomes and determining whether a potential exposure can be reasonably estimated. Further, it may take time to develop factors on which reasonable judgments and estimates can be based. If we fail to establish appropriate reserves, our business could be negatively impacted.

Undetected errors, bugs or defects in our software could harm our reputation or decrease market acceptance of our software, which would harm our business and results of operations.

Our software may contain undetected errors, bugs or defects. We have experienced these errors, bugs or defects in the past in connection with new software and software upgrades and we expect that errors, bugs or defects may be found from time to time in the future in new or enhanced software after their commercial release. Our software is often used in connection with large-scale computing

environments with different operating systems, system management software, equipment and networking configurations, which may cause or reveal errors or failures in our software or in the computing environments in which they are deployed. Despite testing by us, errors, bugs or defects may not be found in our software until they are used by our customers. In the past, we have discovered errors, bugs and defects in our software after they have been deployed to customers.

Any errors, bugs, defects, disruptions in service or other performance problems with our software may damage our customers' businesses and could hurt our reputation, brand and business. We may also be required, or may choose, for customer relations or other reasons, to expend additional resources to correct actual or perceived errors, bugs or defects in our software. If errors, bugs or defects are detected or perceived to exist in our software, we may experience negative publicity, loss of competitive position or diversion of the attention of our key personnel, our customers may delay or withhold payment to us or elect not to renew their subscriptions, or other significant customer relations problems may arise. We may also be subject to liability claims for damages related to errors, bugs or defects in our software. A material liability claim or other occurrence that harms our reputation or decreases market acceptance of our software may harm our business and results of operations.

Our software utilizes open-source software, and any defects or security vulnerabilities in the open-source software could negatively affect our business.

Certain of our software employs open-source software and we expect to use open-source software in the future. To the extent that our software depends upon the successful operation of open-source software, any undetected errors or defects in this open-source software could prevent the deployment or impair the functionality of our software, delay the introduction of new solutions, result in a failure of our software, and injure our reputation. For example, undetected errors or defects in open source software could render it vulnerable to breaches or security attacks, and, in conjunction, make our systems more vulnerable to data breaches.

In addition, the terms of various open-source licenses have not been interpreted by United States courts, and there is a risk that such licenses could be construed in a manner that imposes unanticipated conditions or restrictions on our ability to market certain of our software solutions. Some open-source licenses might require us to make our source code available for no cost, to make publicly available source code for modifications or derivative works that we create based upon, incorporating or using the open source software, and/or to license such modifications or derivative works under the terms of the particular open source license. While we try to insulate our proprietary code from the effects of such open-source license provisions, we cannot guarantee we will be successful. In addition to risks related to open-source license requirements, usage of open-source software can lead to greater risks than use of third-party commercial software, as open-source licensors generally do not provide warranties or controls on the origin of the software. Many of the risks associated with usage of open-source software cannot be eliminated and could negatively affect our business, financial condition and results of operations.

We rely on third-party data centers, systems and technologies to operate our business, and interruptions or performance problems with these third-party providers may adversely affect our business and results of operations.

We rely on data centers and other technologies and services provided by third parties in order to operate our business. If any of these services becomes unavailable or otherwise is unable to serve our requirements, there could be interruptions to our software and provision of services to our customers. Our business depends on our ability to protect the growing amount of information stored in data centers and related systems, offices and hosting facilities against damage from earthquakes, floods, fires, other extreme weather conditions, power loss, telecommunications failures, hardware failures,

viruses, terrorist attacks, acts of war, unauthorized electronic or physical intrusion, overload conditions and other events. If our data centers or related systems fail to operate properly or become disabled even for a brief period of time, we could suffer financial loss, a disruption of our business, liability to customers or damage to our reputation. Our response to any type of disaster may not be successful in preventing the loss of customer data, service interruptions, disruptions to our operations or damage to our important facilities. Our data center providers have no obligations to renew their agreements with us on commercially reasonable terms, or at all, and it is possible that we will not be able to switch our operations to another provider in a timely and cost-effective manner should the need arise. If we are unable to renew our agreements with these providers on commercially reasonable terms, or if in the future we add additional data center facility providers, we may face additional costs or expenses or downtime, which could harm our business.

We also rely on computer hardware purchased or leased from, software licensed from, content licensed from and services provided by a variety of third parties, which include database, operating system, virtualization software, tax requirement content and geolocation content and services. Any errors, bugs or defects in such third-party hardware, software, content or services could result in errors or a failure of our solutions, which could harm our business. In the future, we might need to license other hardware, software, content or services to enhance our solutions and meet evolving customer requirements. Any inability to license or otherwise obtain such hardware or software could result in a reduction in functionality, or errors or failures of our products, until equivalent technology is either developed by us or, if available, is identified, obtained through purchase or license, and integrated into our solutions, any of which may reduce demand for our solutions and increase our expenses. In addition, third-party licenses may expose us to increased risks, including risks associated with the integration of new technology, the diversion of resources from the development of our own proprietary technology, and our inability to generate revenue from new technology sufficient to offset associated acquisition and maintenance costs, all of which may increase our expenses and harm our results of operations.

If we fail to effectively protect, maintain and enhance our brand, our business may suffer.

As a leader in our industry for over 40 years, our brand is one of our most valuable assets, and any failure to protect our brand could cause our business to suffer. In addition, the promotion of our brand requires us to make substantial expenditures, and we anticipate that the expenditures will increase as our market becomes more competitive and as we expand into new regions. The demand for and cost of online and traditional advertising have been increasing and may continue to increase. Our brand promotion efforts will require investment not just in our indirect tax solutions, but also in our full suite of software and services. To the extent that these activities yield increased revenue, this revenue may not offset the increased expenses we incur. If we do not successfully maintain and enhance our brand, our business may not grow, we may have reduced pricing power relative to competitors and we could lose customers or fail to attract potential new customers, all of which would adversely affect our business, results of operations, financial condition and cash flows.

Changes in the application, scope, interpretation or enforcement of laws and regulations pertaining to our operations may harm our business or results of operations, subject us to liabilities and require us to implement new compliance programs or business methods.

We perform a number of critical business functions for our customers, including remittance of the taxes our customers owe to taxing authorities. Our electronic payment of customers' taxes may be subject to federal or state laws or regulations relating to money transmission. The Federal Bank Secrecy Act requires that financial institutions, of which money transmitters are a subset, register with the U.S. Department of Treasury's Financial Crimes Enforcement Network and maintain policies and procedures reasonably designed to monitor, identify, report and, where possible, avoid money laundering and criminal or terrorist financing by customers. Most U.S. states also have laws that apply to money transmitters, and impose various licensure, examination and bonding requirements on them. We believe these federal and state laws and regulations were not intended to cover the business activity of remitting transaction taxes that taxpayers owe to the various states and localities. However, if federal or state regulators were to apply these laws and regulations to this business activity, whether through expansion of enforcement activities, new interpretations of the scope of certain of these laws or regulations or of available exemptions, or if our activities are held by a court to be covered by such laws or regulations, we could be required to expend time, money and other resources to deal with enforcement actions and any penalties that might be asserted, to institute and maintain a compliance program specific to money transmission laws, and possibly to change aspects of how we conduct our business to achieve compliance or minimize regulation. Application of these laws to our business could also make it more difficult or costly for us to maintain our banking relationships. Financial institutions may also be unwilling to provide banking services to us due to concerns about the large dollar volume moving in and out of our accounts on behalf of our customers in the ordinary course of our business. As we continue to expand the solutions we offer and the jurisdictions in which we offer them, we could become subject to other licensing, examination or regulatory requirements relating to financial services.

Determining the taxes owed by our customers involves providing solutions tailored to the types and prices of products our customers sell, as well as information regarding addresses that products are shipped from and delivered to. Numerous federal, state and local laws and regulations govern the collection, dissemination, use and safeguarding of personal information and other data, the scope of which is changing, subject to differing interpretations, and which may be costly to comply with, inconsistent between jurisdictions or conflicting with other rules. We may be subject to these laws in certain circumstances. Most states have also adopted laws that require notice be given to affected consumers in the event of a security breach. In the event of a security breach, our compliance with these laws may subject us to costs associated with notice and remediation, as well as potential investigations from federal regulatory agencies and state attorneys general. A failure on our part to safeguard consumer data adequately or to destroy data securely may subject us, depending on the personal information in question, to costs associated with notice and remediation, as well as to potential regulatory investigations or enforcement actions, and possibly to civil liability, under federal or state data security or unfair practices or consumer protection laws. If federal or state regulators were to expand their enforcement activities, or change their interpretation of the applicability of these laws, or if new laws regarding privacy and protection of consumer data were to be adopted, the burdens and costs of complying with them could increase significantly, negatively affecting our results of operations and possibly the manner in which we conduct our business. For example, the European Union's General Data Protection Regulation requires certain operational changes for companies that receive or process personal data of residents of the EU and includes significant penalties for noncompliance. In addition, other governmental authorities around the world are considering implementing similar types of legislative and regulatory proposals concerning data protection. We may incur significant costs to comply with these mandatory privacy and security standards.

If economic conditions worsen, it may negatively affect our business and financial performance.

Our financial performance depends, in part, on the state of the economy, both in the United States and globally. Declining levels of economic activity may lead to declines in spending and customer revenue, which may result in decreased revenue for us. Concern about the strength of the economy may slow the rate at which businesses of all sizes are willing to hire an outside vendor to perform the determination and remittance of their transaction taxes and filing of related returns. If our customers and potential customers experience financial hardship as a result of a weak economy, industry consolidation or other factors, the overall demand for our solutions could decrease. If economic conditions worsen, our business, results of operations, financial condition and cash flows could be harmed.

Natural disasters, epidemic outbreaks, terrorist acts and political events could disrupt business and result in lower sales and otherwise have a material adverse effect on our business, financial performance and results of operations.

The occurrence of one or more major natural disasters, unusual weather conditions, epidemic outbreaks, terrorist attacks or disruptive political events, each of which is out of our control, may result in reduced consumer and supplier spending and transactions, which in turn could cause our revenues to decline and our business to suffer. Natural disasters including tornados, hurricanes, floods and earthquakes may damage the facilities of our customers or those of their suppliers or retailers or their other operations, which could lead to reduced revenue for our customers and thus less transaction tax due. In addition, a global epidemic outbreak may have a material adverse effect on global economic conditions, consumer spending and the stability of global financial markets. For example, in December 2019, a novel strain of coronavirus ("COVID-19") appeared. The COVID-19 pandemic is having widespread, rapidly evolving and unpredictable impacts on global society, economies, financial markets and business practices. Federal and state governments have implemented measures in an effort to contain the virus, including social distancing, travel restrictions, border closures, limitations on public gatherings, work-from-home, supply chain logistical changes and closure of non-essential businesses. To protect the health and well-being of our employees and customers, we have made substantial modifications to employee travel policies, closed our offices as employees are advised to work-from-home and cancelled or shifted our conferences and other marketing events to virtual-only. The COVID-19 pandemic has impacted and may continue to adversely impact our business operations, including our employees, customers and partners, and there is substantial uncertainty in the nature and degree of its continued effects over time. The extent to which the COVID-19 pandemic impacts our business going forward will depend on numerous evolving factors that we cannot reliably predict, including (i) the duration and scope of the pandemic; (ii) actions of governments, businesses and individuals in response to the pandemic and (iii) the impact on economic activity including the possibility of recession or financial market instability. These factors may adversely impact consumer and business spending as well as customers' ability to pay for our software and solutions on an ongoing basis. Similarly, terrorist attacks or disruptive political events, such as the imposition of retaliatory tariffs or governmental trade or price manipulation, could cause our customers, or their customers, to defer spending plans or otherwise reduce their economic activity. If any of the foregoing risks were to be realized, it could have a material adverse effect on our business, financial performance and results of operations.

We are subject to anti-corruption, anti-bribery and similar laws and noncompliance with such laws can subject us to criminal penalties or significant fines and harm our business and reputation.

We are subject to requirements under the U.S. Treasury Department's Office of Foreign Assets Control, anti-corruption, anti-bribery and similar laws, such as the FCPA, the U.S. domestic bribery statute contained in 18 U.S.C. § 201, the U.S. Travel Act, the USA PATRIOT Act, the U.K. Bribery

Act 2010, and other anti-corruption, anti-bribery and anti-money laundering laws in countries in which we conduct activities. Anti-corruption and anti-bribery laws have been enforced aggressively in recent years and are interpreted broadly and prohibit companies and their employees and agents from promising, authorizing, making, offering or providing anything of value to a "foreign official" for the purposes of influencing official decisions or obtaining or retaining business, or otherwise obtaining favorable treatment. As we increase our international operations, our risks under these laws may increase. Non-compliance with these laws could subject us to investigations, sanctions, settlements, prosecution, other enforcement actions, disgorgement of profits, significant fines, damages, other civil and criminal penalties or injunctions, adverse media coverage and other consequences. Any investigations, actions or sanctions could harm our business, results of operations, financial condition and cash flows.

In addition, in the future we may use third parties to sell access to our software and conduct business on our behalf abroad. We or such future third-party intermediaries may have direct or indirect interactions with officials and employees of government agencies or state-owned or affiliated entities, and we can be held liable for the corrupt or other illegal activities of such future third-party intermediaries, and our employees, representatives, contractors, partners and agents, even if we do not explicitly authorize such activities. We cannot provide assurance that our internal controls and compliance systems will always protect us from liability for acts committed by employees, agents or business partners of ours (or of businesses we acquire or partner with) that would violate U.S. and/or non-U.S. laws, including the laws governing payments to government officials, bribery, fraud, kickbacks, false claims, pricing, sales and marketing practices, conflicts of interest, competition, employment practices and workplace behavior, export and import compliance, economic and trade sanctions, money laundering, data privacy and other related laws. Any such improper actions or allegations of such acts could subject us to significant sanctions, including civil or criminal fines and penalties, disgorgement of profits, injunctions and debarment from government contracts, as well as related stockholder lawsuits and other remedial measures, all of which could adversely affect our reputation, business, results of operations and financial condition.

Any violation of economic and trade sanction laws, export and import laws, the FCPA or other applicable anti-corruption laws or anti-money laundering laws could also result in whistleblower complaints, adverse media coverage, investigations and severe criminal or civil sanctions, any of which could have a materially adverse effect on our reputation, business, results of operations and prospects.

Our ability to protect our intellectual property is limited, and we may be subject to claims of infringement by third parties.

Our success depends, in part, upon our proprietary technology, processes, trade secrets, and other proprietary information and our ability to protect this information from unauthorized disclosure and use. We primarily rely upon a combination of copyright, trademark and trade secret laws, as well as confidentiality procedures, contractual provisions and other similar measures to protect our proprietary or confidential information and intellectual property. Our trademarks and service marks include VERTEX™ and O Series™, which is our flagship indirect tax solution. Despite our efforts to protect our proprietary rights and intellectual property, unauthorized parties may attempt to copy aspects of our solutions or to obtain and use information that we regard as proprietary, and third parties may attempt to independently develop similar technology, and policing unauthorized use of our technology and intellectual property rights may be difficult and may not be effective.

In addition, third parties may claim infringement by us with respect to current or future solutions or other intellectual property rights. The software and technology industries are characterized by the existence of a large number of patents, trademarks and copyrights and by frequent litigation based on allegations of infringement or other violations of intellectual property rights. The outcome of any claims or litigation, regardless of the merits, is inherently uncertain. Any claims and lawsuits to enforce

our intellectual property rights or to defend ourselves against claims of infringement of third-party intellectual property rights, and the disposition of such claims and lawsuits, whether through settlement or licensing discussions, or litigation, could be time-consuming and expensive to resolve, divert management attention from executing our strategies, result in efforts to enjoin our activities, lead to attempts on the part of other parties to pursue similar claims, and, in the case of intellectual property claims, require us to change our technology, change our business practices, pay monetary damages, or enter into short- or long-term royalty or licensing agreements. Any adverse determination related to intellectual property claims or other litigation could prevent us from offering our solutions to others, could be material to our financial condition or cash flows, or both, or could otherwise harm our results of operations.

Our ability to obtain additional capital on commercially reasonable terms may be limited.

We intend to continue to make investments to support our business growth and may require additional funds, beyond those generated by this offering, to respond to business challenges, including to better support and serve our customers, develop new software or enhance our existing solutions, improve our operating and technology infrastructure or acquire complementary businesses and technologies. Accordingly, we may need to engage in public or private equity, equity-linked or debt financings to secure additional funds. If we raise additional funds through future issuances of equity or convertible debt securities, our existing stockholders could suffer significant dilution, and any new equity securities we issue could have rights, preferences and privileges superior to those of holders of our Class A common stock. Any debt financing that we secure in the future could involve restrictive covenants relating to our capital raising activities and other financial and operational matters, including the ability to pay dividends. This may make it more difficult for us to obtain additional capital and to pursue business opportunities, including potential acquisitions. We may not be able to obtain additional financing on terms favorable to us, if at all. If we are unable to obtain adequate financing on terms satisfactory to us when we require it, our ability to continue to support our business growth and respond to business challenges could be significantly impaired, and our business and prospects could be adversely affected.

Risks Related to Being a Public Company

If we fail to maintain an effective system of disclosure controls and internal control over financial reporting, our ability to produce timely and accurate financial statements or comply with applicable regulations could be impaired.

Ensuring that we have adequate internal financial and accounting controls and procedures in place to produce accurate financial statements on a timely basis is a costly and time-consuming effort that needs to be re-evaluated frequently. The rapid growth of our operations and the planned initial public offering has created a need for additional resources within the accounting and finance functions due to the increasing need to produce timely financial information and to ensure the level of segregation of duties customary for a U.S. public company. We continue to reassess the sufficiency of finance personnel in response to these increasing demands and expectations.

Our management is responsible for establishing and maintaining adequate internal control over financial reporting to provide reasonable assurance regarding the reliability of our financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. Our management does not expect that our internal control over financial reporting will prevent or detect all errors and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system's objectives will be met. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud, if any, within our company will have been detected.

We have identified material weaknesses in our internal control over financial reporting and may experience additional material weaknesses in the future. Our failure to remediate these material weaknesses and maintain effective internal control over financial reporting could result in material misstatements in our financial statements, the inability to timely report our financial condition or results of operations, investors losing confidence in our reported financial information and our stock price being adversely affected.

Management and our independent registered public accounting firm have identified material weaknesses in our internal control over financial reporting that affected our financial statements for each of the years in the two year period ended December 31, 2019. See "Management's Discussion and Analysis of Financial Condition and Results of Operations—Internal Control Over Financial Reporting."

The material weaknesses in our internal control over financial reporting during each of the years ended December 31, 2018 and 2019 related to the implementation of ASC 606, application of software capitalization guidance and recording of impairments, and our procedures for segregating user access to financially significant systems, which resulted in a lack of segregation of incompatible duties.

We cannot assure you that additional material weaknesses in our internal control over financial reporting will not be identified in the future. The failure to maintain effective internal control over financial reporting could result in errors in our financial statements that could result in a restatement of financial statements, cause us to fail to meet our periodic reporting obligations and cause investors to lose confidence in our reported financial information, which could lead to a decline in our stock price.

We are an "emerging growth company" and we cannot be certain if the reduced disclosure requirements applicable to emerging growth companies will make our Class A common stock less attractive to investors.

We are an "emerging growth company" as defined in the JOBS Act. Under the JOBS Act, emerging growth companies can delay adopting new or revised accounting standards until such time as those standards apply to private companies. We have elected to use this extended transition period for complying with new or revised accounting standards that have different effective dates for public and private companies until the earlier of the date we (i) are no longer an emerging growth company or (ii) affirmatively and irrevocably opt out of the extended transition period provided in the JOBS Act. As a result, our financial statements may not be comparable to companies that comply with new or revised accounting pronouncements as of public company effective dates. We have elected to use this extended transition period and we intend to utilize this related to the FASB issued ASU No. 2016-02, *Leases*. This standard amends several aspects of lease accounting, including requiring lessees to recognize operating leases with a term greater than one year on their balance sheet as a right-of-use asset, and a corresponding lease liability, measured at the present value of the future minimum lease payments. The standard is effective for public companies for fiscal years beginning after December 15, 2018, and after December 15, 2020 for all other companies, with early adoption permitted. We intend to adopt this standard effective January 1, 2021 using the modified retrospective transition method and therefore will not restate comparative periods. While we have not yet quantified the impact, resulting adjustments are expected to materially increase total assets and total liabilities relative to such amounts reported prior to adoption, but not have a material impact on the consolidated statements of comprehensive income (loss) or consolidated statements of cash flows.

For as long as we continue to be an emerging growth company, we also intend to take advantage of certain other exemptions from various reporting requirements that are applicable to other public companies including, but not limited to, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, and exemptions from the requirements of holding a non-binding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved. We cannot predict if investors will find our Class A

common stock less attractive because we will rely on these exemptions. If some investors find our Class A common stock less attractive as a result, there may be a less active trading market for our Class A common stock and our stock price may be more volatile.

We will remain an emerging growth company until the earliest of (i) the last day of the year in which we have total annual gross revenue of \$1.07 billion or more; (ii) the last day of the year following the fifth anniversary of the date of the closing of this offering; (iii) the date on which we have issued more than \$1.0 billion in nonconvertible debt during the previous three years; or (iv) the date on which we are deemed to be a large accelerated filer under the rules of the SEC.

The requirements of being a public company may strain our resources, divert management's attention and affect our ability to attract and retain qualified board members.

As a public company, we will be subject to the reporting requirements of the Securities Exchange Act of 1934, as amended, (the "Exchange Act"), the Sarbanes-Oxley Act of 2002 (the "Sarbanes-Oxley Act"), the Dodd-Frank Wall Street Reform and Consumer Protection Act, the listing requirements of the [New York Stock Exchange](#) on which our Class A common stock will be traded and other applicable securities rules and regulations. The SEC and other regulators have continued to adopt new rules and regulations and make additional changes to existing regulations that require our compliance. Stockholder activism, the current political environment and the current high level of government intervention and regulatory reform may lead to substantial new regulations and disclosure obligations, which may lead to additional compliance costs and impact, in ways we cannot currently anticipate, the manner in which we operate our business. We will need to institute a comprehensive compliance function and establish internal policies to ensure we have the ability to prepare financial statements that are fully compliant with all SEC reporting requirements on a timely basis and establish an investor relations function. Compliance with these rules and regulations may cause us to incur additional accounting, legal and other expenses that we did not incur as a private company. We also anticipate that we will incur costs associated with corporate governance requirements, including requirements under securities laws, as well as rules and regulations implemented by the SEC and the [New York Stock Exchange](#), particularly after we are no longer an "emerging growth company." We expect these rules and regulations to increase our legal and financial compliance costs and to make some activities more time-consuming and costly, while also diverting some of management's time and attention from revenue-generating activities. Furthermore, these rules and regulations could make it more difficult or more costly for us to obtain certain types of insurance, including director and officer liability insurance, and we may be forced to accept reduced policy limits and coverage or incur substantially higher costs to obtain the same or similar coverage. The impact of these requirements could also make it more difficult for us to attract and retain qualified persons to serve on our board of directors, our board committees or as executive officers. We are currently evaluating and monitoring developments with respect to these rules and regulations, and we cannot predict or estimate the amount of additional costs we may incur or the timing of such costs.

Our management team has limited experience managing a public company.

Most members of our management team have limited experience managing a publicly traded company, interacting with public company investors and complying with the increasingly complex laws pertaining to public companies. Our management team may not successfully or efficiently manage our transition to being a public company that is subject to significant regulatory oversight and reporting obligations under the federal securities laws and the continuous scrutiny of securities analysts and investors. These new obligations and constituents will require significant attention from our senior management and could divert their attention away from the day-to-day management of our business, which could harm our business, results of operations, and financial condition.

Risks Related to This Offering and Ownership of Our Class A Common Stock

There is no existing market for our Class A common stock, and we do not know if one will develop to provide you with adequate liquidity to sell our Class A common stock at prices equal to or greater than the price you paid in this offering.

Prior to this offering, there has been no public market for our Class A common stock. We cannot predict the extent to which investor interest in our company will lead to the development of an active trading market or how liquid that market may become. If an active trading market does not develop, you may have difficulty selling any of our shares that you purchase. The initial public offering price of our Class A common stock was determined by negotiation between us and the underwriters, and may not be indicative of prices that will prevail after the completion of this offering. The market price of our Class A common stock may decline below the initial public offering price, and you may not be able to resell your shares at, or above, the initial public offering price.

Substantial future sales of shares of our Class A common stock could cause the market price of our Class A common stock to decline.

Sales of a substantial number of shares of our Class A common stock following the closing of this offering, particularly sales by our directors, executive officers and significant stockholders, or the perception that these sales might occur, could depress the market price of our Class A common stock and could impair our ability to raise capital through the sale of additional equity securities. We are unable to predict the effect that such sales may have on the prevailing market price of our common stock.

All of our executive officers, directors and the holders of all of our capital stock are subject to lock-up agreements that restrict their ability to transfer shares of our capital stock for 180 days from the date of this prospectus. Subject to certain exceptions, the lock-up agreements limit the number of shares of capital stock that may be sold immediately following this offering. Goldman Sachs & Co. LLC and Morgan Stanley & Co. LLC may, in their sole discretion, permit our stockholders who are subject to these lock-up agreements to sell shares prior to the expiration of the lock-up agreements. Upon the closing of this offering, we will have _____ outstanding shares of our Class B common stock (all of which are convertible into Class A common stock on a one-for-one basis) and _____ outstanding shares of our Class A common stock, based on the number of shares outstanding as of _____, 2020. This includes the shares included in this offering, which may be sold in the public market immediately without restriction or further registration under the Securities Act of 1933, as amended (the "Securities Act"), except for any shares held by our affiliates as defined in Rule 144 under the Securities Act.

The dual class structure of our common stock will have the effect of concentrating voting control with those stockholders who held our capital stock prior to the completion of this offering, including our existing stockholders, who will hold in the aggregate _____ % of the voting power of our capital stock following the completion of this offering. This will limit or preclude your ability to influence corporate matters, including the election of directors, amendments to our organizational documents and any merger, consolidation, sale of all or substantially all of our assets, or other major corporate transaction requiring stockholder approval.

Our Class B common stock has _____ votes per share and our Class A common stock, which is the stock we are offering in this initial public offering, has one vote per share. The dual class structure of our common stock has the effect of concentrating voting control with those stockholders who held our capital stock prior to the completion of this offering, including our current principal stockholders and their affiliates, which will limit your ability to influence the outcome of matters submitted to our stockholders for approval, including the election of our directors and the approval of any change in control transaction. Future transfers by holders of Class B common stock will generally

result in those shares converting to Class A common stock, which will have the effect, over time, of increasing the relative voting power of those holders of Class B common stock who retain their shares in the long term.

Upon the completion of this offering, our current principal stockholders and their respective affiliates will hold, in aggregate, % of the voting power of our outstanding capital stock. For more information, see "Principal Stockholders." As a result, these stockholders, acting together, will have control over most matters that require approval by our stockholders, including the election of directors and approval of significant corporate transactions. They may also have interests that differ from yours and may vote in a way with which you disagree and which may be adverse to your interests. Corporate action might be taken even if other stockholders, including those who purchase shares in this offering, oppose them. This concentration of ownership may have the effect of delaying, preventing or deterring a change of control or other liquidity event of our company, could deprive our stockholders of an opportunity to receive a premium for their shares of common stock as part of a sale or other liquidity event and might ultimately affect the market price of our common stock.

We cannot predict the impact our capital structure may have on our stock price.

We cannot predict whether our dual class structure will result in a lower or more volatile market price of our Class A common stock, in adverse publicity or other adverse consequences. For example, certain index providers have announced restrictions on including companies with multiple-class share structures in certain of their indices. In July 2017, the FTSE Russell announced that it plans to require new constituents of its indices to have greater than 5% of the company's voting rights in the hands of public stockholders, and S&P Dow Jones announced that it will no longer admit companies with multiple-class share structures to certain of its indices. Affected indices include the Russell 2000 and the S&P 500, S&P MidCap 400 and S&P SmallCap 600, which together make up the S&P Composite 1500. Also in 2017, Morgan Stanley Capital International ("MSCI"), a leading stock index provider, opened public consultations on their treatment of no-vote and multi-class structures and temporarily barred new multi-class listings from certain of its indices; however, in October 2018, MSCI announced its decision to include equity securities "with unequal voting structures" in its indices and to launch a new index that specifically includes voting rights in its eligibility criteria. Under such announced policies, the dual class structure of our common stock would make us ineligible for inclusion in certain indices and, as a result, mutual funds, exchange-traded funds and other investment vehicles that attempt to passively track those indices would not invest in our Class A common stock. It is unclear what effect, if any, these policies will have on the valuations of publicly traded companies excluded from such indices, but it is possible that they may depress valuations, as compared to similar companies that are included. As a result, the market price of our Class A common stock could be adversely affected.

The price of our Class A common stock may fluctuate significantly, and you could lose all or part of your investment.

The market price of our Class A common stock is likely to be volatile and could be subject to wide fluctuations in response to many risk factors listed in this section, and others beyond our control, including:

- actual or anticipated fluctuations in our results of operations and financial condition;
- variance in our financial performance from expectations of securities analysts;
- changes in our software subscription revenue;
- changes in our projected operating and financial results;
- changes in tax laws or regulations;

- announcements by us or our competitors of significant business developments, acquisitions or new offerings;
- our involvement in any litigation;
- our sale of our Class A common stock or other securities in the future;
- changes in senior management or key personnel;
- the trading volume of our Class A common stock;
- changes in the anticipated future size and growth rate of our market; and
- general economic, regulatory and market conditions.

Recently, the stock markets have experienced extreme price and volume fluctuations that have affected and continue to affect the market prices of equity securities of many companies. These fluctuations have often been unrelated or disproportionate to the operating performance of those companies. Broad market and industry fluctuations, as well as general economic, political, regulatory and market conditions, may negatively impact the market price of our Class A common stock. If the market price of our Class A common stock after this offering does not exceed the public offering price, you may lose some or all of your investment. In the past, companies that have experienced volatility in the market price of their securities have been subject to securities class action litigation. We may be the target of this type of litigation in the future, which could result in substantial costs and divert our management's attention.

We intend to enter into a tax sharing agreement with our existing stockholders and could become obligated to make payments to our existing stockholders for any additional federal, state or local income taxes assessed against them for tax periods prior to the completion of this offering.

Prior to this offering, we have elected to be treated as an S Corporation for U.S. federal income tax purposes, as a result of which, our existing stockholders have been required to pay income taxes attributable to our earnings. We have historically paid distributions to our existing stockholders, which have assisted them in paying such income taxes. In connection with this offering, our S Corporation status will terminate and we will thereafter be subject to federal and increased state income taxes. Our existing stockholders may be required to pay additional income taxes for periods prior to the termination of our S Corporation status as a result of an adjustment to our taxable income for periods beginning after our S corporation status terminates. Accordingly, we intend to enter into an agreement with our existing stockholders in connection with this offering pursuant to which we may be required to make payments in material amounts to our existing stockholders with respect to any incremental income taxes resulting from an adjustment to our taxable income for any period beginning after our S Corporation status terminates. Furthermore, this agreement requires us to indemnify our existing stockholders with respect to unpaid income tax liabilities attributable to our taxable income for any period after the termination of our S Corporation status. We will also indemnify our existing stockholders for any interest, penalties, losses, costs or expenses arising out of any claim under the agreement. However, our existing stockholders will indemnify us with respect to our unpaid tax liabilities (including interest and penalties) to the extent that such unpaid tax liabilities are attributable to a decrease in our existing stockholders' taxable income for any period and a corresponding increase in our taxable income for any period. See "Certain Relationships and Related Party Transactions—Tax Sharing Agreement."

Prior to this offering, we were treated as an S Corporation, and claims of taxing authorities related to our prior status as an S Corporation could harm us.

In connection with this offering, our status as an S Corporation will terminate and we will be taxed as a C Corporation, which is subject to entity-level federal income taxes under the Code. If one or more tax years for which we filed a tax return as an S Corporation are audited by the IRS, and we are determined not to have qualified for, or not to have properly maintained, our S Corporation status, we may be obligated to pay entity-level income tax, plus interest and possible penalties. The amounts that we could be obligated to pay could include taxes with respect to all of our taxable income for periods when we believed we properly were treated as an S Corporation. Any such claims could result in additional costs to us and could have a material adverse effect on our financial results.

We do not intend to pay dividends on our Class A common stock for the foreseeable future and, consequently, your ability to achieve a return on your investment will depend on appreciation in the price of our Class A common stock.

We currently intend to retain all available funds and any future earnings for use in the operation of our business and do not anticipate paying any dividends on our Class A common stock in the foreseeable future. Any determination to pay dividends in the future will be at the discretion of our board of directors. Consequently, your only opportunity to achieve a return on your investment in our company will be if the market price of our Class A common stock appreciates and you sell your shares at a profit. There is no guarantee that the price of our Class A common stock that will prevail in the market will ever exceed the price that you paid.

If securities or industry analysts do not publish or cease publishing research or reports about us, our business or our market, or if they change their recommendations regarding our Class A common stock adversely, the trading price of our Class A common stock and trading volume could decline.

The trading market for our Class A common stock will be influenced by the research and reports that industry or securities analysts publish about us or our business. We do not control these analysts. If any of the analysts who cover us downgrade our Class A common stock or our industry, or the stock of any of our competitors, or publish inaccurate or unfavorable research about our business, the price of our Class A common stock may decline. If analysts cease coverage of us or fail to regularly publish reports on us, we could lose visibility in the financial markets, which in turn could cause the price or trading volume of our Class A common stock to decline and our Class A common stock to be less liquid.

Purchasers in this offering will experience immediate and substantial dilution in the net tangible book value of their investment.

The offering price of our Class A common stock is substantially higher than the net tangible book value per share of our Class A common stock, which after giving effect to this offering was \$ _____ per share of our Class A common stock as of _____, 2020. As a result, you will incur immediate and substantial dilution in net tangible book value when you buy our Class A common stock in this offering. This means that you will pay a higher price per share than the amount of our total tangible assets, less our total liabilities, divided by the number of shares of all of our common stock outstanding. In addition, you may also experience additional dilution if rights to purchase our common stock that are outstanding or that we may issue in the future are exercised or converted or we issue additional shares of our common stock at prices lower than our net tangible book value at such time. See "Dilution."

Anti-takeover provisions contained in our charter documents and Delaware law could prevent a takeover that stockholders consider favorable and could also reduce the market price of our stock.

Our amended and restated certificate of incorporation and our amended and restated bylaws will contain provisions that could delay or prevent a change in control of our company. These provisions could also make it more difficult for stockholders to elect directors and take other corporate actions. These provisions include:

- authorizing blank check preferred stock, which could be issued with voting, liquidation, dividend and other rights superior to our common stock;
- staggering the terms of our directors by providing that our board of directors will be divided into three classes, with the classes as nearly equal in number as possible and each class serving three-year staggered terms;
- limiting the ability of our stockholders to call and bring business before special meetings and to take action by written consent in lieu of a meeting;
- requiring advance notice of stockholder proposals for business to be conducted at meetings of our stockholders and for nominations of candidates for election to our board of directors;
- providing our board of directors with the express power to postpone previously scheduled annual meetings and to cancel previously scheduled special meetings; and
- limiting the determination of the number of directors on our board of directors and the filling of vacancies or newly created seats on the board to our board of directors then in office.

These and other provisions in our amended and restated certificate of incorporation and our amended and restated bylaws and under Delaware law could discourage potential takeover attempts, reduce the price investors might be willing to pay in the future for shares of our Class A common stock and result in the market price of our Class A common stock being lower than it would be without these provisions. For more information, see the section of this prospectus captioned "Description of Capital Stock—Anti-Takeover Provisions."

Our amended and restated bylaws will provide, subject to certain exceptions, that the Court of Chancery of the State of Delaware will be the sole and exclusive forum for certain stockholder litigation matters, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers, employees or stockholders.

Our amended and restated certificate of incorporation that will become effective immediately prior to the closing of this offering provides that the Court of Chancery of the State of Delaware is the exclusive forum for:

- any derivative action or proceeding brought on our behalf;
- any action asserting a claim of breach of a fiduciary duty owed by, or other wrongdoing by, any of our current or former directors, officers, employees or our stockholders;
- any action asserting a claim against us arising under the Delaware General Corporation Law ("DGCL"), our amended and restated certificate of incorporation, or our amended and restated bylaws (as either may be amended from time to time) or as to which the DGCL confers jurisdiction on the Court of Chancery of the State of Delaware; and
- any action asserting a claim against us that is governed by the internal-affairs doctrine.

By becoming a stockholder in our Company, you will be deemed to have notice of and have consented to the provisions of our amended and restated certificate of incorporation related to choice of forum. This exclusive forum provision may limit a stockholder's ability to bring a claim in a judicial

forum that it finds favorable for disputes with us or our directors, officers or other employees, which may discourage lawsuits against us and our directors, officers and other employees. This provision will not apply to claims arising under the Securities Act, the Exchange Act or other federal securities laws for which there is exclusive federal or concurrent federal and state jurisdiction. If a court were to find the exclusive forum provision in our amended and restated certificate of incorporation to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving the dispute in other jurisdictions, which could seriously harm our business.

We are a "controlled company" within the meaning of the [redacted] and, as a result, expect to qualify for, and intend to rely on, exemptions from certain corporate governance requirements. You will not have the same protections afforded to stockholders of companies that are subject to such requirements.

After this offering, our current principal stockholders will continue to beneficially own a majority of the combined voting power of all classes of our outstanding voting stock. As a result, we will continue to be a controlled company within the meaning of the applicable stock exchange corporate governance standards. Under the [redacted], a company of which more than 50% of the voting power is held by another person or group of persons acting together is a controlled company and may elect not to comply with certain corporate governance requirements, including the requirements that:

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

These requirements will not apply to us as long as we remain a controlled company. We have elected to take advantage of the exemption from the requirement that a majority of our board of directors consist of independent directors and that our nominating and corporate governance committee consist entirely of independent directors. Accordingly, you may not have the same protections afforded to stockholders of companies that are subject to all of the corporate governance requirements of the [redacted].

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

Any statements made in this prospectus that are not statements of historical fact, including statements about our beliefs and expectations, are forward-looking statements and should be evaluated as such. Forward-looking statements include information concerning possible or assumed future results of operations, including descriptions of our business plan and strategies. These statements often include words such as "anticipate," "expect," "suggests," "plan," "believe," "intend," "estimates," "targets," "projects," "should," "could," "would," "may," "will," "forecast" and other similar expressions. These forward-looking statements are contained throughout this prospectus, including the sections entitled "Prospectus Summary," "Risk Factors," "Capitalization," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Business." We base these forward-looking statements on our current expectations, plans and assumptions that we have made in light of our experience in the industry, as well as our perceptions of historical trends, current conditions, expected future developments and other factors we believe are appropriate under the circumstances at such time. As you read and consider this prospectus, you should understand that these statements are not guarantees of future performance or results. The forward-looking statements are subject to and involve risks, uncertainties and assumptions, and you should not place undue reliance on these forward-looking statements. Although we believe that these forward-looking statements are based on reasonable assumptions at the time they are made, you should be aware that many factors could affect our actual results or results of operations and could cause actual results to differ materially from those expressed in the forward-looking statements. Factors that may materially affect such forward-looking statements include:

- our ability to attract new customers on a cost-effective basis and the extent to which existing customers renew and upgrade their subscriptions;
- our ability to sustain and expand revenues, maintain profitability, and to effectively manage our anticipated growth;
- the timing of our introduction of new solutions or updates to existing solutions;
- our ability to successfully diversify our solutions by developing or introducing new solutions or acquiring and integrating additional businesses, products, services or content;
- our ability to maintain and expand our strategic relationships with third parties;
- risks related to our expanding international operations;
- our ability to deliver our solutions to customers without disruption or delay;
- our exposure to liability from errors, delays, fraud or system failures, which may not be covered by insurance;
- risks related to our determinations of customers' transaction tax and tax payments;
- risks related to changes in tax laws and regulations or their interpretation or enforcement;
- our ability to manage cybersecurity and data privacy risks;
- risks related to failures in information technology, infrastructure and third party service providers;
- our ability to effectively protect, maintain and enhance our brand;
- global economic weakness and uncertainties, and disruption in the capital and credit markets;
- business disruptions related to natural disasters, epidemic outbreaks, terrorist acts, political events or other events outside of our control;

- our ability to comply with anti-corruption, anti-bribery and similar laws;
- changes in interest rates, security ratings and market perceptions of the industry in which we operate, or our ability to obtain capital on commercially reasonable terms or at all;
- any statements of belief and any statements of assumptions underlying any of the foregoing;
- other factors disclosed in this prospectus; and
- other factors beyond our control.

These cautionary statements should not be construed by you to be exhaustive and are made only as of the date of this prospectus. We undertake no obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by applicable law.

USE OF PROCEEDS

We estimate that the net proceeds to us from the sale of the shares of our Class A common stock in this offering will be approximately \$ million, based upon an initial public offering price of \$ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, after deducting underwriting discounts and commissions and estimated offering expenses payable by us. If the underwriters exercise their over-allotment option to purchase additional shares in this offering in full, we estimate that our net proceeds will be approximately \$ million, after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

We intend to use a portion of the net proceeds to repay all outstanding indebtedness under our existing New Credit Agreement and to pay related fees and expenses. As of March 31, 2020, our total outstanding indebtedness was \$175.0 million consisting of the term loan entered into under the New Credit Agreement. The term loan bears interest at a rate of 2.50% and will become due in March 2023. The remainder of the net proceeds will be used for working capital and other general corporate purposes, including investments in our products, technology and sales force.

Each \$1.00 increase (decrease) in the assumed initial public offering price of \$ per share would increase (decrease) the net proceeds that we receive from this offering by approximately \$ million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. Similarly, each increase (decrease) of 1,000,000 shares in the number of shares of Class A common stock offered by us would increase (decrease) the net proceeds that we receive from this offering by approximately \$ million, assuming the assumed initial public offering price remains the same, and after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

DIVIDEND POLICY

Historically, we have been an S Corporation, and as such, we have paid distributions to our existing stockholders, which have assisted them in paying the U.S. federal and state income taxes on our taxable income that is "passed through" to them, and we have historically made additional distributions to them for returns on capital.

We do not currently anticipate paying dividends on our Class A or Class B common stock. Any declaration and payment of future dividends to holders of our Class A common stock will be at the discretion of our board of directors and will depend on many factors, including our financial condition, earnings, capital requirements, level of indebtedness, statutory and contractual restrictions applying to the payment of dividends and other considerations that our board of directors deems relevant. In addition, the terms of the agreements governing our indebtedness may limit our ability to pay dividends.

CAPITALIZATION

The following table sets forth our consolidated cash and cash equivalents and capitalization as of December 31, 2019, as follows

- (a) on an actual basis;
- (b) on an as adjusted basis to give effect to (i) the reclassification of our existing Class A common stock and Class B common stock into shares of Class A common stock and shares of Class B common stock and (ii) the payment of a dividend in the amount of \$ to our existing stockholders in each case prior to the closing of this offering; and
- (c) on a pro forma as adjusted basis to give effect to the (i) the pro forma adjustments described in the preceding clause, and (ii) the issuance and sale by us of shares of Class A common stock in this offering and the use of proceeds therefrom as set forth under the heading "Use of Proceeds."

The information in this table should be read in conjunction with "Use of Proceeds," "Selected Consolidated Financial Information," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our financial statements and related notes thereto appearing elsewhere in this prospectus.

	As of December 31, 2019		
	(amounts in thousands, except share and per share data)		
	Actual	As adjusted (Unaudited)	Pro forma as adjusted (Unaudited)
Cash and cash equivalents	\$ 75,903		
Debt:			
Credit Agreement	\$ 50,375		
Capitalized leases	1,332		
Total debt	51,707		
Total stockholders' deficit:			
Existing voting common stock, \$0.001 par value; 200,000 shares authorized; 100,000 shares issued; 49,000 shares outstanding, actual; no shares authorized, issued or outstanding, as adjusted	—	—	—
Existing non-voting common stock, \$0.001 par value, 99,800,000 shares authorized; 54,099,000 shares issued; 40,090,000 shares outstanding, actual; no shares authorized, issued or outstanding, as adjusted	54	—	—
Class A common stock, \$0.001 par value; no shares authorized or issued, actual; shares authorized and shares issued and outstanding, as adjusted	—		
Class B common stock, \$0.001 par value; no shares authorized or issued, actual; shares authorized and shares issued and outstanding, as adjusted	—		
Additional Paid in Capital	—	—	
Accumulated deficit	(90,701)		
Accumulated other comprehensive loss	(491)		
Treasury stock	(38,638)		
Total stockholders' deficit	(129,776)		
Total capitalization	\$ (78,067)		

The number of shares of our Class A and Class B common stock to be outstanding after completion of this offering is based on _____ shares of our Class A common stock and _____ shares of our Class B common stock outstanding as of December 31, 2019 after giving effect to the reclassification, which excludes _____ shares of Class A common stock reserved for issuance under the 2020 Plan, which we plan to adopt in connection with this offering.

Additionally, the information presented above assumes:

- the termination of our status as an S Corporation in connection with this offering, which we expect will result in a decrease of approximately \$3.0 million in stockholders' deficit;
- no exercise by the underwriters of their option to purchase up to an additional _____ shares of our Class A common stock; and
- an initial public offering price of \$ _____ per share, which is the midpoint of the price range set forth on the cover page of this prospectus.

If the underwriters' option to purchase additional shares of our Class A common stock from us were exercised in full, as adjusted cash and cash equivalents and total stockholders' deficit would be \$ _____ million and \$ _____ million, respectively.

Each \$1.00 increase or decrease in the assumed initial public offering price of \$ _____ per share (which is the midpoint of the price range set forth on the cover page of this prospectus) would increase or decrease each of cash, total stockholders' deficit and total capitalization on a pro forma as adjusted basis by approximately \$ _____ million, assuming the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same, and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

DILUTION

If you invest in our Class A common stock in this offering, your ownership interest will be immediately diluted to the extent of the difference between the initial public offering price per share of our Class A common stock and the pro forma as adjusted net tangible book value per share of our Class A common stock after this offering. Dilution results from the fact that the per share public offering price of the Class A common stock is substantially in excess of the book value per share of our Class A common stock after this offering. Our pro forma net tangible book value as of December 31, 2019 was \$ million, or \$ per share of our Class A common stock, after giving effect to (i) the reclassification of our existing Class A common stock and Class B common stock into shares of Class A common stock and shares of Class B common stock and (ii) the payment of a dividend in the amount of \$ to our existing stockholders in each case prior to the closing of this offering. Net tangible book value per share represents our total tangible assets reduced by the amount of our total liabilities, divided by the total number of shares of our Class A common stock outstanding.

After giving effect to (a) the sale of shares of Class A common stock that we are offering at an assumed initial public offering price of \$ per share, which is the midpoint of the price range listed on the cover page of this prospectus, and (b) the application of the proceeds from this offering as described in "Use of Proceeds," after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us, as if each had occurred on December 31, 2019, our pro forma as adjusted net tangible book value as of December 31, 2019 would have been \$ million, or \$ per share of Class A common stock. This amount represents an immediate increase in net tangible book value of \$ per share of Class A common stock to our existing stockholders before this offering and an immediate and substantial dilution in net tangible book value of \$ per share of Class A common stock to new investors purchasing shares of Class A common stock in this offering. We determine dilution by subtracting the pro forma as adjusted net tangible book value per share of Class A common stock after this offering from the amount of cash that a new investor paid for a share of Class A common stock in this offering. The following table illustrates this dilution, assuming the underwriters do not exercise their option to purchase additional shares of Class A common stock:

Assumed initial public offering price per share of Class A common stock	\$
Pro forma net tangible book value per share of Class A common stock as of December 31, 2019	\$
Increase in pro forma net tangible book value per share of Class A common stock attributable to new investors in this offering	—
Pro forma as adjusted net tangible book value per share of Class A common stock immediately after this offering	—
Dilution in pro forma net tangible book value per share of Class A common stock to new investors in this offering	<u>\$</u>

A \$1.00 increase or decrease in the assumed initial public offering price of \$ per share, which is the midpoint of the price range listed on the cover page of this prospectus, would increase or decrease the pro forma as adjusted net tangible book value per share of Class A common stock after this offering by approximately \$, and the dilution in pro forma as adjusted net tangible book value per share of Class A common stock to new investors by approximately \$, assuming that the number of shares of Class A common stock offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. Similarly, each increase or decrease of 1,000,000 shares of Class A common stock in the number of shares offered by us would increase or decrease, as applicable, the pro forma as adjusted net tangible book value by \$ per share of

Class A common stock and increase or decrease, as applicable, the dilution in pro forma as adjusted net tangible book value to new investors by \$ _____ per share of Class A common stock, assuming the assumed initial public offering price remains the same, and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

If the underwriters' option to purchase additional shares of Class A common stock is exercised in full, the as pro forma adjusted net tangible book value per share of Class A common stock would be \$ _____ per share, and the dilution in pro forma as adjusted net tangible book value per share of Class A common stock to new investors in this offering would be \$ _____ per share.

The following table summarizes, on a pro forma as adjusted basis as of December 31, 2019, the differences between the number of shares of Class A common stock purchased from us, the total consideration paid to us in cash and the average price per share that existing investors and new investors paid. The calculation below is based on an assumed initial public offering price of \$ _____ per share of Class A common stock, which is the midpoint of the price range listed on the cover page of this prospectus, before deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

	Shares of Class A Common Stock Purchased		Total Consideration		Average Price Per Share of Class A Common Stock
	Number	Percent	Amount	Percent	
Existing stockholders			%\$		%\$
New investors					
Total		100.0%	\$	100.0%	

A \$1.00 increase (decrease) in the assumed initial offering price would increase (decrease) total consideration paid by new investors, total consideration paid by all stockholders and average price per share paid by all stockholders by \$ _____ million, \$ _____ million and \$ _____ per share, respectively. An increase (decrease) of 1,000,000 in the number of shares of Class A common stock offered by us in this offering would increase (decrease) total consideration paid by new investors, total consideration paid by all stockholders and average price per share paid by all stockholders by \$ _____ million, \$ _____ million and \$ _____ per share, respectively.

Except as otherwise indicated, the above discussion and tables assume no exercise of the underwriters' option to purchase additional shares of our Class A common stock from us. If the underwriters' option to purchase additional shares of our Class A common stock were exercised in full, our existing stockholders would own _____ % and our new investors would own _____ % of the total number of shares of our Class A common stock outstanding upon completion of this offering.

SELECTED CONSOLIDATED FINANCIAL INFORMATION

The following table sets forth our selected historical consolidated financial information for the periods and dates indicated. The consolidated balance sheet data as of December 31, 2019 and 2018 and the consolidated statements of comprehensive income (loss) for the years ended December 31, 2019 and 2018 have been derived from our audited consolidated financial statements included elsewhere in this prospectus.

The financial information set forth below is not necessarily indicative of future results of operations. In particular, we have historically been taxed as an S Corporation for U.S. federal income tax purposes and for income tax purposes in most states. As a result, net income or loss has been allocated to our stockholders and included on their individual income tax returns. In connection with this offering, we will convert to a C Corporation, which will result in our net income being taxed at the corporate level. As such, our provision for taxes will change. Assuming the conversion to a C Corporation, we estimate that our effective tax rate will be approximately 25%, inclusive of all applicable U.S. federal, state, local and foreign income taxes. In addition, upon such conversion, we anticipate establishing a deferred tax asset of approximately \$3.0 million.

This data should be read in conjunction with, and is qualified in its entirety by reference to, the "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Capitalization" sections of this prospectus and our audited consolidated financial statements and notes thereto for the periods and dates indicated included elsewhere in this prospectus. Revenue is reflected in accordance with ASC 606, which we adopted on January 1, 2018.

	For the Year Ended December 31,	
	2019	2018
	(In thousands except per share data)	
Revenue:		
Software subscriptions	\$ 275,629	\$ 235,663
Services	45,871	36,740
Total revenues	<u>321,500</u>	<u>272,403</u>
Cost of revenues:		
Software subscriptions	77,259	68,945
Services	33,119	26,753
Total cost of revenues	<u>110,378</u>	<u>95,698</u>
Gross profit	<u>211,122</u>	<u>176,705</u>
Operating expenses:		
Research and development	30,557	23,755
Selling and marketing	68,127	56,898
General and administrative	71,014	58,947
Depreciation and amortization	8,996	7,937
Impairment of asset	—	32,692
Other operating (income) expense, net	573	(691)
Total operating expenses	<u>179,267</u>	<u>179,538</u>
Income (loss) from operations	<u>31,855</u>	<u>(2,833)</u>
Other (income) expense:		
Interest income	(1,083)	(526)
Interest expense	2,036	2,120
Total other expense, net	<u>953</u>	<u>1,594</u>
Income (loss) before income taxes	30,902	(4,427)
Income tax (benefit) expense	(155)	1,679
Net income (loss)	31,057	(6,106)
Other comprehensive (income) loss from foreign currency translation adjustments and revaluations, net of tax	(5)	355
Total comprehensive income (loss)	<u>\$ 31,062</u>	<u>\$ (6,461)</u>
Net income (loss) attributable to Class A stockholders	\$ 38	\$ (7)
Net income (loss) per Class A share, basic and diluted	\$ 0.77	\$ (0.15)
Weighted average Class A common stock, basic and diluted	49	49
Net income (loss) attributable to Class B stockholders	\$ 31,019	\$ (6,099)
Net income (loss) per Class B share, basic	\$ 0.77	\$ (0.15)
Weighted average Class B common stock, basic	40,129	40,160
Net income (loss) per Class B share, diluted	\$ 0.75	\$ (0.15)
Weighted average Class B common stock, diluted	41,373	40,160

	As of December 31,	
	2019	2018
(In thousands)		
Consolidated Balance Sheet Data:		
Cash and cash equivalents	\$ 75,903	\$ 55,838
Total assets	264,623	215,072
Deferred revenue (current and non-current)	205,791	178,703
Debt (current and non-current)	51,486	54,883
Total liabilities	377,055	326,768
Options for redeemable shares	17,344	14,581
Total stockholders' deficit	(129,776)	(126,277)

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

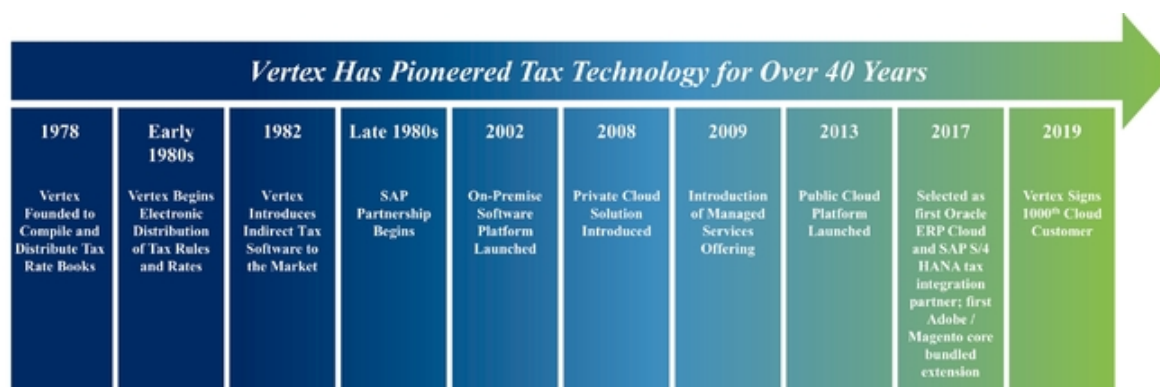
You should read the following discussion and analysis of our financial condition and results of operations in conjunction with the consolidated financial statements and the notes thereto included elsewhere in this prospectus. In addition to historical financial information, the following discussion contains forward-looking statements that reflect our plans, estimates, beliefs and expectations that involve risks and uncertainties. Our actual results and the timing of events could differ materially from those discussed in the forward-looking statements. Factors that could cause or contribute to these differences include those discussed below and elsewhere in this prospectus, particularly in the sections of this prospectus titled "Risk Factors" and "Special Note Regarding Forward-Looking Statements."

Overview

Vertex delivers comprehensive tax solutions that enable global businesses to transact, comply and grow with confidence. Companies with complex tax operations rely on Vertex to automate their end-to-end indirect tax processes. Indirect tax is the largest corporate tax category, encompassing sales tax, seller's use tax, consumer use tax and VAT, among others. Indirect tax accounts for more than \$3.5 trillion of annual tax revenue, which is 2.5 times the amount of corporate income taxes, according to the 2019 OECD Tax Database. Our software, content and services address the increasing complexities of global commerce and compliance by reducing friction, enhancing transparency and enabling greater confidence in meeting indirect tax obligations. As a result, our software is ubiquitous within our customers' business systems, touching nearly every line item of every transaction that an enterprise can conduct.

We have pioneered tax technology for over 40 years. We first began electronic delivery of tax rules in the early 1980s and we first sold transaction tax processing software in 1982. Today, our software enables tax determination, compliance and reporting, tax data management and document management with powerful pre-built integrations to core business applications used by most companies, particularly those applications that have a significant impact on global commerce. Our software is fueled by over 300 million data-driven effective tax rules and supports indirect tax compliance in more than 19,000 jurisdictions worldwide. In order to maintain the quality of our content, our team includes many global tax and regulatory experts from industry and the public sector, who deliver monthly updates to our tax content, which are then incorporated directly into our software. Our solutions can be deployed on-premise, in the cloud, or both, with implementation services available to enable optimal customer outcomes and satisfy their unique business requirements.

We have accumulated industry-specific tax knowledge for over four decades and our customers leverage our in-depth content through their use of our software. This allows our customers to comply with the dynamic regulatory landscape in real time and mitigates our customers' risk exposure. As our customers expand their global footprint and business models, we are actively supporting their expansion by continuously strengthening our content offering and allowing for additional jurisdiction-specific tax compliance.



We derive the majority of our revenue from software subscriptions. These subscriptions include use of our software and ongoing monthly content updates. Our software is offered on a subscription basis to our customers, regardless of their deployment preferences. On-premise subscriptions are typically sold through one-year contracts and cloud-based subscriptions are typically sold through one- to three-year contracts. We bill almost all of our customers annually in advance of the subscription period.

We have over 4,000 customers, including the majority of the Fortune 500, as well as a majority of the top 10 companies by revenue in multiple industries such as retail, technology and manufacturing, in addition to leading marketplaces. For the year ended December 31, 2019, our average annual recurring revenue ("ARR") per customer was over \$65,000, while for the year ended December 31, 2018, we had over 3,900 customers and our ARR per customer was over \$55,000. As our customers expand geographically and pursue omnichannel business models, their tax determination and compliance requirements increase and become more complex, providing sustainable organic growth opportunities for our business. Our pricing model is aligned with our customers' objectives by adjusting with their growth over time. We principally price our solutions based on a customer's revenue base, in addition to a number of other factors.

We employ a hybrid deployment model to align to our customers' technology preferences for their core financial management software across on-premise, cloud deployments or any combination of these models. Over time, we expect both existing and newly acquired customers to continue to shift towards cloud deployment models. Cloud-based subscription sales to new customers have grown at a significantly faster rate than on-premise software subscription sales, which is a trend that we expect to continue over time. We generated 12.8% and 19.1% of software subscription revenue from cloud-based subscriptions in 2018 and 2019, respectively. While our on-premise software subscription revenue comprises 80.9% of our 2019 software subscription revenue, we anticipate that it will decrease as a percentage of total software subscription revenue as cloud-based subscriptions accelerate.

We sell our solutions primarily through our direct sales force, which focuses on selling to qualified leads provided by our marketing efforts, and through our network of referral partners. We also utilize indirect sales to a lesser extent to efficiently grow and scale our enterprise and mid-market revenues.

Our partner ecosystem is a differentiating, competitive strength in both our software development and our sales and marketing activities. We integrate with key technology partners that span ERP, CRM, procurement, billing, POS and eCommerce. These partners include Adobe/Magento, Coupa, Microsoft Dynamics, NetSuite, Oracle, Salesforce, SAP, SAP Ariba, Workday and Zuora. We also collaborate with numerous accounting firms who have built implementation practices around our software to serve their customer base.

We believe that global commerce and compliance environment provides durable and accelerating growth opportunities for our business. We generated revenue of \$272.4 million in 2018 and \$321.5 million in 2019. We had a net loss of \$6.1 million in 2018 and net income of \$31.1 million in

2019, and our Adjusted EBITDA for 2018 and 2019 was \$61.5 million and \$67.9 million, respectively. Additionally, we generated net cash provided by operating activities and free cash flow of \$80.4 million and \$47.1 million, respectively, in 2018 and \$92.5 million and \$54.9 million, respectively, in 2019. Adjusted EBITDA and free cash flow are non-GAAP financial measures. For more information about how we use these non-GAAP financial measures in our business, the limitations of these measures and reconciliations to the most directly comparable GAAP measures, see "Prospectus Summary—Summary Consolidated Financial and Operating Information." In connection with the offering, we will convert from an S Corporation to a C Corporation, which will result in net income of the Company being taxed at the corporate level. For additional information on the effect of such conversion, see "Prospectus Summary—Summary Consolidated Financial and Operating Information."

Key Factors Affecting Performance

The growth of our business and our future success depends on many factors, including our ability to retain and expand our revenue from existing customers, acquire new customers, deepen our partner ecosystem, continually innovate our software and invest in growth and scale our business. While these areas represent significant opportunities for us, we also face significant risks and challenges that we must successfully address in order to sustain the growth of our business and improve our operating results. We anticipate that we will continue to expand our operations and headcount. The expected addition of new personnel and the investments that we anticipate will be necessary to manage our anticipated growth may make it more difficult for us to achieve or maintain profitability. Many of these investments will occur in advance of experiencing any direct benefit and will make it difficult to determine if we are allocating our resources efficiently.

Retention and expansion of revenue from existing customers. Given the breadth of our customer base and their own internal growth, the majority of our revenue and revenue growth comes from existing customers. This revenue growth is comprised of the acquisition of new licenses for additional products, increases in subscription fees due to expanded usage of currently licensed software and price increases. We plan to continue to invest in new innovations and offerings and in our sales and marketing teams in order to support the ongoing strong retention and expansion of revenue with our existing customers. We track net revenue retention rate ("NRR") in order to understand our ability to retain and grow revenue from our customers. As of December 31, 2019, our NRR was 109%.

Acquire new customers. Our solutions address the complexity of aligning commerce and compliance and we believe the market for our solutions is large and underpenetrated, both in the United States and globally. As enterprise and mid-market companies continue to expand their business operations—both through their product and service offerings and their global footprint—we expect demand for our tax solutions to increase due to the fact that legacy solutions such as spreadsheets, manual processes, native ERP functionality or home-built solutions are error prone, inefficient and cannot scale. We plan to continue to invest in our sales and marketing teams and our solution development in order to address this increased demand from new customers. This increased investment will result in increases in expenses in advance of revenues attributable to these investments.

Broaden and deepen our partner ecosystem. We have an extensive network of partners that spans ERP, CRM, procurement, billing, POS and eCommerce platforms. Our partners enhance the coverage and adoption of our solutions and promote our thought leadership. We leverage our partnerships to maximize the benefits of our solutions for our customers and to identify new customer opportunities. By forming additional strategic alliances with participants in the global digital transformation, such as payments and eCommerce platforms, we can continue to expand our exposure to all transactions, both B2C and B2B. Future partnerships with large-scale digital payments companies will allow us to develop additional customer-centric solutions and further expand our customer base.

Continued innovation of our software. With the pace of change in commerce and compliance, we believe it is important to continue innovating and extending the functionality and breadth of our software. We plan on investing to further enhance our content and the speed and usability of our software. We believe continuing to enhance our existing software will increase our ability to generate revenue by broadening the appeal of our software to new customers as well as increasing our engagement with existing customers.

Investing in growth and scaling our business. We believe that our market opportunity is large, and we will continue to invest significantly in scaling across organizational functions in order to support the anticipated growth in our operations both domestically and internationally. Any investments we make in our research and development and our sales and marketing organization will occur in advance of experiencing the benefits from such investments, so it may be difficult for us to determine if we are efficiently allocating resources in those areas.

Customer migration to cloud solutions. Over time, we expect a continued shift to our cloud solutions from existing and newly acquired customers. Over the past two years, cloud sales to new customers have grown at a significantly faster rate than sales of on-premise solutions, which is a trend that we expect to continue over time. We generated 12.8% and 19.1% of software subscription revenue from cloud-based subscriptions in 2018 and 2019, respectively. We recognize revenue from the sale of cloud-based subscriptions ratably over the life of the contract, whereas for on-premise subscriptions, the first year pricing includes a premium that is not included in future renewal pricing. The premium is recognized ratably over the estimated period of benefit to the customer, which is generally three years. Therefore, as more of our sales shift to cloud-based subscriptions, our revenue growth rate may increase. We provide hosting for our cloud-based subscriptions. To the extent that revenue from our cloud offerings increase as a percentage of total revenue, our gross margin may decrease due to the associated hosting costs of those offerings.

Recent Developments—Impact of COVID-19

In March 2020, the World Health Organization declared the outbreak of COVID-19 to be a pandemic. The COVID-19 pandemic is having widespread, rapidly evolving and unpredictable impacts on global society, economies, financial markets and business practices. Federal and state governments have implemented measures in an effort to contain the virus, including social distancing, travel restrictions, border closures, limitations on public gatherings, work from home, supply chain logistical changes and closure of non-essential businesses. To protect the health and well-being of our employees and customers, we have made substantial modifications to employee travel policies, closed our offices as employees are advised to work from home and cancelled or shifted our conferences and other marketing events to virtual-only. The COVID-19 pandemic has impacted and may continue to impact our business operations, including our employees, customers and partners, and there is substantial uncertainty in the nature and degree of its continued effects over time.

During the first quarter of 2020, the COVID-19 pandemic had minimal impact on our revenue or results of operations, as we continue to derive the significant majority of our revenue from our existing software subscriptions. As we principally price our solutions based on our customers' revenues within certain revenue bands, elongated declines in our existing customers' revenues may impact our ability to grow our existing customer revenues. We did not experience an abnormal number of non-renewals in March or April, nor any declines in revenue associated with declines in our customers' revenues, and we currently expect our existing customer base to remain largely stable, as it did through the recession in 2008 and 2009. However, significant decreases in non-renewals or concessions to renewal customers would have a material impact on our revenues and cash flows. We did see a decline in new software subscription sales during the month of March, with billings from new software subscription sales decreasing 29% as compared to management's expectations. It is important to note that our sales metrics are assessed quarterly, and given the size and complexity of our sales process we often see

variances from month to month due to legal or procurement processes. In the case of the first quarter of 2020 we achieved our new software billings targets as several deals were completed earlier in the quarter. The Company did experience a variance in new customer software billings in April, with actual new software billings 32% below management's expectations. Some were delayed due to prospects shifting to working remote, and some due to economic uncertainty. We expect that the uncertainty caused by the COVID-19 pandemic will continue to impact our billings to new customers for the remainder of 2020, and it may also negatively impact our efforts to expand revenues from our existing customers as they continue to evaluate certain long-term projects and budget constraints. However, we do not anticipate that overall demand for our software and solutions, our ability to deliver such software and solutions, or that our growth strategies will be materially impacted by the COVID-19 pandemic, as companies continue to rely on the Company for their indirect tax solutions. There is potential for an increase in demand for our products over the long-term considering the amount of state debt being accumulated during the pandemic, which may result in increases in taxes and revenue department audits which our products are positioned to address customer needs.

In addition to the impacts on our sales, our cash collections from existing customers were lower than expected in the month of March. In April our collections exceeded our expectation as some of the procedural disruptions that customers experienced as they shifted to remote work in March had stabilized. We believe that we may see delays in collections over the coming months. However, we do not believe that these delays will materially impact our business; we continue to expect that we will be able to collect amounts due under subscription contracts from customer experiencing issues as a result of COVID-19, and we have not recorded an additional allowance for doubtful accounts in connection with any delays. Given that customers cannot forgo our monthly content updates which are necessary to remain compliant with the most current regulations, we believe customers will continue to pay our renewal invoices in a timely, even if slightly elongated manner. We believe that we currently have ample liquidity and capital resources to continue to meet our operating needs, and our ability to continue to service our debt or other financial obligations is not currently impaired. For a further description of our liquidity, including the New Credit Agreement entered into on March 31, 2020, see "Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources."

The extent to which the COVID-19 pandemic impacts our business going forward will depend on numerous evolving factors we cannot reliably predict, including the duration and scope of the pandemic; governmental, business, and individuals' actions in response to the pandemic; and the impact on economic activity, including the possibility of recession or financial market instability. These factors may adversely impact consumer, business and government spending on technology as well as customers' ability to pay for our products and services on an ongoing basis. This uncertainty also affects management's accounting estimates and assumptions, which could result in greater variability in a variety of areas that depend on these estimates and assumptions, including estimated allowance for subscription cancellations, product life cycles and estimated lives of long lived assets.

Key Business Metrics

We regularly review several metrics identified below to evaluate growth trends, measure our performance, formulate financial projections and make strategic decisions.

Annual Recurring Revenue. We derive the vast majority of our revenue from recurring software subscriptions. We believe ARR provides us with visibility to our projected software subscription revenue in order to evaluate the health of our business. Because we recognize subscription revenue ratably, we believe investors can use ARR to measure our expansion of existing customer revenues, new customer activity, and as an indicator of future software subscription revenues. ARR is based on monthly recurring revenue ("MRR") from software subscriptions for the most recent month at period end, multiplied by twelve. MRR is calculated by dividing the software subscription price, inclusive of

discounts, by the number of subscription covered months. MRR only includes customers with MRR at the end of the last month of the measurement period.

(In millions)	For the Year Ended December 31		Year-Over-Year Change	
	2019	2018		
Annual Recurring Revenue	\$ 278.5	\$ 233.5	\$ 45.0	19.2%

ARR increased by \$45.0 million or 19.2% from 2018 to 2019. The increase was primarily driven by \$25.7 million of growth in recurring revenues from existing customers through their expanded use of our solutions as well as price increases and \$19.3 million of new on-premise and cloud-based subscription sales of our tax solutions to both new and existing customers.

Net Revenue Retention Rate. We believe that our NRR provides insight into our ability to retain and grow revenue from our customers, as well as their potential long-term value to us. We also believe it demonstrates to investors our ability to expand existing customer revenues, which is one of our key growth strategies. Our NRR refers to the ARR expansion during the 12 months of a reporting period for all customers who were part of our customer base at the beginning of the reporting period. Our NRR calculation takes into account any revenue lost from departing customers or customers who have downgraded as well as any revenue expansion from upgrades, cross-sells or upsells of our software.

	For the Year Ended December 31	
	2019	2018
Net Revenue Retention Rate	109%	104%

The 500 basis point increase in NRR from 2018 to 2019 was primarily driven by growth of \$25.7 million in recurring subscription revenues from existing customers through their expanded use of our solutions.

Adjusted EBITDA and Adjusted EBITDA Margin. We believe that Adjusted EBITDA is a measure widely used by securities analysts and investors to evaluate the financial performance of our company and other companies. We believe that Adjusted EBITDA and Adjusted EBITDA margin are useful as supplemental measures to evaluate our overall operating performance as they measure business performance focusing on cash related charges and because they are important metrics to lenders under our New Credit Agreement. We define Adjusted EBITDA as net income or loss before interest, taxes, depreciation, and amortization, as adjusted to exclude charges for asset impairments, gains or losses on assets and liabilities denominated in a foreign currency, share-based compensation expense, severance charges and transaction costs. Adjusted EBITDA margin represents Adjusted EBITDA divided by total revenues for the same period. For purposes of comparison, our net income (loss) in 2019 was \$31.1 million and \$(6.1) million in 2018, while our net income (loss) margin was 10% and (2)% in over the same periods, respectively.

	For the Year Ended December 31	
	2019	2018
Adjusted EBITDA (in thousands)	\$ 67,913	\$ 61,471
Adjusted EBITDA margin	21%	23%

The increase in Adjusted EBITDA of \$6.4 million in 2019 is primarily driven by an increase in gross profit, offset by an increase in operating expenses including additional sales and marketing and research and development investments. Our Adjusted EBITDA margin decreased in 2019, primarily because operating expenses increased at a higher rate than our increase in revenue. This growth in

operating expenses is driven primarily by our ongoing investment in our research and development, sales and marketing organization and technology infrastructure to support our future growth.

Free Cash Flow and Free Cash Flow Margin. Free cash flow is a non-GAAP financial measure used by our management and Board of Directors in evaluating period-to-period comparisons of liquidity as well as a supplemental measure to evaluate our overall operating performance. We consider free cash flow to be an important measure for investors because it measures the amount of cash we generate from our operations after our capital expenditures and capitalization of software development costs. We define free cash flow as the total of net cash provided by operating activities less purchases of property and equipment and capitalized software. We define free cash flow margin as free cash flow divided by total revenues for the same period. For purposes of comparison, our net cash provided by operating activities was \$92.5 million and \$80.4 million for the years ended December 31, 2019 and 2018, respectively, while our operating cash flow margin was 29% and 30% over the same periods, respectively. Free cash flow margin represents free cash flow divided by total revenues for the same period.

	For the Year Ended December 31	
	2019	2018
Free cash flow (in thousands)	\$ 54,938	\$ 47,135
Free cash flow margin	17%	17%

Free cash flow increased by \$7.8 million in 2019 over 2018, driven primarily by an increase in cash from operations of \$12.0 million, due to a \$4.5 million increase in net income after excluding the impact of the asset impairment in 2018 and an increase in cash provided by changes in operating assets and liabilities. This amount is offset by an increase of \$5.0 million in investments in capitalized software costs to support the growth of our customers. Free cash flow margin remained consistent with the prior year at 17%.

Components of Our Results of Operations

Revenue

We generate revenue from software subscriptions and services.

Revenue is recognized upon transfer of control of promised products or services to customers in an amount that reflects the consideration expected to be received in exchange for those products or services. We enter into contracts that include various combinations of products and services, which are generally capable of being distinct and accounted for as separate performance obligations. Revenue is recognized net of allowance for subscription and non-renewal cancellations and any taxes collected from customers that are subsequently remitted to governmental authorities.

Software Subscriptions

Licenses for on-premise software subscriptions, which are generally one year, provide the customer with a right to use the software as it exists when made available to the customer. Customers purchase a subscription to these licenses, which includes the related software and tax content updates and product support. The updates and support, which are part of the subscription agreement, are essential to the continued utility of the software; therefore, we have determined the software and the related updates and support to be a single performance obligation. Accordingly, when on-premise software is licensed, the revenue associated with this combined performance obligation is recognized ratably over the license term as these subscriptions are provided for the duration of the license term. Revenue recognition begins on the later of the beginning of the subscription period or the date the software is made available to the customer to download. Our on-premise software subscription prices in the initial

subscription year are higher than standard renewal prices. The excess initial year price over the renewal price is a material right that provides customers with the right to this reduced renewal price. We recognize revenue associated with this material right over the estimated period of benefit to the customer, which is generally three years.

Our cloud-based subscriptions allow customers to use Company-hosted software over the contract period without taking possession of the software. The contracts are generally for one to three years and are generally billed annually in advance of the subscription period. Our cloud-based offerings also include related updates and support. All services within the cloud-based contracts consistently provide a benefit to the customer during the subscription period, thus the associated revenue is recognized ratably over the subscription period. Revenue recognition begins on the later of the beginning of the subscription period or the date the customer is provided access to the cloud-based solutions.

Revenue is impacted by the timing of sales and our customers' growth or contractions resulting in their need to expand or contract their subscription usage, the purchase of new solutions or the non-renewal of existing solutions. In addition, revenue will fluctuate with the cessation of extended product support fees charged for older versions of our software subscription solutions when they are retired and these fees are no longer charged. Contracts for on-premise licenses permit cancellations at the end of the license term, which is generally one year. Legacy cloud-based subscription contracts for multi-year periods previously provided customers the right to terminate their contract for services prior to the end of the subscription period at a significant penalty. This penalty requires the payment of a percentage of the remaining months of the then current contract term. Current cloud-based contracts do not contain such termination rights. Terminations of cloud-based subscriptions prior to the end of the subscription term have occurred infrequently and the impact has been immaterial. The allowance for subscription and non-renewal cancellations reflects an estimate of the amount of such cancellations and non-renewals based upon our historical experience.

Services Revenue

We generate services revenue primarily in support of our customers' needs associated with our software and to enable them to realize the full benefit of our solutions. These software subscription-related services include configuration, data migration and implementation, and premium support and training. In addition, we generate services revenue through our managed services offering which allows customers to outsource all or a portion of their indirect tax operations to us. These services include indirect tax return preparation, filing and tax payment and notice management. We generally bill for services on a per-transaction or time and materials basis, and we recognize revenue from deliverable-based professional services as services are performed.

Fluctuations in services revenue are directly correlated to fluctuations in our subscription revenues with respect to implementation and training services as we have historically experienced an attachment rate to subscription sales for these services in excess of 60%. Our managed services offering has recently experienced increased revenue associated with returns processing volume increases attributable to regulatory changes, as customers expanded their tax filings into more jurisdictions.

Cost of Revenue

Software Subscriptions

Cost of software subscriptions revenue consists of costs related to providing and supporting our software subscriptions and includes personnel and related expenses, including salaries, benefits, bonuses and stock-based compensation. In addition, cost of revenue includes direct costs associated with information technology, such as data center and software hosting costs, and tax content maintenance. Cost of revenue also includes amortization associated with direct labor and related expenses for capitalized internal-use software and developed software for new products and enhancements to

existing products and cloud-based subscription solutions. We plan to continue to significantly expand our infrastructure and personnel to support our future growth and increases in transaction volumes of our cloud-based solutions, including through acquisitions. We expect growth in our business will result in an increase in cost of revenue in absolute dollars.

Services

Cost of services revenue consists of direct costs of software subscription-related services and our managed services offering. These costs include personnel and related expenses, including salaries, benefits, bonuses, stock-based compensation and the cost of third-party contractors and other direct expenses. We plan to continue to expand our infrastructure and personnel as necessary to support our future growth and related increases in our service revenue. We expect growth in our business will result in an increase in the cost of services revenue in absolute dollars, but may decrease as a percentage of revenues as we scale our operations.

Research and Development

Research and development expenses consist primarily of personnel and related expenses for our research and development activities, including salaries, benefits, bonuses and stock-based compensation, and the cost of third-party developers and other contractors. Research and development costs, other than software development expenses qualifying for capitalization, are expensed as incurred. For the years ended December 31, 2019 and 2018, \$17.2 million and \$12.3 million of software development costs were capitalized, respectively. Capitalized software development costs consist primarily of employee-related and third-party labor costs.

We devote substantial resources to developing new products and enhancing existing products, conducting quality assurance testing and improving our core technology. We believe continued investments in research and development are critical to attain our strategic objectives and expect research and development costs to increase in absolute dollars. These investments include enhancing our solution offerings to address changing customer needs to support their growth, as well as implementing changes required to keep pace with our partners' technology to ensure the continued ability of our solutions to work together and deliver value to our customers. The market for our solutions is characterized by rapid technological change, frequent new product and service introductions and enhancements, changing customer demands and evolving industry standards. As a result, although we are making significant research and development expenditures, which may be incurred and certain of which may be capitalized, there is no guarantee these solutions will be accepted by the market. This could result in increased costs or an impairment of capitalized development costs with no resulting future revenue benefit.

Selling and Marketing Expenses

Selling expenses consist primarily of personnel and related expenses in support of sales and marketing efforts. These costs include salaries, benefits, bonuses and stock-based compensation. In addition, selling expense includes costs related to advertising and promotion efforts, branding costs, partner-based commissions and costs associated with our annual customer conferences. We intend to continue to invest in our sales and marketing capabilities in the future to continue to increase our brand awareness and expect these costs to increase on an absolute dollar basis as we grow our business and continue to expand our market and partner ecosystem penetration. Sales and marketing expense in absolute dollars and as a percentage of total revenue may fluctuate from period-to-period based on total revenue levels and the timing of our investments in our sales and marketing functions as these investments may vary in scope and scale over future periods.

General and Administrative

General and administrative expenses consist primarily of personnel and related expenses for administrative, finance, information technology, legal, risk management, facilities and human resources staffing, including salaries, benefits, bonuses, stock-based compensation, professional fees, insurance premiums, facility costs and other internal support costs.

We expect our general and administrative expenses to increase in absolute dollars as we continue to expand our operations, hire additional personnel, integrate future acquisitions and incur additional costs associated with becoming a publicly listed company. As a public company, we expect to incur increased expenses related to accounting, tax and auditing activities, legal, insurance, SEC compliance and internal control compliance.

Depreciation and Amortization

Depreciation and amortization expense consists of the allocation of purchased and/or developed asset costs over the future periods benefitted by the use of these assets. These assets include leasehold improvements for our facilities, computers and equipment needed to support our customers and our internal infrastructure and capitalized internal-use software associated with our internal infrastructure and tools. Depreciation and amortization will fluctuate in correlation with our ongoing investment in internal infrastructure costs to support our growth.

Interest Income

Interest income reflects earnings on investments of our cash on hand and on funds held for customers related to our managed outsourcing services. Interest income will vary as a result of fluctuations in the future level of funds available for investment and the rate of return available in the market on such funds.

Interest Expense

Interest expense consists primarily of interest payments and other financing costs on our debt facility. Interest expense will vary as a result of fluctuations in the level of debt outstanding as well as interest rates on such debt.

Provision for Taxes

We have been taxed as an S Corporation for U.S. federal income tax purposes and for income tax purposes in most states. As a result, net income or loss has been allocated to our stockholders and included on their individual income tax returns. In certain states, we have been taxed at the corporate level. Accordingly, the income tax provision or benefit is based on taxable income allocated to these states. In certain foreign jurisdictions, our subsidiaries were taxed at the corporate level. Similar to states, the income tax provision or benefit is based on taxable income sourced to these foreign jurisdictions.

In connection with the offering, we will convert to a C Corporation, which will result in net income of the company being taxed at the corporate level. As such, our provision for taxes will increase. Assuming the conversion to a C Corporation, we expect a pro forma entity-level estimated effective tax rate of approximately 25%, inclusive of all applicable U.S. federal, state, local and foreign income taxes. In addition, upon such conversion, we anticipate establishing a deferred tax asset of approximately \$3.0 million.

Results of Operations

You should read the following discussion and analysis of our financial condition and results of operations in conjunction with the audited consolidated financial statements and the notes thereto included elsewhere in this prospectus. The period-to-period comparison of financial results is not necessarily indicative of financial results to be achieved in future periods. In particular, in connection with this offering, we will convert to a C Corporation, which will result in taxation at the corporate level.

The following table sets forth our consolidated statements of comprehensive income (loss) for the periods indicated. Revenue is reflected in accordance with ASC 606, which we adopted on January 1, 2018.

(In thousands)	For the Year Ended December 31		Year-Over-Year Change	
	2019	2018		
Revenue:				
Software subscriptions	\$ 275,629	\$ 235,663	\$ 39,966	17.0%
Services	45,871	36,740	9,131	24.9%
Total revenue	321,500	272,403	49,097	18.0%
Cost of Revenue:				
Software subscriptions	77,259	68,945	8,314	12.1%
Services	33,119	26,753	6,366	23.8%
Total cost of revenues	110,378	95,698	14,680	15.3%
Gross profit	211,122	176,705	34,417	19.5%
Operating expenses:				
Research and development	30,557	23,755	6,802	28.6%
Selling and marketing	68,127	56,898	11,229	19.7%
General and administrative	71,014	58,947	12,067	20.5%
Depreciation and amortization	8,996	7,937	1,059	13.3%
Impairment of asset	—	32,692	(32,692)	(100.0)%
Other operating expense (income)	573	(691)	1,264	(182.9)%
Total operating expenses	179,267	179,538	(271)	(0.2)%
Income (loss) from operations	31,855	(2,833)	34,688	1,224.4%
Other (income) expense:				
Interest income	(1,083)	(526)	(557)	(105.9)%
Interest expense	2,036	2,120	(84)	(4.0)%
Total other expense, net	953	1,594	(641)	(40.2)%
Income (loss) before income taxes	30,902	(4,427)	35,329	798.0%
Income tax (benefit) expense	(155)	1,679	(1,834)	(109.2)%
Net income (loss)	31,057	(6,106)	37,163	(608.6)%
Other comprehensive (income) loss from foreign currency translations	(5)	355	(360)	(101.4)%
Total comprehensive income (loss)	\$ 31,062	\$ (6,461)	\$ 37,523	(580.7)%

The following table sets forth our results of operations as a percentage of our total revenue for the periods presented.

	Twelve Months Ended December 31	
	2019	2018
Revenue:		
Software subscriptions	85.7%	86.5%
Services	14.3%	13.5%
Total revenue	100.0%	100.0%
Cost of Revenue:		
Software subscriptions	24.0%	25.3%
Services	10.3%	9.8%
Total cost of revenues	34.3%	35.1%
Gross profit	65.7%	64.9%
Operating expenses:		
Research and development	9.5%	8.7%
Selling and marketing	21.2%	20.9%
General and administrative	22.1%	21.6%
Depreciation and amortization	2.8%	2.9%
Impairment of asset	0.0%	12.0%
Other operating expense (income), net	0.2%	(0.2)%
Total operating expenses	55.8%	65.9%
Income (loss) from operations	9.9%	(1.0)%
Other (income) expense:		
Interest income	0.3%	0.2%
Interest expense	(0.6)%	(0.8)%
Total other expense, net	(0.3)%	(0.6)%
Income (loss) before income taxes	9.6%	(1.6)%
Income tax (benefit) expense	0.1%	(0.6)%
Net income (loss)	9.7%	(2.2)%
Other comprehensive (income) loss from foreign currency translations	0.0%	(0.1)%
Total comprehensive income (loss)	9.7%	(2.3)%

Year Ended December 31, 2019 Compared to Year Ended December 31, 2018

Revenue

(In thousands)	For the Year Ended December 31		Year-Over-Year Change	
	2019	2018		
Revenue:				
Software subscriptions	\$ 275,629	\$ 235,663	\$ 39,966	17.0%
Services	45,871	36,740	9,131	24.9%
Total revenue	<u>\$ 321,500</u>	<u>\$ 272,403</u>	<u>\$ 49,097</u>	<u>18.0%</u>

Revenue increased \$49.1 million, or 18.0%, to \$321.5 million in 2019 compared to \$272.4 million in 2018. The increase in software subscriptions revenue of \$40.0 million, or 17.0%, was primarily driven by \$29.0 million in revenue growth derived from our existing customers and \$11.0 million of revenue from new customers.

The \$9.1 million increase in services revenue is primarily driven by an increase of \$5.3 million in software subscription-related services associated with the growth in subscription revenues, which includes new customers implementing our solutions and upgrading existing customers to newer versions of our solutions. In addition, our managed services offering experienced a \$2.5 million increase in recurring services revenue over the prior year due to returns processing volume increases related to regulatory changes as customers expanded their tax filings into more jurisdictions.

Cost of Software Subscriptions Revenue

(In thousands)	For the Year Ended December 31		Year-Over-Year Change	
	2019	2018		
Cost of software subscriptions revenue	\$ 77,259	\$ 68,945	\$ 8,314	12.1%

Cost of software subscriptions revenue increased \$8.3 million, or 12.1%, to \$77.3 million in 2019 compared to \$68.9 million in 2018. The increase was primarily due to costs of personnel supporting year-over-year growth of sales and customers, as well as ongoing infrastructure investments to support expansion of customer transaction volumes for our cloud-based subscription customers. Specifically, services headcount grew by 34% in 2019 as compared to 2018. As a percentage of total revenue, the cost of software subscriptions revenue decreased to 24.0% in 2019 compared to 25.3% in 2018.

Cost of Services Revenue

(In thousands)	For the Year Ended December 31		Year-Over-Year Change	
	2019	2018		
Cost of services revenue	\$ 33,119	\$ 26,753	\$ 6,366	23.8%

Cost of services revenue increased \$6.4 million, or 23.8%, to \$33.1 million in 2019 compared to \$26.8 million in 2018. The increase was primarily due to headcount growth in the service delivery areas to support revenue growth in software subscription-related services and our managed services offering. As a percentage of total revenue, cost of services revenue increased to 10.3% in 2019 compared to 9.8% in 2018.

Research and Development

(In thousands)	For the Year Ended December 31		Year-Over-Year Change	
	2019	2018		
Research and development	\$ 30,557	\$ 23,755	\$ 6,802	28.6%

Research and development expenses increased \$6.8 million, or 28.6%, to \$30.6 million in 2019 compared to \$23.8 million in 2018. The increase was primarily due to costs associated with increased development activity associated with nascent technologies and new solutions to address end-to-end data analysis and compliance needs of our customers. As a percentage of total revenue, research and development expenses increased to 9.5% in 2019 compared to 8.7% in 2018, driven in part by our expanded investment in developing our global compliance reporting solution. Research and

development expense excludes those costs that have been capitalized for solutions that have met our capitalization policy.

Selling and Marketing

(In thousands)	For the Year Ended December 31		Year-Over-Year Change	
	2019	2018		
Selling and marketing	\$ 68,127	\$ 56,898	\$ 11,229	19.7%

Selling and marketing expenses increased \$11.2 million, or 19.7%, to \$68.1 million in 2019 compared to \$56.9 million in 2018. The increase was primarily due to an increase in payroll and related expenses associated with the growth in year-over-year subscription sales and services revenue and expansion of our partner and channel management programs. In addition, increases in advertising and promotional spending and expanded brand awareness efforts contributed to this increase. As a percentage of total revenue, selling and marketing expenses increased to 21.2% in 2019 compared to 20.9% in 2018.

General and Administrative

(In thousands)	For the Year Ended December 31		Year-Over-Year Change	
	2019	2018		
General and administrative	\$ 71,014	\$ 58,947	\$ 12,067	20.5%

General and administrative expenses increased \$12.1 million, or 20.5%, to \$71.0 million in 2019 compared to \$59.0 million in 2018. The increase was primarily due to planned strategic investments of \$6.8 million in information technology infrastructure, business process reengineering and other initiatives to drive future operating leverage, as well as investments aggregating \$3.7 million in employees and other systems and resources in support of our growth. Due to these factors, as a percentage of total revenue, general and administrative expenses increased to 22.1% in 2019 compared to 21.6% in 2018.

Depreciation and Amortization

(In thousands)	For the Year Ended December 31		Year-Over-Year Change	
	2019	2018		
Depreciation and amortization	\$ 8,996	\$ 7,937	\$ 1,059	13.3%

Depreciation and amortization increased \$1.0 million, or 13.3%, to \$9.0 million in 2019 compared to \$7.9 million in 2018. The increase was primarily due to the impact of infrastructure and technology purchases placed in service in 2018 and 2019 and other capitalized infrastructure costs to support our growth. As a percentage of revenue, depreciation expense decreased to 2.8% in 2019 compared to 2.9% in 2018.

Impairment of Asset

(In thousands)	For the Year Ended December 31		Year-Over-Year Change	
	2019	2018		
Impairment of assets	\$ —	\$ 32,692	(\$ 32,692)	(100.0)%

For the year ended December 31, 2018, we recorded an impairment of \$32.7 million for capitalized internal-use software previously utilized to provide cloud-based services to customers, net of accumulated amortization of \$11.9 million. This impairment was related to a product strategy shift that resulted in this cloud offering no longer being made available for sale to customers after 2018. The capitalized development costs were deemed to be fully impaired due to the net book value of the asset exceeding its future expected cash flows.

Interest Income

(In thousands)	For the Year Ended December 31		Year-Over-Year Change	
	2019	2018		
Interest income	\$ (1,083)	\$ (526)	\$ (557)	105.9%

Interest income increased \$0.6 million, or 105.7%, to \$1.1 million in 2019 compared to \$0.5 million in 2018. The increase was primarily due to increases in returns earned on higher balances of cash on hand available for investment and increase in funds held for customers during 2019.

Interest Expense

(In thousands)	For the Year Ended December 31		Year-Over-Year Change	
	2019	2018		
Interest expense	\$ 2,036	\$ 2,120	\$ (84)	(4.0)%

Interest expense was relatively consistent with the prior year. The slight decrease was primarily due to the decrease in outstanding balance of debt due to payments made during 2019.

Provision for Taxes

(In thousands)	For the Year Ended December 31		Year-Over-Year Change	
	2019	2018		
Income tax (benefit) expense	\$ (155)	\$ 1,679	\$ 1,834	(109.2)%

Provision for taxes decreased \$1.8 million, or 109.2%, to an income tax benefit of \$0.2 million in 2019 compared to \$1.7 million in 2018. The decrease was primarily due to a \$1.0 million charge in 2018 to establish deferred taxes for assets that were transferred to the United States from a taxing jurisdiction that had a 0% tax rate.

Seasonality and Quarterly Trends

We have historically signed a higher percentage of software subscription agreements, with new and existing customers in the fourth quarter of each year. This can be attributed to buying patterns typical in the software industry. Since most of our customer agreement terms are annual, agreements initially entered into in the fourth quarter will generally come up for renewal at that same time in subsequent years. As a result, customer agreement cancellations may have a higher concentration during the end of the year. In addition, typically the first and last quarters of the year tend to be higher volume sales periods. This seasonality is reflected in our revenues, though the impact to overall annual or quarterly revenues is minimal since we recognize subscription revenue ratably over the term of the customer contract. Additionally, this seasonality is reflected in commission expenses to our sales personnel and our partners.

Liquidity and Capital Resources

As of December 31, 2019, we had cash and cash equivalents of \$75.9 million and an accumulated deficit of \$90.7 million. Our primary sources of capital to date have been from sales of our solutions and proceeds from bank lending facilities. We believe that our existing cash resources will be sufficient to meet our capital requirements and fund our operations for at least the next 12 months. Our existing credit facility matures in November 2020 and we believe that cash flows from operations are sufficient to repay the outstanding borrowings. Further, we believe we have the ability to refinance the existing facility and we have begun such efforts. However, if these sources are insufficient to satisfy our liquidity requirements, we may seek to sell additional equity or debt securities. If we raise additional funds by issuing equity securities, our stockholders would experience dilution. Debt financing, if available, may involve covenants restricting our operations or our ability to incur additional debt. Any debt financing or additional equity that we raise may contain terms that are not favorable to us or our stockholders. Additional financing may not be available at all, or in amounts or on terms unacceptable to us.

The following table presents a summary of our cash flows for the periods indicated:

(in thousands)	Year ended December 31	
	2019	2018
Net cash provided by operating activities	\$ 92,498	\$ 80,449
Net cash used in investing activities	(37,560)	(33,314)
Net cash used in financing activities	(30,629)	(30,697)
Effect of foreign exchange rate changes	12	(402)
Net increase in cash, cash equivalents and restricted cash	\$ 24,321	\$ 16,036

Operating Activities. Cash provided by operating activities was \$92.5 million in 2019 compared to \$80.4 million in 2018, an increase of \$12.0 million. This increase was primarily due to increased net income of \$4.5 million, after adding back the 2018 impairment, increases in stock-based compensation of \$4.1 million and a net increase in cash from operating assets and liabilities of \$3.8 million.

Investing Activities. Cash used in investing activities was \$37.6 million in 2019 compared to \$33.3 million in 2018, an increase of \$4.3 million. This increase is due to investments focused on productivity enhancement associated with process automation and implementation of new tools.

Financing Activities. Cash used in financing activities was \$30.6 million in 2019 compared to \$30.7 million in 2018, a decrease of \$0.1 million. This decrease was primarily due to an increase in principal repayments of bank debt of \$2.3 million, offset by an increase in cash collected with respect to customer funds obligations of \$2.6 million.

Debt. As of December 31, 2019, we had a credit agreement consisting of a \$65.0 million term loan, with \$50.4 million outstanding, and a \$40.0 million line of credit. Interest on outstanding borrowings accrued at a Base Rate plus an applicable margin (4.75% as of December 31, 2019) or London Interbank Offered Rate ("LIBOR") plus an applicable margin (2.69% as of December 31, 2019). On March 31, 2020, we entered into a \$275.0 million credit agreement consisting of a three-year \$175.0 million term loan and a \$100.0 million line of credit with a term of five years. Proceeds from the term loan were used to repay the approximately \$61.7 million outstanding under the Company's previous credit agreement. The term loan requires quarterly principal payments of \$4.4 million beginning October 2020 with a balloon payment in March 2023. As of April 30, 2020, the interest rate on the term loan was 2.50%.

Funds Held for Customers and Customer Funds Obligations

We maintain trust accounts with financial institutions, which allows our customers to outsource their tax remittance functions to us. We have legal ownership over the accounts utilized for this purpose. Funds held for customers represents cash and cash equivalents that, based upon our intent, are restricted solely for satisfying the obligations to remit funds relating to our tax remittance services. Funds held for customers are not commingled with our operating funds.

Customer funds obligations represent our contractual obligations to remit collected funds to satisfy customer tax payments. Customer funds obligations are reported as a current liability on our consolidated balance sheets as the obligations are expected to be settled within one year. Cash flows related to changes in customer funds obligations liability are presented as cash flows from financing activities.

Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements, as defined by applicable regulations of the SEC, that are reasonably likely to have a current or future material effect on our financial condition, results of operations, liquidity, capital expenditures or capital resources.

Contractual Obligations and Commitments

Our contractual obligations and commitments as of December 31, 2019 are summarized in the table below:

(in thousands)	Payments Due by Year				
	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
Long-term debt	\$ 50,375	\$ 50,375	\$ —	\$ —	\$ —
Capital leases	1,332	650	682	—	—
Operating leases	35,914	4,534	8,430	8,002	14,947
Purchase obligations	7,694	4,859	2,835	—	—
Total contractual cash obligations	<u>\$ 95,315</u>	<u>\$ 60,418</u>	<u>\$ 11,947</u>	<u>\$ 8,002</u>	<u>\$ 14,947</u>

Quantitative and Qualitative Disclosures about Market Risk**Interest Rate Risk**

We had cash and cash equivalents of \$55.8 million and \$75.9 million as of December 31, 2018 and 2019, respectively. We maintain our cash and cash equivalents in deposit accounts and money market funds with financial institutions. Due to the short-term nature of these instruments, we believe that we do not have any material exposure to changes in the fair value of our investment portfolio as a result of changes in interest rates. Declines in interest rates, however, would reduce future interest income.

We are exposed to risk related to changes in interest rates. Borrowings under the Credit Agreement bear interest at rates that are variable. Increases in the bank prime or LIBOR rate would increase the interest rate on these borrowings.

As of December 31, 2019, we had borrowings under the Credit Agreement of \$50.4 million and borrowed an additional \$11.8 million to fund the 60% or majority interest investment in Systax Sistema Fiscais LTD ("Systax"), a Brazilian transaction tax content and software provider, in January resulting in \$62.2 million outstanding as of February 29, 2020. Each change of one percentage point in interest rates would result in an approximate \$0.5 million increase in our annual interest expense. Any debt we incur in the future may also bear interest at variable rates.

Foreign Currency Exchange Risk

Our revenue and expenses are primarily denominated in U.S. dollars. For our foreign operations, the majority of our revenues and expenses are denominated in other currencies, such as the Canadian Dollar, Euro, British Pound, Swedish Krona and Brazilian Real. Decreases in the relative value of the U.S. dollar as compared to these currencies may negatively affect our revenue and other operating results as expressed in U.S. dollars. For 2018 and 2019, approximately 1% and 1%, respectively, of our revenues were generated in currencies other than U.S. dollars.

We have experienced and will continue to experience fluctuations in our net income (loss) as a result of transaction gains or losses related to revaluing certain current asset and current liability balances that are denominated in currencies other than the functional currency of the entities in which they are recorded. We have historically recognized immaterial amounts of foreign currency gains and losses in each of the periods presented. We may in the future hedge selected significant transactions denominated in currencies other than the U.S. dollar as we expand our international operation and our risk grows. The investment in Systax in January 2020, and future expansion of this investment, may increase our exposure to fluctuations of the Brazilian Real over time.

Inflation

In the past two years, we do not believe that inflation had a material effect on our business, financial condition or results of operations. If our costs were to become subject to significant inflationary pressures, we may not be able to fully offset such higher costs through price increases. Our inability or failure to do so could harm our business, financial condition and results of operations.

Internal Control Over Financial Reporting

In connection with the audit of our consolidated financial statements, we identified three material weaknesses in our internal control over financial reporting during the two-year period ended December 31, 2019. These material weaknesses were due to (i) the lack of an effective review control over the completeness and accuracy of significant conclusions regarding the impact of the new revenue recognition guidance prescribed by ASC 606, (ii) incorrect applications of software capitalization models and untimely identification of impairments of capitalized software development costs and (iii) an insufficient process for the provision and governance of user access to financially significant systems that resulted in a lack of segregation of duties related to journal entries and cash disbursements. The material weaknesses resulted in several control deficiencies that could have the following effects:

- the impact of new or revised accounting guidance on the Company's financial statements may not be identified and accurately reflected in the Company's financial statements;
- errors in the amount of software development costs capitalized and impairment assessments that are either not captured in a timely manner or not appropriate based on whether such costs are internal-use software versus software to be sold, leased or marketed; and
- an increased risk that unauthorized transactions will not be prevented and/or detected and corrected in a timely manner.

The material weaknesses relating to revenue recognition and capitalized software development costs resulted in errors that were not identified timely in conjunction with the issuance of our financial statements as of and for the years ended December 31, 2018 and 2019. These errors led to adjustments reflected in the 2019 and 2018 audited consolidated financial statements contained herein. We evaluated these errors under both quantitative and qualitative standards. No errors were identified with respect to the lack of segregation of user access to financially significant systems.

A material weakness is a control deficiency, or combination of control deficiencies, that results in more than a reasonable possibility that a material misstatement of the annual or interim financial statements will not be prevented or detected on a timely basis by a company's internal controls.

Beginning in February 2020, we started specific efforts to remediate the material weaknesses described above, including the following:

- implemented additional and more precise review controls over revenue recognition, particularly considering the complex nature of this accounting pronouncement;
- instituted additional and more precise review controls over implementation of new accounting pronouncements, particularly where management seeks input from outside consultants with respect to implementation of those accounting pronouncements that are complex;
- instituted a control in which senior members of our finance, accounting, technology and product teams meet quarterly and review all new software projects, existing software assets that have changes in projected use and/or pipeline, and business and market conditions that could impact classification or impairment of capitalized software development costs; and
- evaluated changes needed over our user access governance practices to prevent individuals from having the ability to create and post journal entry or create a vendor and prepare checks, with a plan to implement these changes by the end of the second quarter of 2020.

We continue to implement new technology systems to automate certain processes, particularly with respect to revenue recognition. We expect these efforts to continue throughout 2020 and, in the interim, we will continue to employ enhanced review controls. We also plan to increase the education and training available to our management regarding new and revised accounting standards to aid in our efforts to remediate the material weakness regarding our implementation of ASC 606 and future accounting pronouncements. Our executive team in charge of reviewing potential impairments of capitalized software development costs will continue to meet quarterly in 2020 and thereafter. Finally, we are in the process of performing an overall review of user access for our core financial systems, which we expect may result in further segregation of duties. We also plan to periodically update our review of user access going forward.

As we continue to implement these practices and prepare to meet the financial reporting requirements of a public company, we may make additional changes to our internal control over financial reporting. Additionally, in 2020, we expect to enhance our financial reporting risk assessment as part of evaluating our current control environment against a formal control framework consistent with applicable requirements for a public company.

Critical Accounting Policies and Estimates

Our discussion and analysis of our financial condition and results of operations are based on our consolidated financial statements. The preparation of these financial statements in accordance with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements, as well as the reported amounts of revenue and expenses during the reporting periods. These estimates, assumptions and judgments are necessary because future events and their effects on our consolidated financial statements cannot be determined with certainty, and are made based on our historical experience and on other assumptions that we believe to be reasonable under the circumstances. These estimates may change as new events occur or additional information is obtained, and we may periodically be faced with uncertainties, the outcomes of which are not within our control and may not be known for a prolonged period of time. Because the use of estimates is inherent in the financial reporting process, actual results could materially differ from those estimates.

We believe the following critical accounting policies affect our most significant judgments and estimates used in preparation of our consolidated financial statements:

- Revenue recognition;
- Stock-based compensation;
- Common stock valuations; and
- Software development costs

Revenue Recognition

On January 1, 2018, we adopted ASC 606. Thus, the consolidated financial statements reflect ASC 606 for the years ended December 31, 2019 and 2018.

Revenue is recognized upon transfer of control of promised products or services to customers in an amount that reflects the consideration expected to be received in exchange for those products or services. We enter into contracts that can include various combinations of products and services, which are generally capable of being distinct and accounted for as separate performance obligations. Revenue is recognized net of allowance for subscription and non-renewal cancellations and any taxes collected from customers, which are subsequently remitted to governmental authorities.

Licenses for on-premise software subscriptions provide the customer with a right to use the software as it exists when made available to the customer. Customers purchase a subscription to these licenses, which includes the related software and tax content updates and product support. The updates and support, which are part of the subscription agreement, are essential to the continued utility of the software. Therefore, we have determined the software and the related updates and support to be a single performance obligation. Accordingly, when on-premise software is licensed, the revenue associated with this combined performance obligation is recognized ratably over the license term as these subscription services are provided for the duration of the license term. Revenue recognition begins on the later of the beginning of the subscription period or the date the software is made available to the customer to download. Our on-premise software subscription prices in the initial subscription year are higher than standard renewal prices. The excess initial year price over the renewal price ("new sale premium") is considered to be a material right. We recognize revenue associated with the material right over the estimated period of benefit to the customer, generally three years.

Cloud-based subscriptions allow customers to use Company-hosted software over the contract period without taking possession of the software. The cloud-based offerings also include related updates and support. All services within the cloud-based contracts would consistently provide a benefit to the customer during the subscription period, thus the associated revenue is recognized ratably over the subscription period. Revenue recognition begins on the later of the beginning of the subscription period or the date the customer is provided access to the cloud-based services.

Revenue from deliverable-based services is recognized as services are delivered. Revenue from fixed fee services is recognized as services are performed using the percentage of completion input method.

We have elected the "right to invoice" practical expedient for revenue related to services that are billed on an hourly basis, which enables revenue to be recognized as the services are performed.

We have determined that the methods applied to measuring our progress toward complete satisfaction of performance obligations recognized over time are a faithful depiction of our transfer of control of software and services to customers.

Significant Judgments

Contracts with customers often include promises to transfer multiple products and services to a customer. Determining whether products and services are considered distinct performance obligations that should be accounted for separately versus together may require significant judgment. Identification of the amortization periods of material rights and contract costs requires significant judgement by management.

Contract Balances

Timing of revenue recognition may differ from the timing of invoicing customers. A receivable, or contract asset, is recorded in the consolidated balance sheet when customers are billed related to revenue to be collected and recognized for subscription agreements as there is an unconditional right to invoice and receive payment in the future related to these subscriptions. A receivable and related revenue may also be recorded in advance of billings to the extent services have been performed and we have a right under the contract to bill and collect for such performance. Subscription-based customers are generally invoiced at the beginning of each annual subscription period. A contract liability is recorded as deferred revenue on the consolidated balance sheet when subscription-based customers are billed in advance of performance obligations being satisfied, and revenue is recognized subsequent to invoicing ratably over the subscription period or over the amortization period of material rights.

Deferred sales commissions earned by our sales force and certain sales incentive programs and vendor referral agreements are considered incremental and recoverable costs of obtaining a contract with a customer. An asset is recognized for these incremental contract costs and reflected as deferred commissions in the consolidated balance sheet. These contract costs are amortized on a straight-line basis over a period consistent with the transfer of the associated product and services to the customer, which is generally three years. Amortization of these costs are included in selling and marketing expense in the consolidated statements of comprehensive income (loss). We periodically review these contract assets to determine whether events or changes in circumstances have occurred that could impact the period of benefit of these assets. There were no impairment losses recorded for the periods presented.

Payment Terms

Payment terms and conditions vary by contract, although our terms generally include a requirement of payment within 30 days. In instances where the timing of revenue recognition differs from the timing of payment, we have determined that our contracts do not include a significant financing component. The primary purpose of invoicing terms is to provide customers with simplified and predictable ways of purchasing products and services, not to receive financing from customers or to provide customers with financing.

Stock-Based Compensation

We apply the provisions of ASC 718, Compensation—Stock Compensation, for the award of equity-based instruments. The provisions of ASC 718 require a company to measure the fair value of stock-based compensation as of the grant date of the award. We have stock options and stock appreciation rights ("SAR(s)") (collectively, the "awards") outstanding that are subject to guidance set forth in ASC 718. Our board of directors intends all awards granted to be exercisable at a price per share not less than the per share fair value of the Company's common stock underlying such awards on the date of grant. Stock-based compensation expense reflects the cost of employee services received in exchange for the awards.

SARs are accounted for as liabilities under ASC 718 and, as such, we recognize stock-based compensation expense by remeasuring the SARs at the end of each reporting period and accruing the

portion of the requisite service rendered at that date. As a nonpublic entity, we have elected to measure SARs based on their intrinsic values. Management measures the intrinsic value of a SAR as the difference between the fair value of the Company's non-voting common stock less the grant date fair value of the underlying shares as this is the value the SAR participant can derive from exercise of the SAR award. The fair value of the Company's common stock is determined periodically by the Board with the assistance of management and a third-party valuation firm. Management plans to continue to record changes in the intrinsic value of the SARs in 2020 up to the date on which the Company becomes a public entity. Upon becoming a public entity and thereafter, we will remeasure SARs using the fair value-based method under ASC 718. Any impact from such change in measurement on the date on which we become a public entity will be accounted for as a change in accounting policy in that period. To the extent the fair value-based measure of the SARs differs materially from the intrinsic value of the SARs, this effect could be material. As the fair value-based measure of the SARs is not determinable at this time, such amount cannot be reasonably estimated with any degree of certainty. Outstanding SARs are included in deferred compensation, current and deferred compensation, net of current portion in the consolidated balance sheets.

Due to the option holders having the right to require us to repurchase shares issued in connection with option exercises after six months of issuance, the options are classified as temporary equity and reflected in options for redeemable shares on the consolidated balance sheets at their redemption value as of the end of each balance sheet measurement period. Changes as a result of remeasurement of the redemption value of options for redeemable shares are recorded as adjustments to accumulated deficit.

As of December 31, 2019, we had approximately \$3.9 million of total unrecognized stock-based compensation expense, which we expect to recognize over a period of approximately three to five years.

Based upon the initial public offering price of \$ per share, the aggregate intrinsic value of stock-based awards outstanding as of December 31, 2019 was approximately \$ million, of which approximately \$ million related to vested awards and approximately \$ million related to unvested awards.

Common Stock Valuations

Following the closing of this initial public offering, the fair value per share of our common stock for purposes of determining stock-based compensation will be the closing price of our common stock as reported on the applicable grant date.

The fair value of the common stock underlying the awards is determined by the board of directors with assistance from management and an independent third-party valuation firm. The determination of value uses the market and income approaches, with an adjustment for marketability discount in arriving at the per share fair value (the "valuation methodology"). Under the market approach, the guideline public company method is used, which estimates the fair value of our Company based on market prices of stock of guideline public companies. The income approach involves projecting the future benefits of owning an asset and estimating the present value of those future benefits by discounting them based upon the time value of money and the investment risks associated with ownership.

Software Development Costs

Internal-Use Software

We follow ASC 350-40, *Goodwill and Other, Internal-Use Software*, to account for development costs incurred for the costs of computer software developed or obtained for internal use. ASC 350-40 requires such costs to be capitalized once certain criteria are met. Capitalized internal-use software costs are primarily comprised of direct labor, related expenses and initial software licenses. ASC 350-40 includes specific guidance on costs not to be capitalized, such as overhead, general and administrative

and training costs. Internal-use software includes software utilized for cloud-based services as well as software for internal systems and tools. Costs are capitalized once the project is defined, funding is committed and it is confirmed the software will be used for its intended purpose. Capitalization of these costs concludes once the project is substantially complete and the software is ready for its intended purpose. Post-configuration training and maintenance costs are expensed as incurred. Internal-use software available for its intended use is included in internal-use software developed in property and equipment in the consolidated balance sheets and is depreciated over periods between three to five years. Depreciation expense for internal-use software utilized for cloud-based services and for software for internal systems and tools is included in cost of software subscription revenues, and depreciation expense, respectively, in the consolidated statements of comprehensive income (loss).

We review the carrying value of internal-use software, for impairment whenever events or changes in circumstances indicate that the carrying amount of such software may not be fully recoverable. Whenever such events or circumstances are present, an impairment loss equal to the excess of the asset carrying value over its fair value, if any, is recorded.

Software Developed for Sale

The costs incurred for the development of computer software to be sold, leased or otherwise marketed are capitalized in accordance with ASC 985-20, *Costs of Software to be Sold, Leased or Marketed*, when technological feasibility has been established. Technological feasibility generally occurs after completion of all planning, design, coding and testing activities that are necessary to establish that the product can be produced to meet its design specifications, including functions, features and technical performance requirements. The establishment of technological feasibility is an ongoing assessment of judgment by management with respect to certain external factors, including, but not limited to, anticipated future revenues, estimated economic life and changes in technology. Capitalized software includes direct labor and related expenses for software development for new products and enhancements to existing products and acquired software.

Amortization of capitalized software development costs begins when the product is available for general release. Amortization is provided on a product-by-product basis using the straight-line method over periods between three to five years. Unamortized capitalized software development costs determined to be in excess of the net realizable value of the product are expensed immediately.

Capitalized software costs are subject to an ongoing assessment of recoverability based on anticipated future revenues and changes in software technologies. At each balance sheet date, unamortized capitalized software costs are compared to the net realizable value of the related product. The carrying value of the related assets are written down to the net realizable value to the extent the unamortized capitalized costs exceed such value. The net realizable value is the estimated future gross revenues from the related product reduced by the estimated future costs of completing and disposing of such product, including the costs of providing related maintenance and customer support.

Recent Accounting Pronouncements

A discussion of recent accounting pronouncements is included in note 1 to our audited consolidated financial statements included elsewhere in this prospectus.

JOBS Act

As a company with less than \$1.07 billion in revenue during our last fiscal year, we qualify as an "emerging growth company," as defined in the JOBS Act. An emerging growth company may take

advantage of reduced reporting requirements that are otherwise applicable to public companies. These provisions include:

- being permitted to present only two years of audited financial statements and only two years of related Management's Discussion and Analysis of Financial Condition and Results of Operations in this prospectus;
- not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act;
- reduced disclosure obligations regarding executive compensation in this prospectus and in our periodic reports, proxy statements and registration statements; and
- exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved.

We may take advantage of these provisions until the last day of our fiscal year following the fifth anniversary of the completion of this offering. However, if certain events occur prior to the end of such five-year period, including if we become a "large accelerated filer," our annual gross revenue exceeds \$1.07 billion or we issue more than \$1.0 billion of non-convertible debt in any three-year period, we will cease to be an emerging growth company prior to the end of such five-year period.

We have elected to take advantage of certain of the reduced disclosure obligations in this registration statement and may elect to take advantage of other reduced reporting requirements in future filings. As a result, the information that we provide to our stockholders may be different from what you might receive from other public reporting companies in which you hold equity interests.

In addition, under the JOBS Act, emerging growth companies can delay adopting new or revised accounting standards until such time as those standards apply to private companies.

BUSINESS

Overview

Our vision is to accelerate global commerce, one transaction at a time.

Vertex delivers comprehensive tax solutions that enable global businesses to transact, comply and grow with confidence. Companies with complex tax operations rely on Vertex to automate their end-to-end indirect tax processes. Indirect tax is the largest corporate tax category, encompassing sales tax, seller's use tax, consumer use tax and VAT, among others. Indirect tax accounts for more than \$3.5 trillion of annual tax revenue, which is 2.5 times the amount of corporate income taxes, according to the 2019 OECD Tax Database. Our software, content and services address the increasing complexities of global commerce and compliance by reducing friction, enhancing transparency and enabling greater confidence in meeting indirect tax obligations. As a result, our software is ubiquitous within our customers' business systems, touching nearly every line item of every transaction that an enterprise can conduct. Today, we have more than 4,000 customers, including over half of the Fortune 500, and provide our customers with tax support in over 130 countries.

Tax complexity is driven by the number of jurisdictions, products, distribution channels and systems of record within an organization. Each transaction must be tax-assessed for compliance purposes in real time and indirect taxes generally require filing each month, in every jurisdiction in which a company does business. Despite these complexities, there are still businesses that attempt to manage the tax lifecycle through a patchwork of static tax rate tables in spreadsheets, home-built systems or business applications, such as ERP software, that were not designed for complex tax management. Each of these approaches relies heavily on finance personnel or outside professional services.

The rapid changes taking place in today's global business, technology and regulatory environments are having a compounding effect on the complexity of indirect tax management. As companies expand their business models, enter new geographies and extend their distribution channels, they widen the aperture of their indirect tax obligations. Additionally, as they expand their core offerings to incorporate new digital products and services, they are increasingly impacted by new tax regulations being pursued by jurisdictions. For example, in the United States, nearly 40 states have now enacted marketplace facilitator regulations, requiring online marketplaces to collect and remit taxes for first- and third-party sales on their websites. This complexity demands intelligent solutions that enable businesses to satisfy tax obligations and support growth opportunities.

We have pioneered tax technology for over 40 years. We first began electronic delivery of tax rules in the early 1980s and we first sold transaction tax processing software in 1982. Today, our software enables tax determination, compliance and reporting, tax data management and document management with powerful pre-built integrations to core business applications used by most companies, particularly those applications that have a significant impact on global commerce. Our software is fueled by over 300 million data-driven effective tax rules and supports indirect tax compliance in more than 19,000 jurisdictions worldwide. In order to maintain the quality of our content, our team includes many global tax and regulatory experts from industry and the public sector, who deliver monthly updates to our tax content, which are then incorporated directly into our software. Our solutions can be deployed on-premise, in the cloud, or both, with implementation services available to enable optimal customer outcomes and satisfy unique business requirements.

Our customers include the majority of the Fortune 500, as well as a majority of the top 10 companies by revenue in multiple industries such as retail, technology and manufacturing, in addition to leading marketplaces. As these companies expand geographically and pursue omnichannel business models, their tax determination and compliance requirements increase and become more complex. Our trusted brand and strong relationships with our customers enable us to capitalize on these sustainable organic growth opportunities.

Our partner ecosystem is a differentiating, competitive strength in both our software development and our sales and marketing activities. We integrate with key technology partners that span ERP, CRM, procurement, billing, POS and eCommerce. These partners include Adobe/Magento, Coupa, Microsoft Dynamics, NetSuite, Oracle, Salesforce, SAP, SAP Ariba, Workday and Zuora. We also collaborate with numerous accounting firms who have built implementation practices around our software to serve their customer base.

We believe that global commerce and compliance environment provides durable and accelerating growth opportunities for our business. We generated revenue of \$272.4 million in 2018 and \$321.5 million in 2019. We had a net loss of \$6.1 million in 2018 and net income of \$31.1 million in 2019, and our Adjusted EBITDA for 2018 and 2019 was \$61.5 million and \$67.9 million, respectively. Additionally, we generated net cash provided by operating activities and free cash flow of \$80.4 million and \$47.1 million, respectively, in 2018 and \$92.5 million and \$54.9 million, respectively, in 2019. Adjusted EBITDA and free cash flow are non-GAAP financial measures. For more information about how we use these non-GAAP financial measures in our business, the limitations of these measures and reconciliations to the most directly comparable GAAP measures, see "Prospectus Summary—Summary Consolidated Financial and Operating Information." In connection with the offering, we will convert from an S Corporation to a C Corporation, which will result in net income of the Company being taxed at the corporate level. For additional information on the effect of such conversion, see "Prospectus Summary—Summary Consolidated Financial and Operating Information."

Industry Background

Indirect taxes are significant and growing revenue streams for governments around the world

Indirect taxes are part of everyday commerce in many countries—they are levied on items such as food, clothing, business supplies and even data transmissions from mobile phones. According to the 2019 OECD Tax Database, more than \$3.5 trillion of indirect taxes were collected by national, state and local governments around the world in 2018, which is 2.5 times the amount of corporate income taxes collected. Indirect taxes on goods and services represented more than 10% of GDP for OECD countries in 2018 and governments continuously seek new ways to increase this revenue stream. In the United States, sales and use taxes are the largest component of indirect taxes. According to OECD Revenue Statistics, the United States collected more than \$800.0 billion in tax revenue from goods and services taxes in 2018.

Tax reporting and compliance pose tenacious challenges for all businesses

In today's global economy, indirect taxation is highly nuanced and growing in its complexity for most businesses. In order to calculate taxes accurately, enterprises must identify every jurisdiction in which they operate, determine and maintain the applicable rates for each of those jurisdictions and map the applicable taxability to the products and services they deliver. Cross-border transactions increase the complexity of taxes. Understanding the variables surrounding transactions and how they change applicable taxes becomes difficult for tax departments to manage given the volume of purchasing, sourcing and sales activities conducted by large enterprises.

Indirect tax returns generally need to be filed on a monthly basis and noncompliance exposes companies to significant monetary liability, poor customer experiences and reputational risk. Tax audits can look back many years, creating a greater level of accountability for managing tax data than for typical business data. Additionally, it is not unusual for a large enterprise to have a substantial number of tax audits across numerous jurisdictions ongoing at any point in time. Each audit may require detailed traceability to individual transactions to defend historical tax positions taken.

Dynamic business, regulatory and technology drivers have a compounding effect on tax compliance

We believe that trends in the digital economy are accelerating the need for adoption of sophisticated tax solutions among a broader and growing number of enterprises and global commerce platforms.

- *Governments are increasingly adopting new and expanded indirect tax measures.* More governments are adopting indirect tax as an effective means to build and maintain their revenue base. For example, some of the countries that recently enacted new or expanded indirect tax legislation include China, India, Saudi Arabia and the United Arab Emirates.
- *Governments are mandating more frequent and more detailed tax reporting, using advanced technologies to scrutinize business tax filings.* Jurisdictions are also increasing the requirements and frequency of tax compliance. Many countries outside of the United States are now requiring detailed information and real-time or near-real time reporting from business taxpayers. For example, companies invoicing more than €6.0 million annually in Spain must submit invoice and other related data every four days, which must also be reconciled to their month-end filing.
- *Businesses' geographic and channel expansion are creating new tax exposures.* An increasing number of enterprises are selling globally and online to expand their business, and as a result are facing new tax compliance and reporting requirements. For many manufacturers and distributors, there are new complexities regarding what may trigger sales tax responsibility and which transactions are taxable or tax-exempt.
- *Governments are enacting new taxation on digital goods and services.* Many countries have already unilaterally proposed new taxation of digital services such as digital advertising, streaming video and online delivery services to increase revenues from the global digital economy. The European Union, United Kingdom, Australia, Austria, France, Italy, Spain and New Zealand have all proposed or enacted some type of digital taxation, accelerating the need for businesses and marketplace providers to extend their indirect tax processes.
- *B2B and B2C marketplaces are increasingly responsible for collecting and remitting taxes for their third-party sellers.* In the United States, nearly 40 states have now enacted marketplace facilitator regulations. These regulations may require companies such as Amazon, eBay and Walmart to collect and remit sales tax for first-and third-party sales on their websites, regardless of where those goods or services are consumed.
- *The expanded number of business applications being used by enterprises has increased the number of data sources necessary for indirect tax compliance.* A proliferation of best-of-breed enterprise software applications in segments such as procurement, billing, shipping and eCommerce has resulted in companies facing more applications handling data that impacts the sale and purchase of taxable goods and services. As a result, tax departments must collect tax-related data from numerous, disparate systems.

Legacy approaches are insufficient

Over the past several decades, many tax departments have addressed their indirect tax needs by relying on a patchwork of static tax rate tables in spreadsheets, home-built systems or business applications not designed for tax compliance. Each requires heavy reliance on finance personnel or outside professional services. As taxation becomes more complicated, we believe these approaches will begin to fracture as they are error-prone, inefficient and cannot scale, thus increasing exposure to fines, raising reserves and heightening the risk of tax audits across multiple jurisdictions.

Our Opportunity

We believe the total addressable market for solutions that enable global commerce and compliance is robust, global and growing. We estimate our addressable market among global enterprises and other businesses with greater than \$1.0 million in annual sales to be over \$7.0 billion in the United States. We believe this potentially understates our total addressable market because it does not include businesses domiciled outside of the United States.

We calculate our addressable market size by segmenting all companies domiciled in the United States across all industries by annual U.S. sales revenues. For each of the companies with greater than \$1.0 million in annual sales, we then apply an estimate of total potential annual spend per company for indirect tax technologies, including tax determination, compliance, tax data management and document management, based on our average selling price estimates.

Key Benefits of Our Solutions

We deliver comprehensive tax solutions that automate end-to-end indirect tax processes for enterprises and mid-market companies with complex tax operations. Our software includes tax determination, compliance and reporting, tax data management and document management fueled by our powerful and proprietary content database, which includes over 300 million data-driven effective tax rules supporting indirect tax compliance in more than 19,000 jurisdictions worldwide. Our solutions also include powerful pre-built integrations to core business applications, such as SAP and Oracle.

Our solutions deliver the following key benefits to our customers:

Comprehensive, efficient and accurate indirect tax management. Our solutions provide our customers with powerful tools to manage their end-to-end indirect tax obligations across determination, documentation, reporting and remittance. Our solutions move customers away from manual and inconsistent processes, spreadsheets and home-built solutions and enable them to manage their indirect tax obligations accurately and efficiently, while reducing risk with richer documentation and support for ongoing compliance and reporting requirements.

Reduction in tax audit risk and tax audit-induced costs. We believe that customers implement our solutions to increase accuracy and transparency in supporting the tax audit process, and to lower their overall costs of tax audit defense. This is driven by rich documentation and data support during tax audit discovery, which can mitigate tax audit-related adjustments and fines. The accuracy and ease of using our software also allows finance and tax teams to redistribute their time and effort towards higher return on investment initiatives such as strategic planning and tax audit defense, creating meaningful expansion in productivity.

Wide jurisdiction coverage to support geographic expansion. Economic nexus for indirect taxes is often based on the geographic location of either operations or sales. We maintain expansive coverage of jurisdictions and continually update our global content database, allowing our customers to expand their operations around the world while maintaining compliance with the relevant indirect tax laws of each jurisdiction.

Support of new business models. As digital transformation continues to change our economy, many enterprises are adopting new business models and incorporating new technology in their products and operations to fuel growth, including diversified supply chains and omnichannel retail strategies. Many of these digital transformations result in new, complex indirect tax challenges. For example, data transmissions from internet-connected devices are subject to telecom taxes, which are often new and unfamiliar obligations to traditional manufacturers and retailers.

Our Competitive Strengths

We have pioneered tax technology for over 40 years. We deliver comprehensive tax solutions that enable global businesses to transact, comply and grow with confidence. Companies with complex tax operations rely on us to automate their end-to-end indirect tax processes. Our key competitive strengths include:

We provide a differentiated portfolio of end-to-end solutions for indirect tax globally. Through the combination of data, analytics and expertise, our solutions automate the end-to-end indirect tax processes for enterprises with complex tax operations and audit risk. Our software includes tax determination, compliance and reporting, tax data management and document management tools, as well as pre-built integrations to the software applications and systems that are used by our customers, such as SAP, Oracle and Adobe/Magento, to perform real-time indirect tax determinations across a variety of different industries, including retail, leasing, communication and manufacturing. In addition to our powerful calculation engine, our software supports exemption automation for customers, and our data management capabilities provide a solution for the data validation, analysis and transformation steps that are required to properly support indirect tax compliance. We can also support tax remittance for our customers and currently process nearly \$6.0 billion of tax payments on behalf of our customers annually.

Our software is underpinned by a comprehensive proprietary tax content database. Our proprietary tax content database is significant and includes educational content, best practices guidance and over 300 million data-driven effective tax rules supporting indirect tax compliance in more than 19,000 jurisdictions worldwide, which are then embedded into our software. Our tax content provides meaningful insights and guidance to enterprises looking to address their tax exposure, and we provide solutions by embedding these tax rules into our software. We employ over 70 tax professionals on our tax content team, which is comprised of subject matter experts with significant experience and includes CPAs, attorneys and chartered accountants, among others. Our content team combines legislative research, analysis, technical logic and automation to embed updated rules into our software. We believe that the knowledge, depth and breadth of our content database is a differentiated asset that gives us a competitive advantage.

Our strong brand makes us a recognized and trusted provider in tax software. We pioneered the first indirect tax software over 40 years ago and since then have built innovative tax software, a marquee customer base and a trusted brand. We continue to adapt to meet our customers' needs—from mainframe-based software to cloud and mobile technologies. This has helped us create a long-standing customer base of over 4,000 customers, including some of the most complex and discerning multinational enterprises around the globe. Our history and experience with complex tax challenges are difficult to replicate.

Our culture of innovation, the name-brand recognition of our customer base and the mission-critical nature of our software for tax departments provide leverage to our sales and marketing teams and enable us to successfully attract new customers. Our brand and solutions are trusted by customers, as well as the tax audit and advisory community and regulators. Our history and expertise are also critical to our deep partnerships with numerous marketplaces, ERP, CRM and POS providers and have made us a sought-after thought leader in the industry.

Powerful, robust technology with enterprise-grade scale and speed. Our solutions are built upon a technology foundation purpose-built to meet the needs of highly discerning enterprises with complex indirect tax obligations. For example, our software is used by some of the largest companies in the world to automate indirect tax calculation in hundreds of locations, among thousands of suppliers and millions of customers, across tens of thousands of jurisdictions, and through multiple systems of record. By utilizing a common engine and data design, we offer consistency regardless of the technical

infrastructure of our customers and partners. Our technology architecture and engineering expertise allow us to continue providing solutions with the enterprise scale and speed our customers expect, realizing rapid-time-to-value from our software and monthly content updates.

Flexible delivery and configuration to meet the needs of our customers. Our customers need software that allows them to automate tax but also allows for tax configurability that accommodates their specific company needs. Our configurability allows users to create their own taxability rules that can act as an override, providing more flexibility and ensuring that all individual, company-specific tax scenarios can be met. We also offer a flexible delivery model that includes on-premise, cloud or a hybrid of both delivery models, giving our customers the ability to choose how to manage their tax determination and system deployments.

Deep and high-quality partnerships and integrations. Our partner ecosystem is a distinct strength to support both software development and our sales and marketing activities. We integrate with key technology partners that span ERP, CRM, procurement, billing, POS and eCommerce platforms. The majority of our integrations are designed, tested and supported by us; however, we also support partner-developed integrations as part of a rigorous certification program. Our teams are embedded at a deep technical level and we conduct joint roadmap development with our partners. In addition, we collaborate with over 50 tax, accounting and consulting firms, which not only complement our global tax and technology expertise, but also help us identify new growth opportunities. Many of these firms have built significant practices around our solutions, which greatly extends our reach.

Our Growth Strategies

We believe today's global commerce environment provides durable growth opportunities for our business. Our growth strategies include:

- **Expand existing customer revenues.** The breadth of our solutions allows us to continually meet our customer needs, even as their needs expand in scope. For example, customers initially investing in sales tax determination may need support for other tax types, jurisdictions and capabilities to manage their indirect tax lifecycle over time. As businesses continue to evolve through acquisitions and expand products and services, enter new geographies or expand their distribution channels, we believe they will need our software, services and content. We plan to continue to invest in new offerings and enhance our solutions to support the ongoing retention and expansion of revenue from our existing customers. Our flexible, tiered transaction-based pricing model also results in our customers growing their spend with us as they grow and continue to use our solutions.
- **Acquire new customers.** Our solutions address the complexity of aligning commerce and compliance and we believe the market for our software and solutions is large and underpenetrated, both in the United States and globally. As enterprise and mid-market companies continue to expand and their tax complexity grows, we expect demand for our solutions to increase among new customers and partners. We also expect these companies to adopt our solutions much earlier in their corporate lifecycle. This adoption is driven by advances in cloud computing and digital commerce, which enable more companies to accelerate new product delivery and scale their business through online marketplaces and emerging commerce platforms. These increases in business complexity necessitate advanced tax solutions for a broader number of companies. We plan to continue to invest in our sales and marketing teams in order to capture this demand increase and acquire new customers.
- **Broaden and deepen our partner ecosystem.** We integrate with key technology partners that span ERP, CRM, procurement, billing, POS and eCommerce platforms. Our partners enhance our go-to-market capacity and extend our brand leadership and reach. We leverage our partnerships to maximize the benefits of our solutions for our customers and to identify new growth

opportunities. We believe expanding our strategic alliances with emerging participants who are fueling global commerce, such as payment and digital commerce platforms, will create new value for our customers and new sources of revenue. Future partnerships with large-scale digital payments players will allow us to develop additional customer-centric solutions and further expand our customer base.

- **Extend global footprint.** We have a significant opportunity to further expand internationally, in terms of our regional operations, content depth and go-to-market coverage. We expect to continue to invest in our software and solutions outside of the United States, most notably in Latin America and Europe. These jurisdictions are among the most complex and the largest international markets for our customers, respectively. We have also made significant investments in our own operations in these regions. In Europe and Brazil, for example, we have tailored our go-to-market strategy and enhanced our country-specific content database and furthered our investment in our global compliance reporting solution. By extending our global footprint, we believe we will also expand account penetration of existing customers with operations around the globe.
- **Sustained investment in new product innovation.** With the pace of change in commerce and compliance, we believe it is important to continue innovating and extending the functionality and breadth of our software and solutions. Our approach to innovation is driven by our relationships with our customers and partners, with whom we create new solutions, align product roadmaps and embed our software within their applications and platforms. For example, we worked with a large United States-based distributor of industrial supplies to develop cloud-based software for managing tax exemption certificates. This distributor now uses this technology to manage over 13,000 tax exemption certificates every month. We have also established an innovation lab where we design, test and incubate next-generation tax solutions and adjacent market opportunities like blockchain, payment platforms and machine learning technologies. Over time, we expect this will bring additional value to existing customers and help us acquire new customers.

Our Software and Solutions



Our solutions automate the end-to-end indirect tax processes for enterprises with complex tax operations and audit risk. Our software includes tax determination, compliance and reporting, tax data

management and document management tools, as well as pre-built integrations to major business applications. Customers can purchase these solutions individually or as part of a broader suite and can choose the delivery model that best aligns to their enterprise technology environments.

- **Tax Determination.** Our tax determination solutions enable real-time calculation of indirect taxes and applicable fees for sale and purchase transactions. This solution includes a powerful indirect tax calculation engine that applies rules-based logic from our proprietary content database to determine taxability, identify precise taxing jurisdictions, and consistently apply the appropriate amount of tax to each transaction in real-time. As businesses expand into more digital services, complexity increases as transaction location becomes dynamic. For example, our solutions support ride-sharing services by leveraging geolocation technology to determine tax jurisdictions for these transactions by processing latitude-longitude coordinates in real-time. Our solution supports determination for sales tax, consumer use and seller use tax, VAT, communications tax, leasing tax, payroll tax and lodging and occupancy tax.
- **Compliance and Reporting.** Our compliance and reporting solutions enable the automation of signature-ready returns and remittance of indirect tax to appropriate jurisdictions. These solutions leverage tax data files imported from Vertex or third-party applications to establish visible audit trails of tax determinations and user-made adjustments. Our solutions also include workflow management tools, such as calendar and document management, and role-based security and event logging, which supports our customers' internal control over financial reporting and compliance for the Sarbanes-Oxley Act. We support e-filing and print formats for returns, schedules, worksheets, tax reports and payment requests and also provide archiving and retrieval of all filings. We remitted approximately \$6.0 billion in tax payments on behalf of customers in 2019.
- **Tax Data Management.** Our tax data management tools enable enterprises to unify transaction data from multiple business applications and sources. These solutions enable tax teams to view detailed transaction-level tax data, identify anomalies or errors, and establish necessary rules to address gaps in data and audit logs for any adjustments or corrections that have been made.
- **Document Management.** Our document management solutions automate the validation of, storage of and tax audit support for sales tax exemptions and reseller certificates. Enterprises with large, complex tax operations may have tens of thousands of exemption certificates to manage every year.
- **Pre-Built Integrations.** Our solutions are supported by a suite of powerful, pre-built integrations that enable real-time coordination between our solutions and major business applications, such as Adobe/Magento, Coupa, Microsoft Dynamics, NetSuite, Oracle, Salesforce, SAP, SAP Ariba, Workday and Zuora, among many others. Much more than traditional application programming interfaces, our integrations include mapping data fields, business logic and configurations to improve the processing of transactions to and from our solutions. The majority of our integrations are designed, tested and supported by us. However, we also support partner-developed integrations as part of a rigorous certification program.
- **Industry-Specific Solutions.** We also offer a range of solutions that support certain industry verticals that have specific indirect tax needs, such as retail, communications and leasing. For example, our retail solution supports omnichannel transactions spanning store kiosks, eCommerce websites, catalog sales and mobile device transactions. Our communications solution supports the determination of taxes, surcharges and fees affecting United States providers of communication services, including wireless, voice-over-IP, satellite, internet, video and audio streaming services. We have pre-built integrations specific to the leading providers of business applications used by these verticals.

- **Services.** Due to the ubiquitous nature of our software in our customers' technology environments, we also offer implementation services to enable our customers to realize the full benefit of our solution at initial deployment. These software implementation services include configuration, data migration and implementation, and premium support and training. Customers can also purchase indirect tax returns outsourcing as a managed service for compliance in the United States and Canada. These managed services include indirect tax return preparation, filing and tax payment and notice management.

Our Tax Content

All of our software and solutions are underpinned by our proprietary content database, which currently supports over 300 million effective tax rules. We employ over 70 tax-content professionals residing in the United States, United Kingdom, Amsterdam, Brazil and Belgium who continually update and maintain this extensive database of content. Our content is a key component of our software subscriptions. Its quality and accuracy are critical to the longevity of our customer subscriptions. On a monthly basis, our content team combines legislative research, analysis, technical logic and automation to embed updated rules into our software. Unlike many enterprise software solutions where maintenance and support is focused solely on periodic technology upgrades, our monthly updates are a critical element of allowing our customers to ensure that they are utilizing the latest tax changes to accurately calculate their indirect taxes.

Our Technology

Our software and solutions are built upon a robust set of technology capabilities designed for the flexibility, configurability, speed and scale to handle the most complex tax scenarios and processing volumes and interoperability to core business applications.

Real-Time Engine. Our real-time engine determines the appropriate tax rules to apply to a line item in a transaction through a sequence of real-time processes that combine tax algorithms and tax content with transaction line item level detail. Combining tax content stored as structured data with sequencing and decision tree logic results in one or more individual tax rules that are applied to each line item in a transaction. This is built within memory and cached for performance. The in-memory processes of the core calculation engine are tuned to accommodate high volume and complex transactions at speed and scale.

Configuration. Our solutions are built to be highly configurable. Through our graphical user interfaces, users can configure and map their taxability to ensure the correct tax rules are executed. Our flexibility in configuration also extends to users who can create their own taxability rules, as appropriate. These user-defined taxability rules act as an override providing flexibility, to ensure that non-standard tax scenarios and processes can be addressed. Additionally, users can augment transactions entering and exiting the engine by building their own logic through our drag and drop experience. This logic is saved to then execute within the engine.

Tax Geography. Tax accuracy depends on detailed location information for where a transaction is occurring. We designed and created a proprietary solution for tax jurisdiction identification that leverages industry geographic information system tools and geospatial data. With our proprietary technology we are able to create and map multiple tax jurisdictions for a particular location and assign a unique identifier to each location so that it can be used by the engine to allow for higher accuracy. This technology is highly relevant to emerging economic shifts, such as the sharing economy, where the physical nexus of transactions is unclear, such as ride-sharing services.

Security. Our application security framework allows our customers to define how users can interact with sensitive enterprise data and how they are authorized to use certain aspects of our

software. Users are mapped to a set of predefined roles and we provide our customers with the ability to create user-defined roles. User-defined role-based access can be defined on a screen-by-screen level and further refined with read and/or write privileges.

Cloud Solutions. Vertex provides Cloud services from six geographically separate data centers located on two continents: North America and Europe. The data centers are paired for failover of operations to an alternate, geographically separate production facility in case any single data center becomes unavailable. All data centers are operated by leading vendors providing physical security, Internet access, environmental controls and data retention services.

Our Customers

Since our founding, we have earned the brand trust and loyalty of our customers through long-lasting relationships and our commitment to them.

Today, we serve a large, diverse and growing global customer base. Our market leadership in key verticals can be demonstrated by our relationships with many of the largest and most well-known companies in retail trade, wholesale trade and manufacturing, among others. Our customers include the majority of the Fortune 500, as well as a majority of the top 10 companies by revenue in multiple industries such as retail, technology and manufacturing, in addition to leading marketplaces. We have significant expansion opportunities with these customers driven by our growing product portfolio and geographic coverage.

A distinct and growing subset of our customer base includes marketplaces and various professional service providers, including accounting firms and outsourcing firms. Our robust technology and deep tax content differentiate us in our ability to serve the indirect tax needs of 7 of the top 10 marketplace providers in North America by revenue. These customers support tens of thousands of merchants who rely on their platform for their e-commerce transaction processing. We also support service providers such as outsourcing and accounting firms who use our technology to calculate tax and file tax returns for their end-customers. While we include these marketplaces and service providers in our customer counts, the tens of thousands of their end-customers are not included in our customer counts.

As of December 31, 2019, we had over 4,000 customers and an average ARR of over \$65,000 per customer while for the year ended December 31, 2018, we had over 3,900 customers and our ARR per customer was over \$55,000. While most of our revenue is currently generated by customers domiciled in the United States, many of our customers are multinational organizations with global business operations. We also provide tax software solutions outside the United States, primarily in Europe. No single customer represented more than 2% of our total revenue for the year ended December 31, 2019.

Sales and Marketing

We sell our software and solutions primarily through our direct sales organization, with a focus on enterprise and mid-market businesses that have complex tax operations. Our direct sales team is comprised of inside sales and field sales, supported by our technical pre-sales and services teams. Teams are organized by territory and company size. We also have customer success teams focused on onboarding, usage, retention, renewals and cross-selling additional products.

Our direct sales force leverages our partnerships with technology providers such as Oracle, SAP, Microsoft and Salesforce, and a growing network of system integrators to influence and drive growth opportunities. The partnerships can include certified integrations that drive ease of implementation and rapid time-to-value for our joint customers. We leverage our relationships with professional services firms such as Deloitte, PwC and KPMG to drive tax software adoption in partnership with their tax advisory and tax technology practices.

We also utilize indirect sales to efficiently grow and scale our revenues. Our indirect sales team focuses on building relationships with leading system integrators who implement eCommerce and other platforms, and resellers who offer our software, services and training to their customer networks. These partnerships allow us to extend our demand generation and market reach efforts. We also extend our reach efficiently through marketplaces and service providers who use our technology to calculate tax and/or file tax returns for their end-customers.

Our marketing investments are focused on establishing and expanding our brand recognition, creating sales leads and growing our customer relationships. We generate sales leads through online and offline marketing channels, including search engine marketing, outbound lead generation, technology events and conferences and digital marketing programs. Word-of-mouth referrals from our install base customers, technology partners and consulting firms further scale our market reach. We engage and grow our customer revenues through hosted events, customer advisory boards and user groups, and digital seminars. We extend brand awareness through advertising, press coverage and social media, as well as through sponsorships of industry associations such as Tax Executive Institute, Council on State Taxation and cpa.com.

Partners

We believe the scale and quality of our ecosystem is unparalleled in the industry, and we are committed to growing it even further. Our partner ecosystem consists of multiple types of partners that provide us access to their customers and clients.

Our continued success is enabled by our seamless integration into customers' business applications, gathering high-quality new customer leads and collaborating with professional service providers to help our customers solve their specific tax needs. In addition to driving technological innovation and growing our range of solution offerings, expanding our partner ecosystem has been an essential part of our growth.

Accounting & Consulting Partners. We collaborate with over 50 tax, accounting and consulting firms, which not only complement our global, local and industry-specific regulatory expertise but also point us towards specific commercial opportunities. Our wide range of offerings and sophisticated technology align with these firms' areas of specialization, enabling organizations to strengthen end-to-end delivery capabilities for a diverse array of clients.

Technology Partners. Our pre-built integrations with key partners including Adobe/Magento, Coupa, Microsoft Dynamics, NetSuite, Oracle, Salesforce, SAP, SAP Ariba, Workday and Zuora, among many others, are key differentiators that enable our customers to seamlessly connect our solutions into their business applications and processes. Our trusted brand reputation has allowed us to be the leading SAP and Oracle tax technology provider, with a relationship spanning many years with these vendors. Our technology software and solutions and highly scalable transaction volume throughput has earned the trust of world-class online marketplaces. These deep partnerships allow us to expand the frontier of tax technology innovation and market opportunity.

Research and Development

Our research and development team consists of our architecture, software engineering, user experience, infrastructure automation and technical production support teams. This organization is responsible for the design, development, testing and delivery of new technologies, features and integrations of our tax software and solutions, as well as the continued improvement of our existing solutions. It is also responsible for operating and scaling our software and solutions and infrastructure that run in the cloud. We continue to invest in our research and development capabilities to extend our solutions further into the cloud and partner ecosystems to continuously deliver more value.

Competition

Our industry is highly competitive and fragmented. Businesses employ a mix of approaches to address their indirect tax obligations, including:

- in-house practices and spreadsheets that result in custom transaction-specific research, manual determination, static tax tables or rate calculator services, as well as manual filing and remittance activities;
- businesses utilizing native ERP capabilities with rudimentary tax determination capabilities, which are typically not designed for complex tax support and lack tax rates, rules and complex calculation functionality and require the user to manually track, input, maintain and update all tax law changes that occur;
- outsourced transaction tax compliance services offered by accounting and specialized consulting firms; and
- tax-specific solutions from other vendors, including, Thomson Reuters and Sovos and Avalara.

We believe customers consider the following factors when selecting indirect tax technologies:

- ability to minimize compliance risk exposure associated with inaccurate and/or inconsistent determination and remittance of taxes;
- ability to deliver real time tax determinations;
- ease of deployment and use;
- ease of integration with the customer's business applications, across multiple systems;
- ability to address multiple transaction tax compliance functions, from initial taxability and tax rate determination through compliance and remittance of funds;
- lower total cost of ownership; and
- continuously updated tax content applicable to the customer's business.

Depending on the importance and complexity associated with these factors for each customer we maintain varying competitive advantages. We continually monitor these factors and adjust our functionalities, service offerings, pricing structures and overall solution delivery approach to continually strengthen our position.

Intellectual Property

Our success has resulted in part from our proprietary methodologies, software, reusable knowledge capital and other intellectual property rights. We rely on a combination of copyright, trademark and trade secret law, as well as contractual restrictions such as confidentiality and non-compete provisions to protect our intellectual property rights, including our brand, technology and confidential information. We have policies related to confidentiality, ownership, and the use and protection of our intellectual property. We also enter into confidentiality and invention assignment/proprietary rights agreements with our consultants, employees and other third parties as appropriate that protect and control access to our intellectual property, and we enforce these agreements if necessary. We recognize the value of our intellectual property in the marketplace and vigorously identify, create and protect it. We believe the innovation of our employees and our continued enhancement of the features and functionality of our solutions is the keystone of our success.

Despite our efforts to protect our proprietary technology, confidential information and our intellectual property rights, unauthorized parties may attempt to copy or obtain and use our technology to develop applications with the same functionality as our applications, and policing unauthorized use of our technology and intellectual property rights may be difficult and may not be effective.

We expect that software and other applications in our industry may be subject to third-party infringement claims as the number of competitors grows and the functionality of applications in different industry segments overlaps, and we may face such claims.

Regulation

Our software and solutions rely on a range of complex laws and regulations relating to our customers' sales and use transactions and business operations. We aggregate information regarding tax rates, rules and regulations obtained from taxing jurisdictions and use that data within our software and solutions to calculate transaction taxes, prepare and file tax returns, and remit taxes on behalf of our customers. Our long term success is based on our monitoring and understanding this legal and regulatory landscape.

We have an established an information security program that includes annual security training to help ensure that consultants and employees are aware of our legal and contractual obligations to protect us and our customer data. We also use privacy statements to provide notice to customers of our privacy practices, as well as provide them with the opportunity to furnish instructions with respect to the use of their personal information.

We use security controls to help protect customer and employee data from loss, misuse and unauthorized alteration. We use technical, logical and procedural measures, such as multi-factor authentication, which are designed to help detect and prevent fraud and misuse of customer data. Whenever customers transmit their data to us, we follow current industry standards to encrypt the data as it is transmitted to us and when we store it. We work to protect our systems from unauthorized internal or external access using numerous commercially available computer security products as well as internally developed security procedures and practices.

Employees & Culture

Our culture is the foundation of everything we do, guided by a common purpose to build trusted relationships at work, in business and in our communities. We strive to be a values-driven employer of choice who attracts, retains and inspires talented professionals to achieve their full potential. We have been recognized as one of the best places to work in Philadelphia for the past five years according to The Philadelphia Inquirer. We create and nurture an engaging work environment that embodies our core values of collaboration, performance, integrity, innovation and fun, and we actively support our employees' participation in community service and philanthropy.

As of December 31, 2019, we had approximately 1,100 full-time employees. Of these employees, 95% were based in the United States, 4% based in Europe and 1% in Latin America. We believe we have a strong relationship with our employees and we have not experienced any work stoppages.

Facilities

Our corporate headquarters, which includes our operations and innovation lab, is located in King of Prussia, Pennsylvania, and consists of approximately 189,502 square feet of space under a lease that expires on September 30, 2028.

We also lease offices in Sarasota, Florida; Naperville, Illinois; London, United Kingdom; Amsterdam and Maastricht City, The Netherlands; Frankfurt, Germany; Sao Paulo, Brazil; Chennai, India; and Cork, Ireland.

Legal Proceedings

From time to time, we may be involved in various legal proceedings arising from the normal course of business activities. We are not presently a party to any litigation the outcome of which we believe, if determined adversely to us, would individually or taken together have a material adverse effect on our business, operating results, cash flows or financial condition.

MANAGEMENT

The following table provides information regarding our executive officers and our board of directors:

<u>Name</u>	<u>Age</u>	<u>Position</u>
David DeStefano	57	President, Chief Executive Officer and Chairperson
John Schwab	52	Chief Financial Officer
Lisa Butler	54	Chief Accounting Officer
Bryan Rowland	40	General Counsel
Eric Andersen	58	Director
Terrence Kyle	69	Director
Amanda Westphal Radcliffe	52	Director
Kevin Robert	63	Director
J. Richard Stamm	64	Director
Stefanie Westphal Thompson	57	Director
Jeffery Westphal	58	Director

Executive Officers

David DeStefano became our President and Chief Executive Officer in November 2016, joined our board of directors in 2019 and was appointed Chairperson of our board of directors in 2020. Between 2015 and 2016 he was an Executive Vice President and a member of the Company's Executive Council, which monitors our long-term strategic and financial viability, corporate brand, and culture. Mr. DeStefano previously served as our Vice President, Chief Financial Officer and Executive Vice President. Prior to joining the Company, Mr. DeStefano was Principal and Vice President at The Mid Atlantic Companies, Ltd. Mr. DeStefano is also on the Advisory Board for Corporate Social Responsibility at the Satell Institute and is on the Board of Trustees of the Joseph Fund in Camden, New Jersey. Mr. DeStefano received a BS in Finance from Lehigh University. We believe that Mr. DeStefano is qualified to serve on our board of directors because of the perspective and experience he brings as our Chief Executive Officer and his knowledge of our company and our business.

John Schwab became our Chief Financial Officer in 2020. Prior to joining the Company, Mr. Schwab served as Chief Financial Officer of Flagship Credit Acceptance from 2015 until 2019. Mr. Schwab began his career in assurance services at Arthur Andersen LLP. Mr. Schwab also is a director of PENN Capital Funds, a mutual group managed by Penn Capital Management. Mr. Schwab received a BS in Accounting from LaSalle University.

Lisa Butler became our Chief Accounting Officer in 2020, having previously served as our Chief Financial Officer from 2015 to 2019. Prior to joining the Company in 2003, Ms. Butler was a Controller at Kenexa Inc. (now an IBM company). Ms. Butler started her career in assurance services at Pricewaterhouse Coopers, L.L.P. ("PwC") serving both private and public companies. Ms. Butler received a BS in Accounting from LaSalle University and is a Certified Public Accountant.

Bryan Rowland became our General Counsel in 2017. Prior to joining the Company, Mr. Rowland held various roles at Checkpoint Systems from 2005 to 2016, including serving as Senior Vice President, General Counsel, Chief Compliance Officer and Corporate Secretary from 2014 to 2016. Mr. Rowland received a BS in Psychology and Philosophy from Towson University and a Juris Doctorate degree from Villanova University Charles Widger School of Law.

Directors

Eric Andersen joined our board of directors in January 2008 and currently serves as lead director. He has over 25 years of consulting and management experience at IBM, Price Waterhouse and PwC Consulting. His last 10 years have been spent in private equity. He is currently a managing partner at Peak Equity ("Peak"), a Philadelphia-based private equity firm focused on lower middle-market enterprise software. Prior to joining Peak, Mr. Andersen was a partner at Milestone Partners, a Philadelphia-based private equity firm and he was a managing director at Silver Lake Partners, a technology-focused private equity firm based in New York. During his tenures with Price Waterhouse, PwC Consulting, and IBM, Mr. Andersen was a senior partner and senior executive leading several businesses in the United States and Asia as well as globally. Mr. Andersen is currently chairman of G5, a privately held software company. In addition, he serves on the Board of American Public Education Inc. ("APEI") a publicly traded online higher education company where he is chair of the compensation committee and a member of the audit committee. Mr. Andersen holds an MBA from the Wharton School at the University of Pennsylvania and a BS from Bucknell University. We believe that Mr. Andersen is qualified to serve on our board of directors because of his extensive experience in building and leading companies, as well as his public company experience and significant operational and strategic expertise.

Terrence Kyle joined our board of directors in June 2004. Mr. Kyle was previously a partner with WIN Capital, LLC, a private equity group that invested in emerging growth companies from the manufacturing, technology and service markets. Mr. Kyle joined Shared Medical Systems in April 1976 and helped take the company public later that year. At Shared Medical Systems, Mr. Kyle served as Senior Vice President and Chief Financial Officer before the company's sale to the Siemens Corporation in July 2000. Mr. Kyle began his career with Arthur Andersen LLP in 1972. Mr. Kyle received a BS in Accounting from Drexel University. We believe that Mr. Kyle is qualified to serve on our board of directors because of his experience in the private equity industry and as an executive officer in other businesses.

Kevin Robert joined our board of directors in February 2015. Mr. Robert spent more than 30 years at Wolters Kluwer Tax & Accounting as a tax executive. Beginning as an Account Sales Manager in 1981 with CCH Computax, Mr. Robert progressed through leadership positions at CCH Computax and CCH Publishing before being named President and Chief Executive Officer of CCH Tax Compliance in 2001. Following CCH's 1995 acquisition by Wolters Kluwer, Mr. Robert led the Tax & Accounting division's operations in North America and Asia Pacific before being named Global Chief Executive Officer in 2010. Mr. Robert brings deep experience in developing and marketing cutting-edge accounting, tax and audit software and solutions for tax professionals around the world. His multinational experience includes developing business in North America, South America, Europe and the Pacific Rim, identifying global opportunities and negotiating the acquisition of companies. He also served on the Board of Epiq Software, which was sold in September of 2016. Mr. Robert holds a BS in Marketing from the University of New Orleans and an MBA in Business Management from Pepperdine University. He is a member of the National Association of Corporate Directors ("NACD") and has been a NACD Leadership Fellow since 2015. Mr. Robert currently owns his own consulting firm providing board and management consulting services. We believe that Mr. Robert is qualified to serve on our board of directors because of his significant industry knowledge and his corporate finance and public company experience.

J. Richard Stamm joined our board of directors in January 2019. Prior to joining our board of directors, Mr. Stamm was a partner with PwC for 30 years, during which time he served a long list of domestic and international clients and held numerous leadership positions. Over the final 12 years of his career with PwC, Mr. Stamm was the firm's Vice Chairman and U.S. Tax Leader, and then progressed to PwC's Vice Chairman of Global Tax. Mr. Stamm is Vice President and Chief Financial Officer of Stamm Development Group LLC, a Philadelphia area real-estate developer. Mr. Stamm is a

member emeritus of the Board of Advisors for the Leventhal School of Accounting at the University of Southern California and was formerly a member of the Boards of Germantown Academy and Lycoming College. Mr. Stamm received a BA in Accounting from Lycoming College. We believe that Mr. Stamm is qualified to serve on our board of directors because of his significant industry and corporate finance experience.

Amanda Westphal Radcliffe has served on our board of directors since 1993. Prior to joining our board of directors, Ms. Radcliffe served in a variety of roles at the Company, from technical software instructor and production, to middle-market product teams. Prior to joining the Company, she was a middle-market Managing Director at a global corporate travel management company. Ms. Radcliffe serves on the Children's Hospital of Philadelphia Board of Trustees, Foundation Board of Overseers and the St. Joe's University Kinney Center for Autism Education and Support Advisory Board. Ms. Radcliffe is Chair of the Drexel University A.J. Drexel Autism Institute Board and Chair Emeritus of breastcancer.org. Ms. Radcliffe is also a member of the Philadelphia Chapter of Women Corporate Directors. Ms. Radcliffe holds a BA from Moravian College, attended business school at Drexel University and attended the Executive Education program at the Wharton School. We believe that Ms. Radcliffe is qualified to serve on our board of directors because of her extensive knowledge of our company and our business derived from her longtime service with the company.

Stefanie Westphal Thompson joined the Company in 1991 and has served in a variety of roles, including Treasurer. Prior to joining the Company, Ms. Thompson was a Vice President at Chemical Bank (now part of Chase), where she specialized in managing the banking relationship for middle-market companies. Ms. Thompson sat on Bryn Mawr Hospital's Foundation Board for eight years, serving as Head of their Trustee Committee and as Vice-Chair. Ms. Thompson also served on the Board of the Agnes Irwin School in Rosemont, Pennsylvania, for ten years, heading its Trustees Committee. Ms. Thompson received an MBA in Finance from Fordham University and has a dual BA in Engineering and Economics from Lafayette College. We believe that Ms. Thompson is qualified to serve on our board of directors because of her corporate finance experience as well as her knowledge of our company and our business derived from her longtime service with the company.

Jeffrey Westphal has served on our board of directors since 1988. Mr. Westphal has previously held numerous roles with the Company, including Director of Marketing, Vice President of Sales and Marketing, Executive Vice President, President and Chief Executive Officer. Mr. Westphal is a member of the Institute for Professionals in Taxation, World Presidents' Organization and the Conference Board. Mr. Westphal served for 15 years as Chairman of the Board of Open Connections, Inc., a not-for-profit open educational organization, and remains a trustee. In addition, Mr. Westphal is co-founder, with his wife, Jenifer, of Kyle's Treehouse, a web-based resource for families seeking hope and guidance for the treatment of children diagnosed with Autism Spectrum Disorder. Mr. Westphal holds a BA in History from University of Richmond. We believe that Mr. Westphal is qualified to serve on our board of directors because of his knowledge of our company and our business derived from his prior service as our Chief Executive Officer and Chairman.

Family Relationships

Ms. Radcliffe, Ms. Thompson and Mr. Westphal are siblings. There are no other family relationships among any of our executive officers or directors.

Director Independence and Controlled Company Exemption

Our board of directors has undertaken a review of its composition, the composition of its committees and the independence of each director. Based upon information requested from and provided by each director concerning his or her background, employment and affiliations, including family relationships, our board of directors has determined that Eric Andersen, Terrence Kyle, Kevin

Robert and J. Richard Stamm, representing four of our eight directors, do not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director and that each of these directors is "independent" as that term is defined under the applicable rules and regulations of the SEC and the listing requirements and rules of the [redacted]. In making this determination, our board of directors considered the current and prior relationships that each non-employee director has with our company and all other facts and circumstances our board of directors deemed relevant in determining their independence, including the beneficial ownership of our capital stock by each non-employee director.

Because the parties to the Stockholders' Agreement will own more than 50% of the voting power of our common stock after this offering, we are considered to be a "controlled company" for purposes of the [redacted] listing requirements. As such, we are permitted, and have elected, to opt out of the [redacted] listing requirements that would otherwise require our board of directors to be comprised of a majority of independent directors and require our nominating and corporate governance committee to be comprised entirely of independent directors. Accordingly, you may not have the same protections afforded to stockholders of companies that are subject to all of the [redacted] corporate governance requirements. See "Risk Factors—Risks Related to this Offering and Ownership of our Class A Common Stock—We are a "controlled company" within the meaning of the rules of the [redacted] and, as a result, expect to qualify for, and intend to rely on, exemptions from certain corporate governance requirements. You will not have the same protections afforded to stockholders of companies that are subject to such requirements."

Board of Directors, Committees and Executive Officers

Composition of Board of Directors

Our board of directors currently consists of eight members. Our amended and restated certificate of incorporation and amended and restated bylaws will provide that the authorized number of directors shall be fixed from time to time by a resolution of the majority of our board of directors.

Term and Class of Directors

Upon the effectiveness of the registration statement of which this prospectus forms a part, our board of directors will be divided into three staggered classes of directors of the same or nearly the same number. At each annual meeting of stockholders, a class of directors will be elected for a three-year term to succeed the directors of the same class whose terms are then expiring. The terms of the directors will expire upon election and qualification of successor directors at the annual meeting of stockholders to be held during the years 2021 for the Class I directors, 2022 for the Class II directors and 2023 for the Class III directors.

Any additional directorships resulting from an increase in the number of directors will be distributed among the three classes so that, as nearly as possible, each class shall consist of one-third of the directors. The division of our board of directors into three classes with staggered three-year terms may delay or prevent a change of our management or a change in control.

Term of Executive Officers

Each executive officer is appointed and serves at the discretion of the board of directors and holds office until his or her successor is elected and qualified, or until his or her earlier resignation or removal.

Board Committees

In connection with the consummation of this offering, our board of directors will have an audit committee, a compensation committee and a nominating and corporate governance committee, each of which will have the composition and responsibilities described below.

Audit Committee

Our audit committee will oversee a broad range of issues surrounding our accounting and financial reporting processes and audits of our financial statements, including the following: (a) monitor the integrity of our financial statements, our compliance with legal and regulatory requirements, our independent registered public accounting firm's qualifications and independence, and the status of our independent registered public accounting firm; (b) assume direct responsibility for the appointment, compensation, retention and oversight of the work of any independent registered public accounting firm engaged for the purpose of performing any audit, review or attest services and for dealing directly with any such accounting firm; (c) provide a medium for consideration of matters relating to any audit issues; and (d) prepare the audit committee report that the rules require be included in our filings with the SEC. Upon the effectiveness of this Registration Statement, the members of our audit committee will be Terrence Kyle, Kevin Robert and J. Richard Stamm. Terrence Kyle will serve as chairman of the audit committee, and the composition of our audit committee will comply with all applicable rules, including the requirement that at least one member of the audit committee have accounting or related financial management expertise. Terrence Kyle will qualify as an "audit committee financial expert," as such term is defined in Item 407(d)(5) of Regulation S-K.

Our board of directors will adopt a written charter for the audit committee, which will be available on our website upon consummation of this offering.

Compensation Committee

Our compensation committee will review and recommend policy relating to compensation and benefits of our officers and employees, including the following: (a) review and approve corporate goals and objectives relevant to the compensation of our Chief Executive Officer and other senior officers; (b) evaluate the performance of these officers in light of those goals and objectives; and (c) set compensation of these officers based on such evaluations. The members of our compensation committee will be Eric Andersen, Terrence Kyle and J. Richard Stamm. Eric Andersen will serve as chairman of the compensation committee, and the composition of our compensation committee will comply with all applicable rules.

Our board of directors will adopt a written charter for the compensation committee, which will be available on our website upon consummation of this offering.

Nominating and Corporate Governance Committee

The nominating and corporate governance committee will: (a) oversee and assist our board of directors in identifying, reviewing and recommending nominees for election as directors; (b) evaluate our board of directors and our management; (c) develop, review and recommend corporate governance guidelines and a corporate code of business conduct and ethics; and (d) generally advise our board of directors on corporate governance and related matters. The members of our nominating and corporate governance committee will be Kevin Robert, Amanda Westphal Radcliffe and Eric Andersen. Kevin Robert will serve as chairman of the nominating and corporate governance committee.

Our board of directors will adopt a written charter for the nominating and corporate governance committee, which will be available on our website upon consummation of this offering.

Our board of directors may, from time to time, establish other committees.

Compensation Committee Interlocks and Insider Participation

None of the members of our compensation committee is, or has at any time during the past year been, one of our officers or employees. None of our executive officers currently serves, or in the past year has served, as a member of the board of directors or compensation committee of any entity that has one or more executive officers serving on our board of directors or compensation committee.

Indemnification

We maintain directors' and officers' liability insurance. Our amended and restated certificate of incorporation and amended and restated bylaws will include provisions limiting the liability of directors and officers and indemnifying them under certain circumstances. We expect to enter into indemnification agreements with our directors to provide our directors and certain of their affiliated parties with additional indemnification and related rights. See "Description of Capital Stock—Limitation on Liability of Directors and Indemnification" for further information.

Code of Ethics

Our board of directors will adopt a Code of Ethics that will contain the ethical principles by which our chief executive officer and chief financial officer, among others, are expected to conduct themselves when carrying out their duties and responsibilities. A copy of our Code of Ethics will be available on our website at www.vertexinc.com. We will provide a copy of our Code of Ethics to any person, without charge, upon request, by writing to, Vertex, Inc., 2301 Renaissance Blvd, King of Prussia, Pennsylvania 19406 (telephone number (800) 355-3500). We intend to satisfy the disclosure requirement under Item 5.05 of Form 8-K regarding an amendment to, or waiver from, a provision of our Code of Ethics by posting such information on our website at www.vertexinc.com.

EXECUTIVE AND DIRECTOR COMPENSATION

This section discusses the material components of the executive compensation program for our executive officers who are named in the "2019 Summary Compensation Table" below. In 2019, our "named executive officers" and their positions were as follows:

- David DeStefano, President and Chief Executive Officer;
- Lisa Butler, Chief Accounting Officer; and
- Bryan Rowland, Vice President and General Counsel.

This discussion may contain forward-looking statements that are based on our current plans, considerations, expectations and determinations regarding future compensation programs. Actual compensation programs that we adopt following the completion of this offering may differ materially from the currently planned programs summarized in this discussion.

2019 Summary Compensation Table

The following table sets forth information concerning the compensation of our named executive officers for the year ended December 31, 2019.

Name and Principal Position	Year	Salary^(S)	Option Awards^{(S)(1)}	Non-Equity Incentive Plan Compensation^{(S)(2)}	All Other Compensation^{(S)(3)}	Total^(S)
David DeStefano President and Chief Executive Officer	2019	530,016	—	831,492	55,929	1,417,437
Lisa Butler Chief Accounting Officer	2019	297,130	—	238,114	26,382	561,626
Bryan Rowland Vice President & General Counsel	2019	258,027	—	133,122	16,800	407,949

- (1) During 2019, Mr. DeStefano and Mr. Rowland were granted 124,393 and 62,196 stock appreciation rights, respectively. As a nonpublic business entity, these stock appreciation rights were recorded at their intrinsic value of zero on date of grant. The company accounts for stock appreciation rights as liabilities under ASC Topic 718 and recognizes stock-based compensation expense by remeasuring the stock appreciation rights at the end of each reporting period and accruing the portion of the requisite service rendered at that date. We provide information regarding the accounting value of all stock appreciation rights in Note 1 to the consolidated financial statements included in this prospectus.
- (2) Amounts in this column represent cash incentive compensation earned during the year based on the attainment of pre-established performance objectives. This includes amounts earned under our annual Organizational Bonus Plan (as defined below) for 2019 of \$546,040 for Mr. DeStefano, \$139,360 for Ms. Butler and \$133,122 for Mr. Rowland, and amounts earned under our 2010 Long-Term Rewards Plan for the performance period ending in 2019 of \$285,452 for Mr. DeStefano and \$98,754 for Ms. Butler. For additional information about non-equity incentive plan compensation, see the section of this prospectus titled "—Cash-Based Incentive Compensation" below.
- (3) Amounts in this column represent the additional perquisites and supplemental benefits provided to our named executive officers that are not reported in the other columns of this table. For Mr. DeStefano, the amount shown includes premium payments for long-term disability and life insurance in the amount of \$3,209 (which includes an associated tax gross-up of \$1,101), reimbursements for certain supplemental benefits and perquisites in the aggregate amount of \$22,835 (which includes an associated tax gross-up of \$7,834), profit sharing contributions under our 401(k) plan in the amount of \$8,400, 401(k) matching contributions in the amount of \$8,400, Union League club membership fees in the amount of \$10,367 and a service recognition award valued at \$2,718 (which includes an associated tax gross-up of \$718). For Ms. Butler, the amount shown includes reimbursements for certain supplemental benefits and perquisites in the aggregate amount of \$9,582 (which includes an associated tax gross-up of \$2,729), profit sharing contributions under our 401(k) plan in the amount of \$8,400 and 401(k) matching contributions in the amount of \$8,400. For Mr. Rowland, the amount shown includes profit sharing contributions under our 401(k) plan in the amount of \$8,400 and 401(k) matching contributions in the amount of \$8,400. For additional information about the amounts set forth in this column, see the section of this prospectus titled "—Other Elements of Compensation."

2019 Salaries

The named executive officers receive a base salary to compensate them for services rendered to the company. The base salary payable to each named executive officer is intended to provide a fixed component of compensation reflecting the executive's skill set, experience, role and responsibilities. In early 2019, the board of directors approved increases to the annual base salaries of our named executive officers as set forth in the table below. Mr. DeStefano's base salary was determined following review of a market analysis prepared by Aon, our independent compensation consultant, of chief executive officer compensation for comparable companies in our industry. The 2019 base salaries for Ms. Butler and Mr. Rowland were determined in connection with our annual performance review process for all employees. In addition, the 2020 annual base salaries for our named executive officers were increased in early 2020 in connection with our annual performance review process as set forth in the table below.

<u>Name</u>	<u>2018 Salary</u>	<u>2019 Salary</u>	<u>2020 Salary</u>
David DeStefano	\$ 495,000	\$ 530,016	\$ 560,000
Lisa Butler	\$ 288,475	\$ 297,129	\$ 300,398
Bryan Rowland	\$ 250,512	\$ 258,027	\$ 263,188

Cash-Based Incentive Compensation

2019 Annual Bonus. We maintain an annual bonus plan (the "Organizational Bonus Plan"), which is designed to motivate and reward our employees, including our executives and named executive officers, for achievements relative to financial, non-financial and individual performance goals. For 2019, financial performance accounted for 80% of the bonus opportunity and was based on achievements relative to our three most important financial metrics (revenue, pre-tax net income and adjusted cash from operations ("AFCO")). The non-financial metrics for 2019 were based on our progress against critical business objectives and accounted for 20% of the bonus opportunity. Individual performance ratings for the year are also considered when determining awards under the Organizational Bonus Plan.

Each named executive officer has a target bonus opportunity under the Organizational Bonus Plan, defined as a percentage of annual base salary. For 2019, the target bonuses for our named executive officers were 80% for Mr. DeStefano, 40% for Ms. Butler and 40% for Mr. Rowland. In February 2020, our compensation committee assessed achievement against the financial and non-financial metrics described above and the board of directors approved funding the bonus pool at 117.4% of the targeted Organizational Bonus Plan opportunity for 2019.

The actual annual cash bonuses awarded to each named executive officer for 2019 performance are set forth above in the Summary Compensation Table in the column entitled "Non-Equity Incentive Plan Compensation".

Multi-Year Bonus Plans. In addition to the annual Organizational Bonus Plan, we maintain multi-year cash bonus plans for our most senior executives, including our named executive officers, and other key employees. The target bonuses, expressed as a percentage of annual base salary, for our named executive officers under the multi-year cash bonus plans are 50% for Mr. DeStefano and 30% for each of Ms. Butler and Mr. Rowland.

In early 2017, Mr. DeStefano and Ms. Butler were granted awards under our 2010 Long-Term Rewards Plan with performance measured over the three-year period from January 1, 2017 to December 31, 2019. These awards were eligible to be earned based on revenue, pre-tax net income and AFCO growth over the performance period. Following the end of the performance period, the compensation committee assessed growth with respect to these financial metrics over the performance

period and approved bonuses for all participants in the 2010 Long-Term Rewards Plan, including the named executive officers. The actual cash bonuses earned by Mr. DeStefano and Ms. Butler under the 2010 Long-Term Rewards Plan for the performance period ending in 2019 are set forth above in the Summary Compensation Table in the column entitled "Non-Equity Incentive Plan Compensation."

Effective January 2018, we adopted the 2018 Long-Term Rewards Plan for performance periods beginning on and after January 1, 2018. In early 2019, the named executive officers were granted awards under the 2018 Long-Term Rewards Plan for a three-year performance period from January 1, 2019 to December 31, 2021. These awards are scheduled to be earned based on the company's achievements against key financial metrics, including revenue, pre-tax net income, and ACFO at the end of the performance period. Amounts earned by the named executive officers with respect to these awards will be reported in the Summary Compensation Table in the year earned.

Equity Compensation

Our named executive officers have been granted SARs. SARs generally entitle their holder, upon exercise, to receive from us an amount in cash equal to the appreciation of the shares subject to the award between the grant date and the exercise date. The SARs generally vest with respect to 50% of the award on the second anniversary of the applicable grant date and as to 50% of the award on the fifth anniversary of the applicable grant date, subject to the holder's continuous service to the company through each vesting date. SARs are exercisable upon 50% vesting or upon the occurrence of certain triggering events; provided that SAR holders are limited to exercising no more than 25% of their vested SARs in any given year and provided further that SAR exercises are limited each year to the proportion of vested SARs to the total units outstanding multiplied by adjusted net cash from operating activities.

The following table sets forth the SARs granted to our named executive officers during 2019 as the long-term equity incentive component of our compensation program. These SARs were granted under our 2007 Stock Appreciation Rights Plan (the "2007 Plan") with exercise prices equal to the fair market value of our common stock on the date of grant, as determined by the board of directors, and subject to our standard vesting schedule described above.

<u>Named Executive Officer</u>	<u>2019 Stock Appreciation Rights Granted</u>
David DeStefano	124,393
Lisa Butler	—
Bryan Rowland	62,196

In connection with this offering, holders of outstanding SARs will be offered the opportunity to amend outstanding SARs, whether vested or unvested (but excluding expired or soon to be expired SARs), so that they become options to purchase shares of our common stock governed by our 2020 Incentive Award Plan. These options will have an exercise price per share equal to the base price of the amended SAR and will vest pursuant to the same vesting schedule that applied to the amended SAR. We expect that all of the eligible SARs held by our named executive officers will become options in connection with this offering.

Prior to 2006, certain current and former service providers were granted options to purchase Class B common stock. In connection with this offering, holders of vested options may be offered the opportunity to amend these options so that they will be governed by our 2020 Incentive Award Plan. The amended options will generally cover the same number of shares and will have the same aggregate exercise price as the existing options. Mr. DeStefano is our only named executive officer that holds a vested option to purchase Class B common stock and we expect that this option will be amended in connection with this offering.

We intend to adopt the 2020 Incentive Award Plan in order to facilitate the grant of cash and equity incentives to directors, employees (including our named executive officers) and consultants of the company and certain of its affiliates and to enable the company and certain of its affiliates to obtain and retain services of these individuals, which we believe is essential to our long-term success. We expect that the 2020 Incentive Award Plan will be effective on the day prior to the first public trading date of our common stock. For additional information about the 2020 Incentive Award Plan, please see the section titled "Incentive Compensation Plans" below.

Other Elements of Compensation

Retirement Plans

We currently maintain a 401(k) retirement savings plan for our employees, including our named executive officers, who satisfy certain eligibility requirements. Our named executive officers are eligible to participate in the 401(k) plan on the same terms as other full-time employees. The Internal Revenue Code allows eligible employees to defer a portion of their compensation, within prescribed limits, on a pre-tax basis through contributions to the 401(k) plan. Currently, we match 50% of contributions made by participants in the 401(k) plan up to 6% of a participant's eligible compensation. During 2019, we also made discretionary profit sharing contributions under the 401(k) plan. These matching and profit sharing contributions are subject to vesting at the rate of 20% each year over the first five years of employment. We believe that providing a vehicle for tax-deferred retirement savings through our 401(k) plan, and making matching contributions, adds to the overall desirability of our executive compensation package and further incentivizes our employees, including our named executive officers, in accordance with our compensation policies.

Health/Welfare Plans

All of our full-time employees, including our named executive officers, are eligible to participate in our health and welfare plans, including, medical and dental benefits; medical and dependent care flexible spending accounts; short-term and long-term disability insurance; and life insurance.

Perquisites and Other Personal Benefits

We provide our named executive officers with perquisites that we believe to be necessary and appropriate to provide a competitive compensation package, certain of which are described below. The actual amount of all perquisites and other personal benefits provided to our named executive officers during 2019 are set forth above in the Summary Compensation Table in the column entitled "All Other Compensation."

Supplemental Executive Benefits. Our named executive officers are eligible for certain benefits in addition to the standard employee benefits offered to all employees generally, including, (i) supplemental term life insurance in a face amount of \$750,000, subject to certain conditions regarding insurability; and (ii) supplemental disability pay and insurance, which when combined with the disability coverage provided under our long-term disability insurance plan, provides the named executive officer with disability income equal to 80% of the named executive officer's pre-disability base salary. The named executive officers are reimbursed for the premiums paid for such supplemental life and disability insurance, including an associated tax gross-up.

Supplemental Perquisites. We provide Ms. Butler and Mr. Rowland with an annual reimbursement of \$3,300 (which represents an allowance of \$2,000 plus an approximate gross up for income taxes) for the purchase of additional perquisites, including, health club membership, personal financial planning/investment advice, estate planning, certain legal advice, personal physical examination, a home office and vacation travel. Any amounts not used in one year may be "rolled-over" to the next year, but the

executives may not receive reimbursement of more than \$16,500 for such perquisites in any five-year period.

Pursuant to the terms of his employment agreement, Mr. DeStefano is entitled to reimbursement of up to \$15,000 per year (plus a tax gross-up on any such reimbursement) for certain expenses related to financial and estate planning services, legal advice related to employment with the company, investment advice, health club memberships, physical examinations, a home office and vacation travel. Additionally, we pay approximately \$10,000 per year for Mr. DeStefano's membership in the Union League Club, which he primarily uses for business purposes.

Ms. Butler is entitled to reimbursement of up to \$75,000 (plus a tax gross-up on any such reimbursement) for tuition and tuition-related expenses incurred in connection with her pursuing a master's degree in business administration; provided that, Ms. Butler must repay any such reimbursements in the event she terminates her employment within one year of completing the degree. No amounts have been paid pursuant to this arrangement as of the date of this prospectus.

Strategic Bonus. Pursuant to her employment agreement, Ms. Butler is entitled to a \$75,000 cash bonus payment upon the first to occur of (i) filing of the company's first Form 10-Q during 2020; (ii) the date the board of directors determines to terminate pursuit of filing a Form S-1 during 2020; and (iii) December 31, 2020. Additionally, if within 6 months of the occurrence of any of the foregoing, the company and Ms. Butler agree to terminate her employment agreement, Ms. Butler would be entitled to the severance payments and benefits described below under "Executive Compensation Arrangements—Severance."

Outstanding Equity Awards at Fiscal Year-End

The following table summarizes the number of shares of common stock underlying outstanding equity incentive plan awards for each named executive officer as of December 31, 2019.

Name	Grant Date	Option Awards		Option Exercise Price ^(S)	Option Expiration Date	Type of Award
		Number of Securities Underlying Unexercised Options (#) Exercisable ⁽¹⁾	Number of Securities Underlying Unexercised Options (#) Unexercisable ⁽¹⁾			
David DeStefano	01/01/2002	342,000	—	0.45	N/A	OPTION
	01/01/2016	52,477	52,478(2)	7.50	01/01/2026	SAR
	02/05/2016	17,676	—	7.50	12/31/2020	SAR
	10/31/2016	209,916	209,916(2)	7.50	10/31/2026	SAR
	12/27/2019	—	124,393(2)	11.20	12/27/2029	SAR
Lisa Butler	02/05/2015	52,500	52,500(2)	6.46	02/05/2025	SAR
	02/05/2016	2,072	2,073(3)	7.50	12/31/2020	SAR
	02/05/2016	20,991	20,991(2)	7.50	02/05/2026	SAR
Bryan Rowland	02/09/2018	—	41,621(2)	9.50	02/09/2028	SAR
	02/07/2019	—	41,464(2)	11.20	02/07/2029	SAR
	12/20/2019	—	20,732(2)	11.20	12/20/2029	SAR

- (1) The number of shares underlying each SAR that is shown as being exercisable and unexercisable represents, respectively, the number of shares underlying each SAR that was vested and unvested as of December 31, 2019.
- (2) The SARs vest with respect to 50% of the award on the second anniversary of the applicable grant date and as to 50% of the award on the fifth anniversary of the applicable grant date, subject to the holder's continuous service to the company through each applicable vesting date.
- (3) The SARs vest with respect to 50% of the award on the first anniversary of the applicable grant date and as to 50% of the award on the fourth anniversary of the applicable grant date, subject to the holder's continuous service to the company through each applicable vesting date.

Executive Compensation Arrangements

We have entered into employment agreements with each of our named executive officers that sets forth the terms and conditions of each executive's employment with us. In addition, we entered into an employment agreement with John Schwab, our Chief Financial Officer, in connection with his commencement of employment with us in January 2020.

Salary; Bonus

The employment agreements entitle the executives to annual base salaries and eligibility to earn discretionary bonuses under our annual and long-term cash bonus plans. See "2019 Salaries" and "Cash-Based Incentive Compensation" above for additional information regarding the base salaries and bonus opportunities of our named executive officers for 2019.

Mr. Schwab's employment agreement entitles him to an annual base salary of \$420,000 and provides for an annual bonus target under the Organizational Bonus Plan of 60% of his base salary and a bonus target under the Company's Long-Term Rewards Plan of 50% of his base salary. Pursuant to his employment agreement, Mr. Schwab received a one-time bonus of \$240,000 and was granted 165,492 stock appreciation rights in connection with his commencement of employment. The sign-on bonus is subject to full or partial repayment in the event Mr. Schwab voluntarily resigns or is terminated for cause within the first 18 months of employment. The stock appreciation rights vest pursuant to our standard vesting schedule described above. In addition, Mr. Schwab may be entitled to additional cash bonuses of up to \$420,000 and stock appreciation rights equivalent to .10% of the company's class B common stock if this offering does not occur by April 1, 2022.

Term

The initial term of Mr. DeStefano's employment agreement expired in November 2019 and automatically renews for successive two year periods unless 60 days' prior notice of non-renewal is given by either party. The employment agreements for Ms. Butler, Mr. Rowland and Mr. Schwab are for indefinite terms.

Severance

If we terminate Mr. DeStefano, Ms. Butler, Mr. Rowland or Mr. Schwab without cause, or with respect to Mr. Rowland and Mr. Schwab only, the executive resigns for good reason, subject to the executive timely executing a release of claims, the executive is entitled to receive (i) base salary continuation for 12 months (or 24 months for Mr. DeStefano); and (ii) direct payment of, or additional cash payments equal to, the premiums for continued health coverage for up to 18 months. Mr. DeStefano is also entitled to an additional lump sum payment equal to 12 months of health coverage premiums in the event he has not become eligible for health insurance coverage from a subsequent employer by the date that is 15 months following such termination of employment.

Notwithstanding the foregoing, any continued base salary payments for Mr. DeStefano, Mr. Rowland and Mr. Schwab will be reduced by any salary or bonus paid to the executive by a subsequent employer during the applicable severance period.

The receipt of severance payments and benefits for Mr. DeStefano, Mr. Rowland and Mr. Schwab is also subject to the executive's continued compliance with certain restrictive covenants and confidentiality obligations as described below under "Restrictive Covenants." In the event of a material breach of such covenants by Mr. DeStefano, Mr. Rowland or Mr. Schwab, subject to certain cure rights, the executive's right to receive any of the severance payments or benefits described above will cease and the executive will be obligated to repay to the company any such payments or benefits previously paid.

Each of Mr. DeStefano, Ms. Butler, Mr. Rowland and Mr. Schwab is entitled to 30 days' notice, or pay in lieu of notice, in the event we terminate the executive for any reason other than cause.

For purposes of the employment agreements, "cause" generally means, subject to certain notice and cure rights, the executive's (i) material breach of the employment agreement; (ii) repeated failure to perform duties to the company or any subsidiary; (iii) willful misconduct that is materially injurious to the company or any subsidiary (or for Mr. Rowland and Mr. Schwab, willful misconduct or gross negligence with regard to the company, any subsidiary or their business, assets or employees); (iv) dishonesty, unethical, fraudulent or similar misconduct in connection with the executive's employment or service; (v) use of non-prescription controlled substances, misuse of prescription drugs, or habitual intoxication during work hours; (vi) other than for Ms. Butler, indictment for any felony that has or is reasonably likely to cause material adverse consequences to the company, its businesses or prospects; (vii) conviction, guilty plea or plea of nolo contendere to a felony or any crime involving fraud, dishonesty or moral turpitude; (viii) material violation of any company policy; (ix) refusal to follow any reasonable and lawful direction of the board of directors or any person to whom the executive reports, if applicable; or (x) for Mr. Rowland only, breach of a fiduciary duty owed to the company in good faith.

For purposes of the employment agreements with Mr. Rowland and Mr. Schwab, "good reason" is generally defined to mean, subject to certain notice and cure rights, (i) a material diminution in the executive's duties that is inconsistent with the duties of his position; and (ii) for Mr. Schwab only, the company's material breach of the employment agreement.

Restrictive Covenants

Pursuant to their employment agreements, the executives have agreed to refrain from competing with us or soliciting our employees, customers, clients or prospects, in each case, while employed and following termination of employment for a period of 24 months for Mr. DeStefano or 12 months for Ms. Butler, Mr. Rowland and Mr. Schwab. During the applicable restricted period, the executives are also obligated to disclose to us certain business opportunities that relate to the business of the company, its subsidiaries or affiliates. The executives are also bound by certain confidentiality and assignment of inventions obligations.

Director Compensation

The non-employee members of our board of directors are eligible to receive compensation for their service on our board of directors. The 2019 compensation for the non-employee members of our board of directors consisted of (i) an annual director fee of \$112,910 (or \$80,000 for directors who commenced service on the board of directors in 2018 or 2019); (ii) additional annual fees for committee service of \$6,300 for service on a board committee (other than the chair) or \$12,600 for service as chair of a board committee; and (iii) consulting fees in the amount of \$500 per hour for additional board services beyond the scope of a director's customary service as a member of the board of directors. In addition, during 2019 the non-employee directors were eligible to receive a discretionary annual bonus targeted at \$120,000 and payable as to seventy-five percent (75%) in cash and twenty-five percent (25%) in stock appreciation rights. The amount of the annual bonus is determined based on the company's performance against the financial and non-financial goals under the Organizational Bonus Plan for the given year, although the company's stockholders retain discretion to increase or decrease the actual bonuses awarded to the directors. The stockholders did not exercise this discretion with respect to the 2019 bonuses and the actual annual bonuses awarded to each non-employee director for 2019 are set forth in the Director Compensation Table below in the column entitled "Non-Equity Incentive Plan Compensation." See the section of this prospectus titled "—Cash-Based Incentive Compensation" above for a description of company performance under the Organization Bonus Plan for 2019.

Ms. Radcliffe, Ms. Thompson and Mr. Westphal are our employees and also members of the board of directors. They receive no additional compensation for their service on the board of directors. See "Certain Relationships and Related Party Transactions" section below for information regarding their employment arrangements with the company.

The following table sets forth information concerning the compensation of our non-employee directors for their service on our board of directors for the year ended December 31, 2019.

Name	Fees Earned or Paid in Cash ^{(S)(1)}	Option Awards ^{(S)(2)}	Non-Equity Incentive Plan Compensation ^{(S)(3)}	All Other Compensation ^{(S)(4)}	Total ^(S)
Eric Andersen	131,838	—	196,390	84,000	412,228
Terence Kyle	149,838	—	196,390	146,785	493,013
Kevin Robert	131,838	—	196,390	28,625	356,853
J. Richard Stamm	86,835	—	105,400	41,634	233,869

- (1) Includes annual fees for service on the board of directors and committees of the board.
- (2) During 2019, Mr. Andersen, Mr. Kyle and Mr. Robert were each granted 26,186 stock appreciation rights and Mr. Stamm was granted 14,041 stock appreciation rights. As a nonpublic business entity, these stock appreciation rights were recorded at their intrinsic value of zero on date of grant. The company accounts for stock appreciation rights as liabilities under ASC Topic 718 and recognizes stock-based compensation expense by remeasuring the stock appreciation rights at the end of each reporting period and accruing the portion of the requisite service rendered at that date. We provide information regarding the accounting value of all stock appreciation rights in Note 1 to the consolidated financial statements included in this prospectus.
- (3) Includes the cash portion of the director annual bonus for 2019.
- (4) For all non-employee directors, the amount shown includes fees for consulting services, including \$24,000 for services to the company regarding guidance in connection with this initial public offering.

The table below shows the aggregate numbers of options and stock appreciation rights (exercisable and unexercisable) held as of December 31, 2019 by each non-employee director who was serving as of December 31, 2019, all of which are fully vested. None of our non-employee directors held unvested stock awards as of December 31, 2019.

Name	Stock Appreciation Rights Vested and Outstanding at Fiscal Year End ^(#)	Options Vested and Outstanding at Fiscal Year End ^(#)
Eric Andersen	80,186	0
Terrence Kyle	83,778	91,000
Kevin Robert	80,186	0
J. Richard Stamm	14,041	0

In connection with this offering, our board of directors approved a new compensation program for our non-employee directors. Under this program our non-employee directors receive the following amounts for their services on our board of directors:

- If a director (i) is initially elected or appointed to our board of directors at an annual meeting of stockholders or (ii) has served on our board of directors as of the date of an annual meeting of stockholders and will continue to serve as a director immediately following such meeting, a number of restricted stock units on the date of the annual meeting determined by dividing \$150,000 by the closing price of our common stock on the date of the annual meeting (with any partial shares that result rounded down to the nearest whole share);
- An annual director fee of \$42,000;

- If the director serves as lead independent director or chair or on a committee of our board of directors, an additional annual fee as follows:
 - Chair of the board of directors or lead independent director: \$15,000;
 - Chair of the audit committee: \$20,000;
 - Audit committee member other than the chair, \$10,000;
 - Chair of the compensation committee, \$15,000;
 - Compensation committee member other than the chair, \$6,000;
 - Chair of the nominating and corporate governance committee, \$12,000; and
 - Nominating and corporate governance committee member other than the chair, \$6,000.

Director fees under the program will be payable monthly in advance. Restricted stock units represent the right to receive one share (or an equal amount in cash) following vesting of the award as described in further detail below in the section entitled "Incentive Compensation Plans—2020 Incentive Award Plan—Awards -Restricted Stock and RSUs." Restricted stock units granted to our non-employee directors under the program will vest in a single installment on the earlier of the day before the next annual meeting or the first anniversary of the date of grant.

Incentive Compensation Plans

The following summarizes the material terms of 2020 Incentive Award Plan and the 2020 Employee Stock Purchase Plan, which will be the long-term incentive compensation plans in which our directors and named executive officers will be eligible to participate following the consummation of this offering, and the 2007 Plan, under which we have previously made periodic grants of stock appreciation rights to our directors and named executive officers.

2020 Incentive Award Plan

Effective the day prior to the first public trading date of our common stock, we intend to adopt and ask our stockholders to approve the 2020 Plan under which we may grant cash and equity-based incentive awards to eligible service providers in order to attract, retain and motivate the persons who make important contributions to the company. The material terms of the 2020 Plan, as it is currently contemplated, are summarized below. Our board of directors is still in the process of developing, approving and implementing the 2020 Plan and, accordingly, this summary is subject to change.

Eligibility and Administration. Our employees, consultants and directors, and employees and consultants of our subsidiaries will be eligible to receive awards under the 2020 Plan. The 2020 Plan will be administered by our board of directors with respect to awards to non-employee directors and by our compensation committee with respect to other participants, each of which may delegate its duties and responsibilities to committees of our directors and/or officers (referred to collectively as the plan administrator below), subject to the limitations that may be imposed under the 2020 Plan, Section 16 of the Exchange Act, stock exchange rules and other applicable laws. The plan administrator will have the authority to take all actions and make all determinations under the 2020 Plan, to interpret the 2020 Plan and award agreements and to adopt, amend and repeal rules for the administration of the 2020 Plan as it deems advisable. The plan administrator will also have the authority to determine which eligible service providers receive awards, grant awards and set the terms and conditions of all awards under the 2020 Plan, including any vesting and vesting acceleration provisions, subject to the conditions and limitations in the 2020 Plan.

Shares Available. An aggregate of _____ shares of our Class A common stock will initially be available for issuance under the 2020 Plan. The number of shares initially available for issuance will be increased by an annual increase on January 1 of each calendar year beginning in 2021 and ending in

and including 2030, equal to the lesser of (A) _____ % of the shares outstanding on the final day of the immediately preceding calendar year and (B) a smaller number of shares as determined by our board of directors. No more than _____ shares of Class A common stock may be issued under the 2020 Plan upon the exercise of incentive stock options. Shares available under the 2020 Plan may be authorized but unissued shares, shares purchased on the open market or treasury shares.

If an award under the 2020 Plan or the 2007 Plan expires, lapses or is terminated, exchanged for cash, surrendered, repurchased, or canceled without having been fully exercised or forfeited, any unused shares subject to the award will, as applicable, become or again be available for new grants under the 2020 Plan. Awards granted under the 2020 Plan in substitution for any options or other stock or stock-based awards granted by an entity before the entity's merger or consolidation with us or our acquisition of the entity's property or stock will not reduce the shares available for grant under the 2020 Plan, but will count against the maximum number of shares that may be issued upon the exercise of incentive stock options.

Awards. The 2020 Plan provides for the grant of stock options, including incentive stock options ("ISOs") and nonqualified stock options ("NSOs"), SARs, restricted stock, dividend equivalents, restricted stock units ("RSUs"), and other stock or cash based awards. Certain awards under the 2020 Plan may constitute or provide for payment of "nonqualified deferred compensation" under Section 409A of the Code. All awards under the 2020 Plan will be set forth in award agreements, which will detail the terms and conditions of awards, including any applicable vesting and payment terms and post-termination exercise limitations. A brief description of each award type follows.

- **Stock Options and SARs.** Stock options provide for the purchase of shares of our common stock in the future at an exercise price set on the grant date. ISOs, by contrast to NSOs, may provide tax deferral beyond exercise and favorable capital gains tax treatment to their holders if certain holding period and other requirements of the Code are satisfied. SARs entitle their holder, upon exercise, to receive from us an amount equal to the appreciation of the shares subject to the award between the grant date and the exercise date. The plan administrator will determine the number of shares covered by each option and SAR, the exercise price of each option and SAR and the conditions and limitations applicable to the exercise of each option and SAR. The exercise price of a stock option or SAR will not be less than 100% of the fair market value of the underlying share on the grant date (or 110% in the case of ISOs granted to certain significant stockholders), except with respect to certain substitute awards granted in connection with a corporate transaction. The term of a stock option or SAR may not be longer than ten years (or five years in the case of ISOs granted to certain significant stockholders).
- **Restricted Stock and RSUs.** Restricted stock is an award of nontransferable shares of our common stock that remain forfeitable unless and until specified conditions are met and which may be subject to a purchase price. RSUs are contractual promises to deliver shares of our common stock in the future, which may also remain forfeitable unless and until specified conditions are met and may be accompanied by the right to receive the equivalent value of dividends paid on shares of our common stock prior to the delivery of the underlying shares. The plan administrator may provide that the delivery of the shares underlying RSUs will be deferred on a mandatory basis or at the election of the participant. The terms and conditions applicable to restricted stock and RSUs will be determined by the plan administrator, subject to the conditions and limitations contained in the 2020 Plan.
- **Other Stock or Cash Based Awards.** Other stock or cash based awards are awards of cash, fully vested shares of our common stock and other awards valued wholly or partially by referring to, or otherwise based on, shares of our common stock or other property. Other stock or cash based awards may be granted to participants and may also be available as a payment form in the settlement of other awards, as standalone payments and as payment in lieu of compensation to which a participant is otherwise entitled. The plan administrator will determine the terms and

conditions of other stock or cash based awards, which may include any purchase price, performance goal, transfer restrictions and vesting conditions.

Performance Criteria. The plan administrator may select performance criteria for an award to establish performance goals for a performance period. Performance criteria under the 2020 Plan may include, but are not limited to, the following: net earnings or losses (either before or after one or more of interest, taxes, depreciation, amortization, and non-cash equity-based compensation expense); gross or net sales or revenue or sales or revenue growth; net income (either before or after taxes) or adjusted net income; profits (including but not limited to gross profits, net profits, profit growth, net operation profit or economic profit), profit return ratios or operating margin; budget or operating earnings (either before or after taxes or before or after allocation of corporate overhead and bonus); cash flow (including operating cash flow and free cash flow or cash flow return on capital); return on assets; return on capital or invested capital; cost of capital; return on stockholders' equity; total stockholder return; return on sales; costs, reductions in costs and cost control measures; expenses; working capital; earnings or loss per share; adjusted earnings or loss per share; price per share or dividends per share (or appreciation in or maintenance of such price or dividends); regulatory achievements or compliance; implementation, completion or attainment of objectives relating to research, development, regulatory, commercial, or strategic milestones or developments; market share; economic value or economic value added models; division, group or corporate financial goals; customer satisfaction/growth; customer service; employee satisfaction; recruitment and maintenance of personnel; human resources management; supervision of litigation and other legal matters; strategic partnerships and transactions; financial ratios (including those measuring liquidity, activity, profitability or leverage); debt levels or reductions; sales-related goals; financing and other capital raising transactions; cash on hand; acquisition activity; investment sourcing activity; and marketing initiatives, any of which may be measured in absolute terms or as compared to any incremental increase or decrease. Such performance goals also may be based solely by reference to the company's performance or the performance of a subsidiary, division, business segment or business unit of the company or a subsidiary, or based upon performance relative to performance of other companies or upon comparisons of any of the indicators of performance relative to performance of other companies. When determining performance goals, the plan administrator may provide for exclusion of the impact of an event or occurrence which the plan administrator determines should appropriately be excluded, including, without limitation, non-recurring charges or events, acquisitions or divestitures, changes in the corporate or capital structure, events unrelated to the business or outside of the control of management, foreign exchange considerations, and legal, regulatory, tax or accounting changes.

Certain Transactions. In connection with certain corporate transactions and events affecting our common stock, including a change in control, or change in any applicable laws or accounting principles, the plan administrator has broad discretion to take action under the 2020 Plan to prevent the dilution or enlargement of intended benefits, facilitate the transaction or event or give effect to the change in applicable laws or accounting principles. This includes canceling awards for cash or property, accelerating the vesting of awards, providing for the assumption or substitution of awards by a successor entity, adjusting the number and type of shares subject to outstanding awards and/or with respect to which awards may be granted under the 2020 Plan and replacing or terminating awards under the 2020 Plan. In addition, in the event of certain non-reciprocal transactions with our stockholders, the plan administrator will make equitable adjustments to the 2020 Plan and outstanding awards as it deems appropriate to reflect the transaction. In the event of a change in control of the company (as defined in the 2020 Plan), to the extent that the surviving entity declines to continue, convert, assume or replace outstanding awards, then all such awards may become fully vested and exercisable in connection with the transaction. Individual award agreements may provide for additional accelerated vesting and payment provisions.

Provisions of the 2020 Plan Relating to Director Compensation. The 2020 Plan provides that the plan administrator may establish compensation for non-employee directors from time to time subject to the 2020 Plan's limitations. Prior to commencing this offering, we intend to approve and implement a compensation program for our non-employee directors. Our board of directors or its authorized committee may modify the non-employee director compensation program from time to time in the exercise of its business judgment, taking into account such factors, circumstances and considerations as it shall deem relevant from time to time, provided that the sum of any cash compensation or other compensation and the grant date fair value of any equity awards granted under the 2020 Plan as compensation for services as a non-employee director during any fiscal year may not exceed \$ _____, excluding cash and other compensation awarded prior to the commencement of this offering. The plan administrator may make exceptions to this limit for individual non-employee directors in extraordinary circumstances, as the plan administrator may determine in its discretion, subject to the limitations in the 2020 Plan.

Foreign Participants, Claw-Back Provisions, Transferability, and Participant Payments. The plan administrator may modify awards granted to participants who are foreign nationals or employed outside the United States or establish subplans or procedures to address differences in laws, rules, regulations or customs of such foreign jurisdictions. All awards will be subject to any company claw-back policy as set forth in such claw-back policy or the applicable award agreement. Except as the plan administrator may determine or provide in an award agreement, awards under the 2020 Plan are generally non-transferrable, except by will or the laws of descent and distribution, or, subject to the plan administrator's consent, pursuant to a domestic relations order and are generally exercisable only by the participant. With regard to tax withholding obligations arising in connection with awards under the 2020 Plan and exercise price obligations arising in connection with the exercise of stock options under the 2020 Plan, the plan administrator may, in its discretion, accept cash, wire transfer or check, shares of our common stock that meet specified conditions, a promissory note, a "market sell order," such other consideration as the plan administrator deems suitable or any combination of the foregoing.

Plan Amendment and Termination. Our board of directors may amend or terminate the 2020 Plan at any time; however, no amendment, other than an amendment that increases the number of shares available under the 2020 Plan, may materially and adversely affect an award outstanding under the 2020 Plan without the consent of the affected participant and stockholder approval will be obtained for any amendment to the extent necessary to comply with applicable laws. Further, the plan administrator may, without the approval of our stockholders, amend any outstanding stock option or SAR to reduce its price per share, other than in the context of corporate transactions or equity restructurings, as described above. The 2020 Plan will remain in effect until the tenth anniversary of its effective date, unless earlier terminated by our board of directors. No awards may be granted under the 2020 Plan after its termination.

2020 Employee Stock Purchase Plan

Effective the day prior to the first public trading date of our common stock, we intend to adopt and ask our stockholders to approve the 2020 Employee Stock Purchase Plan, (the "2020 ESPP"), the material terms of which are summarized below.

The 2020 ESPP is comprised of two distinct components in order to provide increased flexibility to grant options to purchase shares under the 2020 ESPP to U.S. and to non-U.S. employees. Specifically, the 2020 ESPP authorizes (1) the grant of options to U.S. employees that are intended to qualify for favorable U.S. federal tax treatment under Section 423 of the Code, (the "Section 423 Component"), and (2) the grant of options that are not intended to be tax-qualified under Section 423 of the Code to facilitate participation for employees located outside of the U.S. who do not benefit from favorable U.S. federal tax treatment and to provide flexibility to comply with non-U.S. law and other considerations (the "Non-Section 423 Component"). Where permitted under local law and custom, we

expect that the Non-Section 423 Component will generally be operated and administered on terms and conditions similar to the Section 423 Component.

Shares Available for Awards; Administration. A total of _____ shares of our Class A common stock will initially be reserved for issuance under the 2020 ESPP. In addition, the number of shares available for issuance under the 2020 ESPP will be annually increased on January 1 of each calendar year beginning in 2021 and ending in and including 2030, by an amount equal to the lesser of (A) _____ % of the shares outstanding on the final day of the immediately preceding calendar year and (B) such smaller number of shares as is determined by our board of directors, provided that no more than _____ shares of our Class A common stock may be issued under the Section 423 Component. Our board of directors or a committee of our board of directors will administer and will have authority to interpret the terms of the 2020 ESPP and determine eligibility of participants. We expect that the compensation committee will be the initial administrator of the 2020 ESPP.

Eligibility. We expect that all of our employees will be eligible to participate in the 2020 ESPP. However, an employee may not be granted rights to purchase stock under our 2020 ESPP if the employee, immediately after the grant, would own (directly or through attribution) stock possessing 5% or more of the total combined voting power or value of all classes of our stock.

Grant of Rights. Stock will be offered under the 2020 ESPP during offering periods. The length of the offering periods under the 2020 ESPP will be determined by the plan administrator and may be up to twenty-seven months long. Employee payroll deductions will be used to purchase shares on each purchase date during an offering period. The purchase dates for each offering period will be the final trading day in the offering period. Offering periods under the 2020 ESPP will commence when determined by the plan administrator. The plan administrator may, in its discretion, modify the terms of future offering periods. In non-U.S. jurisdictions where participation in the 2020 ESPP through payroll deductions is prohibited, the plan administrator may provide that an eligible employee may elect to participate through contributions to the participant's account under the 2020 ESPP in a form acceptable to the 2020 ESPP administrator in lieu of or in addition to payroll deductions.

The 2020 ESPP permits participants to purchase common stock through payroll deductions of up to a specified percentage of their eligible compensation. The plan administrator will establish a maximum number of shares that may be purchased by a participant during any offering period. In addition, no employee will be permitted to accrue the right to purchase stock under the Section 423 Component at a rate in excess of \$25,000 worth of shares during any calendar year during which such a purchase right is outstanding (based on the fair market value per share of our common stock as of the first day of the offering period).

On the first trading day of each offering period, each participant will automatically be granted an option to purchase shares of our Class A common stock. The option will expire at the end of the applicable offering period, and will be exercised at that time to the extent of the payroll deductions accumulated during the offering period. The purchase price of the shares, in the absence of a contrary designation, will be 85% of the lower of the fair market value of our common stock on the first trading day of the offering period or on the purchase date. Participants may voluntarily end their participation in the 2020 ESPP at any time during a specified period prior to the end of the applicable offering period, and will be paid their accrued payroll deductions that have not yet been used to purchase shares of common stock. Participation ends automatically upon a participant's termination of employment.

A participant may not transfer rights granted under the 2020 ESPP other than by will or the laws of descent and distribution, and are generally exercisable only by the participant.

Certain Transactions. In the event of certain non-reciprocal transactions or events affecting our Class A common stock, the plan administrator will make equitable adjustments to the 2020 ESPP and

outstanding rights. In the event of certain unusual or non-recurring events or transactions, including a change in control, the plan administrator may provide for (1) either the replacement of outstanding rights with other rights or property or termination of outstanding rights in exchange for cash, (2) the assumption or substitution of outstanding rights by the successor or survivor corporation or parent or subsidiary thereof, if any, (3) the adjustment in the number and type of shares of stock subject to outstanding rights, (4) the use of participants' accumulated payroll deductions to purchase stock on a new purchase date prior to the next scheduled purchase date and termination of any rights under ongoing offering periods or (5) the termination of all outstanding rights.

Plan Amendment. The plan administrator may amend, suspend or terminate the 2020 ESPP at any time. However, stockholder approval will be obtained for any amendment that increases the aggregate number or changes the type of shares that may be sold pursuant to rights under the 2020 ESPP or changes the corporations or classes of corporations whose employees are eligible to participate in the 2020 ESPP.

2007 Stock Appreciation Rights Plan

Our board of directors has approved our 2007 Plan, under which we have granted SARs to employees of the company or its subsidiaries and our directors.

In connection with this offering, holders of outstanding SARs will be offered the opportunity to amend outstanding SARs, whether vested or unvested (but excluding expired or soon to be expired SARs), so that they become options to purchase shares of our common stock governed by the 2020 Plan and the applicable award agreement. These options will have an exercise price per share equal to the base price of the amended SAR and will vest pursuant to the same vesting schedule that applied to the amended SAR.

Our board of directors, or a committee of the board, administers the 2007 Plan. Subject to the express terms and conditions of the 2007 Plan, the plan administrator has the authority to make all determinations and interpretations under the 2007 Plan and determine the terms and conditions of all awards under the 2007 Plan.

In the event of the issuance of additional shares by the company, which has the effect of diluting the value of the common stock, the plan administrator has broad discretion to adjust the terms and conditions of existing awards under the 2007 Plan as it deems appropriate and equitable to ameliorate the effect of such dilution. Additionally, the plan administrator may make adjustments to existing awards in recognition of unusual or non-recurring events affecting the company or any subsidiary to prevent substantial dilution or enlargement of the rights of participants under the 2007 Plan.

Following the consummation of this offering, we will not make any further grants under the 2007 Plan, no SARs will remain outstanding under the 2007 Plan and the board of directors may terminate the 2007 Plan at any time.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

Stockholders' Agreement

Upon the completion of this offering, our principal stockholders, Amanda Westphal Radcliffe, Stefanie Westphal Thompson and Jeffrey Westphal, each of whom serves as a member of our board of directors, together with their affiliated trust entities and family members, intend to enter into an Amended and Restated Stockholders' Agreement (the "Stockholders' Agreement") with these terms:

Transfer Restrictions

The parties to the Stockholders' Agreement will not transfer shares of our Class B common stock except to another party bound by the Stockholders' Agreement, to the Company or in an underwritten public offering or other transaction approved by a majority of disinterested members of our board of directors. Each share of our Class B common stock will convert automatically into one share of our Class A common stock upon any transfer, whether or not for value, except for transfers to Amanda Westphal Radcliffe, Stefanie Westphal Thompson and Jeffrey Westphal or their family members or affiliates, as described in our amended and restated certificate of incorporation.

Right of First Refusal

Before transferring any shares of our Class B common stock, the party transferring the shares must offer them, first, to the other stockholder parties and, next, to the Company. If neither of those offers is accepted, the selling stockholder may then transfer the shares to someone else. If any party receives an offer to purchase some or all of their Class B common stock, that person must give the other parties notice of the offer and an opportunity to purchase the shares on the same terms.

Preemptive Rights

The parties to the Stockholders' Agreement will have the right, but not the obligation, to purchase a number of shares of Class A common stock up to their proportionate interest of any new shares of Class A common stock, or any securities convertible into, exercisable for, or exchangeable for Class A common stock issued in a private offering, other than securities (including either shares of Class A common stock or Class B common stock) issued in connection with stock splits, stock dividends, in-kind equity distributions and recapitalizations, or a greater amount if any of the other parties to the Stockholders' Agreement do not elect to purchase their proportionate share of the newly issued securities.

Registration Rights

After our initial public offering and the expiration of any related lock-up period, any stockholder party to the Stockholders' Agreement can require us to register under the Securities Act shares of our common stock held by them if the anticipated aggregated offering amount exceeds \$50.0 million. They will also have shelf registration rights requiring us, when we are eligible for short-form registration, to file a shelf registration statement and to keep it effective to allow sales from time to time. They will also be entitled to participate as selling stockholders on a pro rata basis in any registration of our common stock under the Securities Act that we may undertake. We will pay expenses relating to these registrations and will indemnify the parties participating in these offerings against liabilities that may arise from the offering process.

Standstill

For so long as any stockholder party to the Stockholder's Agreement owns any shares of Class B common stock, the party will not engage or participate in: (i) acquiring the Company's securities (other than through market-based purchases of up to 2% of outstanding equity in any 12-month period, the exercise or conversion of outstanding securities or equity awards); (ii) any tender or exchange offer, merger or other business combination involving the Company, any of our subsidiaries or affiliates or our assets; (iii) any recapitalization, restructuring, liquidation, dilution or other extraordinary transaction involving the Company; or (iv) the solicitation of any proxies or written consents involving the Company. The parties must promptly inform the board of directors about any approaches by a third party regarding any of these matters. The board of directors and holders of a majority of the Class B common stock may agree to waive the standstill prohibition.

Director Designation Rights

For so long as Amanda Westphal Radcliffe, Stefanie Westphal Thompson and Jeffrey Westphal, in each case together with his or her children and related trusts, own at least ten percent of our outstanding common stock, they each shall be entitled to designate one individual, including themselves, to serve as a member of our board of directors, and we will be required to use our best efforts to include the designee in the slate of nominees recommended to our stockholders for election as a director at the next annual or special meeting of stockholders.

Director Voting

At any general or special meeting of the stockholders involving the election of directors, each stockholder party to the Stockholders' Agreement must vote all of his or her shares of stock in favor of each individual nominated by the board of directors, including any individuals designated by the parties to the Stockholders' Agreement. For all matters other than the election of directors, voting shall be discretionary at the option of each stockholder.

Tax Sharing Agreement

Prior to this offering, we have elected to be treated as an S Corporation for U.S. federal income tax purposes, as a result of which our existing stockholders have been required to pay income taxes attributable to our earnings. We have historically paid distributions to our existing stockholders, which have assisted them in paying such income taxes. In connection with this offering, our S Corporation status will terminate and we will thereafter be subject to federal and increased U.S. state income taxes. Our existing stockholders may be required to pay additional income taxes for periods prior to the termination of our S Corporation status as a result of an adjustment to our taxable income for periods beginning after our S Corporation status terminates. Accordingly, we intend to enter into an agreement with our existing stockholders in connection with this offering. Under this agreement, we may be required to make payments in material amounts to our existing stockholders with respect to any incremental income taxes resulting from an adjustment to our taxable income for any period beginning after our S Corporation status terminates. Furthermore, this agreement requires us to indemnify our existing stockholders with respect to unpaid income tax liabilities attributable to our taxable income for any period after the termination of our S Corporation status. We will also indemnify our existing stockholders for any interest, penalties, losses, costs or expenses arising out of any claim under the agreement. However, our existing stockholders will indemnify us with respect to our unpaid tax liabilities (including interest and penalties) to the extent that such unpaid tax liabilities are attributable to a decrease in our existing stockholders' taxable income for any period and a corresponding increase in our taxable income for any period.

Indemnification Agreements

Our amended and restated certificate of incorporation will provide that we will indemnify our directors and officers to the fullest extent permitted by law. In addition, we expect to enter into indemnification agreements with all of our directors and executive officers prior to the completion of this offering. See "Description of Capital Stock—Limitation on Liability of Directors and Indemnification."

Compensation Arrangements

For a description of the compensation arrangements we have with our executive officers, see "Executive Compensation."

In connection with their service as employees of the Company, each of Stefanie Westphal Thompson, Amanda Westphal Radcliffe and Jeffrey Westphal received annual salaries of \$120,191 in 2019, 2018 and 2017 and were also entitled to participate in the Company's standard health, insurance and retirement benefits plans.

Distributions

During the years ended December 31, 2019, December 31, 2018 and December 31, 2017, we paid distributions of \$28.6 million, \$28.0 million and \$17.6 million, respectively, to our stockholders.

Our Policy Regarding Related Party Transactions

Upon consummation of this offering, our board of directors will have adopted written policies and procedures for transactions with related persons. As a general matter, the policy will require the audit committee to review and approve or disapprove of the entry by us into certain transactions with related persons. The policy will only apply to transactions, arrangements and relationships where the aggregate amount involved could reasonably be expected to exceed \$120,000 in any calendar year and in which a related person has a direct or indirect interest. A related person is: (a) any director, nominee for director or executive officer of our company; (b) any immediate family member of a director, nominee for director or executive officer; and (c) any person, and his or her immediate family members, or entity, including affiliates, that was a beneficial owner of 5% or more of any of our outstanding equity securities at the time the transaction occurred or existed.

The policy will provide that if advance approval of a transaction subject to the policy is not obtained, it must be promptly submitted to the committee for possible ratification, approval, amendment, termination or rescission. In reviewing any transaction, the committee will take into account, among other factors the committee deems appropriate, recommendations from senior management, whether the transaction is on terms no less favorable than terms generally available to a third party in similar circumstances and the extent of the related person's interest in the transaction. Any related person transaction must be conducted at arm's length. Any member of the audit committee who is a related person with respect to a transaction under review may not participate in the deliberations or vote on the approval or ratification of the transaction. However, such a director may be counted in determining the presence of a quorum at a meeting of the audit committee that considers the transaction.

PRINCIPAL STOCKHOLDERS

The following table sets forth information with respect to the beneficial ownership of our common stock as of _____, 2020, both before and after giving effect to the closing of the offering, by:

- each person known to own beneficially more than 5% of our Class A common stock or Class B common stock;
- each of our directors;
- each of our named executive officers; and
- all of our directors and executive officers as a group.

The amounts and percentages of our Class A and Class B common stock beneficially owned are reported on the basis of SEC regulations governing the determination of beneficial ownership of securities. Under SEC rules, a person is deemed to be a "beneficial" owner of a security if that person has or shares voting power or investment power, which includes the power to dispose of or to direct the disposition of such security. A person is also deemed to be a beneficial owner of any securities of which that person has a right to acquire beneficial ownership within 60 days. Securities that can be so acquired are not deemed to be outstanding for purposes of computing any other person's percentage. Under these rules, more than one person may be deemed to be a beneficial owner of securities as to which such person has no economic interest.

Our determination of the percentage of beneficial ownership prior to this offering gives effect to the reclassification and is based on _____ shares of our Class A common stock and _____ shares of our Class B common stock outstanding as of _____, 2020. Unless otherwise indicated, the business address of each such beneficial owner is c/o 2301 Renaissance Blvd, King of Prussia, PA 19406.

Name of Beneficial Owner	Number of Shares Beneficially Owned		Percentage of Shares Beneficially Owned				Percentage of Total Voting Power†	
			Before the Offering		After the Offering		Before the Offering	After the Offering
	Class A	Class B	Class A	Class B	Class A	Class B		
Executive Officers and Directors:								
David DeStefano			%	%	%	%	%	%
John Schwab			%	%	%	%	%	%
Lisa Butler			%	%	%	%	%	%
Bryan Rowland			%	%	%	%	%	%
Eric Andersen			%	%	%	%	%	%
Terrence Kyle			%	%	%	%	%	%
Amanda Westphal Radcliffe			%	%	%	%	%	%
Kevin Robert			%	%	%	%	%	%
J. Richard Stamm			%	%	%	%	%	%
Stefanie Westphal Thompson			%	%	%	%	%	%
Jeffrey Westphal			%	%	%	%	%	%
All executive officers and directors as a group			%	%	%	%	%	%

* Denotes less than 1.0% of beneficial ownership.

† Percentage of total voting power represents voting power with respect to all shares of our Class A common stock and Class B common stock, as a single class. The holders of our Class A common stock are entitled to one vote per share, and holders of our Class B common stock are entitled to _____ votes per share.

DESCRIPTION OF CAPITAL STOCK

General

As of the closing of this offering, after giving effect to the reclassification, our authorized capital stock will consist of _____ shares of common stock, par value \$0.0001 per share, and _____ shares of preferred stock, par value \$0.0001 per share. Our common stock will be divided into two classes, Class A common stock and Class B common stock. Following this offering, our authorized Class A common stock will consist of _____ shares and our authorized Class B common stock will consist of _____ shares.

We are selling _____ shares of Class A common stock in this offering (_____ shares if the underwriters exercise their over-allotment option in full). All shares of our Class A common stock outstanding upon consummation of this offering will be fully paid and non-assessable.

After giving effect to the reclassification, as of _____, 2020, there were _____ shares of our Class A Common Stock outstanding, held by _____ stockholders of record, _____ shares of our Class B Common Stock outstanding held by _____ stockholders of record, and no shares of our preferred stock outstanding.

We are currently incorporated in Pennsylvania and will reincorporate in Delaware prior to the completion of this offering. We expect to adopt a Delaware certificate of incorporation and bylaws in connection with the completion of this offering. The following description of our capital stock and provisions of our amended and restated certificate of incorporation and amended and restated bylaws are summaries and are qualified by reference to the amended and restated certificate of incorporation and amended and restated bylaws that will become effective prior to the pricing of this offering. Copies of these documents will be filed with the SEC as exhibits to our registration statement, of which this prospectus forms a part. The description of our capital stock reflects changes to our capital structure that will occur upon the closing of this offering.

Common Stock

We have two classes of authorized common stock: Class A common stock and Class B common stock. The rights of the holders of Class A common stock and Class B common stock are identical, except with respect to voting, conversion and transfer rights.

Voting Rights

Holders of shares of our Class A common stock are entitled to one vote for each share held of record on all matters submitted to a vote of stockholders. Holders of shares of our Class B common stock are entitled to _____ votes for each share held of record on all matters submitted to a vote of stockholders. The holders of our common stock do not have cumulative voting rights in the election of directors.

Our amended and restated certificate of incorporation will provide that so long as any shares of Class B common stock remain outstanding, the Company shall not, without the prior affirmative vote of the holders of a majority of the outstanding shares of Class B common stock, voting as a separate class, in addition to any other vote required by applicable law or our amended and restated certificate of incorporation, directly or indirectly, whether by amendment, or through merger, recapitalization, consolidation or otherwise, amend, repeal or adopt any provision of our amended and restated certificate of incorporation inconsistent with, or otherwise alter or change, any of the voting, conversion, dividend or liquidation provisions of the shares of Class B common stock or other rights, powers, preferences or privileges of the shares of Class B common stock.

In addition, Delaware law would require either holders of our Class A common stock or our Class B common stock to vote separately as a class in the following circumstances:

- if we were to seek to amend our amended and restated certificate of incorporation to increase or decrease the par value of the shares of such class of stock; and
- if we were to seek to amend our amended and restated certificate of incorporation in a manner that alters or changes the powers, preferences or special rights of the shares of such class of stock in a manner that affects them adversely.

Economic Rights

Except as otherwise expressly provided in our amended and restated certificate of incorporation or required by applicable law, shares of Class A common stock and Class B common stock will have the same rights and privileges and rank equally, share ratably and be identical in all respects as to all matters, including, without limitation, those described below.

Dividends. Any dividend or distributions paid or payable to the holders of shares of Class A common stock and Class B common stock shall be paid pro rata, on an equal priority, *pari passu* basis, unless different treatment of the shares of each such class is approved by the affirmative vote of the holders of a majority of the outstanding shares of the applicable class of stock treated adversely, voting separately as a class; provided, however, that if a dividend or distribution is paid in the form of Class A common stock or Class B common stock (or rights to acquire shares of Class A common stock or Class B common stock), then the holders of the Class A common stock shall receive Class A common stock (or rights to acquire shares of Class A common stock) and holders of Class B common stock shall receive Class B common stock (or rights to acquire shares of Class B common stock).

Liquidation. In the event of our liquidation, dissolution or winding-up, upon the completion of the distributions required with respect to any series of preferred stock that may then be outstanding, our remaining assets legally available for distribution to stockholders shall be distributed on an equal priority, pro rata basis to the holders of Class A common stock and Class B common stock.

Subdivisions and Combinations. If we subdivide or combine in any manner outstanding shares of Class A common stock or Class B common stock, then the outstanding shares of the other class will be subdivided or combined in the same proportion and manner, unless different treatment of the shares of each class is approved by the affirmative vote of the holders of a majority of the outstanding shares of Class A common stock and by the affirmative vote of the holders of a majority of the outstanding shares of Class B common stock, each voting separately as a class.

No Preemptive or Similar Rights

Holders of shares of our common stock do not have preemptive, subscription or redemption rights, except as otherwise provided in the Stockholders' Agreement. There will be no redemption or sinking fund provisions applicable to our common stock.

Conversion

Each outstanding share of our Class B common stock is convertible at any time at the option of the holder into one share of our Class A common stock. Each share of our Class B common stock will convert automatically into one share of our Class A common stock upon any transfer, whether or not for value, except for certain permitted transfers described in our amended and restated certificate of incorporation, including transfers to family members, trusts solely for the benefit of the stockholder or their family members, and partnerships, corporations, and other entities exclusively owned by the stockholder or their family members; provided that, in each case, voting control with respect to the

transferred shares of Class B common stock is retained by the transferring holder or such transferring holder's family member. Once converted or transferred and converted into Class A common stock, the Class B common stock may not be reissued.

Preferred Stock

Under the terms of our amended and restated certificate of incorporation that will become effective prior to the pricing of this offering, our board of directors is authorized to direct us to issue shares of preferred stock in one or more series without stockholder approval. Our board of directors has the discretion to determine the rights, preferences, privileges and restrictions, including voting rights, dividend rights, conversion rights, redemption privileges and liquidation preferences, of each series of preferred stock.

The purpose of authorizing our board of directors to issue preferred stock and determine its rights and preferences is to eliminate delays associated with a stockholder vote on specific issuances. The issuance of preferred stock could adversely affect the voting power of holders of our common stock and the likelihood that such holders will receive dividend payments and payments upon liquidation. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions, future financings and other corporate purposes, could have the effect of making it more difficult for a third party to acquire, or could discourage a third party from seeking to acquire, a majority of our outstanding voting stock. Upon the closing of this offering, there will be no shares of preferred stock outstanding.

Registration Rights

There will be no registration rights, except as otherwise provided in the Stockholders' Agreement. For more information, see "Certain Relationships and Related Party Transactions—Stockholders' Agreement."

Exclusive Jurisdiction

Our amended and restated bylaws will provide that, unless we consent to the selection of an alternative forum, the Court of Chancery of the State of Delaware shall be the sole and exclusive forum for any derivative action or proceeding brought on our behalf, any action asserting a claim of breach of fiduciary duty owed by any of our directors, officers or other employees to us or to our stockholders, any action asserting a claim governed by the internal affairs doctrine or any action asserting a claim arising pursuant to the General Corporation Law of the State of Delaware.

Anti-Takeover Provisions

Our amended and restated certificate of incorporation and amended and restated bylaws, as they will be in effect immediately prior to the consummation of this offering, will contain provisions that may delay, defer or discourage another party from acquiring control of us. We expect that these provisions, which are summarized below, will discourage coercive takeover practices or inadequate takeover bids. These provisions are also designed to encourage persons seeking to acquire control of us to first negotiate with our board of directors, which we believe may result in an improvement of the terms of any such acquisition in favor of our stockholders. However, they also give our board of directors the power to discourage acquisitions that some stockholders may favor. See "Risk Factors—Risks Related to This Offering and Ownership of Our Class A Common Stock—Anti-takeover provisions contained in our charter documents and Delaware law could prevent a takeover that stockholders consider favorable and could also reduce the market price of our stock."

Authorized but Unissued Shares

The authorized but unissued shares of our common stock and our preferred stock are available for future issuance without stockholder approval, subject to any limitations imposed by the listing standards of . These additional shares may be used for a variety of corporate finance transactions, acquisitions and employee benefit plans. The existence of authorized but unissued and unreserved common stock and preferred stock could make more difficult or discourage an attempt to obtain control of us by means of a proxy contest, tender offer, merger or otherwise.

Classified Board of Directors

Our amended and restated certificate of incorporation will provide that our board of directors will be divided into three classes, with the classes as nearly equal in number as possible and each class serving three-year staggered terms. Directors may only be removed from our board of directors for cause by the affirmative vote of the holders of a majority in voting power of the shares entitled to vote. See "Management—Board of Directors, Committees and Executive Officers." These provisions may have the effect of deferring, delaying or discouraging hostile takeovers or changes in control of us or our management.

Stockholder Action; Special Meeting of Stockholders

Our amended and restated certificate of incorporation will provide that our stockholders will not be able to take action by written consent for any matter and may only take action at annual or special meetings. As a result, a holder controlling a majority of our capital stock would not be able to amend our amended and restated bylaws or remove directors without holding a meeting of our stockholders called in accordance with our amended and restated bylaws, unless previously approved by our board of directors. Our amended and restated certificate of incorporation will further provide that special meetings of our stockholders may be called only by the chairperson of our board of directors, our chief executive officer, our president or another officer selected by a majority of our board of directors, thus limiting the ability of a stockholder to call a special meeting. These provisions might delay the ability of our stockholders to force consideration of a proposal or for stockholders controlling a majority of our capital stock to take any action, including the removal of directors.

Advance Notice Requirements for Stockholder Proposals and Director Nominations

In addition, our amended and restated bylaws will establish an advance notice procedure for stockholder proposals to be brought before an annual meeting of stockholders, including proposed nominations of candidates for election to our board of directors. In order for any matter to be "properly brought" before a meeting, a stockholder will have to comply with advance notice and duration of ownership requirements and provide us with certain information. Stockholders at an annual meeting may only consider proposals or nominations specified in the notice of meeting or brought before the meeting by or at the direction of our board of directors or by a qualified stockholder of record on the record date for the meeting who is entitled to vote at the meeting and who has delivered timely written notice in proper form to our secretary of the stockholder's intention to bring such business before the meeting. These provisions could have the effect of delaying stockholder actions that are favored by the holders of a majority of our outstanding voting securities until the next stockholder meeting.

Amendment of Certificate of Incorporation or Bylaws

The DGCL provides generally that the affirmative vote of the holders of a majority in voting power of the shares entitled to vote is required to amend a corporation's certificate of incorporation, unless a corporation's certificate of incorporation requires a greater percentage. Upon consummation

of this offering, our bylaws may be amended or repealed by a majority vote of our board of directors or by the affirmative vote of the holders a majority of the votes which all our stockholders would be eligible to cast in an election of directors.

Limitation on Liability of Directors and Indemnification

Our amended and restated certificate of incorporation and amended and restated bylaws will limit our directors' and officers' liability to the fullest extent permitted under the General Corporation Law of the State of Delaware. Specifically, our directors and officers will not be liable to us or our stockholders for monetary damages for any breach of fiduciary duty by a director or officer, except for liability:

- for any breach of the director's or officer's duty of loyalty to us or our stockholders;
- for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law;
- under Section 174 of the General Corporation Law of the State of Delaware; or
- for any transaction from which a director or officer derives an improper personal benefit.

If the General Corporation Law of the State of Delaware is amended to authorize corporate action further eliminating or limiting the personal liability of directors or officers, then the liability of our directors and officers shall be eliminated or limited to the fullest extent permitted by the General Corporation Law of the State of Delaware, as so amended.

The provision regarding indemnification of our directors and officers in our amended and restated certificate of incorporation will generally not limit liability under state or federal securities laws.

Delaware law and our amended and restated certificate of incorporation and amended and restated bylaws will provide that we will, in certain situations, indemnify any person made or threatened to be made a party to a proceeding by reason of that person's former or present official capacity with our company against judgments, penalties, fines, settlements and reasonable expenses, including reasonable attorney's fees. Any person is also entitled, subject to certain limitations, to payment or reimbursement of reasonable expenses in advance of the final disposition of the proceeding. In addition, we are party to certain indemnification agreements pursuant to which we have agreed to indemnify the employees who are party thereto.

The limitation of liability and indemnification provisions in our amended and restated certificate of incorporation may discourage stockholders from bringing a lawsuit against directors for breach of their fiduciary duty. These provisions may also have the effect of reducing the likelihood of derivative litigation against directors and officers, even though such an action, if successful, might otherwise benefit us and our stockholders. In addition, your investment may be adversely affected to the extent that, in a class action or direct suit, we pay the costs of settlement and damage awards against directors and officers pursuant to these indemnification provisions.

Transfer Agent and Registrar

The transfer agent and registrar for our Class A common stock will be _____.

Listing

We intend to apply to list our Class A common stock on _____ under the symbol " _____."

SHARES ELIGIBLE FOR FUTURE SALE

Prior to this offering, there has been no public market for our Class A common stock, and we cannot predict the effect, if any, that market sales of shares of our Class A common stock or the availability of shares of our Class A common stock for sale will have on the market price of our Class A common stock prevailing from time to time. Future sales of our Class A common stock in the public market, or the availability of such shares for sale in the public market, could adversely affect market prices prevailing from time to time. As described below, only a limited number of shares of Class A common stock will be available for sale shortly after this offering due to contractual and legal restrictions on resale. Nevertheless, sales of our Class A common stock in the public market after such restrictions lapse, or the perception that those sales may occur, could adversely affect the prevailing market price at such time and our ability to raise equity capital in the future.

After giving effect to the reclassification, based on the number of shares outstanding as of _____, 2020, upon the completion of this offering, _____ shares of Class A common stock (or _____ shares of Class A common stock if the underwriters exercise their option to purchase additional shares of Class A common stock in full) and _____ shares of Class B common stock will be outstanding. Of the outstanding shares, all the shares of Class A common stock sold in this offering will be freely transferrable without restriction or registration under the Securities Act, except that any shares held by our affiliates, as that term is defined in Rule 144 under the Securities Act, may only be sold in compliance with the limitations described below.

The shares of Class B common stock outstanding upon completion of this offering will be restricted securities, as that term is defined in Rule 144 under the Securities Act. These shares of Class B common stock may be sold in the public market only if registered or pursuant to an exemption from registration, such as Rule 144 or Rule 701 under the Securities Act, which are summarized below.

Lock-Up Agreements

All of our directors and executive officers and the holders of all of our capital stock have entered or will enter into lock-up agreements under which they agree, subject to certain exceptions, not to sell, transfer or dispose of, directly or indirectly, any shares of our Class A common stock or any securities convertible into or exercisable or exchangeable for shares of our Class A common stock for a period of 180 days after the date of this prospectus. Goldman Sachs & Co. LLC and Morgan Stanley & Co. LLC may, in their sole discretion, permit our stockholders who are subject to these lock-up agreements to sell shares prior to the expiration of the lock-up agreements. See "Underwriting" for a description of these agreements.

Rule 144

In general, under Rule 144 as currently in effect, once we have been subject to the public company reporting requirements of Section 13 or Section 15(d) of the Exchange Act for at least 90 days, a person who is not deemed to have been one of our affiliates for purposes of the Securities Act at any time during the 90 days preceding a sale and who has beneficially owned the shares of our Class A common stock proposed to be sold for at least six months is entitled to sell those shares without complying with the manner of sale, volume limitation or notice provisions of Rule 144, subject to compliance with the public information requirements of Rule 144. If such a person has beneficially owned the shares of Class A common stock proposed to be sold for at least one year, including the holding period of any prior owner other than our affiliates, then that person would be entitled to sell those shares of Class A common stock without complying with any of the requirements of Rule 144.

In general, under Rule 144, as currently in effect, our affiliates or persons selling shares of our Class A common stock on behalf of our affiliates are entitled to sell upon expiration of the lock-up

agreements described above, within any three-month period, a number of shares of Class A common stock that does not exceed the greater of:

- 1% of the number of shares of our Class A common stock then outstanding, which will equal approximately _____ shares of our Class A common stock immediately after this offering assuming no exercise of the underwriters' over-allotment option; and
- the average weekly trading volume of our Class A common stock during the four calendar weeks preceding the filing of a notice on Form 144 with respect to that sale.

Sales under Rule 144 by our affiliates or persons selling shares of our Class A common stock on behalf of our affiliates are also subject to certain manner-of-sale provisions and notice requirements and to the availability of current public information about us.

Rule 701

Rule 701 generally allows a stockholder who purchased shares of our capital stock pursuant to a written compensatory plan or contract and who is not deemed to have been an affiliate of our company during the immediately preceding 90 days to sell these shares in reliance upon Rule 144, but without being required to comply with the public information, holding period, volume limitation or notice provisions of Rule 144. Rule 701 also permits affiliates of our company to sell their Rule 701 shares under Rule 144 without complying with the holding period requirements of Rule 144. All holders of Rule 701 shares, however, are required to wait until 90 days after the date of this prospectus before selling those shares pursuant to Rule 701. Moreover, all Rule 701 shares are subject to lock-up agreements with the underwriters as described above and in the section titled "Underwriting" and will not become eligible for sale until the expiration of those agreements.

Registration Rights

The holders of approximately _____ shares of our outstanding capital stock, or their transferees, are entitled to certain rights with respect to the registration of those shares under the Securities Act. For a description of these registration rights, see "Certain Relationships and Related Party Transactions—Registration Rights." If these shares are registered, in most cases they will be freely tradable without restriction under the Securities Act, and a large number of shares may be sold into the public market.

Registration Statement on Form S-8

We intend to file a registration statement on Form S-8 under the Securities Act promptly after the completion of this offering to register shares of our Class A common stock subject to options and restricted stock units outstanding, as well as reserved for future issuance, under our equity compensation plans. The registration statement on Form S-8 is expected to become effective immediately upon filing, and shares of our Class A common stock covered by the registration statement will then become eligible for sale in the public market, subject to the Rule 144 limitations applicable to affiliates, vesting restrictions and any applicable lock-up agreements.

MATERIAL U.S. FEDERAL INCOME TAX CONSEQUENCES TO NON-U.S. HOLDERS

The following discussion is a summary of the material U.S. federal income tax consequences to Non-U.S. Holders (as defined below) of the purchase, ownership and disposition of our Class A common stock issued pursuant to this offering, but does not purport to be a complete analysis of all potential tax effects. The effects of other U.S. federal tax laws, such as estate and gift tax laws, and any applicable state, local or non-U.S. tax laws are not discussed. This discussion is based on the Code, Treasury Regulations promulgated thereunder, judicial decisions, and published rulings and administrative pronouncements of the U.S. Internal Revenue Service (the "IRS"), in each case in effect as of the date hereof. These authorities may change or be subject to differing interpretations. Any such change or differing interpretation may be applied retroactively in a manner that could adversely affect a Non-U.S. Holder of our Class A common stock. We have not sought and will not seek any rulings from the IRS regarding the matters discussed below. There can be no assurance the IRS or a court will not take a contrary position to that discussed below regarding the tax consequences of the purchase, ownership and disposition of our common stock.

This discussion is limited to Non-U.S. Holders that hold our Class A common stock as a "capital asset" within the meaning of Section 1221 of the Code (generally, property held for investment). This discussion does not address all U.S. federal income tax consequences relevant to a Non-U.S. Holder's particular circumstances, including the impact of the Medicare contribution tax on net investment income. In addition, it does not address consequences relevant to Non-U.S. Holders subject to special rules, including, without limitation:

- U.S. expatriates and former citizens or long-term residents of the United States;
- persons subject to the alternative minimum tax;
- persons holding our Class A common stock as part of a hedge, straddle or other risk reduction strategy or as part of a conversion transaction or other integrated investment;
- banks, insurance companies, and other financial institutions;
- brokers, dealers or traders in securities;
- "controlled foreign corporations," "passive foreign investment companies," and corporations that accumulate earnings to avoid U.S. federal income tax;
- partnerships or other entities or arrangements treated as partnerships for U.S. federal income tax purposes (and investors therein);
- tax-exempt organizations or governmental organizations;
- persons deemed to sell our Class A common stock under the constructive sale provisions of the Code;
- persons who hold or receive our Class A common stock pursuant to the exercise of any employee stock option or otherwise as compensation;
- tax-qualified retirement plans;
- "qualified foreign pension funds" as defined in Section 897(l)(2) of the Code and entities, all of the interests of which are held by qualified foreign pension funds; and
- persons subject to special tax accounting rules as a result of any item of gross income with respect to the stock being taken into account in an applicable financial statement as described in Section 451(b) of the Code.

If an entity treated as a partnership for U.S. federal income tax purposes holds our Class A common stock, the tax treatment of a partner in the partnership will depend on the status of the

partner, the activities of the partnership and certain determinations made at the partner level. Accordingly, partnerships holding our Class A common stock and the partners in such partnerships should consult their tax advisors regarding the U.S. federal income tax consequences to them.

THIS DISCUSSION IS FOR INFORMATIONAL PURPOSES ONLY AND IS NOT TAX ADVICE. INVESTORS SHOULD CONSULT THEIR TAX ADVISORS WITH RESPECT TO THE APPLICATION OF THE U.S. FEDERAL INCOME TAX LAWS TO THEIR PARTICULAR SITUATIONS AS WELL AS ANY TAX CONSEQUENCES OF THE PURCHASE, OWNERSHIP AND DISPOSITION OF OUR CLASS A COMMON STOCK ARISING UNDER THE U.S. FEDERAL ESTATE OR GIFT TAX LAWS OR UNDER THE LAWS OF ANY STATE, LOCAL OR NON-U.S. TAXING JURISDICTION OR UNDER ANY APPLICABLE INCOME TAX TREATY.

Definition of a Non-U.S. Holder

For purposes of this discussion, a "Non-U.S. Holder" is any beneficial owner of our Class A common stock that is neither a "U.S. person" nor an entity treated as a partnership for U.S. federal income tax purposes. A U.S. person is any person that, for U.S. federal income tax purposes, is or is treated as any of the following:

- an individual who is a citizen or resident of the United States;
- a corporation (or other entity taxable as a corporation) created or organized under the laws of the United States, any state thereof, or the District of Columbia;
- an estate, the income of which is subject to U.S. federal income tax regardless of its source; or
- a trust that (1) is subject to the primary supervision of a U.S. court and the control of one or more "United States persons" (within the meaning of Section 7701(a)(30) of the Code), or (2) has a valid election in effect to be treated as a United States person for U.S. federal income tax purposes.

Distributions

As described in the section entitled "Dividend Policy," we do not anticipate declaring or paying dividends to holders of our Class A common stock in the foreseeable future. However, if we do make distributions of cash or property on Class A our common stock, such distributions will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. Amounts not treated as dividends for U.S. federal income tax purposes will constitute a return of capital and first be applied against and reduce a Non-U.S. Holder's adjusted tax basis in its Class A common stock, but not below zero. Any excess will be treated as capital gain and will be treated as described below under "—Sale or Other Taxable Disposition."

Subject to the discussion below on effectively connected income, dividends paid to a Non-U.S. Holder of our Class A common stock will be subject to U.S. federal withholding tax at a rate of 30% of the gross amount of the dividends (or such lower rate specified by an applicable income tax treaty, provided the Non-U.S. Holder furnishes a valid IRS Form W-8BEN or W-8BEN-E (or other applicable documentation) certifying qualification for the lower treaty rate). If the Non-U.S. Holder holds the stock through a financial institution or other agent acting on the holder's behalf, the holder will be required to provide appropriate documentation to the agent. The holder's agent will then be required to provide certification to us or our paying agent, either directly or through other intermediaries. A Non-U.S. Holder that does not timely furnish the required documentation, but that qualifies for a reduced treaty rate, may obtain a refund of any excess amounts withheld by timely filing an appropriate claim for refund with the IRS. Non-U.S. Holders should consult their tax advisors regarding their entitlement to benefits under any applicable income tax treaty.

If dividends paid to a Non-U.S. Holder are effectively connected with the Non-U.S. Holder's conduct of a trade or business within the United States (and, if required by an applicable income tax treaty, the Non-U.S. Holder maintains a permanent establishment in the United States to which such dividends are attributable), the Non-U.S. Holder will be exempt from the U.S. federal withholding tax described above. To claim the exemption, the Non-U.S. Holder must furnish to the applicable withholding agent a valid IRS Form W-8ECI, certifying that the dividends are effectively connected with the Non-U.S. Holder's conduct of a trade or business within the United States.

Any such effectively connected dividends will be subject to U.S. federal income tax on a net income basis at the regular graduated rates. A Non-U.S. Holder that is a corporation also may be subject to a branch profits tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty) on such effectively connected dividends, as adjusted for certain items. Non-U.S. Holders should consult their tax advisors regarding any applicable tax treaties that may provide for different rules.

Sale or Other Taxable Disposition

A Non-U.S. Holder will not be subject to U.S. federal income tax on any gain realized upon the sale or other taxable disposition of our Class A common stock unless:

- the gain is effectively connected with the Non-U.S. Holder's conduct of a trade or business within the United States (and, if required by an applicable income tax treaty, the Non-U.S. Holder maintains a permanent establishment in the United States to which such gain is attributable);
- the Non-U.S. Holder is a nonresident alien individual present in the United States for 183 days or more during the taxable year of the disposition and certain other requirements are met; or
- our Class A common stock constitutes a U.S. real property interest ("USRPI") by reason of our status as a U.S. real property holding corporation ("USRPHC") for U.S. federal income tax purposes.

Gain described in the first bullet point above generally will be subject to U.S. federal income tax on a net income basis at the regular graduated rates. A Non-U.S. Holder that is a corporation also may be subject to a branch profits tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty) on such effectively connected gain, as adjusted for certain items.

Gain described in the second bullet point above will be subject to U.S. federal income tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty), which may be offset by U.S. source capital losses of the Non-U.S. Holder (even though the individual is not considered a resident of the United States), provided the Non-U.S. Holder has timely filed U.S. federal income tax returns with respect to such losses.

With respect to the third bullet point above, we believe we currently are not, and do not anticipate becoming, a USRPHC. Because the determination of whether we are a USRPHC depends, however, on the fair market value of our USRPIs relative to the fair market value of our non-U.S. real property interests and our other business assets, there can be no assurance we currently are not a USRPHC or will not become one in the future. Even if we are or were to become a USRPHC, gain arising from the sale or other taxable disposition by a Non-U.S. Holder of our Class A common stock will not be subject to U.S. federal income tax if our Class A common stock is "regularly traded," as defined by applicable Treasury Regulations, on an established securities market, and such Non-U.S. Holder owned, actually and constructively, 5% or less of our Class A common stock throughout the shorter of the five-year period ending on the date of the sale or other taxable disposition or the Non-U.S. Holder's holding period.

Non-U.S. Holders should consult their tax advisors regarding potentially applicable income tax treaties that may provide for different rules.

Information Reporting and Backup Withholding

Payments of dividends on our Class A common stock will not be subject to backup withholding, provided the applicable withholding agent does not have actual knowledge or reason to know the holder is a United States person and the holder either certifies its non-U.S. status, such as by furnishing a valid IRS Form W-8BEN, W-8BEN-E or W-8ECI, or otherwise establishes an exemption. However, information returns are required to be filed with the IRS in connection with any dividends on our Class A common stock paid to the Non-U.S. Holder, regardless of whether any tax was actually withheld. In addition, proceeds of the sale or other taxable disposition of our Class A common stock within the United States or conducted through certain U.S.-related brokers generally will not be subject to backup withholding or information reporting, if the applicable withholding agent receives the certification described above and does not have actual knowledge or reason to know that such holder is a United States person, or the holder otherwise establishes an exemption. Proceeds of a disposition of our Class A common stock conducted through a non-U.S. office of a non-U.S. broker generally will not be subject to backup withholding or information reporting.

Copies of information returns that are filed with the IRS may also be made available under the provisions of an applicable treaty or agreement to the tax authorities of the country in which the Non-U.S. Holder resides or is established.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules may be allowed as a refund or a credit against a Non-U.S. Holder's U.S. federal income tax liability, provided the required information is timely furnished to the IRS.

Additional Withholding Tax on Payments Made to Foreign Accounts

Withholding taxes may be imposed under Sections 1471 to 1474 of the Code (such Sections commonly referred to as the Foreign Account Tax Compliance Act, or "FATCA") on certain types of payments made to non-U.S. financial institutions and certain other non-U.S. entities. Specifically, a 30% withholding tax may be imposed on dividends on, or (subject to the proposed Treasury Regulations discussed below) gross proceeds from the sale or other disposition of, our Class A common stock paid to a "foreign financial institution" or a "non-financial foreign entity" (each as defined in the Code), unless (1) the foreign financial institution undertakes certain diligence and reporting obligations, (2) the non-financial foreign entity either certifies it does not have any "substantial United States owners" (as defined in the Code) or furnishes identifying information regarding each substantial United States owner, or (3) the foreign financial institution or non-financial foreign entity otherwise qualifies for an exemption from these rules. If the payee is a foreign financial institution and is subject to the diligence and reporting requirements in (1) above, it must enter into an agreement with the U.S. Department of the Treasury requiring, among other things, that it undertake to identify accounts held by certain "specified United States persons" or "United States owned foreign entities" (each as defined in the Code), annually report certain information about such accounts, and withhold 30% on certain payments to non-compliant foreign financial institutions and certain other account holders. Foreign financial institutions located in jurisdictions that have an intergovernmental agreement with the United States governing FATCA may be subject to different rules.

Under the applicable Treasury Regulations and administrative guidance, withholding under FATCA generally applies to payments of dividends on our Class A common stock. While withholding under FATCA would have applied also to payments of gross proceeds from the sale or other disposition of stock on or after January 1, 2019, recently proposed Treasury Regulations eliminate FATCA withholding on payments of gross proceeds entirely. Taxpayers generally may rely on these proposed Treasury Regulations until final Treasury Regulations are issued.

Prospective investors should consult their tax advisors regarding the potential application of withholding under FATCA to their investment in our Class A common stock.

UNDERWRITING

We and the underwriters named below will enter into an underwriting agreement with respect to the shares of our Class A common stock being offered by this prospectus. Subject to certain conditions, each underwriter will severally agree to purchase the number of shares of our Class A common stock indicated in the following table. Goldman Sachs & Co. LLC and Morgan Stanley & Co. LLC are the representatives of the underwriters.

<u>Underwriters</u>	<u>Number of Shares</u>
Goldman Sachs & Co. LLC	
Morgan Stanley & Co. LLC	
Total	

Subject to the terms and conditions set forth in the underwriting agreement, the underwriters have agreed, severally and not jointly, to purchase all of the shares sold under the underwriting agreement if any of these shares are purchased, other than the shares covered by the option described below unless and until this option is exercised. If an underwriter defaults, the underwriting agreement provides that the purchase commitments of the non-defaulting underwriters may be increased or the underwriting agreement may be terminated.

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act, or to contribute to payments the underwriters may be required to make in respect of those liabilities.

The underwriters are offering the shares, subject to prior sale, when, as and if issued to and accepted by them, subject to approval of legal matters by their counsel, including the validity of the shares, and other conditions contained in the underwriting agreement, such as the receipt by the underwriters of officers' certificates and legal opinions. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

Option to Purchase Additional Shares

We have granted an option to the underwriters, exercisable for 30 days after the date of this prospectus, to purchase up to _____ additional shares at the public offering price, less underwriting discounts and commissions. If the underwriters exercise this option, each will be obligated, subject to conditions contained in the underwriting agreement, to purchase a number of additional shares proportionate to that underwriter's initial amount reflected in the above table.

Commissions and Discounts

The representatives have advised us that the underwriters propose initially to offer the shares to the public at the public offering price set forth on the cover page of this prospectus and to dealers at that price less a concession not in excess of \$ _____ per share. After the initial offering, the public offering price, concession or any other term of the offering may be changed.

The following table shows the public offering price, underwriting discounts and commissions and proceeds before expenses to us. The information assumes either no exercise or full exercise by the underwriters of their option to purchase additional shares.

	<u>Per Share</u>	<u>Without Option</u>	<u>With Option</u>
Public offering price	\$	\$	\$
Underwriting discounts and commissions	\$	\$	\$
Proceeds, before expenses, to us	\$	\$	\$

The expenses of the offering, not including underwriting discounts and commissions, are estimated at \$ _____ and are payable by us.

No Sales of Similar Securities

We, our executive officers and directors and the holders of all of our outstanding capital stock have agreed, subject to certain exceptions, not to sell or transfer any Class A common stock or securities convertible into, exchangeable for, exercisable for or repayable with Class A common stock for 180 days after the date of this prospectus without first obtaining the written consent of the representatives. Specifically, we and these other persons have agreed, with certain limited exceptions, not to, directly or indirectly:

- offer, pledge, sell or contract to sell any Class A common stock;
- sell any option or contract to purchase any Class A common stock;
- purchase any option or contract to sell any Class A common stock;
- grant any option, right or warrant for the sale of any Class A common stock;
- lend or otherwise dispose of or transfer any Class A common stock;
- engage in any hedging or other transaction or arrangement in respect of Class A common stock;
- request or demand that we file a registration statement related to the Class A common stock; or
- enter into any swap or other agreement that transfers, in whole or in part, the economic consequence of ownership of any Class A common stock whether any such swap or transaction is to be settled by delivery of shares or other securities, in cash or otherwise.

This lock-up provision applies to Class A common stock and to securities convertible into or exchangeable or exercisable for or repayable with Class A common stock. It also applies to Class A common stock owned now or acquired later by the person executing the agreement or for which the person executing the agreement later acquires the power of disposition.

Exchange Listing

We intend to apply to list the shares on _____ under the symbol " _____ ." In order to meet the requirements for listing on that exchange, the underwriters have undertaken to sell a minimum number of shares to a minimum number of beneficial owners as required by that exchange.

Before this offering, there has been no public market for our Class A common stock. The initial public offering price will be determined through negotiations between us and the representatives. In addition to prevailing market conditions, the factors to be considered in determining the initial public offering price are:

- the valuation multiples of publicly traded companies that the representatives believe to be comparable to us;
- our financial information;
- the history of, and the prospects for, our company and the industry in which we compete;
- an assessment of our management, its past and present operations, and the prospects for, and timing of, our future revenues; and
- the above factors in relation to market values and various valuation measures of other companies engaged in activities similar to ours.

An active trading market for the shares may not develop. It is also possible that after the offering the shares will not trade in the public market at or above the initial public offering price.

The underwriters do not expect to sell more than 5% of the shares in the aggregate to accounts over which they exercise discretionary authority.

Price Stabilization, Short Positions and Penalty Bids

Until the distribution of the shares is complete, SEC rules may limit underwriters and selling group members from bidding for and purchasing our Class A common stock. However, the representatives may engage in transactions that stabilize the price of the Class A common stock, such as bids or purchases to peg, fix or maintain that price.

In connection with the offering, the underwriters may purchase and sell our Class A common stock in the open market. These transactions may include short sales, purchases on the open market to cover positions created by short sales and stabilizing transactions. Short sales involve the sale by the underwriters of a greater number of shares than they are required to purchase in the offering. "Covered" short sales are sales made in an amount not greater than the underwriters' option to purchase additional shares described above. The underwriters may close out any covered short position by either exercising their option to purchase additional shares or purchasing shares in the open market. In determining the source of shares to close out the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase shares through the option granted to them. "Naked" short sales are sales in excess of such option. The underwriters must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of our Class A common stock in the open market after pricing that could adversely affect investors who purchase in the offering. Stabilizing transactions consist of various bids for or purchases of shares of Class A common stock made by the underwriters in the open market prior to the completion of the offering.

The underwriters may also impose a penalty bid. This occurs when a particular underwriter repays to the underwriters a portion of the underwriting discounts and commissions received by it because the representatives have repurchased shares sold by or for the account of such underwriter in stabilizing or short covering transactions.

Similar to other purchase transactions, the underwriters' purchases to cover the syndicate short sales may have the effect of raising or maintaining the market price of our Class A common stock or preventing or retarding a decline in the market price of our Class A common stock. As a result, the price of our Class A common stock may be higher than the price that might otherwise exist in the open market. The underwriters may conduct these transactions on _____, in the over-the-counter market or otherwise.

Neither we nor any of the underwriters make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of our Class A common stock. In addition, none of us or any of the underwriters make any representation that the representatives will engage in these transactions or that these transactions, once commenced, will not be discontinued without notice.

Electronic Distribution

In connection with the offering, certain of the underwriters or securities dealers may distribute prospectuses by electronic means, such as e-mail. In addition, the underwriters may facilitate internet distribution for this offering to certain of their respective internet subscription customers. The underwriters may allocate a limited number of shares of common stock for sale to their respective

online brokerage customers. An electronic prospectus is available on internet websites maintained by the underwriters. Other than the prospectus in electronic format, the information on the website of the underwriters is not part of this prospectus.

Other Relationships

Some of the underwriters and their affiliates have engaged in, and may in the future engage in, investment banking and other commercial dealings in the ordinary course of business with us or our affiliates for which they have received, or may in the future receive, customary fees and commissions for these transactions.

In addition, in the ordinary course of their business activities, the underwriters and their affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers. Such investments and securities activities may involve securities and/or instruments of ours or our affiliates. The underwriters and their affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or financial instruments and may hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

Notice to Prospective Investors in the European Economic Area

In relation to each Member State of the European Economic Area, each referred to herein as a "Member State", no shares of our Class A common stock have been offered or will be offered pursuant to the offering to the public in that Member State prior to the publication of a prospectus in relation to the shares which has been approved by the competent authority in that Member State or, where appropriate, approved in another Member State and notified to the competent authority in that Member State, all in accordance with the Prospectus Regulation, except that offers of shares may be made to the public in that Member State at any time under the following exemptions under the Prospectus Regulation:

- to any legal entity which is a qualified investor as defined under the Prospectus Regulation;
- to fewer than 150 natural or legal persons (other than qualified investors as defined under the Prospectus Regulation, subject to obtaining the prior consent of the representatives for any such offer); or
- in any other circumstances falling within Article 1(4) of the Prospectus Regulation,

provided that no such offer of shares of our Class A common stock shall require the Company or the representatives to publish a prospectus pursuant to Article 3 of the Prospectus Regulation or supplement a prospectus pursuant to Article 23 of the Prospectus Regulation.

For the purposes of this provision, the expression an "offer to the public" in relation to any shares of our Class A common stock in any relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and any shares of our Class A common stock to be offered so as to enable an investor to decide to purchase or subscribe for any shares of our Class A common stock, and the expression "Prospectus Regulation" means Regulation (EU) 2017/1129.

Notice to Prospective Investors in the United Kingdom

Each underwriter has represented and agreed that:

- it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the

meaning of Section 21 of the Financial Services and Markets Act 2000, referred to herein as "FSMA") received by it in connection with the issue or sale of the shares of our Class A common stock in circumstances in which Section 21(1) of the FSMA does not apply to us; and

- it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the shares of our Class A common stock in, from or otherwise involving the United Kingdom.

Notice to Prospective Investors in Switzerland

The shares may not be publicly offered in Switzerland and will not be listed on the SIX Swiss Exchange ("SIX"), or on any other stock exchange or regulated trading facility in Switzerland. This document has been prepared without regard to the disclosure standards for issuance prospectuses under art. 652a or art. 1156 of the Swiss Code of Obligations or the disclosure standards for listing prospectuses under art. 27 ff. of the SIX Listing Rules or the listing rules of any other stock exchange or regulated trading facility in Switzerland. Neither this document nor any other offering or marketing material relating to the shares or the offering may be publicly distributed or otherwise made publicly available in Switzerland.

Neither this document nor any other offering or marketing material relating to the offering, the Company or the shares has been or will be filed with or approved by any Swiss regulatory authority. In particular, this document will not be filed with, and the offer of shares will not be supervised by, the Swiss Financial Market Supervisory Authority and the offer of shares has not been and will not be authorized under the Swiss Federal Act on Collective Investment Schemes ("CISA"). The investor protection afforded to acquirers of interests in collective investment schemes under the CISA does not extend to acquirers of shares.

Notice to Prospective Investors in the Dubai International Financial Centre

This prospectus relates to an Exempt Offer in accordance with the Offered Securities Rules of the Dubai Financial Services Authority ("DFSA"). This prospectus is intended for distribution only to persons of a type specified in the Offered Securities Rules of the DFSA. It must not be delivered to, or relied on by, any other person. The DFSA has no responsibility for reviewing or verifying any documents in connection with Exempt Offers. The DFSA has not approved this prospectus or taken steps to verify the information set forth herein and has no responsibility for the prospectus. The shares to which this prospectus relates may be illiquid and/or subject to restrictions on their resale. Prospective purchasers of the shares offered should conduct their own due diligence on the shares. If you do not understand the contents of this prospectus, you should consult an authorized financial advisor.

Notice to Prospective Investors in Australia

No placement document, prospectus, product disclosure statement or other disclosure document has been lodged with the Australian Securities and Investments Commission, in relation to the offering. This prospectus does not constitute a prospectus, product disclosure statement or other disclosure document under the Corporations Act 2001 (the "Corporations Act"), and does not purport to include the information required for a prospectus, product disclosure statement or other disclosure document under the Corporations Act.

Any offer in Australia of the shares may only be made to persons, referred to herein as the "Exempt Investors," who are "sophisticated investors" (within the meaning of section 708(8) of the Corporations Act), "professional investors" (within the meaning of section 708(11) of the Corporations Act) or otherwise pursuant to one or more exemptions contained in section 708 of the Corporations Act so that it is lawful to offer the shares without disclosure to investors under Chapter 6D of the Corporations Act.

The shares applied for by Exempt Investors in Australia must not be offered for sale in Australia in the period of 12 months after the date of allotment under the offering, except in circumstances where disclosure to investors under Chapter 6D of the Corporations Act would not be required pursuant to an exemption under section 708 of the Corporations Act or otherwise or where the offer is pursuant to a disclosure document which complies with Chapter 6D of the Corporations Act. Any person acquiring shares must observe such Australian on-sale restrictions.

This prospectus contains general information only and does not take account of the investment objectives, financial situation or particular needs of any particular person. It does not contain any securities recommendations or financial product advice. Before making an investment decision, investors need to consider whether the information in this prospectus is appropriate to their needs, objectives and circumstances and, if necessary, seek expert advice on those matters.

Notice to Prospective Investors in Hong Kong

The shares may not be offered or sold in Hong Kong by means of any document other than (i) in circumstances which do not constitute an offer to the public within the meaning of the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Cap. 32 of the Laws of Hong Kong) ("Companies (Winding Up and Miscellaneous Provisions) Ordinance") or which do not constitute an invitation to the public within the meaning of the Securities and Futures Ordinance (Cap. 571 of the Laws of Hong Kong) ("Securities and Futures Ordinance"), or (ii) to "professional investors" as defined in the Securities and Futures Ordinance and any rules made thereunder, or (iii) in other circumstances which do not result in the document being a "prospectus" as defined in the Companies (Winding Up and Miscellaneous Provisions) Ordinance, and no advertisement, invitation or document relating to the shares may be issued or may be in the possession of any person for the purpose of issue (in each case whether in Hong Kong or elsewhere), which is directed at, or the contents of which are likely to be accessed or read by, the public in Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to shares which are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" in Hong Kong as defined in the Securities and Futures Ordinance and any rules made thereunder.

Notice to Prospective Investors in Japan

The shares have not been and will not be registered under the Financial Instruments and Exchange Law of Japan (Law No. 25 of 1948, as amended) and, accordingly, will not be offered or sold, directly or indirectly, in Japan, or for the benefit of any Japanese Person or to others for re-offering or resale, directly or indirectly, in Japan or to any Japanese Person, except in compliance with all applicable laws, regulations and ministerial guidelines promulgated by relevant Japanese governmental or regulatory authorities in effect at the relevant time. For the purposes of this paragraph, "Japanese Person" shall mean any person resident in Japan, including any corporation or other entity organized under the laws of Japan.

Notice to Prospective Investors in Singapore

This prospectus has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the shares may not be circulated or distributed, nor may the shares be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (a) to an institutional investor under Section 274 of the Securities and Futures Act, Chapter 289 of Singapore (the "SFA"), (b) to a relevant person pursuant to Section 275(1), or any person pursuant to Section 275(1A), and in accordance with the conditions specified in Section 275, of the SFA, or (c) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the shares are subscribed or purchased under Section 275 of the SFA by a relevant person which is:

- a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)), the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or
- a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor,

securities (as defined in Section 239(1) of the SFA) of that corporation or the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferred within six months after that corporation or that trust has acquired the shares pursuant to an offer made under Section 275 of the SFA except:

- to an institutional investor or to a relevant person defined in Section 275(2) of the SFA, or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(i)(B) of the SFA;
- where no consideration is or will be given for the transfer;
- where the transfer is by operation of law;
- as specified in Section 276(7) of the SFA; or
- as specified in Regulation 32 of the Securities and Futures (Offers of Investments) (Shares and Debentures) Regulations 2005 of Singapore.

Notice to Prospective Investors in Canada

The shares may be sold only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 *Prospectus Exemptions* or subsection 73.3(1) of the *Securities Act* (Ontario), and are permitted clients, as defined in National Instrument 31-103 *Registration Requirements, Exemptions and Ongoing Registrant Obligations*. Any resale of the shares must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor.

Pursuant to section 3A.3 (or, in the case of securities issued or guaranteed by the government of a non-Canadian jurisdiction, section 3A.4) of National Instrument 33-105 *Underwriting Conflicts* ("NI 33-105"), the underwriters are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

LEGAL MATTERS

The validity of the shares of Class A common stock offered hereby will be passed upon for us by Latham & Watkins LLP, Washington, D.C. The underwriters are being represented by Skadden, Arps, Slate, Meagher & Flom LLP in connection with this offering.

EXPERTS

The consolidated financial statements of the Company at December 31, 2019 and 2018 and for each of the two years in the period ended December 31, 2019 have been audited by Crowe LLP, independent registered public accounting firm, as set forth in its report thereon appearing elsewhere herein, and are included in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

CHANGE IN INDEPENDENT ACCOUNTANT

On October 8, 2019, our board of directors determined to dismiss Baker Tilly Virchow Krause, LLP ("Baker Tilly"). Our board of directors retained Crowe LLP as our independent public accounting firm on December 4, 2019.

The reports of Baker Tilly on our consolidated financial statements for each of the two fiscal years prior to its dismissal did not contain any adverse opinion or disclaimer of opinion, nor were such reports qualified or modified as to uncertainty, audit scope or accounting principles. We had no disagreements with Baker Tilly on any matter of accounting principles or practices, consolidated financial statement disclosure or auditing scope or procedure, which disagreements, if not resolved to its satisfaction, would have caused Baker Tilly to make reference in connection with its opinion to the subject matter of the disagreement during its audits for each of the two fiscal years prior to its dismissal or the subsequent interim period through October 8, 2019. During the two most recent fiscal years preceding Baker Tilly's dismissal, and the subsequent interim period through October 8, 2019, there were no "reportable events" as such term is defined in Item 304(a)(1)(v) of Regulation S-K.

During the two years ended December 31, 2018 and the subsequent interim period through December 4, 2019, neither we, nor anyone acting on our behalf, consulted with Crowe LLP on matters that involved the application of accounting principles to a specified transaction, either completed or proposed, the type of audit opinion that might be rendered on our consolidated financial statements, and neither a written report nor oral advice was provided to us by Crowe LLP.

We have provided Baker Tilly with a copy of the foregoing disclosure and have requested that Baker Tilly furnish us with a letter addressed to the SEC stating whether or not Baker Tilly agrees with the above statements and, if not, stating the respects in which it does not agree. A copy of the letter from Baker Tilly has been filed as an exhibit to the registration statement of which this prospectus is a part.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-1 under the Securities Act, with respect to the shares of Class A common stock offered by this prospectus. This prospectus, which constitutes a part of the registration statement, does not contain all of the information set forth in the registration statement or the exhibits and schedules to the registration statement. Please refer to the registration statement and exhibits for further information with respect to the Class A common stock offered by this prospectus. Statements contained in this prospectus regarding the contents of any contract or other document are only summaries. With respect to any contract or document that is filed as an exhibit to the registration statement, you should refer to the exhibit for a copy of the contract or document, and each statement in this prospectus regarding that contract or document is qualified by

reference to the exhibit. The SEC maintains a website that contains reports, proxy and information statements and other information regarding issuers, like us, that file documents electronically with the SEC. The address of that website is www.sec.gov.

Upon completion of this offering, we will become subject to the information and reporting requirements of the Exchange Act, and, in accordance with this law, will be required to file periodic reports, proxy statements and other information with the SEC. These periodic reports, proxy statements and other information will be available for inspection and copying at the website of the SEC referred to above. We also maintain a website at www.vertexinc.com, at which you may access these materials free of charge as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC. The information contained on, or that can be accessed through, these websites is not a part of this prospectus. We have included these website addresses in this prospectus solely as an inactive textual reference.

VERTEX, INC.

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Report of Independent Registered Public Accounting Firm

Shareholders and the Board of Directors of Vertex, Inc.
King of Prussia, Pennsylvania

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Vertex, Inc. (the "Company") as of December 31, 2019 and 2018, the related consolidated statements of comprehensive income (loss), changes in equity, and cash flows for the years then ended, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2019 and 2018, and the results of its operations and its cash flows for the years then ended, in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

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

We conducted our audits in accordance with the standards of the PCAOB and in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

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

We have served as the Company's auditor since 2019.

March 27, 2020

/s/ Crowe LLP

New York, New York

Vertex, Inc.

Consolidated Balance Sheets

December 31, 2019 and 2018

(Amounts in thousands, except per share data)

	2019	2018
Assets		
Current assets:		
Cash and cash equivalents	\$ 75,903	\$ 55,838
Funds held for customers	7,592	3,336
Accounts receivable, net of allowance of \$7,515 and \$5,527, respectively	70,367	62,235
Advances to stockholders	283	140
Prepaid expenses and other current assets	11,412	10,772
Total current assets	165,557	132,321
Property and equipment, net of accumulated depreciation	54,727	49,481
Capitalized software, net of accumulated amortization	32,075	23,066
Deferred commissions	11,196	8,830
Deposits and other assets	1,068	1,374
Total assets	<u>\$ 264,623</u>	<u>\$ 215,072</u>
Liabilities and Equity		
Current liabilities:		
Current portion of long-term debt	\$ 50,804	\$ 4,910
Accounts payable	10,729	6,860
Accrued expenses	13,308	10,628
Distributions payable	13,183	10,892
Customer funds obligations	7,553	3,232
Accrued salaries and benefits	15,195	12,549
Accrued variable compensation	22,237	19,460
Deferred compensation, current	8,935	5,531
Deferred revenue	191,745	163,939
Deferred rent and other	840	751
Total current liabilities	334,529	238,752
Deferred compensation, net of current portion	18,530	12,570
Deferred revenue, net of current portion	14,046	14,764
Long-term debt, net of current portion	682	49,973
Deferred other liabilities	9,268	10,709
Total liabilities	377,055	326,768
Commitments and contingencies (Note 9)		
Options for redeemable shares	17,344	14,581
Stockholders' deficit:		
Class A voting common stock, \$0.001 par value, 200 shares authorized, 100 shares issued, 49 shares outstanding	—	—
Class B non-voting common stock, \$0.001 par value, 99,800 shares authorized, 54,099 and 53,934 shares issued, respectively, 40,090 shares outstanding	54	54
Accumulated deficit	(90,701)	(88,038)
Accumulated other comprehensive loss	(491)	(496)
Treasury stock	(38,638)	(37,797)
Total stockholders' deficit	(129,776)	(126,277)
Total liabilities and equity	<u>\$ 264,623</u>	<u>\$ 215,072</u>

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

Vertex, Inc.

Consolidated Statements of Comprehensive Income (Loss)

For the Years Ended December 31, 2019 and 2018

(Amounts in thousands, except per share data)

	2019	2018
Revenues:		
Software subscriptions	\$ 275,629	\$ 235,663
Services	45,871	36,740
Total revenues	<u>321,500</u>	<u>272,403</u>
Cost of revenues:		
Software subscriptions	77,259	68,945
Services	33,119	26,753
Total cost of revenues	<u>110,378</u>	<u>95,698</u>
Gross profit	<u>211,122</u>	<u>176,705</u>
Operating expenses:		
Research and development	30,557	23,755
Selling and marketing	68,127	56,898
General and administrative	71,014	58,947
Depreciation and amortization	8,996	7,937
Impairment of asset	—	32,692
Other operating (income) expense, net	573	(691)
Total operating expenses	<u>179,267</u>	<u>179,538</u>
Income (loss) from operations	<u>31,855</u>	<u>(2,833)</u>
Other income (expense):		
Interest income	1,083	526
Interest expense	(2,036)	(2,120)
Total other expense, net	<u>(953)</u>	<u>(1,594)</u>
Income (loss) before income taxes	<u>30,902</u>	<u>(4,427)</u>
Income tax (benefit) expense	(155)	1,679
Net income (loss)	<u>31,057</u>	<u>(6,106)</u>
Other comprehensive income (loss) from foreign currency translation adjustments and revaluations, net of tax	5	(355)
Total comprehensive income (loss)	<u>\$ 31,062</u>	<u>\$ (6,461)</u>
Net income (loss) attributable to Class A stockholders	<u>\$ 38</u>	<u>\$ (7)</u>
Net income (loss) per Class A share, basic and diluted	<u>\$ 0.77</u>	<u>\$ (0.15)</u>
Weighted average Class A common stock, basic and diluted	<u>49</u>	<u>49</u>
Net income (loss) attributable to Class B stockholders	<u>\$ 31,019</u>	<u>\$ (6,099)</u>
Net income (loss) per Class B share, basic	<u>\$ 0.77</u>	<u>\$ (0.15)</u>
Weighted average common Class B stock, basic	<u>40,129</u>	<u>40,160</u>
Net income (loss) per Class B share, diluted	<u>\$ 0.75</u>	<u>\$ (0.15)</u>
Weighted average common Class B stock, diluted	<u>41,373</u>	<u>40,160</u>
Pro forma information (unaudited):		
Net income	<u>\$ 31,057</u>	
Pro forma provision for income tax expense	<u>7,825</u>	
Pro forma net income	<u>\$ 23,232</u>	
Pro forma net income per share, basic	<u>\$</u>	
Weighted average pro forma common shares, basic	<u></u>	
Pro forma net income per share, diluted	<u>\$</u>	
Weighted average pro forma common shares, diluted	<u></u>	

Vertex, Inc.
Consolidated Statements of Changes in Equity
For the Years Ended December 31, 2019 and 2018
(Amounts in thousands)

	Outstanding Class A Shares	Class A Common Stock	Outstanding Class B Shares	Class B Common Stock	Accumulated		Treasury Shares Issued	Treasury Stock	Total Stockholders' Deficit	Options for Redeemable Shares
					Accumulated Deficit	Other Comprehensive Loss				
Balance, January 1, 2018	49	\$ —	40,090	\$ 54	\$(41,977)	(141)	13,761	\$(36,520)	\$(78,584)	13,554
Exercise of stock options, net	—	—	134	—	(12)	—	—	—	(12)	—
Remeasurement of options for redeemable shares	—	—	—	—	(1,027)	—	—	—	(1,027)	1,027
Purchase of treasury stock	—	—	(134)	—	—	—	134	(1,277)	(1,277)	—
Distributions declared	—	—	—	—	(38,916)	—	—	—	(38,916)	—
Foreign currency translation adjustments and revaluations	—	—	—	—	—	(355)	—	—	(355)	—
Net loss	—	—	—	—	(6,106)	—	—	—	(6,106)	—
Balance, December 31, 2018	49	—	40,090	54	(88,038)	(496)	13,895	(37,797)	(126,277)	14,581
Remeasurement of options for redeemable shares	—	—	—	—	(2,763)	—	—	—	(2,763)	2,763
Exercise of stock options, net	—	—	75	—	(100)	—	—	—	(100)	—
Purchase of treasury stock	—	—	(75)	—	—	—	75	(841)	(841)	—
Distributions declared	—	—	—	—	(30,857)	—	—	—	(30,857)	—
Foreign currency translation adjustments and revaluations	—	—	—	—	—	5	—	—	5	—
Net income	—	—	—	—	31,057	—	—	—	31,057	—
Balance, December 31, 2019	49	\$ —	40,090	\$ 54	\$(90,701)	(491)	13,970	\$(38,638)	\$(129,776)	17,344

Vertex, Inc.

Consolidated Statements of Cash Flows

For the Years Ended December 31, 2019 and 2018

(Amounts in thousands)

	2019	2018
Cash flows from operating activities:		
Net income (loss)	\$ 31,057	\$ (6,106)
Adjustments to reconcile net income (loss) to net cash provided by operating activities:		
Depreciation and amortization	25,190	24,901
Impairment of asset	—	32,692
Provision for subscription cancellations and non-renewals	1,984	1,207
Amortization of deferred financing costs	266	266
Stock-based compensation expense	9,460	5,108
Other	(327)	899
Changes in operating assets and liabilities:		
Accounts receivable	(10,116)	(16,958)
Advances to stockholders	(142)	18
Prepaid expenses and other current assets	(667)	506
Deferred commissions	(2,366)	(3,154)
Accounts payable	3,868	3,397
Accrued expenses	2,539	1,566
Accrued compensation	5,318	2,060
Deferred revenue	25,938	34,226
Other	496	(179)
Net cash provided by operating activities	<u>92,498</u>	<u>80,449</u>
Cash flows from investing activities:		
Property and equipment additions	(20,339)	(21,053)
Capitalized software additions	(17,221)	(12,261)
Net cash used in investing activities	<u>(37,560)</u>	<u>(33,314)</u>
Cash flows from financing activities:		
Net increase in customer funds obligations	4,276	1,712
Principal payments on debt	(5,566)	(3,284)
Purchase of treasury stock	(841)	(1,277)
Proceeds from exercise of stock options	68	177
Distributions to stockholders	(28,566)	(28,024)
Net cash used in financing activities	<u>(30,629)</u>	<u>(30,697)</u>
Effect of exchange rate changes on cash, cash equivalents and restricted cash	12	(402)
Net increase in cash, cash equivalents and restricted cash	24,321	16,036
Cash, cash equivalents and restricted cash, beginning of year	59,174	43,138
Cash, cash equivalents and restricted cash, end of year	<u>\$ 83,495</u>	<u>\$ 59,174</u>
Reconciliation of cash, cash equivalents and restricted cash to the Consolidated Balance Sheets, end of year:		
Cash and cash equivalents	\$ 75,903	\$ 55,838
Restricted cash—funds held for customers	7,592	3,336
Total cash, cash equivalents and restricted cash, end of year	<u>\$ 83,495</u>	<u>\$ 59,174</u>

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

Vertex, Inc.

Notes to Consolidated Financial Statements

December 31, 2019 and 2018

(Amounts in thousands, except per share date)

1. Summary of significant accounting policies

Nature of Business

Vertex, Inc. ("Vertex") and its direct and indirect wholly-owned subsidiaries (collectively, the "Company") operate as solutions providers of state, local and value added tax calculation, compliance and analytics, offering software products which are sold through software license and software as a service ("cloud") subscriptions. The Company also provides implementation and training services in connection with its software license and cloud subscriptions, transaction tax returns outsourcing, and other tax-related services. The Company sells to customers located throughout the United States of America ("U.S.") and internationally.

Basis of Consolidation

The consolidated financial statements are prepared in accordance with accounting principles generally accepted in the United States ("U.S. GAAP") and include the accounts of the Company. All intercompany transactions have been eliminated in consolidation.

Segments

The Company operates its business as one operating segment. Operating segments are defined as components of an enterprise about which separate financial information is evaluated regularly by the chief operating decision maker ("CODM"), the Company's Chief Executive Officer, in deciding how to allocate resources and assess performance. The Company's CODM allocates resources and assesses performance based upon discrete financial information at the consolidated level. For the years ended December 31, 2019 and 2018 approximately 4% and 3% of the Company's revenue were generated outside of the United States, respectively. As of December 31, 2019 and 2018, none of the Company's long-lived assets were held outside of the U.S.

Concentration of Credit Risk

Financial instruments that potentially subject the Company to credit risk consist principally of cash and cash equivalents, funds held for customers, accounts receivable and investment securities.

The Company maintains the majority of its cash and cash equivalent balances and funds held for customers in four banks. These amounts exceed federally-insured ("FDIC") limits. The Company periodically evaluates the creditworthiness of the banks. The Company has not experienced any losses in these accounts and believes they are not exposed to significant credit risk on such accounts.

The Company does not require collateral from its customers. Allowances are maintained for subscription cancellations. Credit risk related to accounts receivable is limited due to the industry and geographic diversity within the Company's customer base. No single customer accounted for more than 2% of revenues for the years ended December 31, 2019 and 2018.

Vertex, Inc.

Notes to Consolidated Financial Statements (Continued)

December 31, 2019 and 2018

(Amounts in thousands, except per share date)

1. Summary of significant accounting policies (Continued)

Fair Value of Financial Instruments

The carrying amounts reported in the consolidated balance sheets for cash and cash equivalents, funds held for customers, accounts receivable, accounts payable, accrued expenses and debt approximate their related fair values.

Use of Estimates

The preparation of consolidated financial statements requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, equity, revenues and expenses during the reporting period. Significant estimates used in preparing these consolidated financial statements include: (i) the estimated allowance for subscription cancellations, (ii) the reserve for self-insurance, (iii) assumptions related to achievement of technological feasibility for software developed for sale, (iv) product life cycles, (v) estimated useful lives and net realizable value of long-lived assets (vi) amortization period of material rights and deferred commissions (vii) valuation for the Company's stock used for stock-based compensation, and (viii) the potential outcome of future tax consequences of events that have been recognized in the consolidated financial statements or tax returns. Actual results may differ from these estimates.

Cash and Cash Equivalents

The Company considers all highly liquid investments purchased with an initial maturity date of three months or less to be cash equivalents.

Funds Held for Customers

Funds held for customers in the consolidated balance sheets represents customer funds advanced for transaction tax returns outsourcing. Funds held for customers are restricted for the sole purpose of remitting such funds to satisfy obligations on behalf of such customers and are deposited at FDIC-insured institutions. Customer obligations are included in current liabilities in the consolidated balance sheets, as the obligations are expected to be settled within one year.

Property and Equipment

Property and equipment are stated at cost or fair value when acquired and presented net of accumulated depreciation. Normal maintenance and repairs are charged to expense, while major renewals and betterments are capitalized. Assets under capital leases are recorded at the lower of the present value of the minimum lease payments or the fair value of the assets and are depreciated over

Vertex, Inc.

Notes to Consolidated Financial Statements (Continued)

December 31, 2019 and 2018

(Amounts in thousands, except per share date)

1. Summary of significant accounting policies (Continued)

the shorter of the asset's useful life or lease term. Depreciation and amortization are computed straight-line over the estimated useful lives of the assets, as follows:

Leasehold improvements	1 - 12 years
Equipment	3 - 7 years
Computer software	3 - 7 years
Internal-use software developed	3 - 5 years
Furniture and fixtures	7 years
Automobiles	5 years

Software Development Costs**Internal-Use Software**

The Company follows Accounting Standard Codification ("ASC") 350-40, *Goodwill and Other, Internal-Use Software*, to account for development costs incurred for the costs of computer software developed or obtained for internal use. ASC 350-40 requires such costs to be capitalized once certain criteria are met. Capitalized internal-use software costs are primarily comprised of direct labor, related expenses and initial software licenses. ASC 350-40 includes specific guidance on costs not to be capitalized, such as overhead, general and administrative and training costs. Internal-use software includes software utilized for cloud-based solutions as well as software for internal systems and tools. Costs are capitalized once the project is defined, funding is committed and it is confirmed the software will be used for its intended purpose. Capitalization of these costs concludes once the project is substantially complete and the software is ready for its intended purpose. Post-configuration training and maintenance costs are expensed as incurred. Internal-use software is included in internal-use software developed in property and equipment in the consolidated balance sheets once available for its intended use and is depreciated over periods between 3 to 5 years. Depreciation expense for internal-use software utilized for cloud-based solutions and for software for internal systems and tools is included in cost of revenues, software subscriptions and depreciation expense, respectively, in the consolidated statements of comprehensive income (loss).

Software Developed for Sale

The costs incurred for the development of computer software to be sold, leased, or otherwise marketed are capitalized in accordance with ASC 985-20, *Costs of Software to be Sold, Leased or Marketed*, when technological feasibility has been established. Technological feasibility generally occurs when all planning, design, coding and testing activities are completed that are necessary to establish that the product can be produced to meet its design specifications, including functions, features and technical performance requirements. The establishment of technological feasibility is an ongoing assessment of judgment by management with respect to certain external factors, including, but not limited to, anticipated future revenues, estimated economic life and changes in technology. Capitalized software includes direct labor and related expenses for software development for new products and enhancements to existing products and acquired software.

Vertex, Inc.**Notes to Consolidated Financial Statements (Continued)****December 31, 2019 and 2018****(Amounts in thousands, except per share date)****1. Summary of significant accounting policies (Continued)**

Amortization of capitalized software development costs begins when the product is available for general release. Amortization is provided on a product-by-product basis using the straight-line method over periods between 3 to 5 years. Unamortized capitalized software development costs determined to be in excess of the net realizable value of the product are expensed immediately.

Capitalized software costs are subject to an ongoing assessment of recoverability based on anticipated future revenues and changes in software technologies. At each balance sheet date, unamortized capitalized software costs are compared to the net realizable value of the related product. The carrying value of the related assets are written down to the net realizable value to the extent the unamortized capitalized costs exceed such value. The net realizable value is the estimated future gross revenues from the related product reduced by the estimated future costs of completing and disposing of such product, including the costs of providing related maintenance and customer support.

Assessment of Long-Lived Assets

The Company reviews the carrying value of long-lived assets, including internal-use software, for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be fully recoverable. Whenever such events or circumstances are present, an impairment loss equal to the excess of the asset carrying value over its fair value, if any, is recorded.

Deferred Financing Costs

The Company capitalizes costs related to obtaining, renewing or extending loan agreements and amortizes these costs on a straight-line basis, which approximates the interest method, over the life of the loan. Deferred financing costs are reflected as a reduction of current portion of long-term debt and long-term debt, net of current portion in the consolidated balance sheets in accordance with ASC 835-30, *Interest—Imputation of Interest*.

Accounting for Stock-Based Compensation

The Company applies the provisions of ASC 718, *Compensation—Stock Compensation*, for the award of equity-based instruments. The provisions of ASC 718 require a company to measure the fair value of stock-based compensation as of the grant date of the award. The Company has stock options and stock appreciation rights ("SAR(s)") (collectively, the "awards") outstanding that are subject to guidance set forth in ASC 718. The Company's Board of Directors (the "Board") intends all awards granted to be exercisable at a price per share not less than the per share fair value of the Company's common stock underlying such awards on the date of grant. Stock-based compensation expense reflects the cost of employee services received in exchange for the awards.

SARs are accounted for as liabilities under ASC 718 and, as such, the Company recognizes stock-based compensation expense by remeasuring the SARs at the end of each reporting period and accruing the portion of the requisite service rendered at that date. As a nonpublic entity, the Company has elected to measure SARs based on their intrinsic values. Management measures the intrinsic value of the SARs as the difference between the fair value of the Company's Class B common stock less the grant date fair value of the underlying shares as this is the value the SAR participant can derive from

Vertex, Inc.**Notes to Consolidated Financial Statements (Continued)****December 31, 2019 and 2018****(Amounts in thousands, except per share date)****1. Summary of significant accounting policies (Continued)**

exercise of the SAR award. The fair value of the Company's common stock is determined periodically by the Board with the assistance of management and a third-party valuation firm. Management plans to continue to record changes in the intrinsic value of the SARs in 2020 up to the date on which the Company becomes a public entity. Upon becoming a public entity and thereafter, Management will remeasure SARs using the fair value-based method under ASC 718. Any impact from such change in measurement on the date on which the Company becomes a public entity will be accounted for as a change in accounting policy in that period. To the extent the fair value-based measure of the SARs differs materially from the intrinsic value of the SARs, this effect could be material. As the fair value-based measure of the SARs is not determinable at this time, such amount cannot be reasonably estimated with any degree of certainty. Outstanding SARs are included in deferred compensation, current and deferred compensation, net of current portion in the consolidated balance sheets.

Due to the option holders having the right to require the Company to repurchase shares issued in connection with option exercises after six months of share issuance, the options are classified as temporary equity and reflected in options for redeemable shares on the consolidated balance sheets at their redemption value, which equals the options' intrinsic value, as of the end of each balance sheet measurement period. Changes as a result of remeasurement of the redemption value of options for redeemable shares are recorded as adjustments to accumulated deficit.

The fair value of the common stock underlying the awards is determined by the Board with assistance from management and an independent third-party valuation firm. The determination of value uses the market and income approaches, with an adjustment for marketability discount in arriving at the per share fair value (the "valuation methodology"). Under the market approach, the guideline public company method is used, which estimates the fair value of the Company based on market prices of stock of guideline public companies. The income approach involves projecting the future benefits of owning an asset and estimating the present value of those future benefits by discounting them based upon the time value of money and the investment risks associated with ownership.

Operating Leases and Deferred Rent

Rent expense for operating leases is recognized on a straight-line basis over the period of the related lease. For lease agreements that include future specific rent increases, rent concessions and/or tenant improvement allowances, the difference between the rent payments and the straight-line rent expense is included in deferred rent liability in the consolidated balance sheets.

Self-insurance

The Company is self-insured for the majority of its health insurance costs, including medical claims subject to certain stop-loss provisions. Management periodically reviews the adequacy of the Company's stop-loss insurance coverage. The Company records an estimate of claims incurred but not reported, based on management's judgment and historical experience. Self-insurance accruals are \$1,473 and \$1,408 at December 31, 2019 and 2018, respectively, and are reflected in accrued salaries and benefits in the consolidated balance sheets. Material differences may result in the amount and timing of insurance expense if actual experience differs significantly from management's estimates.

Vertex, Inc.**Notes to Consolidated Financial Statements (Continued)****December 31, 2019 and 2018****(Amounts in thousands, except per share date)****1. Summary of significant accounting policies (Continued)****Revenue Recognition****Revenue from contracts with customers**

On January 1, 2018, the Company adopted Accounting Standards Update ("ASU") 2014-09, *Revenue from Contracts with Customers*, ("ASC 606"). Revenue is recognized upon transfer of control of promised products or services to customers in an amount that reflects the consideration expected to be received in exchange for those products or services. The Company enters into contracts that can include various combinations of products and services, which are generally capable of being distinct, and accounted for as separate performance obligations. Revenue is recognized net of allowance for subscription and non-renewal cancellations and any taxes collected from customers, which are subsequently remitted to governmental authorities.

Nature of goods and services

Licenses for on-premise software subscriptions provide the customer with a right to use the software as it exists when made available to the customer. Customers purchase a subscription to these licenses, which includes the related software and tax content updates (collectively "updates") and product support. The updates and support, which are part of the subscription agreement, are essential to the continued utility of the software; therefore, the Company has determined the software and the related updates and support to be a single performance obligation. Accordingly, when on-premise software is licensed, the revenue associated with this combined performance obligation is recognized ratably over the license term as these subscriptions are provided for the duration of the license term. Revenue recognition begins on the later of the beginning of the subscription period or the date the software is made available to the customer to download. The Company's on-premise software subscription prices in the initial subscription year are higher than standard renewal prices. The excess initial year price over the renewal price ("new sale premium") is a material right that provides customers with the right to this reduced renewal price. The Company recognizes revenue associated with this material right over the estimated period of benefit to the customer, which is generally three years.

Cloud-based subscriptions allow customers to use Company-hosted software over the contract period without taking possession of the software. The cloud-based offerings also include related updates and support. Cloud-based contracts consistently provide a benefit to the customer during the subscription period, thus the associated revenue is recognized ratably over the related subscription period. Revenue recognition begins on the later of the beginning of the subscription period or the date the customer is provided access to the cloud-based solutions.

Revenue from deliverable-based services is recognized as services are delivered. Revenue from fixed fee services is recognized as services are performed using the percentage of completion input method.

The Company has elected the "right to invoice" practical expedient for revenue related to services that are billed on an hourly basis, which enables revenue to be recognized as the services are performed.

Vertex, Inc.

Notes to Consolidated Financial Statements (Continued)

December 31, 2019 and 2018

(Amounts in thousands, except per share date)

1. Summary of significant accounting policies (Continued)

The Company has determined that the methods applied to measuring its progress toward complete satisfaction of performance obligations recognized over time are a faithful depiction of the transfer of control of software subscriptions and services to customers.

Significant Judgments

Contracts with customers often include promises to transfer multiple products and services to a customer. Determining whether products and services are considered distinct performance obligations that should be accounted for separately versus together may require significant judgment. Identification of the amortization periods of material rights and contract costs requires significant judgement by management.

Disaggregation of revenue

The following reflects revenue by major source for the years ended December 31:

	<u>2019</u>	<u>2018</u>
Sources of revenue:		
Software subscriptions	\$ 275,629	\$ 235,663
Services	45,871	36,740
Total revenue	<u>\$ 321,500</u>	<u>\$ 272,403</u>

Contract balances

Timing of revenue recognition may differ from the timing of invoicing customers. A receivable is recorded in the consolidated balance sheets when customers are billed related to revenue to be collected and recognized for subscription agreements as there is an unconditional right to invoice and receive payment in the future related to these subscriptions. A receivable and related revenue may also be recorded in advance of billings to the extent services have been performed and the Company has a right under the contract to bill and collect for such performance. Subscription-based customers are generally invoiced annually at the beginning of each annual subscription period. Accounts receivable is presented net of an allowance for potentially uncollectible accounts and estimated cancellations of software license and cloud-based subscriptions (the "allowance") of \$7,515 and \$5,527 at December 31, 2019 and 2018, respectively. The allowance is based on management's assessment of uncollectible accounts on a specific identification basis, with the estimate of potential cancellations being determined based on management's review of historical cancellation rates.

The beginning and ending balances of accounts receivable, net of allowance, are as follows:

	<u>2019</u>	<u>2018</u>
Beginning balance, January 1	\$ 62,235	\$ 46,487
Ending balance, December 31	70,367	62,235
Increase, net	<u>\$ 8,132</u>	<u>\$ 15,748</u>

Vertex, Inc.

Notes to Consolidated Financial Statements (Continued)

December 31, 2019 and 2018

(Amounts in thousands, except per share date)

1. Summary of significant accounting policies (Continued)

A contract liability is recorded as deferred revenue on the consolidated balance sheets when customers are billed in advance of performance obligations being satisfied, and revenue is recognized after invoicing ratably over the subscription period or over the amortization period of material rights. Deferred revenue is reflected net of a related deferred allowance for subscription cancellations (the "deferred allowance") of \$5,614 and \$4,858 at December 31, 2019 and 2018, respectively. The deferred allowance represents the portion of the allowance for subscription cancellations associated with deferred revenue.

The beginning and ending balances of and changes to the allowance and the deferred allowance are as follows:

	2019	
	Balance	Net Change
Allowance balance, January 1	\$ (5,527)	
Allowance balance, December 31	(7,515)	
Change in allowance		\$ 1,988
Deferred allowance balance, January 1	4,858	
Deferred allowance balance, December 31	5,614	
Change in deferred allowance		(756)
Net amount charged to revenue		\$ 1,232

	2018	
	Balance	Net Change
Allowance balance, January 1	\$ (4,320)	
Allowance balance, December 31	(5,527)	
Change in allowance		\$ 1,207
Deferred allowance balance, January 1	3,888	
Deferred allowance balance, December 31	4,858	
Change in deferred allowance		(970)
Net amount charged to revenue		\$ 237

The amount of revenue recognized during the year ended December 31, 2019 that was included in the opening deferred revenue balance as of December 31, 2018 was approximately \$163,489. The portion of deferred revenue expected to be recognized in revenue beyond one year is included in deferred revenue, net of current portion in the consolidated balance sheets.

Vertex, Inc.

Notes to Consolidated Financial Statements (Continued)

December 31, 2019 and 2018

(Amounts in thousands, except per share date)

1. Summary of significant accounting policies (Continued)

The following table provides information about the balances of and changes to deferred revenue as of and for the years ended December 31:

	2019	2018
Balances:		
Deferred revenue, current	191,745	163,939
Deferred revenue, non-current	14,046	14,764
Total deferred revenue	<u>\$ 205,791</u>	<u>\$ 178,703</u>
Changes to deferred revenue:		
Beginning balance	\$ 178,703	\$ 139,059
Additional amounts deferred	348,588	312,047
Revenue recognized	(321,500)	(272,403)
Ending balance	<u>\$ 205,791</u>	<u>\$ 178,703</u>

Deferred revenue at December 31, 2019 will be recognized as follows for all future years:

Years Ending December 31,	
2020	\$ 191,745
2021	7,473
2022	4,798
2023	1,775
Total	<u>\$ 205,791</u>

Contract costs

Deferred sales commissions earned by the Company's sales force and certain sales incentive programs and vendor referral agreements are considered incremental and recoverable costs of obtaining a contract with a customer. An asset is recognized for these incremental contract costs and reflected as deferred commissions in the consolidated balance sheets. These contract costs are amortized on a straight-line basis over a period consistent with the transfer of the associated product and services to the customer, which is generally three years. Amortization of these costs are included in selling and marketing expense in the consolidated statements of comprehensive income (loss). The Company periodically reviews these contract assets to determine whether events or changes in circumstances have occurred that could impact the period of benefit of these assets. There were no impairment losses recorded for the periods presented.

Vertex, Inc.

Notes to Consolidated Financial Statements (Continued)

December 31, 2019 and 2018

(Amounts in thousands, except per share date)

1. Summary of significant accounting policies (Continued)

The following table provides information about the balances of and changes to contract costs as of and for the years ended December 31:

	<u>2019</u>	<u>2018</u>
Changes to deferred commissions:		
Beginning balance	\$ 8,830	\$ 5,676
Additions	10,140	8,691
Amortization	(7,774)	(5,537)
Ending balance	<u>\$ 11,196</u>	<u>\$ 8,830</u>

Payment terms

Payment terms and conditions vary by contract, although the Company's terms generally include a requirement of payment within 30 days. In instances where the timing of revenue recognition differs from the timing of payment, the Company has determined that its contracts do not include a significant financing component. The primary purpose of invoicing terms is to provide customers with simplified and predictable ways of purchasing products and services, not to receive financing from customers or to provide customers with financing.

Cost of Revenues

Cost of revenues, software subscriptions includes the direct cost to develop, host and distribute software products, the direct cost to provide customer support, and amortization of costs capitalized for software developed for sale and for internal-use software utilized for cloud-based subscriptions. Cost of revenues, services includes the direct costs of implementation, training, transaction tax returns outsourcing and other tax-related services.

Reimbursable Costs

Reimbursable costs passed through and invoiced to customers of the Company are recorded as services revenues with the associated expenses recorded as cost of revenues, services in the consolidated statements of comprehensive income (loss). These amounts were \$1,107 and \$902 for the years ended December 31, 2019 and 2018, respectively.

Research and Development

Research and development costs consist primarily of personnel and related expenses for research and development activities including salaries, benefits and other compensation. Research and development costs are expensed as incurred in accordance with ASC 730, *Research and Development*, and are included in the consolidated statements of comprehensive income (loss).

Vertex, Inc.

Notes to Consolidated Financial Statements (Continued)

December 31, 2019 and 2018

(Amounts in thousands, except per share date)

1. Summary of significant accounting policies (Continued)

Advertising

Advertising expense is recorded as incurred and is reflected in selling and marketing expense in the consolidated statements of comprehensive income (loss). Total advertising expense was \$11,921 and \$8,956 for the years ended December 31, 2019 and 2018, respectively.

Foreign Currency

The Company transacts business in various foreign currencies. Management has concluded that the local country's currency is the functional currency of its foreign operations. Consequently, operating activities outside the U.S. are translated into U.S. Dollars using average exchange rates, while assets and liabilities of operations outside the U.S. are translated into U.S. Dollars using exchange rates at the balance sheet date. The effects of foreign currency translation adjustments are included in stockholders' deficit as a component of accumulated other comprehensive loss in the consolidated balance sheets. Related periodic movements in exchange rates are included in other comprehensive income (loss) in the consolidated statements of comprehensive income (loss). Other expense (income), net in the consolidated statements of comprehensive income (loss) includes net foreign exchange transaction losses of \$84 and \$121 for the years ended December 31, 2019 and 2018, respectively.

Income Taxes

Vertex is taxed as an S-corporation for U.S. federal income tax purposes and for most states. As a result, net income or loss is allocated to the stockholders and is included on their individual income tax returns. In certain states, Vertex is taxed at the corporate level. Accordingly, the income tax provision or benefit is based on taxable income allocated to these states. In certain foreign jurisdictions, Vertex subsidiaries are taxed at the corporate level. Similar to states, the income tax provision or benefit is based on taxable income sourced to these foreign jurisdictions.

Certain direct and indirect wholly-owned subsidiaries are treated as disregarded entities for U.S. federal income tax purposes and most states under the Internal Revenue Service "check-the-box" regulations. The income and loss from these disregarded entities are reported on the Company's U.S. federal and most state income tax returns in addition to being reported on a foreign jurisdiction tax return if a foreign subsidiary.

The Company records deferred income taxes using the liability method. The Company recognizes deferred tax assets and liabilities for future tax consequences of events that have been previously recognized in the Company's consolidated financial statements and tax returns. The measurement of deferred tax assets and liabilities is based on provisions of the enacted tax law. The effects of future changes in tax laws or rates are not anticipated.

The Company records uncertain tax positions in accordance with ASC 740, *Income Taxes*, on the basis of a two-step process whereby: (i) management determines whether it is more-likely-than-not that the tax positions will be sustained based on the technical merits of the position, and (ii) for those tax positions that meet the more-likely-than-not recognition threshold, management recognizes the largest amount of tax benefit that is greater than 50 percent likely to be realized upon ultimate settlement with

Vertex, Inc.

Notes to Consolidated Financial Statements (Continued)

December 31, 2019 and 2018

(Amounts in thousands, except per share date)

1. Summary of significant accounting policies (Continued)

the related tax authority. The impact as a result of the application of ASC 740 is reflected in the consolidated financial statements.

Total Comprehensive Income (Loss)

Total comprehensive income (loss) consists of net income and other comprehensive income (loss). Other comprehensive income (loss) refers to revenues, expenses, gains and losses that under U.S. GAAP are recorded as elements of stockholders' deficit but are excluded from net income. Other comprehensive income (loss) is comprised of foreign currency translation adjustments and revaluations.

Earnings Per Share

The Company calculates basic and diluted net income per share attributable to common stockholders using the treasury stock method. The Company has Class A voting common stock ("Class A common stock") and Class B non-voting common stock ("Class B common stock") outstanding. Neither class of stock has any liquidity or dividend preferences and are both considered to be participating securities. The diluted net income per share attributable to common stockholders is computed by giving effect to all potential dilutive common stock equivalents outstanding for the period. For purposes of this calculation, options to purchase common stock are considered common stock equivalents.

The following table illustrates the calculation of basic and diluted net income (loss) per common share for the Class A and Class B common stock as of December 31:

<u>Class A common stock:</u>	<u>2019</u>	<u>2018</u>
Numerator:		
Net income (loss) attributable to all stockholders	\$ 31,057	\$ (6,106)
Class A stock as a percentage of total shares outstanding	0.12%	0.12%
Net income (loss) attributable to Class A stockholders	<u>\$ 38</u>	<u>\$ (7)</u>
Denominator:		
Weighted-average Class A stock outstanding—basic	49	49
Dilutive effect of stock equivalents	—	—
Weighted-average Class A stock outstanding—diluted	<u>49</u>	<u>49</u>
Net income (loss) per Class A share, basic and diluted	<u>\$ 0.77</u>	<u>\$ (0.15)</u>

Vertex, Inc.

Notes to Consolidated Financial Statements (Continued)

December 31, 2019 and 2018

(Amounts in thousands, except per share date)

1. Summary of significant accounting policies (Continued)

Class B common stock:	2019	2018
Numerator:		
Net income (loss) attributable to all stockholders	\$ 31,057	\$ (6,106)
Class B stock as a percentage of total stock outstanding	99.88%	99.88%
Net income (loss) attributable to Class B stockholders	<u>\$ 31,019</u>	<u>\$ (6,099)</u>
Denominator:		
Weighted-average Class B stock outstanding—basic	40,129	40,160
Dilutive effect of stock equivalents	1,244	—
Weighted-average Class B stock outstanding—diluted	<u>41,373</u>	<u>40,160</u>
Net income (loss) per Class B share, basic	<u>\$ 0.77</u>	<u>\$ (0.15)</u>
Net income (loss) per Class B share, diluted	<u>\$ 0.75</u>	<u>\$ (0.15)</u>

Unaudited Pro Forma Income Taxes

These financial statements have been prepared in anticipation of a proposed initial public offering (the "Offering") of the common stock of Vertex, Inc. In connection with the Offering, the Company will convert and be taxed as a C-corporation for U.S. income tax purposes. Accordingly, a pro forma income tax provision has been disclosed as if the Company was a taxable C-corporation for all periods presented. The Company has computed pro forma entity-level income tax expense using an estimated effective tax rate of approximately 25% for the period ended December 31, 2019, inclusive of all applicable U.S. federal, state, local and foreign income taxes.

Unaudited Pro Forma Earnings Per Share

The Company has presented pro forma earnings per share for the most recent period. Pro forma basic and diluted income per share was computed by dividing pro forma net income attributable to the Company by the number of shares of common stock attributable to the Company to be issued in the initial public offering described in the registration statement, as if such shares were issued and outstanding for the period ended December 31, 2019.

Vertex, Inc.

Notes to Consolidated Financial Statements (Continued)

December 31, 2019 and 2018

(Amounts in thousands, except per share date)

1. Summary of significant accounting policies (Continued)

Supplemental Cash Flow Disclosures

Supplemental cash flow disclosures for the years ended December 31 are as follows:

	2019	2018
Cash paid for:		
Interest	\$ 1,766	\$ 1,853
Income taxes	\$ 945	\$ 668
Non-cash investing and financing activities:		
Exercised options exchanged in lieu of income taxes	\$ 184	\$ 209
Equipment acquired through capital leases	\$ 1,904	\$ —
Remeasurement of options for redeemable shares	\$ 2,763	\$ 1,027
Distributions payable	\$ 13,183	\$ 10,892

Subsequent Events

On January 7, 2020, the Company acquired a controlling interest in Systax Sistemas Fiscais LTDA ("Systax"), a provider of Brazilian transaction tax content and software. Total cash consideration for the purchase was \$12,400 and was funded through borrowings under the revolving line of credit (the "Line of Credit"). The Company will purchase the remaining interest in Systax incrementally between 2021 through 2024. Future purchase price commitments for these incremental purchases are based on a multiple of revenue and earnings before interest, depreciation, amortization and income taxes ("EBITDA") performance at the end of 2020, 2022 and 2023, whereby the Company will have full ownership after the final transaction in 2024. The Company has not completed its assessment of the financial impact of the transaction and as a result has not disclosed fair value information or the expected impact to the financial statements.

In December 2019, a novel strain of coronavirus, COVID-19, appeared. The spread of COVID-19 has negatively impacted the global economy and may continue to result in reduced economic activity. This could lead to declines in our customers' revenue, spending and fewer transactions for which transaction tax is due, any of which may result in decreased revenue. However, the extent to which COVID-19 may impact our business will depend on future developments, which are highly uncertain and cannot be predicted.

Events (unaudited) Subsequent to the Date of the Report of the Independent Registered Public Accounting Firm

On March 31, 2020, the Company entered into a new credit agreement with a bank consisting of a \$175,000 term loan (the "New Term Loan") and a \$100,000 committed line of credit (the "New Line of Credit") (collectively, the "New Credit Agreement"). The New Term Loan matures in March 2023 and requires quarterly principal payments of \$4,375 starting October 1, 2020, with a balloon payment on the payoff date. Net proceeds from the New Term Loan, after repayment of the amounts outstanding under

Vertex, Inc.**Notes to Consolidated Financial Statements (Continued)****December 31, 2019 and 2018****(Amounts in thousands, except per share date)****1. Summary of significant accounting policies (Continued)**

the previous credit agreement of \$61,656, will be used for a distribution to the shareholders required to be made no later than 90 days after the closing of the New Credit Agreement. The New Line of Credit matures in March 2025 and had no outstanding borrowings at closing. The Company has the option to select an applicable interest rate at either the bank base rate plus an applicable margin (the "New Base Rate Option") or the London Interbank Offered Rate ("LIBOR") plus an applicable margin (the "New LIBOR Option"). The applicable margins are determined by certain financial covenant performance as defined in the New Credit Agreement. At April 30, 2020, the New Base Rate Option and New LIBOR Option were 3.75% and 2.50%, respectively. The New Credit Agreement is collateralized by certain assets of the Company. The New Credit Agreement contains financial and operating covenants.

Recently Issued Accounting Pronouncements

As an "emerging growth company," the Jumpstart Our Business Startups Act (the "JOBS Act") allows the Company to delay adoption of new or revised accounting pronouncements applicable to public companies until such pronouncements are made applicable to private companies. The Company has elected to delay adoption of certain new or revised accounting standards. As a result, the Company's financial statements may not be comparable to the financial statements of issuers who are required to comply with the effective date for new or revised accounting standards that are applicable to public companies.

In November 2016, ASU No. 2016-18, *Restricted Cash*, related to the classification of restricted cash in the cash flow statement was issued. This adds and clarifies guidance on the classification and presentation of changes in restricted cash on the statement of cash flows and to eliminate the diversity in practice related to such classifications. The guidance in ASU No. 2016-18 is required for annual reporting periods beginning after December 15, 2017, for business entities that are public, and after December 15, 2018 for all other entities. The Company adopted this guidance effective January 1, 2019 on a retrospective basis.

In February 2016, the FASB issued ASU No. 2016-02, *Leases*. This standard amends several of aspects of lease accounting, including requiring lessees to recognize operating leases with a term greater than one year on their balance sheet as a right-of-use asset, and a corresponding lease liability, measured at the present value of the future minimum lease payments. The standard is effective for public entities for fiscal years beginning after December 15, 2018, and after December 15, 2020 for all other companies, with early adoption permitted. The Company intends to adopt this standard effective January 1, 2021 using the modified retrospective transition method and therefore will not restate comparative periods. The Company expects to elect the "package of three" practical expedients permitted under the transition guidance, which allows 1) a carry forward of the historical lease classification conclusions, 2) management's assessment on whether a contract is or contains a lease, and 3) the initial direct costs for any leases that exist prior to adoption of the new standard. The Company is currently evaluating the impact this guidance will have on the Company's consolidated financial statements. While the Company has not yet quantified the impact, resulting adjustments are expected to materially increase total assets and total liabilities relative to such amounts reported prior to adoption, but not have a material impact on the consolidated statements of comprehensive income (loss) or consolidated statements of cash flows.

Vertex, Inc.

Notes to Consolidated Financial Statements (Continued)

December 31, 2019 and 2018

(Amounts in thousands, except per share date)

1. Summary of significant accounting policies (Continued)

In June 2016, the FASB issued ASU 2016-13, *Financial Instruments—Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*, ("ASU 2016-13") which replaces the existing incurred loss impairment model with an expected credit loss model and requires financial assets, including trade receivables, to be measured at amortized cost to be presented at the net amount expected to be collected. ASU 2016-13 is effective for annual periods, and interim periods within those years, beginning after December 15, 2019, for business entities that are public and meet the definition of an SEC filer (excluding smaller reporting companies), and after December 15, 2022 for all other entities. The implementation of ASU 2016-13 is not expected to have a material impact on the Company's financial position.

In January 2017, the FASB issued ASU 2017-04, *Simplifying the Test for Goodwill Impairment*, ("ASU 2017-04") to eliminate step two 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. In addition, income tax effects from any tax-deductible goodwill on the carrying amount of the reporting unit should be considered when measuring the goodwill impairment loss, if applicable. ASU 2017-04 is effective for annual periods, and interim periods within those years, beginning after December 15, 2019, for business entities that are public and meet the definition of an SEC filer (excluding smaller reporting companies), and after December 15, 2022 for all other entities. The Company intends to adopt this guidance effective in 2020 and will apply this guidance consistently for goodwill impairment tests performed after adoption.

In January 2017, the FASB issued ASU 2017-01, *Business Combinations (Topic 805): Clarifying the Definition of a Business*, ("ASU 2017-01") which clarifies when transactions should be accounted for as acquisitions (or disposals) of assets or businesses. The definition of a business affects many areas of accounting including acquisitions, disposals, goodwill and consolidation. This new guidance is effective for annual reporting periods beginning after December 15, 2017, for business entities that are public, and after December 15, 2018 for all other entities, with early adoption permitted. The Company will adopt this guidance prospectively with regard to future business combinations.

Vertex, Inc.

Notes to Consolidated Financial Statements (Continued)

December 31, 2019 and 2018

(Amounts in thousands, except per share date)

2. Property and equipment

The major components of property and equipment at December 31 are:

	<u>2019</u>	<u>2018</u>
Leasehold improvements	\$ 20,887	\$ 20,884
Equipment	40,598	35,608
Computer software acquired	11,232	10,777
Internal-use software developed		
Cloud-based services	51,442	43,073
Internal systems and tools	23,957	16,197
Furniture and fixtures	7,451	7,516
Automobiles	27	27
In-process internal-use software	809	1,881
	<u>156,403</u>	<u>135,963</u>
Less accumulated depreciation	<u>101,676</u>	<u>86,482</u>
Property and equipment, net	<u>\$ 54,727</u>	<u>\$ 49,481</u>

Depreciation expense for property and equipment, excluding all internal-use software, was \$7,951 and \$7,319 for the years ended December 31, 2019 and 2018, respectively, and is reflected in depreciation and amortization in the consolidated statements of comprehensive income (loss).

Assets under capital leases of \$1,455 and \$116, net of accumulated depreciation of \$627 and \$62, at December 31, 2019 and 2018, respectively, are included in property and equipment in the consolidated balance sheets. Depreciation expense for assets held under capital leases was \$565 and \$40 for the years ended December 31, 2019 and 2018, respectively, and is included in depreciation expense in the consolidated statements of comprehensive income (loss).

The major components of internal-use software at December 31 are:

	<u>2019</u>	<u>2018</u>
Internal-use software developed	\$ 75,399	\$ 59,270
Less accumulated depreciation	<u>(53,852)</u>	<u>(44,824)</u>
	21,547	14,446
In-process internal-use software	809	1,881
Internal-use software developed, net	<u>\$ 22,356</u>	<u>\$ 16,327</u>

Vertex, Inc.

Notes to Consolidated Financial Statements (Continued)

December 31, 2019 and 2018

(Amounts in thousands, except per share date)

2. Property and equipment (Continued)

Amounts capitalized for internal-use software and included in property and equipment additions on the consolidated statements of cash flows during the years ended December 31, are:

	<u>2019</u>	<u>2018</u>
Cloud-based solutions	\$ 10,179	\$ 14,345
Internal systems and tools	4,860	2,484
Total	<u>\$ 15,039</u>	<u>\$ 16,829</u>

In-process internal-use software is not depreciated until it is available for its intended use. Depreciation expense for internal-use software used for cloud-based solutions for the years ended December 31, 2019 and 2018 was \$7,983 and \$8,027, respectively, and is included in cost of revenues, software subscriptions in the consolidated statements of comprehensive income (loss). Depreciation expense for internal-use software utilized for internal systems and tools for the years ended December 31, 2019 and 2018 was \$1,045 and \$618, respectively, and is included in depreciation and amortization in the consolidated statements of comprehensive income (loss). Research and development costs associated with internal-use software were \$813 and \$2,345 for the years ended December 31, 2019 and December 31, 2018, respectively.

Amortization expense of internal-use software, excluding in-process internal-use software not yet available for its intended use, at December 31, 2019 is as follows for all future years:

<u>Years Ending December 31,</u>	<u>Internal solutions</u>	<u>Cloud-based Systems</u>
2020	\$ 7,404	\$ 2,100
2021	5,087	1,990
2022	2,265	1,677
2023	346	715
2024	—	308
Total	<u>\$ 15,102</u>	<u>\$ 6,790</u>

During the year ended December 31, 2018, the Company recorded an impairment of capitalized internal-use software previously utilized to provide cloud-based solutions to customers of \$32,692, net of accumulated amortization of \$11,907, due to a product strategy shift that resulted in this service no longer being offered to customers after 2018. The software was deemed to be fully impaired due to the net book value of the software exceeding expected future cash flows. This amount is included in impairment of assets in the 2018 consolidated statement of comprehensive income (loss).

3. Capitalized software

Capitalized software includes acquired software and direct labor and related expenses for software developed for sale for new products and enhancements to existing products. Software development costs capitalized for the years ended December 31, 2019 and 2018 were \$17,221 and \$12,261, respectively.

Vertex, Inc.

Notes to Consolidated Financial Statements (Continued)

December 31, 2019 and 2018

(Amounts in thousands, except per share date)

3. Capitalized software (Continued)

The major components of capitalized software at December 31 are:

	2019	2018
Capitalized software	\$ 47,862	\$ 29,669
Less accumulated amortization	20,281	12,069
	27,581	17,600
In-process capitalized software	4,494	5,466
Capitalized software, net	<u>\$ 32,075</u>	<u>\$ 23,066</u>

Capitalized software amortization expense for the years ended December 31, 2019 and 2018 was \$8,212 and \$5,257, respectively, and is included in cost of revenues, software subscriptions in the consolidated statements of comprehensive income (loss).

In-process capitalized software at December 31, 2019 was not available for general release to customers as of the balance sheet date and therefore not included in the table below. Amortization expense of capitalized software available for general release to customers as of December 31, 2019 is as follows for all future years:

Years Ending December 31,	
2020	\$ 9,926
2021	8,156
2022	4,927
2023	2,890
2024	1,682
Total	<u>\$ 27,581</u>

4. Debt

In November 2015, the Company entered into a \$105,000 credit agreement (the "Credit Agreement") consisting of a \$65,000 term loan (the "Term Loan") and a \$40,000 committed Line of Credit. The Company has the option to select an applicable interest rate at either the bank base rate plus an applicable margin (the "Base Rate Option") or the LIBOR plus an applicable margin (the "LIBOR Option"). The applicable margins are determined by certain financial covenant performance as defined in the Credit Agreement. At December 31, 2019 and 2018, the Base Rate Option resulted in rates of 4.75% and 5.50%, respectively. At December 31, 2019 and 2018, the LIBOR Option resulted in rates of 2.69% and 3.60%, respectively. The Credit Agreement is collateralized by certain assets of the Company. The Credit Agreement contains financial and operating covenants, which include limitations on the amount of dividends payable in a given period. The Company was in compliance with these covenants at December 31, 2019.

Vertex, Inc.

Notes to Consolidated Financial Statements (Continued)

December 31, 2019 and 2018

(Amounts in thousands, except per share date)

4. Debt (Continued)

Term Loan

The Term Loan requires quarterly principal payments over five years, with a balloon payment in November 2020. The interest rate on the Term Loan was 2.69% at December 31, 2019 as the Company selected the LIBOR Option. Term Loan outstanding amounts are reported in current portion of long-term debt and long-term debt, net of current portion, in the consolidated balance sheets. As a result of the Term Loan becoming due in November 2020, the balance outstanding of \$50,375 is included in current portion of long-term debt on the consolidated balance sheet at December 31, 2019.

Line of Credit

The Line of Credit expires on November 1, 2020. The Company is required to pay a quarterly fee on the difference between the \$40,000 maximum borrowings allowed under the Line of Credit and the unpaid principal balance outstanding under the line at an applicable rate. The applicable rate, determined by certain financial covenant performance as defined in the Credit Agreement, was 0.200% and 0.225% as of December 31, 2019 and 2018, respectively. During the years ended December 31, 2019 and 2018, there were no advances against the Line of Credit.

Deferred Financing Costs

Unamortized deferred financing costs of \$221 and \$487 at December 31, 2019 and 2018, respectively, are included as a reduction in current portion of long-term debt and long-term debt, net of current portion in the consolidated balance sheets. Amortization expense of deferred financing costs was \$266 for each of the years ended December 31, 2019 and 2018 and is included in interest expense in the consolidated statements of comprehensive income (loss). Amortization expense of deferred financing costs will be \$221 in 2020.

Capital Leases

Capital lease obligations are included in current portion of long-term debt and long-term debt, net of current portion in the consolidated balance sheets.

Future minimum capital lease payments as of December 31, 2019 are as follows:

Years Ending December 31,	
2020	\$ 696
2021	696
2022	10
Total	<u>1,402</u>
Less amount representing interest	70
Present value of minimum lease payments	<u>1,332</u>
Less current portion	650
Capital lease obligations, net of current portion	<u>\$ 682</u>

Vertex, Inc.**Notes to Consolidated Financial Statements (Continued)****December 31, 2019 and 2018****(Amounts in thousands, except per share date)****5. Options for redeemable shares**

Prior to 2006, Vertex issued stock options under separate option agreements, not subject to an option plan, permitting certain key members of management and the Board to purchase shares of Class B common stock. At December 31, 2019, 1,283 shares of Class B common stock were reserved for issuance under these option agreements. The exercise price of the shares under these option agreements is equal to the fair value of the shares as of the grant date, as determined by the Board with assistance from management and an independent third-party valuation provider. All options are fully vested at December 31, 2019.

The options are exercisable upon: (i) any time after the option holder is no longer an employee of the Company or a member of the Board; (ii) the Grantee's death or disability; (iii) the occurrence of a Partial Triggering Event (as defined below); or (iv) the occurrence of a Triggering Event (as defined below). In addition, the option agreements provide employee option holders with the ability to exercise a portion of their options between April 15 and April 30 each year based upon the fair value of the Class B common stock as of December 31 of the prior calendar year, provided that certain Company performance is achieved. At the election of the Company, the option agreements allow option holders to satisfy tax withholding obligations incurred in connection with the exercise by exchanging exercised options in lieu of payment of income taxes paid by the Company on their behalf. The fair value of exchanged exercised options is recorded as a reduction to stockholders' deficit as part of the exercise of the related options, net of cash received.

Since these option agreements permit the option holders to put their exercised shares back to the Company for a price per share based upon the fair value of the Class B common stock determined six months after the holder exercised the options, they are classified as temporary equity and included in options for redeemable shares on the consolidated balance sheets. In addition, these option agreements permit the Company to call the shares based upon the fair value of the Class B common stock determined six months after the options were exercised. The Company has never exercised its right to call any shares issued from option exercises. In the event of the sale of at least 50% of the Company's stock or all the assets of the Company ("Triggering Event") in a single or multiple transactions, the option holders have the right to exercise their options and sell their related shares in connection with the transactions. Unexercised options expire after a Triggering Event. In the event of a sale of at least 25% of the Company's assets to an unrelated third-party in a single or multiple transactions ("Partial Triggering Event"), the option holders have the right to exercise a portion of their options pro rata based on the sales price and sell their related shares in connection with the transaction. Unexercised options remaining after a Partial Triggering Event remain outstanding. In addition, in the event stockholders owning at least 51% of the outstanding stock of the Company (the "selling stockholders") sell a portion of their stock to an unrelated third-party, the option holders have the right to exercise and sell an amount of options in the same proportion as the selling stockholders (a "tag-along right"). The option holders may also be required to exercise all their outstanding options and sell all related shares in the event the selling stockholders sell at least 51% of their ownership to an unrelated third-party (a "drag-along right").

Vertex, Inc.

Notes to Consolidated Financial Statements (Continued)

December 31, 2019 and 2018

(Amounts in thousands, except per share date)

5. Options for redeemable shares (Continued)

The following table represents stock option activity for the years ended December 31:

	Options	Intrinsic values	Per share range of option prices	Per share weighted average option prices
Outstanding at January 1, 2018	1,531	\$ 13,554	\$0.46—\$2.14	\$ 0.65
Exercised	(156)	\$ 1,310	\$0.46—\$2.14	\$ 1.13
Outstanding at December 31, 2018	1,375	\$ 14,581	\$0.46—\$2.14	\$ 0.59
Exercised	(92)	\$ 957	\$0.46—\$1.15	\$ 0.74
Outstanding at December 31, 2019	<u>1,283</u>	<u>\$ 17,344</u>	\$0.46—\$2.14	\$ 0.58

No options have been issued since December 2005.

6. Stockholders' deficit

Common Stock

There are no dividend or liquidation preference differences between the Class A or Class B common stock.

In April 2019, Vertex issued 75 shares of Class B common stock in connection with the exercise of stock options by option holders for cash of \$68, net of 17 shares that were immediately returned to Vertex upon exercise in lieu of payment of income taxes payable by the option holders of \$184. Vertex repurchased the 75 shares of Class B common stock in October 2019 at the request of the option holders for cash of \$841.

In April 2018, Vertex issued 134 shares of Class B common stock in connection with the exercise of stock options by option holders for cash of \$177, net of 22 shares that were immediately returned to Vertex upon exercise in lieu of payment of income taxes payable by the option holders of \$209. Vertex repurchased the 134 shares of Class B common stock in October 2018 at the request of the option holders for cash of \$1,277.

At December 31, 2019 and 2018, repurchased shares ("Treasury Stock") aggregating 13,970 and 13,895, respectively, are carried at cost and included in Treasury Stock in the consolidated balance sheets. Treasury Stock includes 13,919 and 13,844 shares of Class B common stock at December 31, 2019 and 2018, respectively, and 51 shares of Class A common stock for both years.

The Board declared aggregate distributions to stockholders of the Class A and Class B common stock of \$13,183 and \$10,892 in December 2019 and 2018, respectively, to be paid pro rata to stockholders in January 2020 and 2019, respectively. Such amounts are reflected in distributions payable on the consolidated balance sheets. Payment of distributions to stockholders is limited by certain debt covenants.

Vertex, Inc.**Notes to Consolidated Financial Statements (Continued)****December 31, 2019 and 2018****(Amounts in thousands, except per share date)****7. Employee benefit and deferred compensation plans****401(k) Plan**

The Company maintains 401(k) plan that covers eligible employees subject to certain age and length of service requirements. The Company matches up to 3% of eligible compensation during the period in which an eligible participant contributes to the plan. Matching contributions were \$3,419 and \$2,893 for the years ended December 31, 2019 and 2018, respectively. In addition, a discretionary profit-sharing contribution of 3% of eligible compensation for eligible employees was approved and aggregated \$3,363 and \$2,886 for the years ended December 31, 2019 and 2018, respectively, and is reflected in accrued salaries and benefits in the consolidated balance sheets.

Long-Term Rewards Plan

The Company has a long-term rewards ("LTR") plan for certain key employees which provides for compensation related to growth in certain financial measures over a three-year period (the "Reward Performance Period"), subject to achieving an annual minimum net income target (the "Net Income Target") during each year of the Reward Performance Period. Each year, eligible LTR plan participants receive an individual target award opportunity ("Award Opportunity") for a new three-year Reward Performance Period (i.e. target award grant made in 2018 is for years 2018 through 2020). For Reward Performance Periods prior to 2018, compensation earned for growth in the financial measures over each Reward Performance Period is paid in cash in the year following the end of the respective Reward Performance Period, assuming the Net Income Target was achieved for each year of the respective Reward Performance Period. Starting in 2018, the Net Income Target is only required to be achieved in the final year of the Reward Performance Period. Estimated compensation is recorded during each year of a Reward Performance Period ("accrued LTR Award Opportunities").

Compensation expense of \$2,462 and \$2,012 was recorded in the consolidated statements of comprehensive income (loss) for accrued LTR Award Opportunities for the years ended December 31, 2019 and 2018, respectively, for open Reward Performance Periods. The Net Income Target was not achieved in 2018, which would have resulted in the LTR Award Opportunities being zero for the three-year Reward Performance Periods that started in 2016 and 2017. The Board waived the 2018 Net Income Target requirement for these Reward Performance Periods. Amounts to be paid to participants in 2020 for the Reward Performance Period starting in 2017 of \$2,717, and amounts paid in 2019 for the Reward Performance Period that started in 2017 are reflected in deferred compensation, current in the consolidated balance sheets as of December 31, 2019 and 2018, respectively. The remaining balances of accrued LTR Award Opportunities for open Reward Performance Periods of \$1,812 and \$2,085 at December 31, 2019 and 2018, respectively, are reflected in deferred compensation, net of current portion, in the consolidated balance sheets.

SAR Plan

The Company has a SAR plan for the purpose of providing incentives to key members of management to contribute to the growth and financial success of the Company. SAR plan awards ("SAR Awards") are represented as a fixed number of shares of Class B common stock ("SAR Units"). SAR Units outstanding aggregated 4,091 and 3,557 at December 31, 2019 and 2018, respectively. SAR

Vertex, Inc.

Notes to Consolidated Financial Statements (Continued)

December 31, 2019 and 2018

(Amounts in thousands, except per share date)

7. Employee benefit and deferred compensation plans (Continued)

Units are issued at the equivalent of the fair value of the equivalent number of shares of the Company's Class B common stock on the grant date ("Base Value"), as determined by the Board with assistance from management and an independent third-party valuation provider, and compensation is based upon the appreciation of the SAR Units in excess of the Base Value over the service vesting period. SAR Awards are exercisable upon 50% vesting or upon the occurrence of a triggering event.

Vested SAR units are redeemed upon the occurrence of a triggering event. Triggering events include: (i) expiration of the term of the SAR; (ii) a change of control of the Company whereby shareholders holding at least 50% of the voting stock of the company sell their shares; (iii) a merger of the Company with an unrelated third-party; (iv) an initial public offering; and (v) death, disability or retirement of a SAR participant.

SAR participants are limited to exercising no more than 25% of their vested SAR Units in any given year. SAR Awards generally vest 50% and 100% after two years and five years, respectively, from the grant date, or as determined by the Board. Maximum contractual terms range from ten years to term of employment of the participant. SAR Awards are settled in cash only, not through the issuance of shares. SAR Award exercises are limited each year to the proportion of the vested SAR units to the total units outstanding multiplied by adjusted net cash from operating activities (the "Liquidity Pool"), which is defined as cash from operations less cash paid for property and equipment and capitalized software for a given period.

The following table represents SAR activity for the years ended December 31:

	Vested Units	Nonvested Units	Total Units	Range of Grant Values
Balance, January 1, 2018	1,803	1,502	3,306	\$2.77–\$9.50
Granted	49	542	591	\$9.50
Exercised	(319)	—	(319)	\$2.77–\$7.50
Forfeited	—	(21)	(21)	\$7.50
Vested	430	(430)	—	
Balance, December 31, 2018	1,964	1,593	3,557	\$2.77–\$9.50
Granted	99	705	804	\$11.20
Exercised	(203)	—	(203)	\$3.94–\$7.50
Forfeited	—	(65)	(65)	\$6.40–\$7.50
Vested	210	(210)	—	
Balance, December 31, 2019	2,069	2,023	4,091	\$2.77–\$11.20

The weighted average grant date intrinsic value of the SARs on grant date is zero as the Company's Board grants all awards at a price per share not less than the per share fair value of the Company's Class B common stock underlying such awards on the date of grant.

During the years ended December 31, 2019 and 2018, \$9,460 and \$5,108, respectively, was recorded as compensation expense in the consolidated statements of comprehensive income (loss) to reflect the appreciation in value of the vested portion of outstanding SAR Awards over the Base Value

Vertex, Inc.

Notes to Consolidated Financial Statements (Continued)

December 31, 2019 and 2018

(Amounts in thousands, except per share date)

7. Employee benefit and deferred compensation plans (Continued)

from the grant date. SAR Awards totaling \$1,229 and \$1,825 were exercised in 2019 and 2018, respectively. Accrued SAR Awards of \$5,790 and \$3,979 at December 31, 2019 and 2018, respectively, representing 25% of the vested SAR Units eligible for exercise in 2020 and 2019, respectively, are reflected in deferred compensation in the consolidated balance sheets. The remaining balances of accrued SAR Awards of \$16,506 and \$10,086 at December 31, 2019 and 2018, respectively, are reflected as deferred compensation, net of current portion, in the consolidated balance sheets. We had approximately \$3,900 of total unrecognized compensation expense for unvested SAR Awards at December 31, 2019, which we expect to recognize over a period of approximately one to five years.

8. Related parties

The Company advanced amounts to certain stockholders of the Company of \$283 and \$140 at December 31, 2019 and 2018, respectively. These amounts are non-interest bearing as they are short-term in nature and repaid within three months. These amounts are included in advances to stockholders in the consolidated balance sheets.

9. Commitments and contingencies

The Company leases office space under operating leases that expire at various dates through September 2028. Rent expense under all property operating leases was \$6,408 and \$6,291 for the years ended December 31, 2019 and 2018, respectively. These amounts are reflected in general and administrative expense in the consolidated statements of comprehensive income (loss).

Future minimum lease obligations for all operating property leases for all future years, excluding operating costs, are as follows:

Years Ending December 31,	
2020	\$ 4,534
2021	4,486
2022	3,944
2023	4,007
2024	3,996
Thereafter	14,947
Total	<u>\$ 35,914</u>

Vertex, Inc.

Notes to Consolidated Financial Statements (Continued)

December 31, 2019 and 2018

(Amounts in thousands, except per share date)

10. Income taxes

The components of net income (loss) before income taxes, by geography, consists of the following for the years ended December 31:

	2019	2018
U.S.	\$ 32,131	\$ (1,999)
Foreign	(1,229)	(2,428)
Net income (loss) before income taxes	<u>\$ 30,902</u>	<u>\$ (4,427)</u>

Income tax benefit (expense) consists of the following for the years ended December 31:

	2019	2018
Current income taxes:		
State and local	\$ (578)	\$ (537)
Foreign	(115)	(295)
Total current	<u>(693)</u>	<u>(832)</u>
Deferred income taxes:		
State and local	677	(818)
Foreign	171	(29)
Total deferred	<u>848</u>	<u>(847)</u>
Income tax benefit (expense)	<u>\$ 155</u>	<u>\$ (1,679)</u>

The reconciliation of the effective tax rate to tax at the statutory rates for the years ended December 31 is as follows:

	2019		2018	
	Total	Tax Rate	Total	Tax Rate
Pretax net income (loss)	<u>\$ 30,902</u>		<u>\$ (4,427)</u>	
Taxes:				
U.S. federal income tax at statutory rate	—	0.0%	—	0.0%
State income taxes	\$ (98)	(0.3%)	\$ 1,355	(30.6%)
Impact of foreign operations	(57)	(0.2%)	324	(7.3%)
Taxes and effective tax rate	<u>\$ (155)</u>	<u>(0.5%)</u>	<u>\$ 1,679</u>	<u>(37.9%)</u>

Vertex, Inc.

Notes to Consolidated Financial Statements (Continued)

December 31, 2019 and 2018

(Amounts in thousands, except per share date)

10. Income taxes (Continued)

Significant components of the Company's net deferred tax assets (liabilities) are as follows at December 31:

	<u>2019</u>	<u>2018</u>
Deferred tax assets:		
Deferred revenue	\$ 326	\$ 209
State operating loss carry forwards	56	73
Foreign loss carry forwards	217	13
Accrued expenses	98	116
Accrued variable compensation	(47)	(49)
Deferred compensation	548	384
Other	46	13
Deferred tax assets	<u>1,244</u>	<u>759</u>
Valuation allowance	(46)	(13)
Total deferred tax assets	<u>1,198</u>	<u>746</u>
Deferred tax liabilities:		
Depreciation and amortization	(860)	(754)
Prepaid expenses	(40)	(45)
Total deferred tax liabilities	<u>(900)</u>	<u>(799)</u>
Net deferred tax asset (liability)	<u>\$ 298</u>	<u>\$ (53)</u>

At December 31, 2019, the Company has available foreign operating losses of approximately \$1,169, some of which expire as early as 2025, and others which carry forward indefinitely. In addition, the Company has \$54 of foreign non-operating losses, which carryforward indefinitely. A valuation allowance for a portion of the foreign operating and all of the foreign non-operating losses are recorded at December 31, 2019 and 2018.

At December 31, 2019, the Company has available U.S. state operating loss carry forwards of \$1,255 which expire through 2026. Management expects to fully utilize these state operating loss carry forwards.

The Company files tax returns as prescribed by the tax laws of the jurisdictions in which the Company operates. Under applicable U.S. federal statutes, tax years ended December 31, 2016 through December 31, 2019 remain subject to examination. Under applicable statutes, state and foreign corporate tax returns filed for the Company and its respective foreign subsidiaries for years ended December 31, 2014 through December 31, 2019 remain subject to examination by the respective authorities.

Through and including _____, 2020 (the 25th day after the date of this prospectus), all dealers effecting transactions in these securities, whether or not participating in this offering, may be required to deliver a prospectus. This is in addition to the dealers' obligation to deliver a prospectus when acting as underwriters and with respect to their unsold allotments or subscriptions.

Shares



Vertex, Inc.

Class A Common Stock

PROSPECTUS

, 2020

PART II**INFORMATION NOT REQUIRED IN PROSPECTUS****Item 13. Other Expenses of Issuance and Distribution**

The following table sets forth the costs and expenses, other than the underwriting discounts and commissions, payable by the registrant in connection with the offering and sale of the Class A common stock being registered. All amounts shown are estimates except for the SEC registration fee, the Financial Industry Regulatory Authority, Inc. ("FINRA") filing fee and the exchange listing fee.

	Amount Paid or to Be Paid
SEC registration fee	\$ *
FINRA filing fee	*
Exchange listing fee	*
Printing and engraving expenses	*
Legal fees and expenses	*
Accounting fees and expenses	*
Blue sky fees and expenses	*
Transfer agent and registrar fees and expenses	*
Miscellaneous expenses	*
Total	<u>\$ *</u>

* To be provided by amendment

Item 14. Indemnification of Directors and Officers

Section 102 of the General Corporation Law of the State of Delaware permits a corporation to eliminate the personal liability of directors of a corporation to the corporation or its stockholders for monetary damages for a breach of fiduciary duty as a director, except where the director breached his or her duty of loyalty, failed to act in good faith, engaged in intentional misconduct or knowingly violated a law, authorized the payment of a dividend or approved a stock repurchase in violation of Delaware corporate law or obtained an improper personal benefit. We expect to adopt an amended and restated certificate of incorporation, or Amended Charter, which will become effective upon the consummation of this offering, and which will provide that none of our directors shall be personally liable to us or to our stockholders for monetary damages for any breach of fiduciary duty as a director, notwithstanding any provision of law imposing such liability, except to the extent that the General Corporation Law of the State of Delaware prohibits the elimination or limitation of liability of directors for breaches of fiduciary duty.

Section 145 of the General Corporation Law of the State of Delaware provides that a corporation has the power to indemnify a director, officer, employee or agent of the corporation, or a person serving at the request of the corporation for another corporation, partnership, joint venture, trust or other enterprise in related capacities, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by the person in connection with an action, suit or proceeding to which he or she was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding by reason of such position, if such person acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the corporation, and, in any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful, except that, in the case of actions brought by or in the right of the corporation, no indemnification shall be made with respect to any claim, issue or

matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or other adjudicating court determines that, despite the adjudication of liability but in view of all of the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

Upon consummation of this offering, our Amended Charter and our amended and restated bylaws, or Amended Bylaws, will provide indemnification for our directors and officers to the fullest extent permitted by the General Corporation Law of the State of Delaware, subject to certain limited exceptions. We will indemnify each person who was or is a party or threatened to be made a party to any threatened, pending or completed action, suit or proceeding (other than an action by or in the right of us) by reason of the fact that he or she is or was, or has agreed to become, a director or officer, or is or was serving, or has agreed to serve, at our request as a director, officer, partner, employee or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise (all such persons being referred to as an "Indemnitee"), or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred in connection with such action, suit or proceeding and any appeal therefrom, if such Indemnitee acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, our best interests, and, with respect to any criminal action or proceeding, he or she had no reasonable cause to believe his or her conduct was unlawful. Our Amended Charter and Amended Bylaws will provide that we will indemnify any Indemnitee who was or is a party to an action or suit by or in the right of us to procure a judgment in our favor by reason of the fact that the Indemnitee is or was, or has agreed to become, a director or officer, or is or was serving, or has agreed to serve, at our request as a director, officer, partner, employee or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise, or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys' fees) and, to the extent permitted by law, amounts paid in settlement actually and reasonably incurred in connection with such action, suit or proceeding, and any appeal therefrom, if the Indemnitee acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, our best interests, except that no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to us, unless a court determines that, despite such adjudication but in view of all of the circumstances, he or she is entitled to indemnification of such expenses. Notwithstanding the foregoing, to the extent that any Indemnitee has been successful, on the merits or otherwise, he or she will be indemnified by us against all expenses (including attorneys' fees) actually and reasonably incurred in connection therewith. Expenses must be advanced to an Indemnitee under certain circumstances.

We have entered into indemnification agreements with each of our directors. Prior to the consummation of this offering, we entered into separate indemnification agreements with each of our executive officers. Each indemnification agreement provides, or will provide, among other things, for indemnification to the fullest extent permitted by law and our Amended Charter and Amended Bylaws against any and all expenses, judgments, fines, penalties and amounts paid in settlement of any claim. The indemnification agreements will provide for the advancement or payment of all expenses to the indemnitee and for the reimbursement to us if it is found that such indemnitee is not entitled to such indemnification under applicable law and our Amended Charter and Amended Bylaws.

We maintain a general liability insurance policy that covers certain liabilities of directors and officers of our corporation arising out of claims based on acts or omissions in their capacities as directors or officers.

In any underwriting agreement we enter into in connection with the sale of common stock being registered hereby, the underwriters will agree to indemnify, under certain conditions, us, our directors,

our officers and persons who control us within the meaning of the Securities Act of 1933, as amended (the "Securities Act") against certain liabilities.

Item 15. Recent Sales of Unregistered Securities

None.

Item 16. Exhibits and Financial Statement Schedules

(a) Exhibits

A list of exhibits required to be filed under this item is set forth on the Exhibit Index of this registration statement and is incorporated in this Item 16(a) by reference.

(b) Financial Statement Schedules.

Schedules not listed above have been omitted because the information required to be set forth therein is not applicable or is shown in the financial statements or notes thereto.

Item 17. Undertakings

The undersigned Registrant hereby undertakes to provide to the underwriter at the closing specified in the underwriting agreements certificates in such denominations and registered in such names as required by the underwriter to permit prompt delivery to each purchaser.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

The undersigned Registrant hereby undertakes that:

- (1) For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this Registration Statement in reliance upon Rule 430A and contained in a form of prospectus filed by the Registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this Registration Statement as of the time it was declared effective.
- (2) For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

INDEX TO EXHIBITS

The following exhibits are filed as part of this registration statement.

<u>Exhibit No.</u>	
1.1*	Form of Underwriting Agreement.
3.1*	Form of Amended and Restated Certificate of Incorporation of Vertex, Inc.
3.2*	Form of Amended and Restated Bylaws of Vertex, Inc.
4.1*	Specimen Stock Certificate evidencing the shares of Class A common stock.
4.2*	Form of Amended and Restated Stockholders' Agreement.
5.1*	Opinion of Latham & Watkins LLP.
10.1*	Credit Agreement among Vertex, Inc., the guarantors party thereto, PNC Bank, National Association, Santander Bank, N.A., JPMorgan Chase Bank, N.A. and Wells Fargo Bank, National Association, dated as of November 2, 2015.
10.2*	First Amendment to Loan Document among Vertex, Inc., the guarantors party thereto, PNC Bank, National Association, Santander Bank, N.A., JPMorgan Chase Bank, N.A. and Wells Fargo Bank, National Association, dated as of November 17, 2017.
10.3*	Second Amendment to Loan Document among Vertex, Inc., the guarantors party thereto, PNC Bank, National Association, Santander Bank, N.A., JPMorgan Chase Bank, N.A. and Wells Fargo Bank, National Association, dated as of November 17, 2017.
10.4#*	Form of Indemnification Agreement between Vertex, Inc. and each of its Executive Officers and Directors.
10.5#*	2007 Stock Appreciation Rights Plan.
10.6#*	Executive Employment Agreement, dated as of February 12, 2015, by and between Vertex, Inc. and Lisa A. Butler.
10.7#*	Executive Employment Agreement, dated as of October 7, 2015, by and between Vertex, Inc. and David J. DeStefano.
10.8#*	Executive Employment Agreement, dated as of April 10, 2017, by and between Vertex, Inc. and Bryan Rowland.
10.9#*	Executive Employment Agreement, dated as of December 30, 2019, by and between Vertex, Inc. and John R. Schwab.
10.10*	Tax Matters Agreement.
16.1	Letter of Baker Tilly Virchow Krause, LLP to the Securities and Exchange Commission.
21.1*	List of Subsidiaries.
23.1*	Consent of Latham & Watkins LLP (included in Exhibit 5.1).
23.2*	Consent of Crowe LLP.
24.1*	Powers of Attorney (included in the signature pages to this registration statement).

* To be filed by amendment.

Indicates a management contract or compensatory plan.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the city of King of Prussia, state of Pennsylvania, on _____, 2020.

Vertex, Inc.

By: _____

David DeStefano
*President, Chief Executive Officer
and Chairperson*

We, the undersigned directors and officers of Vertex, Inc. (the "Company"), hereby severally constitute and appoint David DeStefano and John Schwab, and each of them singly, our true and lawful attorneys, with full power to them, and to each of them singly, to sign for us and in our names in the capacities indicated below, the registration statement on Form S-1 filed herewith, and any and all pre-effective and post-effective amendments to said registration statement, and any registration statement filed pursuant to Rule 462(b) under the Securities Act of 1933, as amended, in connection with the registration under the Securities Act of 1933, as amended, of equity securities of the Company, and to file or cause to be filed the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as each of us might or could do in person, and hereby ratifying and confirming all that said attorneys, and each of them, or their substitute or substitutes, shall do or cause to be done by virtue of this Power of Attorney.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
_____ David DeStefano	President, Chief Executive Officer and Chairperson (Principal Executive Officer)	, 2020
_____ John Schwab	Chief Financial Officer (Principal Financial Officer)	, 2020
_____ Lisa Butler	Chief Accounting Officer (Principal Accounting Officer)	, 2020
_____ Eric Andersen	Director	, 2020

<u>Signature</u>	<u>Title</u>	<u>Date</u>
_____ Terrence Kyle	Director	, 2020
_____ Kevin Robert	Director	, 2020
_____ J. Richard Stamm	Director	, 2020
_____ Amanda Westphal Radcliffe	Director	, 2020
_____ Stefanie Westphal Thompson	Director	, 2020
_____ Jeffrey Westphal	Director	, 2020



May 12, 2020

Securities and Exchange Commission
100 F Street, N.E.
Washington, DC 20549

Ladies and Gentlemen:

We have read the disclosure set forth under the caption "Change in Independent Accountant" in the Registration Statement on Form S-1 of Vertex, Inc. dated May 12, 2020 and are in agreement with the statements contained therein insofar as they relate to our Firm. We have no basis to agree or disagree with other statements of Vertex, Inc. contained therein.

Baker Tilly Virchow Krause, LLP

Baker Tilly Virchow Krause, LLP

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