APPFOLIO INC
Form 10-K
February 28, 2019

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

FORM 10-K

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

For the fiscal year ended December 31, 2018

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

For the transition period from to

Commission File Number 001-37468

AppFolio, Inc.
(Exact name of registrant as specified in its charter)

Delaware	26-0359894
(State of incorporation or organization)	(I.R.S. Employer Identification No.)
50 Castilian Drive Santa Barbara, California	93117
(Address of principal executive offices)	(Zip Code)

(805) 364-6093
Registrant’s telephone number, including area code

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

Title of each class	Name of exchange on which registered
Class A common stock, par value $0.0001 per share	The NASDAQ Stock Market LLC

Securities registered pursuant to Section 12(g) of the Exchange Act:
None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. YES x NO o

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. YES o NO x

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). YES x NO o

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K(§ 229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. x

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

Large accelerated filer	x	Accelerated filer	¨
Non-accelerated filer	¨	Smaller reporting company	¨
		Emerging growth company	¨

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. o

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). YES o NO x

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant, based on the closing price of the registrant's Class A common stock on June 29, 2018 (the last business day of the registrant's mostly recently completed second fiscal quarter), as reported on the NASDAQ Global Market on such date, was approximately $1,036 million. Shares of the registrant's Class A common stock and Class B common stock held by each executive officer, director and holder of 10% or more of the registrant's outstanding Class A common stock and Class B common stock have been excluded from this calculation as such persons may be deemed to be affiliates. The determination of affiliate status for this purpose does not reflect a determination that any of such persons shall be deemed to be an affiliate of the registrant for any other purpose.

At February 15, 2019, the number of shares of the registrant's Class A common stock outstanding was 15,833,617 and the number of shares of the registrant's Class B common stock outstanding was 18,071,665.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive Proxy Statement for the 2019 Annual Meeting of Stockholders (the "Proxy Statement"), to be filed with the Securities and Exchange Commission (the "SEC") pursuant to Regulation 14A not later than 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K (this "Annual Report"), are incorporated by reference in Part III, Items 10-14 of this Annual Report. Except for the portions of the Proxy Statement specifically incorporated by reference in this Annual Report, the Proxy Statement shall not be deemed to be filed as part hereof.

APPFOLIO, INC.
ANNUAL REPORT ON FORM 10-K
FOR THE FISCAL YEAR ENDED DECEMBER 31, 2018

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CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K for the fiscal year ended December 31, 2018, or this Annual Report, includes "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, which statements are subject to considerable risks and uncertainties. These forward-looking statements are intended to qualify for the safe harbor from liability established by the Private Securities Litigation Reform Act of 1995. Forward-looking statements include all statements included in or incorporated by reference in this Annual Report that are not statements of historical facts, which can generally be identified by words such as "anticipates," "believes," "seeks," "estimates," "expects," "intends," "may," "plans," "potential," "predicts," "projects," "should," "could," "will," "would" or sin and the negatives of those expressions. Forward-looking statements also include the assumptions underlying or relating to such statements. In particular, forward looking statements contained in this Annual Report relate to, among other things, our future or assumed financial condition, results of operations and liquidity, business forecasts and plans, certain trends affecting our business and industry, capital needs and financing plans, capital resource allocation plans, potential repurchase of our shares, research and product development plans, future products and Value+ services, growth in the size of our business and number of customers, strategic plans and objectives, the impact of acquisitions and investments, changes in the competitive environment, the outcome of legal proceedings or regulatory matters, and the application of accounting guidance. We caution you that the foregoing list may not include all of the forward-looking statements made in this Annual Report.

Our forward-looking statements are based on our management's current beliefs, assumptions and expectations about future events and trends, which affect or may affect our business, strategy, operations or financial performance. Although we believe these forward-looking statements are based upon reasonable assumptions, they are subject to numerous known and unknown risks and uncertainties and are made in light of information currently available to us. Our actual financial condition and results could differ materially from those anticipated in these forward-looking statements as a result of various factors, including those set forth below under the caption "Risk Factors" in Part I, Item 1A and "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Part II, Item 7, and elsewhere in this Annual Report, as well as in the other reports we file with the Securities and Exchange Commission, or the SEC. You should read this Annual Report with the understanding that our actual future results may be materially different from and worse than what we expect.

Moreover, we operate in an evolving environment. New risks and uncertainties emerge from time to time and it is not possible for our management to predict all risks and uncertainties, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual future results to be materially different from those expressed or implied by any forward-looking statements.

Forward-looking statements speak only as of the date they were made, and, except to the extent required by law or the rules of the NASDAQ Global Market, we undertake no obligation to update or review any forward-looking statement because of new information, future events or other factors.

We qualify all of our forward-looking statements by these cautionary statements.

PART I

ITEM 1. BUSINESS

Unless otherwise stated in this Annual Report, references to "AppFolio," "we," "us," and "our" refer to AppFolio, Inc. and its consolidated subsidiaries.

Overview

Our mission is to revolutionize vertical industry businesses by providing great software and services. To that end, today we offer industry-specific, cloud-based business software solutions, services and data analytics to the real estate market, which comprises a significant majority of our revenue, and, to a lesser extent, to the legal market. Our real estate software solutions provide our property manager customers with a system of record to automate essential business processes, a system of engagement to enhance business interactions between our customers and their clients and other stakeholders, and a system of intelligence designed to leverage data to predict and optimize business workflows in order to enable superior customer experiences and increase efficiency across our customers' businesses. Our mobile-optimized software solutions are designed for use across multiple devices and operating systems. Our software solutions are all operated as a service for our customers and hosted using a modern cloud-based architecture. This architecture leads to rich data sets that have a consistent schema across our customer base and enables us to deploy data-powered products and services for our customers. We also provide software solutions to the legal market that enable law firms to administer their practice and manage their caseloads more efficiently by centralizing case details in a single system of record and system of engagement.

Many companies face a common set of challenges that divert limited time and resources away from serving their clients and growing their businesses. In certain industries, day-to-day operations may be managed through inefficient manual processes and disparate software point solutions. This lack of automation and integrated technology results in a significant administrative burden on these businesses, particularly in industries that involve unique workflows, relationships among multiple industry participants, significant data inputs and management, and compliance or regulatory requirements. While larger enterprises and consumers have been experiencing a transformational shift into the digital age, the legacy systems and manual business processes currently used by many other businesses are lagging behind in terms of technological sophistication and ease of use.

We were formed in 2006 with a vision to revolutionize the way that small and medium-sized businesses, or SMBs, grow and compete by enabling their digital transformation. In 2008, we entered the real estate market with our first product, AppFolio Property Manager, or APM, a property management solution designed to address the unique operational and business requirements of property management companies. Recognizing that our customers and their stakeholders would benefit from additional business critical services, we launched a series of Value+ services beginning in 2009. Our first Value+ service assisted our customers in the marketing of their rental properties by offering property level website design and hosting services. In 2010, we commenced the roll out of our electronic payment services, thereby facilitating the payment of rent via ACH by tenants. In 2011, we launched tenant screening services, further assisting our customers with the leasing process. In 2012, we introduced our legal liability to landlord insurance program, which protects property owners and managers from certain defined losses. In 2013, we expanded our electronic payment services by allowing residents to pay rent by Electronic Cash Payment and credit or debit card. In 2014, we launched a tenant-facing contact center solution to assist our property managers with resolving incoming maintenance requests. In 2015, with the acquisition of RentLinx, we expanded the marketing services offered to our property manager customers with a premium leads service and expanded our electronic payment services to facilitate payments made between our customers and property owners and vendors. In 2016, we introduced a tenant debt collection Value+ service to assist our property managers with running a more efficient business. In 2017, we expanded our insurance services to enable tenants to purchase renters insurance from within APM, protecting both our property manager customers and their tenants. In 2018, we acquired substantially all of the assets of WegoWise, Inc., or WegoWise, and expect that this acquisition will serve as a building block for a future utility analytics and management Value+ service. In 2018, we also released AppFolio Property Manager PLUS, or APM PLUS, a new tier of APM designed for larger businesses with more complex needs. APM PLUS builds upon the functionality of APM and additionally offers data analytics, configurable workflows, and revenue management and optimization functionality for our customers. In early 2019, we acquired Dynasty Marketplace, Inc., or Dynasty, and expect the team and technology related to this acquisition, combined with our internal resources, technology and data, to serve as a foundation for future artificial-intelligence, or AI, software and services for the real estate market.

We entered the legal market with the acquisition of MyCase in 2012. In 2013, we introduced website design and hosting services, our first Value+ service for our legal market customers, designed to assist smaller law firms and solo practitioners with the marketing of their practices, electronic storage of case information and communications.
In 2016, we launched electronic payments services for the legal market, which streamlined the billing and receivables process through MyCase.

We sell our software solutions and services through our direct sales organization and from within our software applications. We offer our core solutions to customers on a subscription basis, with subscription fees that scale to the size and type of their businesses. Customers who adopt our Value+ services pay either subscription fees or usage-based fees, depending on the Value+ service. We do not separately charge customers for ongoing training and support, which we believe is critical to retaining customers and increasing adoption and utilization of our Value+ services. We also charge one-time fees in connection with certain services.

We evaluate the success of our business during the periods presented based on factors such as the development and launch of new and innovative core functionality and Value+ services, enhancements to user experience, customer satisfaction, growth in our revenue and customer base, fluctuations in costs and operating expenses as a percentage of revenue, operating loss or income and cash flows from operating activities. We have managed, and plan to continue to manage, our business towards the achievement of long-term growth that we believe will positively impact long-term stockholder value, and not towards the realization of short-term financial or business metrics, or short-term stockholder value. We have invested, and intend to continue to invest, heavily in our business to capitalize on our market opportunity.

For the years ended December 31, 2018, 2017 and 2016, our revenue was $190.1 million, $143.8 million and $105.6 million, respectively. During each of these years we have derived more than 90% of our revenue from our solutions serving the real estate market. Our revenue has limited seasonality as discussed in Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations of this Annual Report, within the section entitled "Quarterly Revenue and Cost Trends."

Our Solutions

Although specific functionality varies by product, our core solutions address common business operations and interactions of businesses in our targeted verticals by providing key functionality, including accounting, document management, real-time interactive search, data analytics and communication options. In addition to our core solutions, we offer a range of optional, but often business-critical, Value+ services. Our Value+ services are available on an as-needed basis and enable our customers to adapt our platform to their specific operational requirements.

AppFolio Property Manager - Core Solution

APM is a cloud-based software solution for the real estate market that provides property managers of various sizes (including third-party managers, owner-operators and real estate investors) innovative tools and services designed to streamline their property management businesses. Our software solution serves a variety of property types, including single- and multi-family residential, commercial, community association, and student housing, and is continuously evolving to help our customers more effectively market, manage and grow their businesses. Core functionality addresses key operational issues, including accounting and business analytics and management, marketing and leasing functionality, and communications with key stakeholders, among other things.

AppFolio Property Manager - Value+ Services

In addition to our core solution, we offer Value+ services built to enhance, automate and streamline property management processes and support workflows essential to our customers' businesses. Our Value+ services generally fall into the categories of marketing and leasing, electronic payment services, resident services, business optimization and risk mitigation. Value+ services are seamlessly integrated with APM and APM PLUS so customers and their stakeholders may benefit from added efficiency and ease of use.

We deliver and maintain professionally designed and architected Websites that showcase our customers' businesses. Our websites are fully-integrated with APM functionality, including vacancy postings, electronic payment services, owner portals, and maintenance requests. Property managers can track and analyze site traffic and lead generation and identify prospects by evaluating guest cards that are completed by prospective tenants who visit the websites in connection with posted vacancies.

Our accounting features include Electronic Payment Services that allow property managers to streamline their payables and receivables online. Our customers can collect rental application fees, rent payments and other tenant charges through a secure online portal and mobile app, as well as receive owner contributions. They can quickly and conveniently pay owners, vendors and their own management company as well.

Tenant Screening Services include background screening and credit checks for use in connection with the rental application process. In addition to obtaining an applicant's credit history, property managers have the option of leveraging an automated nationwide eviction and criminal records search, as well as accessing and/or contributing to rental payments history data, to better identify qualified tenants and reduce risk.

We offer two insurance options, Liability to Landlord Insurance and Renters Insurance, that can be tailored to help property managers protect their properties and meet renters' needs. Property managers can instantly enroll residents in Liability to Landlord Insurance, which offers owners and investors increased protection against tenant-caused damage. Renters have the option of purchasing renters insurance through an online portal to protect their personal belongings, as well as the property itself, from certain unexpected damages.

Our Maintenance Contact Center is built into our customers APM maintenance workflow and is staffed 24/7/365 by trained agents, each acting as an extension of our property manager customers' teams to resolve or route incoming maintenance requests. Contact center agents are able to enter non-emergency work orders directly into APM's property maintenance software for a property manager's approval, and to dispatch vendors immediately in case of an emergency.

Premium Leads allow customers to upgrade property listings to premium status and syndicate them to dozens of pay-to-list websites, including featured placement on many sites. Customers also receive advance call tracking and pay only for the verified leads they receive through the Value+ service.

With Tenant Debt Collections, our customers can electronically send past due tenant debt from their APM database to a national fully-licensed third party debt collection agency to recover uncollected revenue. This Value+ service also includes reporting unpaid balances to three major credit bureaus.

With the acquisitions of WeGoWise in September 2018 and Dynasty in January 2019, we expect to extend our Value+ offerings to the real estate market in the future to include a Utility Management Platform and an Artificial Intelligence Leasing Service for hire.

MyCase - Core Solution

Our legal software solution, MyCase, enables small law firms to more efficiently administer their practice and manage their caseload. MyCase is continuously evolving to help our customers more effectively market, manage and grow their businesses, and contains core functionality that addresses key operational issues, including managing calendars, contacts and documents, time tracking, billing and collections, communicating with clients and sharing sensitive and privileged materials.

MyCase - Value+ Services

In addition to our core solution for MyCase, we offer the following optional Value+ services to our legal customers.

We deliver and maintain professionally designed and architected Websites that practitioners and their clients can utilize to access case and matter information, communicate internally and externally, and manage bills. Our websites are fully-integrated with the MyCase platform and designed to improve the effectiveness of law firm marketing, streamline daily business tasks, and increase mobile presence.

Our Electronic Payment Services allow practitioners to streamline billing and receivables online. Our customers can quickly and conveniently bill their clients and receive payments electronically through MyCase's secure online portal.

Our Customers

As of December 31, 2018, we had 13,046 real estate property manager customers that directly and indirectly account for more than 90% of our annual revenue. Our real estate customers include third-party property managers, owner-operators and real estate investors who manage single- and multi-family residences, community associations, commercial properties, and student housing, as well as mixed real estate portfolios. As of December 31, 2018, we also had 10,279 small law firms as legal customers that directly and indirectly account for less than 10% of our annual revenue.

We define our customer base as the number of customers subscribing to our core solutions, exclusive of free trial periods with respect to MyCase. No individual customer represented 10% or more of our total revenue for our fiscal year ended December 31, 2018.

Our Culture and Employees

We believe our people are at the heart of our success and our customers' success, and have worked hard not only to attract and hire quality individuals but also to nurture and develop our valuable human resources. We believe in the strong team we have cultivated, particularly in our deep bench of leaders who continue to execute our strategic plans and encourage innovation across the organization. We further believe that our company culture, driven by a dedication to the following six core values, provides us with a significant competitive advantage:

Simpler Is Better

Great, Innovative Products Are Key To A Great Business

Great People Make A Great Company

Listening To Customers Is In Our DNA

Small, Focused Teams Keep Us Agile

We Do The Right Thing Because It's Good For Business

At December 31, 2018, we had 916 employees, and we consider our relationship with them to be very good. We also hire temporary employees and consultants, and feel similarly about our relationships with them. None of our employees is represented by a labor union or covered by a collective bargaining agreement.

Our Growth Strategy

We have managed, and plan to continue to manage, our business towards the achievement of long-term growth that we believe will positively impact long-term stockholder value, rather than the realization of short-term financial or business metrics, or short-term stockholder value. Our growth strategy is to provide increasingly valuable cloud-based and artificial-intelligence business management software solutions, services and analytics to our customers and their key stakeholders. Key components of our growth strategy include:

Maintain Product and Technology Leadership. We have made, and will continue to make, significant investments in research and new product development to expand our software solutions, services and data analytics capabilities as we deem appropriate in our target markets. We intend to continue using our market validation techniques and close relationships with our customers as a key source of feedback to inform and direct our product roadmap. We may also choose to acquire rather than build certain technology solutions to serve our existing or prospective customers.

Keep Our Existing Customers Happy. Customer success is essential to our long-term success. We place significant emphasis on customer service to differentiate our software solutions from competing products and this will continue to be a critical component of our business strategy in the future. We believe that maintaining our focus on customer satisfaction will drive greater adoption and utilization of our software solutions over time.

Expand Adoption and Use By Existing Customers. We have made, and will continue to make, significant investments that expand our core functionality and add new Value+ services to meet the evolving needs and requirements of our customers and their key stakeholders. We expect our customers will continue to use our technology to manage their businesses and increasingly adopt and use additional Value+ services.

Acquire New Customers. We plan to grow our customer base with our sales and marketing programs, including evolving industry thought leadership and education, and the referral power of satisfied customers.

Enter New Adjacent Markets. We continue to evaluate and expand into adjacent markets based on our market validation strategy and customer feedback. We firmly believe that, while we are continuously developing our software solutions within one market, we can apply certain relevant product enhancements and learnings from that market as we extend our platform into each successive adjacent market.

Expand into New Verticals. We continue to review potential opportunities to expand into additional vertical markets. Any new vertical also must fit within our overall business strategy, including our management team's assessment of available alternatives, such as the number and size of potential adjacent market opportunities, and the relative risk and return of these opportunities.

Sales and Marketing

We leverage a modern marketing approach along with marketing automation technology to build brand recognition and our reputation as an industry leader in our targeted markets.

We participate in and drive industry thought leadership and education with both online and offline activities, and use a variety of marketing techniques to promote our software solutions. Our sales development team acts in partnership with our marketing organization to reach potential customers, generate additional sales opportunities and speed the time from evaluation to close. Our real estate sales representatives assist prospective customers as they evaluate our software solutions. Prospective law firm customers either sign up for a free trial on a self-service basis or speak to our sales development representatives as they evaluate our software solutions.

Our interactive sales methodology allows our sales team to quickly build relationships, assess our customers' business challenges, and demonstrate the benefits of our core functionality and Value+ services. Throughout the customer relationship, we continue to promote adoption and usage of our Value+ services through a variety of channels, including email, webinars, training, sales outreach and from within our software solution via in-app messaging.

Customer Service

Our success is based on long-term customer retention, not a one-time sale, and we partner with our customers throughout the life of our relationship. We design our software solutions to be simple and easy to implement, use and manage, and offer unlimited training and support at no extra charge. We pride ourselves on being customer-centric and strive to educate our customers on the additional core functionality and Value+ services they can use to improve business efficiency and productivity.

Our onboarding team strives to ensure that customers are prepared to run their businesses on our platform and provide a seamless onboarding experience. As a result of our assistance with data migration matters, we are able to provide valuable insights into data integrity and work diligently with our customers to help resolve any issues in their underlying business processes. We also assist our customers with the configuration of our platform for particular property types or cases, as appropriate. We provide a dedicated team throughout the onboarding process and beyond, and share insights on best practices in both of our targeted verticals. In addition, certain members of our Value+ teams are focused on guiding our customers through the adoption and utilization of our Value+ services.

Technology and Operations

Data Security and Availability

We use Ruby-on-Rails as our web application framework for both APM and MyCase. We take great care to keep these application frameworks current in order to mitigate known web application security vulnerabilities. Our software solutions run on a combination of both public and private cloud infrastructure across four distinct geographic U.S. regions, consisting of both our own servers and Amazon's Elastic Compute Cloud platform. Our servers are located in state-of-the-art data centers operated by third-party service providers. Physical security at these facilities includes a variety of access controls, including electronic keycards, pin codes, biometric hand scans and mantraps, and policing by high resolution, motion sensitive video surveillance. These facilities provide redundant power and a system of heating, ventilating and air conditioning, as well as fire-threat detection and suppression. Upon arriving in one of our data centers, customer data is immediately replicated to a datacenter in at least one other geographic region, in order to ensure that no data is ever lost and that customer requests can always be satisfied. In addition to hot standby databases, we regularly back up all customer data to Amazon Simple Storage Service.

Our operators monitor our systems to ensure high performance and availability and our architecture allows our operators significant flexibility in achieving these goals. In particular, our operators have fine-grained control over which data center each customer's data resides, and can easily move customer data between four geographic regions in order to avoid service disruption or to increase service performance.

All sensitive customer data is encrypted during transmission and before being written to disk, including passwords, Social Security and tax identification numbers. We regularly evaluate our Internet security, including through third-party penetration testing. In addition, our software solutions allow our customers to define roles that provide different levels of access to users, allowing them to view and modify specific items depending on their role. Supervisors can distribute work to on-site staff in a secure and controlled environment, while leadership retains visibility across the entire system.

Research and Product Development

We entrust product design, development and testing to our team of engineers, who coordinate closely with our product management team to launch new core functionality, products and Value+ services. Our engineers are organized in smaller groups to foster agility and continued innovation in responding to the evolving needs of our customers. We leverage a collaborative, team-based and test-driven approach to engineering in order to release new code frequently. We believe that it is easier for our customers to adjust to continuous updates to our software solutions, which incrementally change and improve their user experience, than it is to adapt to infrequent, but more drastic upgrades of legacy on-premise software.

We rely heavily on input from our customers in developing products that meet their needs and in anticipating developments in their respective industries. Our product management team leads our research and market validation efforts and provides guidance to management and our engineering team based on our collective domain expertise and in-depth knowledge and understanding of our customers. As a result, our product management team engages regularly with customers, partners and other industry participants, as well as our customer service and sales and marketing organizations. Our product management team manages our development projects generally and serves to align separate functions within the company with a single strategic vision.

Competition

The overall market for business management software is global, highly competitive and continually evolving in response to changes in technology, operational requirements, laws and regulations. We believe our competitors fall into the following primary categories:

- On-premise or cloud-based vertical market business management software providers that serve companies of all sizes in our markets; and
- On-premise or cloud-based horizontal business management software providers that offer broad solutions across multiple verticals.

We also see competition from numerous cloud-based solutions providers that focus almost exclusively on one or more point solutions. For example, in the real estate vertical, we compete with listing services, tenant screening applications and specialists in lease forms. In the legal vertical, we compete with time tracking, legal billing and payment services. Continued consolidation among cloud-based solution providers could lead to significantly increased competition.

We believe the principal competitive factors in each of our vertical markets include the following:

- ease of deployment and use of software solutions and applications;
- total cost of ownership;
- data security and availability;
- breadth and depth of functionality in software solutions and applications;
- nature and extent of mobile interface;
- level of customer satisfaction;
- size of customer base and level of user adoption and usage;
- brand awareness and reputation;
- ability to innovate and respond to customer needs rapidly;
- domain expertise with respect to our targeted verticals; and
- ability to leverage a common technology platform and business strategy.

We believe that we compete favorably on the factors described above. However, some of our competitors may have greater financial, technical and other resources, greater name recognition and larger sales and marketing budgets; therefore, we may not always compare favorably with respect to some or all of the foregoing factors.

Intellectual Property

We rely on a combination of patents, copyrights, trademarks, trade secrets, confidentiality procedures and contractual restrictions to establish and protect our proprietary rights in our core solutions and Value+ services. At January 31, 2019, we had twelve issued United States patents that directly relate to our technology and expire between 2026 and 2033. We intend to pursue additional patent protection to the extent we believe it would be beneficial and cost effective.

We have registered “AppFolio” and "MyCase" and certain other marks as trademarks in the United States and several other jurisdictions. We have also acquired certain marks and filed trademark applications and renewals in the United States and certain other jurisdictions, and will pursue additional trademark registrations to the extent we believe it would be beneficial and cost effective. We are the registered holder of a variety of domestic and international domain names that include “appfolioinc.com,” “appfolio.com,” “mycase.com” and similar variations. We also license software from third parties for use in our solutions, including open source software and other software available on standard commercial terms.

We control access to our proprietary technology by entering into confidentiality and invention assignment agreements with our employees and contractors and confidentiality agreements with third parties. Despite our precautions, it may be possible for unauthorized third parties to copy our software solutions and use information that we regard as proprietary to create products and services that compete with ours.

Seasonality

We experience limited seasonality in our Value+ services revenue, primarily with respect to certain leasing-related services we provide to our property manager customers, including our tenant application and tenant screening services. These customers historically have processed fewer applications for new tenants during the winter holiday season; therefore, revenue associated with our leasing services typically declines in the fourth quarter. As a result of this seasonal decline in revenue, we have typically experienced slower sequential revenue growth or a sequential decline in revenue in the fourth quarter of each of our most recent fiscal years. We expect this seasonality to continue in the foreseeable future.

Corporate Information

We were formed in 2006 as a Delaware limited liability company and converted to a Delaware corporation in 2007. Our principal executive offices are located at 50 Castilian Drive, Santa Barbara, California 93117, and our telephone number is (805) 364-6093. Our corporate website is www.appfolioinc.com. The information contained on or accessed through our website does not constitute part of, and is not incorporated by reference into this Annual Report. References to our website address in this Annual Report are inactive textual references only.

“AppFolio,” “MyCase,” the AppFolio logo, the MyCase logo, and other trademarks and trade names of AppFolio and MyCase appearing in this Annual Report are our property. All other trademarks or trade names appearing in this report are the property of their respective owners. Solely for convenience, the trademarks and trade names in this report are referred to without the ® and ™ symbols. We do not intend our use or display of the trademarks, trade names or service marks of other parties to imply a relationship with, or endorsement or sponsorship of us by, such other parties.

Available Information

We file annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, as well as amendments to those reports pursuant to Sections 13(a) and 15(d) of the Exchange Act. We also file proxy statements and information statements pursuant to Section 14 of the Exchange Act. The SEC also maintains a website at www.sec.gov that contains the reports, proxy and information statements, and other information that we file with or furnish to the SEC electronically. Copies of the reports, proxy statements and other information may also be obtained, free of charge, electronically through our corporate website at www.appfolioinc.com as soon as reasonably practical after we file such material with, or furnish it to, the SEC.

ITEM 1A. RISK FACTORS

An investment in our Class A common stock involves risks. You should carefully consider the risks and uncertainties described below, together with all of the other information in this Annual Report, as well as in our other public filings with the SEC, before making an investment decision. If any of the following risks are realized, our business, financial condition, and operating results could be materially and adversely affected. In that case, the trading price of our Class A common stock may decline, and you could lose all or part of your investment. Furthermore, additional risks and uncertainties of which we are currently unaware, or which we currently consider to be immaterial, could have a material adverse effect on our business.

Please be advised that certain of the risks and uncertainties described below contain "forward-looking statements." See the section of this Annual Report entitled "Cautionary Note Regarding Forward-Looking Statements" for additional information.

Risks Related to Our Business and Our Industry

We manage our business towards the achievement of long-term growth, which may not be consistent with the short-term

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expectations of some investors.

We plan to continue to manage our business towards the achievement of long-term growth that we believe will positively impact long-term stockholder value, and not towards the realization of short-term financial or business metrics, or short-term stockholder value. If opportunities arise that might cause us to sacrifice our performance with respect to short-term financial or business metrics, but that we believe are in the best interests of our stockholders, we will take those opportunities.

We focus on growing our customer base by launching new and innovative core functionality and Value+ services to address our customers' evolving business needs, developing and/or acquiring new products for adjacent markets and additional verticals, and improving the experience of our users across our targeted verticals. We prioritize product innovation and user experience over short-term financial or business metrics. We will make product decisions that may reduce our short-term operating results if we believe that these decisions are consistent with our strategic objective to achieve long-term growth. These decisions may not be consistent with the short-term expectations of some investors, and may cause significant fluctuations in our operating results from period to period. In addition, notwithstanding our intention to make strategic decisions that positively impact long-term stockholder value, the decisions we make may not produce the long-term benefits we expect.

Our executive officers, directors and principal stockholders control a majority of the combined voting power of our outstanding capital stock. As a result, they are able to exercise significant influence and control over the establishment and implementation of our future business plans and strategic objectives, as well as control all matters submitted to our stockholders for approval. These persons may manage our business in ways with which you disagree and which may be adverse to your interests.

If we fail to manage our growth effectively, it could adversely affect our operating results and preclude us from achieving our strategic objectives.

We have experienced significant growth since our formation in 2006, and we anticipate that we will continue to experience growth and expansion of our operations. This growth in the size, complexity and diversity of our business has placed, and we expect it will continue to place, a significant strain on our management, administrative, operational and financial resources, as well as our company culture. Our future success will depend, in part, on our ability to manage this growth effectively. To manage the expected growth of our operations, we will need to continue to develop and improve our operational and financial controls and our reporting systems and procedures, continue to attract and retain highly qualified and motivated personnel across our organization, and continue to nurture and build on our company culture. Failure to effectively manage growth could adversely impact our business, including by resulting in errors or delays in deploying new core functionality to our customers, delays or difficulties in introducing new Value+ services or other products, declines in the quality or responsiveness of our customer service organization, enhanced legal and regulatory risks, increases in costs and operating expenses, and other operational difficulties. We expect these risks will only be increased as a result of our recent acquisitions of WegoWise and Dynasty, and any future acquisitions we may pursue. If any of these risks actually occur, it could adversely affect our operating results, and preclude us from achieving our strategic objectives.

We have a limited operating history and limited experience selling our solutions. We expect to make substantial investments across our organization to grow our business and, as a result, we expect our financial results may fluctuate significantly from period to period and we may not sustain profitability.

We were formed in 2006 and in 2008 we entered the real estate market with our first product, APM, to serve property managers. In 2012, we entered the legal vertical through the acquisition of MyCase. As a result, we have a limited operating history and limited experience selling our software solutions in two continually evolving vertical markets. These and other factors combine to make it more difficult for us to accurately forecast our future operating results, which in turn makes it more difficult for us to prepare accurate budgets and implement strategic plans. We expect that this uncertainty will continue to exist in our business for the foreseeable future, and will be exacerbated to the extent we introduce new functionality, or enter adjacent markets or new verticals, or complete additional acquisitions.

We have made substantial investments across our organization to develop our software solutions and capitalize on our market opportunity. In order to implement our business strategy, we intend to continue to make substantial investments in, among other things:

our research and product development organization to enhance the ease of use and functionality of our software solutions by adding new core functionality, Value+ services and other improvements to address the evolving needs of our customers, as well as to develop new products for adjacent markets and new verticals;

our continued strategic efforts to identify acquisition targets that enhance the depth or functionality of our software solutions or Value+ services, or that enable our expansion into adjacent markets or new vertical markets;

our customer service organization to deepen our relationships with our customers, assist our customers in achieving success through the use of our software solutions, and promote customer retention;
our sales and marketing organization, including expansion of our direct sales organization and marketing programs, to increase the size of our customer base, increase adoption and utilization of new and existing Value+ services by our new and existing customers, and enter adjacent markets and new verticals;
maintaining and expanding our technology infrastructure and operational support, including data center operations, to promote the security and availability of our software solutions, and support our growth;
our general and administrative functions, including hiring additional finance, IT, human resources, legal and administrative personnel, to support our growth and assist us in achieving and maintaining compliance with public company reporting and compliance obligations; and
the expansion of our existing facilities, including leasing and building out additional office space, to support our growth and strategic development.

As a result of our continuing investments to grow our business in these and other areas, we expect our expenses to increase significantly, and we may not be consistently profitable. Even if we are successful in growing our customer base and increasing revenue from new and existing customers, we may not be able to generate additional revenue in an amount that is sufficient to cover our expenses. We may incur significant losses in a particular period for a number of reasons, and may experience significant fluctuations in our operating results from period to period, including as a result of the other risks and uncertainties described elsewhere in this Annual Report. We cannot assure you that we will continue to achieve profitability in the near term or that we will sustain profitability over any particular period of time. Any additional operating losses will have a negative impact on our stockholders' equity.

We have acquired, and may in the future acquire, other companies or technologies, which could divert our management's attention, result in additional dilution to our stockholders and otherwise disrupt our operations.

We have acquired, and may in the future acquire, other companies or technologies to complement or expand our software solutions, optimize our technical capabilities, enhance our ability to compete in our targeted verticals, provide an opportunity to expand into an adjacent market or new vertical, or otherwise offer growth or strategic opportunities. For example, we acquired substantially all of the assets of WegoWise in 2018, and recently completed the acquisition of Dynasty in 2019. The pursuit of acquisitions may divert the attention of management and cause us to incur various expenses in identifying, investigating and pursuing suitable acquisitions, whether or not they are consummated.

We have limited experience acquiring other businesses. We may not be able to integrate acquired assets, technologies, personnel and operations successfully or achieve the anticipated synergies or other benefits from the acquired business due to a number of risks associated with acquisitions, including:

the aggregate cost, whether in cash or equity securities, to acquire the business;
difficulties integrating the assets, technologies, personnel or operations of the acquired business in a cost-effective manner;
difficulties and additional expenses associated with supporting legacy products and services of the acquired business;
difficulties converting the customers of the acquired business to our software solutions and contract terms;
diversion of management's attention from our business to address acquisition and integration challenges, as well as post-acquisition disputes;
adverse effects on our existing business relationships with customers and strategic partners as a result of the acquisition;
cultural challenges associated with integrating employees from the acquired organization into our company;
the loss of key employees;
use of resources that are needed in other parts of our business;
use of substantial portions of our available cash resources to consummate the acquisition or pay acquisition-related expenses; and

unanticipated costs or liabilities associated with the acquisition.

If an acquisition fails to meet our expectations in terms of its contribution to our overall business strategy or operating results, or if the costs of acquiring or integrating the acquired business exceed our estimates, our business, operating results and financial condition may suffer. In addition, acquisitions could result in the issuance of equity securities, which would result in immediate dilution to our stockholders or, the incurrence of debt, which could impose debt service obligations and restrictions on our ability to operate our business. Furthermore, a significant portion of the purchase price of companies we may acquire could be allocated to goodwill and other intangible assets, which must be assessed for impairment. In the future, if our acquisitions do not yield expected returns, we may be required to take charges to our operating results based on this impairment assessment process, which could adversely affect our operating results.

Actual or perceived security vulnerabilities in our software solutions, breaches of our security controls or other unauthorized access to our customers' data could result in liability or reputational harm to us, or cause us to lose customers, any of which could harm our business and operating results.

In providing our software solutions, we store and transmit large amounts of our customers' data, including sensitive and proprietary data. Our software solutions are typically the system of record, system of engagement and, increasingly, the system of intelligence for all or a portion of our customers' businesses, and the data processed through our software solutions is critical to their businesses. Cyber-attacks and other malicious Internet-based activities continue on a regular basis, as evidenced by the recent targeting of a number of high profile companies and organizations. As our business grows, the number of users of our software solutions, as well as the amount of information we store, is increasing, and our brands are becoming more widely recognized. We believe these factors combine to make us an even greater target for this type of malicious activity. Techniques used to sabotage, or to obtain unauthorized access to, systems or networks change frequently and generally are not recognized until launched against a target. Therefore, despite our significant efforts to keep our systems and networks protected and up to date, we may be unable to anticipate these techniques, react in a timely manner, or implement adequate preventive measures, any of which may expose us to a risk of loss, litigation and potential liability. In addition, some of our third-party partners also collect information from transactions with our customers, and these third parties are subject to similar threats of cyber-attacks and other malicious Internet-based activities.

If our security measures, or the security measures of our third-party partners, are breached as a result of negligence, wrongdoing or malicious activity on the part of our employees, our partners' employees, our customers' employees, or any third party, or as a result of any error, product defect or otherwise, and this results in the disruption of the confidentiality, availability or integrity of our customers' data, we could incur liability to our customers and to individuals or organizations whose information was being stored by our customers, as well as, for example, fines from payment processing networks and/or regulatory action by governmental bodies. If we experience a widespread security breach, we cannot be certain that our insurance coverage will be sufficient to compensate us for liabilities actually incurred or that insurance will continue to be available to us on reasonable terms, or at all. In addition, any breaches of our security controls or other unauthorized access to our customers' data could result in reputational damage, adversely affect our ability to attract new customers and cause existing customers to reduce or discontinue the use of our software solutions, any of which could harm our business and operating results. Furthermore, the perception by our current or potential customers that our software solutions could be vulnerable to security breaches, even in the absence of a particular problem or threat, could reduce market acceptance of our software solutions and cause us to lose customers.

Service outages due to malicious activities or performance problems associated with our technology infrastructure could harm our reputation, adversely affect our ability to attract new customers and cause us to lose existing customers.

We have experienced significant growth in the number of users and the amount of data that our technology infrastructure supports, and we expect this growth to continue. We seek to maintain sufficient excess capacity in our technology infrastructure to meet the needs of all of our customers, including to facilitate the expansion of existing customer deployments and the provisioning of new customer deployments. In addition, we need to properly manage our technology infrastructure in order to support version control, changes in hardware and software parameters, and the evolution of our software solutions. However, the provision of new hosting infrastructure requires significant lead-time.

We have experienced, and may in the future experience, website disruptions, service outages and other performance problems with our technology infrastructure. These problems may be caused by a variety of factors, including infrastructure changes, power or network outages, fire, flood or other natural disasters affecting our data centers, human or software errors, viruses, security breaches, fraud or other malicious activity, spikes in customer usage and distributed denial of service attacks. In some instances, we may not be able to identify the cause or causes of these service outages and performance problems within an acceptable period of time. If our technology infrastructure fails to keep pace with the increased number of users and amount of data, or if we are unable to avoid service outages and performance problems, or to resolve them quickly, this could adversely affect our ability to attract new customers, result in the loss of existing customers and harm our reputation, any or all of which could adversely affect our business and operating results.

Errors, defects or other disruptions in our software solutions could harm our reputation, cause us to lose customers, and result in significant expenditures to correct the problem.

Our customers use our software solutions to manage critical aspects of their businesses, and any errors, defects or other disruptions in the performance of our software solutions may result in loss of or damage to our customers' data and disruption to our customers' businesses, which could harm our reputation. We provide continuous updates to our software solutions and, while our software updates undergo extensive testing prior to their release, these updates may contain undetected errors when first introduced. In the past, we have discovered errors, failures, vulnerabilities and bugs in our software updates after they have been released, and similar problems may arise in the future. Real or perceived errors, failures, vulnerabilities or bugs in our software solutions could result in negative publicity, reputational harm, loss of customers, delay in market acceptance of our software solutions, loss of competitive position, withholding or delay of payment to us, claims by customers for losses sustained by them and potential litigation. In any such event, we may be required to expend additional resources in order to help correct the problem or, in order to address customer service or reputational concerns, we may choose to expend additional resources to take corrective action even where not required. The costs incurred in correcting any material errors, defects or other disruptions could be substantial and there may not be any corresponding increase in revenue to offset these costs. In addition, we may not carry insurance sufficient to compensate us for any losses that may result from claims arising from errors, defects or other disruptions in our software solutions.

We face a number of risks in our electronic payment services business that could adversely affect our business or operating results.

In our electronic payments services business, we facilitate the processing of both inbound and outbound payments for our customers. These payments are settled through our sponsoring clearing bank, card payment processors, and other third-party electronic payment services providers that we may contract with from time to time. Our electronic payment services subject us to a number of risks, including, but not limited to:

- liability for customer costs related to disputed or fraudulent transactions if those costs exceed the amount of the customer reserves we have during the clearing period or after payments have been settled to our customers;
- electronic processing limits on the amounts that any single electronic payment services provider, or collectively all of our electronic payment services providers, will underwrite;
- our reliance on sponsoring clearing banks, card payment processors and other electronic payment providers to process electronic transactions;
- failure by us, our electronic payment services providers or our customers to adhere to applicable laws, regulations and standards that apply to the provision of electronic payment services;
- continually evolving laws and regulations governing money transmission and anti-money laundering, the application or interpretation of which is not clear in some jurisdictions;
- incidences of fraud, security breaches, errors, defects, failures, vulnerabilities or bugs in our electronic payment services business, or our failure to comply with required external audit standards; and
- our inability to increase our fees when our electronic payment services providers increase their transaction processing fees, or to increase our fees in a sufficient amount to maintain our existing margins.

If any of these risks related to our electronic payment services were to materialize, our business or operating results could be negatively affected. Although we attempt to structure and adapt our electronic payment services to comply with complex and evolving laws, regulations and standards, our underwriting efforts do not guarantee compliance. In the event that we are found to be in violation of our legal, regulatory or contractual requirements, we may be subject to monetary fines or penalties, cease and desist orders, mandatory product changes, or other liabilities that could have an adverse effect on our operating results.

Additionally, with respect to the processing of electronic payment transactions by our third-party electronic payment services providers, we are exposed to financial risk. Electronic payment transactions between our customer and another user may be returned for various reasons such as insufficient funds or stop payment orders. If we or our electronic payment services provider is unable to collect such amounts from the customer's account (such as if the customer is illegitimate, or if the customer refuses or is unable to reimburse us for the amounts charged back), we bear the ultimate risk of loss for the transaction amount. While we have not experienced material losses resulting from amounts charged back in the past, there can be no assurance that we will not experience these types of significant losses in the future.

In addition to the risks associated with our electronic payment services, there is an overarching risk stemming from the potential widespread adoption of quickly evolving financial technology products, including, for example, blockchain or other distributed ledger technologies, that could materially impact the manner in which payments are processed and the regulatory framework applicable to such payments. The adoption of disruptive financial technologies could significantly reduce the volume of our electronic payment services business or change the transaction costs associated with or potential revenue derived from those payments, thereby reducing our revenue and increasing our associated expenses, which could materially impact our business, financial condition, operating results and, ultimately, our stock price.

Evolution and expansion of our electronic payment services may subject us to additional risks and regulatory requirements.

The evolution and expansion of our electronic payment services may subject us to additional risks and regulatory requirements, including without limitation laws and regulations governing money transmission and anti-money laundering. These requirements vary throughout the markets in which we operate, and several jurisdictions lack clarity with respect to the application and interpretation of these rules. Our efforts to comply with these rules could require significant management time and effort, as well as significant expenditures, and will not guarantee our compliance with all regulatory requirements, especially given that the applicable regulatory frameworks are constantly changing and subject to evolving interpretation. While we maintain a compliance program focused on applicable laws and regulations throughout our applicable industries, there is no guarantee that we will not be subject to fines, penalties or other regulatory actions in one or more jurisdictions, or be required to adjust our business practices to accommodate future regulatory requirements.

We face a number of risks in our tenant screening services business that could adversely affect our business or operating results.

Our tenant screening services business is subject to a number of complex laws that are subject to varying interpretations, including the Fair Credit Reporting Act ("FCRA") and the related regulations. The FCRA has recently been the subject of multiple class-based litigation proceedings, as well as numerous regulatory inquiries and enforcement actions. In addition, entities such as the Federal Trade Commission ("FTC") and the Consumer Financial Protection Bureau ("CFPB") have the authority to promulgate rules and regulations that may impact our customers and our business. Although we attempt to structure and adapt our tenant screening services to comply with these laws and regulations, we may from time to time be found to be in violation of them. Further, regardless of our compliance with applicable laws and regulations, we may from time to time be subject to regulatory inquiries enforcement actions, class-based litigation or indemnity demands.

As we have previously announced, we are in the process of settling a class action lawsuit related to alleged violations of the FCRA. In addition, we recently received a Civil Investigative Demand ("CID") from the FTC requesting certain information relating to our compliance with the FCRA in connection with our tenant screening services business. Due to the large number of tenant screening transactions in which we participate, our potential liability in an enforcement action or a class action lawsuit could be significant, especially given that certain applicable laws and regulations provide for fines or penalties on a per occurrence basis. The existence of any such enforcement action or class action lawsuit, whether meritorious or not, may adversely affect our ability to attract customers, result in the loss of existing customers, harm our reputation and cause us to incur defence costs or other expenses. Any of the foregoing events may negatively affect our business, financial condition, operating results and, ultimately, our stock price.

We use third-party service providers for important electronic payment and tenant screening services, and their failure to fulfill their contractual obligations could harm our reputation, disrupt our business and adversely affect our operating results.

We use third-party electronic payment services providers to enable us to provide electronic payment services to our customers, and third-party tenant screening services providers to enable us to provide tenant screening services, such as background and credit checks, to our customers. We rely on these service providers to provide us with accurate and timely information, and we have significantly less control over our electronic payment and tenant screening services than if we were to maintain and operate them ourselves. In some cases, functions necessary to our business are performed on proprietary third-party systems and software to which we have no access. We also generally do not have long-term contracts with these service providers. In addition, some of these service providers compete with us directly or indirectly in the markets we serve. The failure of these service providers to provide us with accurate and timely information, to fulfill their contractual obligations of us, or to renew their contracts with us, could result in direct liability to us, harm our reputation, result in significant disruptions to our business, and adversely affect our operating results.

Privacy and data security laws and regulations could impose additional costs on us and reduce the demand for our software solutions.

Our customers store and transmit a significant amount of personal or identifying information through our technology platform. Privacy and data security have become significant issues in the United States and in other jurisdictions where we may offer our software solutions. The regulatory framework relating to privacy and data security worldwide is rapidly evolving and is likely to remain uncertain for the foreseeable future. Federal, state and foreign government bodies and agencies have in the past adopted, and may in the future adopt, laws and regulations regarding the collection, use, processing, storage and disclosure of personal or identifying information obtained from customers and other individuals. In addition to government regulation, privacy advocates and industry groups may propose various self-regulatory standards that may legally or contractually apply to our business. Because the interpretation and application of many privacy and data security laws, regulations and applicable industry standards are uncertain, it is possible that these laws, regulations and standards may be interpreted and applied in a manner inconsistent with our existing privacy and data management practices. As we expand into new jurisdictions or verticals, we will need to understand and comply with various new requirements applicable in those jurisdictions or verticals.

To the extent applicable to our business or the businesses of our customers, these laws, regulations and industry standards could have negative effects on our business, including by increasing our costs and operating expenses, and/or delaying or impeding our deployment of new or existing core functionality or Value+ services. Compliance with these laws, regulations and industry standards requires significant management time and attention, and failure to comply could result in negative publicity, subject us to fines or penalties, or result in demands that we modify or cease existing business practices. In addition, the costs of compliance with, and other burdens imposed by, such laws, regulations and industry standards may adversely affect our customers' ability or desire to collect, use, process and store personal information using our software solutions, which could reduce overall demand for them. Even the perception of privacy and data security concerns, whether or not valid, may inhibit market acceptance of our software solutions in certain verticals. Furthermore, privacy and data security concerns may cause our customers' clients, vendors, employees and other industry participants to resist providing the personal information necessary to allow our customers to use our applications effectively. Any of these outcomes could adversely affect our business and operating results.

The markets in which we participate are intensely competitive and, if we do not compete effectively, our business could be harmed.

The overall market for business management software is global, highly competitive and continually evolving in response to a number of factors, including changes in technology, operational requirements, and laws and regulations. Although relatively early in its development, the market for cloud-based business management software is also highly competitive and subject to similar market factors.

While we focus on providing industry-specific, cloud-based business management software solutions in our targeted verticals, we compete with other vertical cloud-based solution providers, as well as with horizontal cloud-based solution providers that provide broad cloud-based solutions across multiple verticals. Our competitors include established vertical software vendors, as well as newer entrants in the market. We also face competition from numerous cloud-based solution providers that focus almost exclusively on one or more point solutions. Continued consolidation among cloud-based providers could lead to significantly increased competition.

Although the domain expertise required to successfully develop, market and sell cloud-based business management software solutions in the real estate and legal verticals may hinder new entrants that are unable to invest the necessary resources to develop and deploy cloud-based solutions with the same level of functionality as ours, many of our competitors and potential competitors are larger and have greater name recognition, longer operating histories, and significantly greater resources than we do. As a result, our competitors may be able to respond more quickly and effectively to new or changing opportunities, technologies, operational requirements and industry standards. Some of these competitors may have more established customer relationships or strategic partnerships with third parties that enhance their products and services. Other competitors may offer products or services that address one or a number of business functions on a standalone basis at lower prices or bundled as part of a broader product sale, or with greater depth than our software solutions. In addition, our current and potential competitors may develop, market and sell new technologies with comparable functionality to our software solutions, which could cause us to lose customers, slow the rate of growth of new customers and cause us to decrease our prices in order to remain competitive. For all of these reasons, we may not be able to compete effectively against our current and future competitors, which could harm our business.

Business management software for SMBs is a relatively new and developing market and, if the market is smaller than we estimate or develops more slowly than we expect, our operating results could be adversely affected.

We provide cloud-based business management software for SMBs in the real estate and legal markets and, as part of our business strategy, we will assess entry into new markets. While the overall market for cloud-based business management software is rapidly growing, it is not as mature as the market for legacy on-premise software applications. In addition, when compared to larger enterprises, SMBs have not historically purchased enterprise resource planning or other enterprise-wide software systems to manage their businesses due to the cost and complexity of implementing such systems, which generally did not address their industry-specific needs. Furthermore, a number of widely adopted cloud-based solutions have not traditionally targeted SMBs.

As a result, many SMBs still run their businesses using manual processes and disparate software systems that are not web-optimized, while others may have invested substantial resources to integrate a variety of point solutions into their organizations to address one or more specific business needs and, therefore, may be reluctant to migrate to a vertical cloud-based solution designed to apply to their entire business. Our success will depend, in part, on the widespread adoption by SMBs of cloud computing in general and of cloud-based business management software in particular.
The market for industry-specific, cloud-based business management software for SMBs, both generally, and specifically within the real estate and legal markets, is evolving and, in comparison to the overall market for cloud-based solutions, is relatively small. The continued expansion of this market depends on numerous factors, including:
the cost and perceived value associated with cloud-based business management software relative to on-premise software applications and disparate point solutions;
the ability of cloud-based solution providers to offer SMBs the functionality they need to operate and grow their businesses;
the willingness of SMBs to transition from their existing software systems, or otherwise alter their existing businesses practices, to migrate their businesses to a vertical cloud-based business management software solution; and
the ability of cloud-based solution providers to address security, privacy, availability and other concerns.
If cloud-based business management software does not achieve widespread market acceptance among SMBs, our revenue may increase at a slower rate than we expect and may even decline, which could adversely affect our operating results. In addition, it is difficult to estimate the rate at which SMBs will be willing to transition to vertical cloud-based business management software in any particular period, which makes it difficult to estimate the overall size and growth rate of the market for cloud-based business management software for SMBs at any given point in time or to forecast growth in our revenue or market share.
Our estimates of market opportunity are subject to significant uncertainty and, even if the markets in which we compete meet or exceed our size estimates, we could fail to increase our revenue or market share.
Market opportunity estimates are subject to significant uncertainty and are based on assumptions and estimates, including our internal analysis and industry experience. Assessing the market for industry-specific, cloud-based business management software is particularly difficult due to a number of factors, including limited available information and rapid evolution of the market. If we had made different assumptions, our estimates of market opportunity could be materially different.
In addition, even if the markets in which we compete meet or exceed our size estimates, our software solutions could fail to gain market acceptance and our business may not grow in line with our forecasts, or at all, which would have a material adverse impact on our financial condition and operating results.
If we are unable to introduce successful enhancements, including new and innovative core functionality and Value+ services for our existing markets and verticals, or new products for adjacent markets or additional verticals, our operating results could be adversely affected.
The software industry in general, and our targeted verticals in particular, are characterized by rapid technological advances, changing industry standards, evolving customer requirements and intense competition. Our ability to attract new customers, increase revenue from our existing customers, and expand into adjacent markets or new verticals depends, in part, on our ability to enhance the functionality of our existing software solutions by introducing new and innovative core functionality and Value+ services that keep pace with technological developments, and provide functionality that addresses the evolving business needs of our customers. In addition, our growth over the long term depends, in part, on our ability to introduce new products for adjacent markets and additional verticals that we identify through our market validation process. Market acceptance of our current and future software solutions will depend on numerous factors, including:
the unique functionality and ease of use of our software solutions and the extent to which our software solutions meet the business needs of our customers;
the perceived benefits and security of our cloud-based business management software solutions relative to on-premise software applications or other competitive products;
the pricing of our software solutions relative to competitive products;

perceptions about the security, privacy and availability of our software solutions relative to competitive products;
time-to-market of the updates and enhancements to our core functionality, Value+ services and new products; and

perceptions about the quality and responsiveness of our customer service organization.

If we are unable to successfully enhance the functionality of our existing software solutions, including our core solutions and Value+ services, and develop or acquire new products that gain market acceptance in adjacent markets and additional verticals, our revenue may increase at a slower rate than we expect and may even decline, which could adversely affect our operating results.

Our business depends substantially on existing customers renewing their subscriptions with us and expanding their use of our Value+ services, and a decline in customer renewal rates, or failure to convince existing customers to adopt and utilize our Value+ services, could adversely impact our operating results.

In order for us to maintain or increase our revenue and improve our operating results, it is important that our existing customers continue to pay subscription fees for the use of our core solutions, which tend to incrementally rise over time, as well as increase their adoption and utilization of our Value+ services. Our customers have no obligation to renew their subscriptions with us upon expiration of their subscription periods, which typically range from one month to one year. We cannot assure you that our customers will renew their subscriptions with us. In addition, our law firm customers that start their accounts using a 10-day free trial have no obligation to begin a paid subscription. Furthermore, although a significant portion of our revenue growth has historically resulted from the adoption and utilization of our Value+ services by our existing customers, we cannot assure you that our existing customers will continue to broaden their adoption and utilization of our Value+ services, or use our Value+ services at all. If our existing customers do not renew their subscriptions and increase their adoption and utilization of our existing or newly developed Value+ services, our revenue may increase at a slower rate than we expect and may even decline, which could adversely impact our financial condition and operating results.

Word-of-mouth referrals represent a significant source of new customers for us and provide us with an opportunity to cost-effectively market and sell our software solutions. The loss of our existing customers could have a significant impact on our reputation in our targeted verticals and our ability to acquire new customers cost-effectively. A reduction in the number of our existing customers, even if offset by an increase in new customers, could have the impact of reducing our revenue and operating margins.

In an effort to retain our customers and to expand our customers' adoption and utilization of our Value+ services, we may choose to use increasingly costly sales and marketing efforts. In addition, we may make significant investments in research and product development to introduce Value+ services that ultimately are not broadly adopted by our customers. In either of those cases, we could incur significantly increased costs without a corresponding increase in revenue. Furthermore, we may fail to identify Value+ services that our customers need for their businesses, in which case we could miss opportunities to increase our revenue.

Pricing pressure may cause us to change our pricing model, which could hurt our renewal rates and our ability to attract new customers, as well as our ability to increase adoption and usage of our Value+ services, which could adversely affect our operating results.

As the markets for our existing software solutions mature, or as current and future competitors introduce new products or services that compete with ours, we may experience pricing pressure and be unable to renew our subscription agreements with existing customers or increase adoption and usage of our Value+ services, or attract new customers at prices that are consistent with our current pricing model and operating budget. If this were to occur, it is possible that we would have to change our pricing model, offer pricing incentives, or generally reduce our prices, which may adversely affect our revenue even if adoption and utilization remain constant. In addition, many of our customers are smaller companies or firms, which are typically more cost sensitive than larger enterprises. Changes to our pricing model could harm our customer retention rates and our ability to attract new customers, whether in connection with our core solutions or our Value+ services, which could adversely affect our operating results.

We expect to continue to derive a significant portion of our revenue from our property manager customers, and factors resulting in a loss of these customers could adversely affect our operating results.

Historically, more than 90% of our revenue has been derived from APM, and we expect that our property manager customers will continue to account for a significant portion of our revenue for the foreseeable future. We could lose property manager customers as a result of numerous factors, including:

the expiration and non-renewal of subscriptions or termination of subscription agreements;
the introduction of competitive products or technologies;
our failure to provide updates and enhancements to our core functionality and Value+ services, and to introduce

new Value+ services to our customers;
changes in pricing policies by us or our competitors;
acquisitions or consolidations within the property management industry;
bankruptcies or other financial difficulties facing our customers; and
conditions or trends that are specific to the property management industry such as the economic factors that impact the rental market.

The loss of a significant number of our property manager customers, or the loss of even a small number of our larger property manager customers, could cause our revenue to increase at a slower rate than we expect or even decline. In addition, even if we are able to retain our property manager customers, we may be unable to grow revenue from these property manager customers by increasing their adoption and utilization of our Value+ services. Any of these outcomes could adversely affect our operating results.

Our quarterly results may fluctuate significantly and period-to-period comparisons of our results may not be meaningful.

Our quarterly results, including the levels of our revenue, costs, operating expenses, and operating margins, may fluctuate significantly in the future, and period-to-period comparisons of our results may not be meaningful. Accordingly, the results of any one quarter should not be relied upon as an indication of our future performance. In addition, our quarterly results may not fully reflect the underlying performance of our business. Factors that may cause fluctuations in our quarterly results include, but are not limited to:

our ability to retain our existing customers, and to expand adoption and utilization of our core solutions and Value+ services by our existing customers;
our ability to attract new customers, the type of customers we are able to attract, the size and needs of their businesses, and the cost of acquiring these customers;
the mix of our core solutions and Value+ services sold during the period;
the timing and impact of security breaches, service outages or other performance problems with our technology infrastructure and software solutions;
variations in the timing of sales of our core solutions and Value+ services as a result of trends impacting the verticals in which we sell our software solutions;
the timing and market acceptance of new core functionality, Value+ services and other products introduced by us and our competitors;
changes in our pricing policies or those of our competitors;
the timing of our recognition of revenue;
the amount and timing of costs and operating expenses related to the maintenance and expansion of our business, infrastructure and operations;
the amount and timing of costs and operating expenses associated with assessing or entering adjacent markets or new verticals;
the amount and timing of costs and operating expenses related to the development or acquisition of businesses, services, technologies or intellectual property rights, and potential future charges for impairment of goodwill from these acquisitions;
the timing and costs associated with legal proceedings, enforcement actions, regulatory inquiries or similar matters;
changes in the competitive dynamics of our industry, including consolidation among competitors, strategic partners or customers;
loss of our executive officers or other key employees;
industry conditions and trends that are specific to the verticals in which we sell or intend to sell our software

solutions; and

general economic and market conditions.

Our focus on managing our business towards the achievement of long-term growth, rather than the realization of short-term financial or business metrics, may serve to exacerbate the fluctuations in our quarterly results, which could result in downward pressure on the market price of our Class A common stock. In addition, fluctuations in quarterly results may negatively impact the value of our Class A common stock, regardless of whether they impact or reflect the overall performance of our business. Furthermore, if our quarterly results fall below the expectations of investors or any securities analysts who follow our stock, or below any financial guidance we may provide, the price of our Class A common stock could decline substantially.

Our corporate culture has contributed to our success and, if we cannot continue to foster this culture as we grow, we could lose the passion, creativity, teamwork, focus and innovation fostered by our culture.

We believe that our culture has been and will continue to be a key contributor to our success. If we do not continue to develop our corporate culture or maintain our core values as we grow and evolve, we may be unable to foster the passion, creativity, teamwork, focus and innovation we believe we need to support our growth. Any failure to preserve our culture could negatively affect our ability to recruit and retain personnel and to effectively focus on and pursue our strategic objectives. Moreover, liquidity available to our employee security holders could lead to disparities of wealth among our employees, which could adversely impact relations among employees and our culture in general. As we grow and mature as a public company, we may find it difficult to maintain our corporate culture.

If we lose key members of our management team, our business may be harmed.

Our success and future growth depend, in part, upon the continued services of our executive officers and other key employees. From time to time, there may be changes in our executive officers or other key employees resulting from the hiring or departure of these personnel, which may disrupt our business. Our executive officers and other key employees are generally employed on an at-will basis, which means that these personnel could terminate their employment with us at any time. Additionally, the equity awards held by many of our executive officers and other key employees are close to fully vested, and these employees may not have sufficient financial incentive to stay with us. The loss of one or more of our executive officers or other key employees, or the failure by our executive team to work effectively with our employees and lead our company, could have an adverse effect on our business.

We depend on highly skilled personnel and, if we are unable to retain or hire additional qualified personnel, we may not be able to achieve our strategic objectives.

To execute our growth plan and achieve our strategic objectives, we must continue to attract and retain highly qualified and motivated personnel across our organization. In particular, in order to continue to enhance our software solutions, add new and innovative core functionality and Value+ services, as well as develop new products, it will be critical for us to increase the size of our research and product development organization, including hiring highly skilled software engineers. Competition for software engineers is intense within our industry and there continues to be upward pressure on the compensation paid to these professionals. In addition, in order for us to achieve broader market acceptance of our software solutions, grow our customer base, and pursue adjacent markets and new verticals, we will need to continue to increase the size of our sales and marketing and customer service organizations. Identifying and recruiting qualified personnel training them in the use of our software solutions and ensuring they are well-equipped to provide great service to our customers requires a significant investment of time and resources, and it can be particularly difficult to retain these individuals.

Many of the companies with which we compete for experienced personnel have greater name recognition and financial resources than we have. If we hire employees from competitors or other companies, their former employers may attempt to assert that we or these employees have breached their legal obligations, resulting in a diversion of our time and resources. In addition, our headquarters are located in Santa Barbara, California, which is not generally recognized as a prominent commercial center, and it is challenging to attract qualified professionals due to our geographic location. As a result, we may have even greater difficulty hiring and retaining skilled personnel than our competitors. If we are unable to attract and retain the personnel necessary to execute our growth plan, we may be unable to achieve our strategic objectives and our operating results may suffer.

In addition, prospective and existing employees often consider the value of the equity awards they receive in connection with their employment. If the perceived value of our equity awards declines, or if the price of our Class A common stock experiences significant volatility, this may adversely affect our ability to recruit and retain highly skilled employees. If we fail to attract new personnel or to retain and motivate our current personnel, we may not be able to achieve our strategic objectives.

Our growth depends in part on the success of our strategic relationships with third parties, and if we are unsuccessful in establishing or maintaining these relationships, our ability to compete in the market place or grow our revenue could be impaired.

In order to grow our business, we anticipate that we will continue to depend on our relationships with third parties, including our data center operators, electronic payment and tenant screening services providers, and other third parties that support delivery of our software solutions. Identifying partners, negotiating agreements and maintaining relationships requires significant time and resources. Our competitors may be more effective than us in cost-effectively building relationships with third parties that enhance their products and services, allow them to provide more competitive pricing, or offer other benefits to their customers. In addition, acquisitions of our partners by our competitors could result in a decrease in the number of current and potential strategic partners willing to establish or maintain relationships with us, and could increase the price at which products or services are available to us. If we are unsuccessful in establishing or maintaining our relationships with third parties, our ability to compete in the marketplace or to grow our revenue could be impaired, which could negatively impact our operating results. Even if we are successful, we cannot assure you that these relationships will result in increased customer adoption and usage of our software solutions or improved operating results. Furthermore, if our partners fail to perform as expected, we may be subjected to litigation, our reputation may be harmed, and our business and operating results could be adversely affected.

We depend on data centers and computing infrastructure operated by third parties and any disruption in these operations could adversely affect our operating results.

We currently serve our customers through a combination of our own servers located in third-party data center facilities, and servers and data centers operated by Amazon and other third parties. While we control and have access to our own servers and the other components of our network that are located in our third-party data centers, we do not control the operation of any of these third-party data center facilities. The owners of our data center facilities have no obligation to renew their agreements with us on commercially reasonable terms, or at all. If we are unable to renew these agreements on commercially reasonable terms, or if one of our third-party data center operators is acquired, we may be required to transfer our servers and other infrastructure to new data center facilities, and we may incur significant costs and possible service interruptions in connection with doing so. Further, our third-party data center providers could experience significant outages outside of our control that could adversely affect our business. Problems faced by our third-party data center operators, or with any of the service providers with whom we or they contract, could adversely affect the experience of our customers. Our third-party data center operators could decide to close their facilities without adequate notice. In addition, any financial difficulties, such as bankruptcy, faced by our third-party data center operators, or any of the service providers with whom we or they contract, may have negative effects on our business. Additionally, if our data centers are unable to keep up with our growing needs for capacity or any spikes in customer demand, this could have an adverse effect on our business. Any changes in third-party service levels at our data centers could result in loss of or damage to our customers' stored information and service interruptions, which could harm our reputation. These issues could also cause us to lose customers, harm our ability to attract new customers, and subject us to potential liability, any of which could adversely affect our operating results. Our systems are not yet fully redundant and, although the redundancies we do have in place will permit us to respond, at least to some degree, to service outages, our third-party data centers are vulnerable in the event of failure. We do not yet have adequate structure or systems in place to recover from a data center's severe impairment or total destruction, and recovery from the total destruction or severe impairment of any of our third-party data centers could be difficult or may not be possible at all.

Our platform must integrate with a variety of devices, operating systems and browsers that are developed by others, and if we are unable to ensure that our software solutions interoperate with such devices, operating systems and browsers, our software solutions may become less competitive, and our operating results may be harmed.

We offer our software solutions across a variety of operating systems and through the Internet. We are dependent on the interoperability of our platform with third-party devices, desktop and mobile operating systems, as well as web browsers that we do not control. Any changes in such devices, systems or web browsers that degrade the functionality of our software solutions or give preferential treatment to competitive services could adversely affect adoption and usage of our software solutions. In addition, in order to deliver high quality software solutions, we will need to continuously enhance and modify our functionality to keep pace with changes in Internet-related hardware, mobile operating systems such as iOS and Android, browsers and other software, communication, network and database technologies. We may not be successful in developing enhancements and modifications that operate effectively with these devices, operating systems, web browsers and other technologies or in bringing them to market in a timely manner. Furthermore, uncertainties regarding the timing or nature of new network platforms or technologies, and modifications to existing platforms or technologies, could increase our research and product development expenses. In the event that it is difficult for our customers to access and use our software solutions, our software solutions may become less competitive, and our operating results could be adversely affected.

If our property manager customers stop requiring residents to provide proof of legal liability to landlord insurance, if insurance premiums decline or if insureds experience greater than expected losses, our operating results could be harmed.

We generate revenue by offering legal liability to landlord insurance through a wholly owned subsidiary. Some of our property manager customers require residents to provide proof of legal liability to landlord insurance and offer to enroll residents in their legal liability to landlord insurance policy. If demand for rental housing declines, or if our property manager customers believe that it may decline, these customers may reduce their rental rates and stop requiring residents to provide proof of legal liability to landlord insurance in order to reduce the overall cost of renting and make their rental offerings more competitive. If our property manager customers stop requiring residents to provide proof of legal liability to landlord insurance or elect to enroll residents in insurance programs offered by competing providers, or if insurance premiums otherwise decline, our revenues from insurance services could be adversely affected.

Additionally, our legal liability to landlord insurance policies are underwritten by us, and we are required by our insurance partner to maintain a reserve to cover potential claims under the policies. While our policies have a limit of $100,000 per occurrence, there is no limit on the dollar amount of claims that could be made against us in any particular period or in the aggregate. In the event that claims by the insureds increase unexpectedly, our reserve may not be sufficient to cover our resulting liability under the policies. To the extent we are required to pay out amounts to insureds that are significantly higher than our current reserves, this could have a material adverse effect on our operating results.

Our insurance business is subject to state governmental regulation, which could limit the growth of our insurance business and impose additional costs on us.

Our insurance-related wholly owned subsidiaries and third-party service providers maintain licenses with a number of individual state departments of insurance. Collectively, we are subject to state governmental regulation and supervision in connection with the operation of our insurance business, which includes both our legal liability to landlord insurance and renters' insurance businesses. This state governmental supervision could limit the growth of our insurance business by increasing the costs of regulatory compliance, limiting or restricting the products or services we provide or the methods by which we provide them, and subjecting us to the possibility of regulatory actions or proceedings. Our continued ability to maintain these insurance licenses in the jurisdictions in which we are licensed depends on our compliance with the rules and regulations promulgated from time to time by the regulatory authorities in each of these jurisdictions. Furthermore, state insurance departments conduct periodic examinations, audits and investigations of the affairs of insurance companies and agencies, any of which could result in the expenditure of significant management time or financial resources.

In all jurisdictions, the applicable laws and regulations are subject to amendment and interpretation by regulatory authorities. Generally, such authorities are vested with relatively broad discretion to grant, renew and revoke licenses and approvals and to implement and interpret rules and regulations. Accordingly, we may be precluded or temporarily suspended from carrying on some or all of the activities of our insurance business or otherwise be fined or penalized in a given jurisdiction. No assurances can be given that our insurance business can continue to be conducted in any given jurisdiction as it has been conducted in the past or that we will be able to expand our insurance business in the future.

If we are unable to enter new verticals, or if our software solution for any new vertical fails to achieve market acceptance, our operating results could be adversely affected and we may be required to reconsider our growth strategy.

Our growth strategy is dependent, in part, on our ability to expand into new verticals, beyond the real estate and legal markets. However, we may be unable to identify new verticals that meet our criteria for selecting industries that cloud-based solutions are ideally suited to address. In addition, our market validation process may not support entry into selected verticals due to our perception of the overall market opportunity or of the willingness of market participants within those verticals to adopt our software solutions. Further, instead of pursuing new verticals, we may prefer for various reasons to pursue alternative growth strategies, such as entry into markets that are adjacent to the markets in which we currently participate within our existing verticals, or the development of additional products or services for our existing markets.

Even if we choose to enter new verticals, our market validation process does not guarantee our success. We may be unable to develop a software solution for a new vertical or, in the event that we enter a new vertical by way of a strategic acquisition, we may be unable to leverage the acquired software solution in time to take advantage of the identified market opportunity, and any delay in our time-to-market could expose us to additional competition or other factors that could impede our success. In addition, any software solution we develop or acquire for a new vertical may not provide the functionality required by potential customers and, as a result, may not achieve widespread market acceptance within the new vertical. To the extent we choose to enter new verticals, whether organically or via strategic acquisition, we may invest significant resources to develop and expand the functionality of our software solutions to meet the needs of customers in those verticals, which investments will occur in advance of our realization of revenue from them.

In addition, while we expedited our entry into the legal vertical through the acquisition of MyCase in 2012, our practice and case management solution is in an earlier stage of development than APM, our property management solution, and we are at an earlier stage in the process of expanding the core functionality and Value+ services associated with our legal software. We face significant competition in the legal market from both vertical software vendors and cloud-based solution providers that offer one or more point solutions. There can be no assurance that we will be able to achieve market acceptance for our legal software at or near the levels achieved by our property management software. The success of our vertical market strategy depends, in part, on our ability to continue to significantly increase the number and size of our law firm customers and the revenue derived from them, and our failure to achieve these objectives could have an adverse impact on our operating results.

All of our revenues are generated by sales to customers in our targeted verticals, and factors that adversely affect the applicable industry could also adversely affect us.

Currently, all of our sales are to customers in the real estate market and, to a lesser extent, the legal market. Demand for our software solutions could be affected by factors that are unique to and adversely affect our targeted verticals. In particular, the real estate and legal markets are highly regulated, subject to intense competition and impacted by changes in general economic and market conditions. For example, changes in applicable laws and regulations could significantly impact the software functionality demanded by our customers and require us to expend significant resources to ensure our software solutions continue to meet their evolving needs. In addition, other industry-specific factors, such as industry consolidation or the introduction of competing or disruptive technology, could lead to a significant reduction in the number of customers that use our software solutions within a particular vertical or the Value+ services demanded by these customers. Further, if the real estate or legal markets decline, our customers may decide not to renew their subscriptions or they may cease using our Value+ services in order to reduce costs to remain competitive. As a result, our ability to generate revenue from our real estate and legal market customers could be adversely affected by specific factors that affect the real estate or legal markets.

In addition to the foregoing risks associated with our targeted verticals themselves, there is an overarching risk stemming from potential widespread adoption of quickly evolving financial or other disruptive technology products that could significantly impact our targeted verticals, even if that technology is not specifically designed to apply directly to our targeted verticals. The adoption of these new technologies could significantly reduce the volume or demand of customers in our targeted verticals, thereby reducing our revenue, which could materially impact our business, financial condition, operating results and, ultimately, our stock price.

If we are unable to increase sales of our software solutions to larger customers while mitigating the risks associated with serving such customers, our business and operating results may suffer.

While we plan to continue to market and sell our software solutions to smaller companies or firms, our growth strategy is dependent, in part, upon increasing sales of our software solutions to larger customers within the real estate and legal markets. Sales to larger customers may involve risks that are not present, or are present to a lesser extent, in sales to smaller businesses. As we seek to increase our sales to larger customers, we may invest considerably greater amounts of time and financial resources in our sales and marketing efforts. In addition, we may face longer sales cycles and experience less predictability and greater competition in completing some of our sales than we have in selling our software solutions to smaller businesses. Although we generally have not configured our software solutions or negotiated our pricing for specific customers, which has historically resulted in reduced upfront selling costs, our ability to successfully sell our software solutions to larger customers may be dependent, in part, on our ability to develop functionality, or to implement pricing policies, that are unique to particular customers. It may also be dependent on our ability to attract and retain sales personnel with experience selling to larger organizations. Also, because security breaches or other performance problems with respect to larger customers may result in greater economic harm to these customers and more adverse publicity, there is increased financial and reputational risk associated with serving such customers. If we are unable to increase sales of our software solutions to larger customers, while mitigating the risks associated with serving such customers, our business and operating results may suffer.

If we are unable to deliver effective customer service, it could harm our relationships with our existing customers and adversely affect our ability to attract new customers.

Our business depends, in part, on our ability to satisfy our customers, both by providing software solutions that address their business needs, and by providing onboarding services and ongoing customer service, which contributes to retaining customers and increasing adoption and utilization of our Value+ services by our existing customers. Once our software solutions are deployed, our customers depend on our customer service organization to resolve technical issues relating to their use of our solutions. We may be unable to respond quickly to accommodate short-term increases in customer demand for support services or may otherwise encounter a customer issue that is difficult to resolve. If a customer is not satisfied with the quality or responsiveness of our customer service, we could incur additional costs to address the situation. As we do not separately charge our customers for support services, increased demand for our support services would increase costs without corresponding revenue, which could adversely affect our operating results. In addition, regardless of the quality or responsiveness of our customer service efforts, a customer that is not satisfied with an outcome may choose to terminate, or not to renew, their relationship with us.

Our sales process is highly dependent on the ease of use of our software solutions, our reputation and positive recommendations from our existing customers. Any failure to maintain high-quality or responsive customer service, or a market perception that we do not maintain high-quality or responsive customer service, could harm our reputation, cause us to lose customers and adversely impact our ability to sell our software solutions to prospective customers.

Our software solutions address functions within the heavily regulated real estate and legal markets, and our customers' failure to comply with applicable laws and regulations could subject us to litigation.

We sell our software solutions to customers within the real estate market and, to a lesser extent, the legal market. Our customers use our software solutions for business activities that are subject to a number of laws and regulations, including without limitation federal, state and local real property laws and legal ethics rules. Any failure by our customers to comply with laws and regulations applicable to their businesses could result in fines, penalties or claims for substantial damages against our customers. To the extent our customers believe that our software solutions or our customer service organization caused or contributed to such failures, our customers may make claims for damages against us, regardless of whether we are responsible for the failure. As a result, we may be subject to lawsuits that, even if unsuccessful, could divert our resources and our management's attention and adversely affect our business, and our insurance coverage may not be sufficient to cover such claims against us.

If we are unable to maintain and promote our brands, or to do so in a cost-effective manner, our ability to maintain and expand our customer base will be impaired, and our operating results could be adversely affected.

We believe that maintaining and promoting our brands is critical to achieving widespread awareness and acceptance of our software solutions, and maintaining and expanding our customer base. We also believe that the importance of brand recognition will increase as competition in our targeted verticals increases. If we do not continue to build awareness of our brands, we could be placed at a competitive disadvantage as compared to companies whose brands are, or become, more recognizable than ours. Maintaining and promoting our brands will depend, in part, on our ability to continue to provide new and innovative core functionality and Value+ services and best-in-class customer service, as well as the effectiveness of our sales and marketing efforts. If we fail to deliver products and functionality that address our customers' business needs, or if we fail to meet our customers' expectations for customer service, it could weaken our brands and harm our reputation. Additionally, the actions of third parties which are out of our control may affect our brands and reputation if customers do not have a positive experience using the services of our third-party partners that support our software solutions. Maintaining and enhancing our brands may require us to make substantial investments, and these investments may not result in commensurate increases in our revenue. If we fail to successfully maintain and promote our brands, or if we make investments that are not offset by increased revenue, our operating results could be adversely affected.

Failure to protect our intellectual property rights could impair our ability to protect our proprietary technology and our brands, which could harm our business.

We currently rely on patent, trademark, copyright and trade secret laws, trade secret protection and confidentiality or license agreements with our employees, customers, partners and others to protect our intellectual property rights. Our success and ability to compete depend, in part, on our ability to continue to protect our intellectual property, including our proprietary technology and our brands. If we are unable to protect our proprietary rights adequately, our competitors could use the intellectual property we have developed to enhance their own products and services, which could harm our business.

In order to monitor and protect our intellectual property rights, we may be required to expend significant resources. Litigation brought to protect and enforce our intellectual property rights could be costly, time-consuming and distracting to management, and could result in the impairment or loss of portions of our intellectual property or require us to pay costly royalties. Furthermore, our efforts to enforce our intellectual property rights may be met with defenses, counterclaims and countersuits attacking the validity and enforceability of our intellectual property rights. Accordingly, we may not be able to prevent third parties from infringing upon or misappropriating our intellectual property. Our failure to secure, protect and enforce our intellectual property rights could adversely affect our business and operating results.

We may be sued by third parties for alleged infringement of their proprietary rights, which could cause us to incur significant expenses and require us to pay substantial damages.

There is considerable patent, trademark, copyright, trade secret and other intellectual property development activity in our industry. Our success depends, in part, on our not infringing upon the intellectual property rights of others. Our competitors, as well as a number of other entities and individuals, may legally own or claim to own intellectual property relating to our technology or software solutions, including without limitation technology we develop and build internally and that which we acquire. From time to time, our competitors or other third parties may claim that we are infringing upon their intellectual property rights. However, we may be unaware of the intellectual property rights that others may claim cover some or all of our technology or software solutions. Any claims or litigation, regardless of merit, could cause us to incur significant expenses and, if successfully asserted against us, could require that we pay substantial damages, settlement costs or ongoing royalty payments, require that we comply with other unfavorable license and other terms, or prevent us from offering our software solutions in their current form. Even if the claims do not result in litigation or are resolved in our favor, these claims, and the time and resources necessary to resolve them, could divert the attention of our management and key personnel from our business operations and harm our operating results.

We have incurred and will continue to incur significant costs as a result of operating as a public company, and our management is required to devote substantial time to compliance with legal requirements and corporate governance initiatives.

As a public company, we have incurred and expect to continue to incur significant legal, accounting, compliance and other expenses. We are subject to the reporting requirements of the Exchange Act, the listing requirements of the NASDAQ Global Market, and other applicable securities rules and regulations. Compliance with these rules and regulations will continue to increase our legal and financial compliance costs, make some activities more difficult, time-consuming or costly, and increase demand on our systems and resources, particularly now that we are no longer an “emerging growth company” as defined in the JOBS Act.

For example, the Exchange Act requires that we publicly file annual, quarterly and current reports with respect to our business and operating results, and the Sarbanes-Oxley Act of 2002, or SOX, requires that we maintain effective disclosure controls and procedures and internal control over financial reporting. In order to meet these requirements, significant resources and management oversight will be required. As a result, management’s attention may be diverted from other business concerns, which could harm our business and operating results.

Because we are no longer an “emerging growth company,” we are subject to, among other things, the requirement under Section 404 of SOX to obtain an attestation report on internal control over financial reporting from our independent registered public accounting firm, enhanced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, and the requirement to hold a nonbinding advisory vote on executive compensation. Compliance with these additional requirements will only further increase our legal and financial compliance costs.

In addition, changing laws, regulations and standards relating to corporate governance and public disclosure requirements are creating uncertainty for public companies, increasing legal and financial compliance costs, and making some activities more difficult and time consuming. These laws, regulations and standards are subject to varying interpretations and their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies. This could result in continuing uncertainty regarding compliance matters and higher costs necessitated by ongoing revisions to governance practices. We intend to invest resources to comply with evolving laws, regulations and standards, and this investment may result in increased general and administrative expenses and a diversion of management’s time and attention from revenue-generating activities to compliance activities. If our efforts to comply with new laws, regulations and standards differ from the activities intended by regulatory or governing bodies, regulatory authorities may initiate legal proceedings against us, which could result in a material adverse impact on our business.

Compliance with the requirements of Section 404 of SOX will be costly and divert management resources, and we and our independent registered public accounting firm may be unable to conclude that our internal control over financial reporting is effective.

Pursuant to Section 404 of SOX, we are required to furnish an annual report by our management on our internal control over financial reporting. Because we are no longer an "emerging growth company," we are required to include with this annual report an attestation report on internal control over financial reporting issued by our independent registered public accounting firm. To achieve and maintain compliance with Section 404, we have been and will continue to be engaged in a process to document and evaluate our internal control over financial reporting, which will be costly and result in a diversion of management resources. In this regard, we will need to continue to dedicate internal resources, potentially engage outside consultants and adopt a detailed work plan to assess and document the adequacy of internal control over financial reporting, continue steps to improve control processes as appropriate, validate through testing that controls are functioning as documented, and implement a continuous reporting and improvement process for internal control over financial reporting.

Despite our efforts, there is a risk that in the future neither we nor our independent registered public accounting firm will be able to conclude that our internal control over financial reporting is effective as required by Section 404. If this were to occur, we could be subject to investigations or enforcement actions by the SEC or other regulatory authorities, stockholder lawsuits or other adverse actions, any of which could require us to incur defense costs, pay fines, settlements or judgments, or incur other costs or expenses. Furthermore, investor perceptions of our business may suffer if deficiencies are found, which could cause a decline in the market price of our Class A common stock.

Irrespective of our compliance with Section 404, any failure of our internal control over financial reporting could have a material adverse effect on our stated results of operations and harm our reputation. If we are unable to implement these requirements effectively, it could harm our business, and could result in an adverse opinion on our internal control over financial reporting from our independent registered public accounting firm.

Because we recognize revenue from subscriptions for our software solutions over the term of each subscription agreement, downturns or upturns in new business may not be immediately reflected in our operating results.

We recognize revenue from customers ratably over the term of each subscription agreement, which typically ranges from one month to one year. As a result, some of the revenue we report in each period is derived from the recognition of deferred revenue relating to subscription agreements entered into during previous periods. Consequently, a decline in new or renewed subscriptions in any one period may not be reflected in our revenue results for that period. However, any such decline 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 revenue from new customers must be recognized over the applicable subscription period. Accordingly, the effect of downturns or upturns in our sales, the market acceptance of our software solutions, and potential changes in our customer retention rates, may not be apparent in our operating results until future periods.

Because our invoicing is generally for periods less than one year, our revenue growth is heavily dependent on new subscription sales, consumption of our usage-based Value+ services and renewals of our subscription services in the current year.

Our growth is heavily dependent on subscription sales, adoption and consumption of our usage-based Value+ services and renewals of our subscription services in the current year. We offer our core solutions and Value+ subscription services to customers pursuant to subscription agreements with relatively short terms, typically ranging from one month to one year. We generally invoice our customers for subscription services in monthly, quarterly or annual installments, typically in advance of the subscription period. We do not currently intend to extend the typical terms of our subscription agreements with any regularity, or to invoice our customers less frequently, and we expect that we will continue to depend on current-year sales and renewals to drive our growth.

Our software solutions contain both third-party and open source software, which may pose risks to our proprietary source code and/or introduce security vulnerabilities, and could have a negative impact on our business and operating results.

We use open source software in our software solutions and expect to continue to do so in the future. The terms of many open source licenses to which we are subject have not been interpreted by United States or foreign courts, and there is a risk that open source licenses could be construed in a manner that imposes unanticipated conditions, restrictions or costs on our ability to provide or distribute our software solutions. Additionally, we may from time to time face claims from third parties alleging ownership of, or demanding release of, the open source software or of derivative works that we developed using such software, which could include our proprietary source code, or otherwise seeking to enforce the terms of the applicable open source license. These claims could result in litigation, which could be costly for us to defend, and could require us to make our source code freely available, purchase a costly license or cease offering the implicated core functionality and Value+ services unless and until we can re-engineer them to avoid infringement. This re-engineering process could require significant additional research and product development resources, and we may not be able to complete it successfully or in a timely manner. In addition to risks related to license requirements, usage of certain open source software can lead to greater risks than use of third-party commercial software, as open source licensors generally do not provide warranties or controls on the origin of software. These risks could be difficult to eliminate or manage, and could have a negative impact on our business and operating results.

We also use third-party commercial software in our software solutions and expect to continue to do so in the future. Third-party commercial software is developed outside of our direct control, and may introduce security vulnerabilities that may be difficult to anticipate or mitigate. Further, there is no guarantee that third-party software developers will continue active work on the third-party software that we use. Should development of in-use third-party software cease, significant engineering effort may be required to create an in-house solution. These risks could also be difficult to eliminate or manage, and could have a negative impact on our business and operating results.

Changes in laws and regulations related to the Internet or changes in the Internet infrastructure itself may diminish the demand for our software solutions, and could have a negative impact on our business.

The future success of our business depends upon the continued use of the Internet as a primary medium for commerce, communication and business services. Federal, state or foreign government bodies or agencies have in the past adopted, and may in the future adopt, laws or regulations affecting the use of the Internet as a commercial medium. Changes in these laws or regulations, including laws impacting net neutrality, could decrease the demand for our software solutions and services and/or increase our cost of doing business, or require us to modify our software solutions to comply with or otherwise address any new or changed laws or regulations.

In addition, government agencies or private organizations may begin to impose taxes, fees or other charges for accessing the Internet, or for the commerce conducted via the Internet. These laws or charges could limit the growth of Internet-related commerce or communications generally, result in reductions in the demand for Internet-based business services such as ours, and cause us to incur significant expenses.

The use of the Internet in general could be adversely affected by delays in the development or adoption of new standards and protocols to handle increased demands of Internet activity, accessibility, reliability, security, cost, ease of use and quality of service. In addition, the use of the Internet as a medium for commerce, communication and business services may have been, and may continue to be, adversely affected by concerns regarding network outages, software errors, viruses, security breaches, fraud or other malicious activity. If the use of the Internet is adversely affected by these issues, demand for our software solutions could decrease.

Financing agreements that we are party to or may become party to may contain operating and financial covenants that restrict our business and financing activities. Failure to comply with these covenants, or other restrictions, could result in default under these agreements.

Our existing credit agreement with Wells Fargo as administrative agent, and the lenders that are parties thereto, which we refer to as the Second Amendment of our Original Credit Agreement, contains certain operating and financial restrictions and covenants, including limitations on dividends, dispositions, mergers or consolidations, incurrence of indebtedness and liens, and other corporate activities. These restrictions and covenants, as well as those contained in any future financing agreements that we may enter into, may restrict our ability to finance our operations, and to engage in, expand or otherwise pursue our business activities and strategic objectives. Our ability to comply with these covenants may be affected by events beyond our control, and breaches of these covenants could result in a default under the Second Amendment of our Original Credit Agreement and any future financing agreements that we may enter into. If not waived, defaults could cause any outstanding indebtedness under the Second Amendment of our Original Credit Agreement and any future financing agreements that we may enter into to become immediately due and payable.

We may require additional capital to support our operations or the growth of our business, and we cannot be certain that this capital will be available on favorable terms when required, or at all.

We may need additional capital to grow our business and meet our strategic objectives. Our ability to obtain additional capital, if and when required, will depend on numerous factors, including investor and lender demand, our historical and forecasted financial and operating performance, our market position, and the overall condition of the capital markets. We cannot guarantee that additional financing will be available to us on favorable terms when required, or at all. In addition, if we raise additional funds through the issuance of equity securities, those securities may have powers, preferences or rights senior to the rights of our Class A common stock, and our existing stockholders may experience immediate dilution. If we raise additional funds through the issuance of debt securities, we may incur interest expense or other costs to service the indebtedness, we may be required to encumber certain assets, and we may become subject to restrictions on our ability to conduct business, any of which could negatively impact our operating results. Furthermore, if we are unable to obtain adequate financing or financing on terms satisfactory to us when we require it, our ability to continue to support the growth of our business and the achievement of our strategic objectives could be significantly impaired and our operating results may be harmed.

Our ability to use our net operating loss carryforwards and certain other tax attributes may be limited.

At December 31, 2018, we had federal net operating loss carryforwards of approximately $57.7 million and state net operating loss carryforwards of approximately $41.2 million, which begin to expire in 2031 and 2023, respectively. At December 31, 2018, we also had federal and state research and development credit carryforwards of $7.4 million and

$7.5 million, respectively. The federal credits carryforwards will begin to expire in 2031, while the majority of state credit carryforwards apply indefinitely. Under Section 382 of the Internal Revenue Code of 1986, as amended, if a corporation undergoes an "ownership change," the corporation's ability to use its pre-change net operating loss carryforwards and other pre-change tax attributes, such as research tax credits, to offset its post-change income and taxes may be limited. In general, an "ownership change" occurs if there is a cumulative change in our ownership by "5% shareholders" that exceeds 50% over a rolling three-year period. Similar rules may apply under state tax laws. It is possible that our existing net operating loss and/or credit carryforwards may be subject to limitations

arising from previous ownership changes, and future issuances of our stock could cause an ownership change. Furthermore, our ability to utilize net operating loss and/or credit carryforwards of companies that we have acquired or may acquire in the future may be subject to limitations. Any such limitations on our ability to use our net operating loss carryforwards and other tax assets could adversely impact our business, financial condition and operating results.
Tax laws or regulations could be enacted or changed and existing tax laws or regulations could be applied to us or to our customers in a manner that could increase the costs of our software solutions and adversely impact our operating results.

The application of federal, state, local and foreign tax laws to services provided electronically is continuously evolving. New income, sales, use or other tax laws, statutes, rules, regulations or ordinances could be enacted or amended at any time, possibly with retroactive effect, and could be applied solely or disproportionately to services provided over the Internet. These enactments or amendments could adversely affect our sales activity due to the inherent cost increase the taxes would represent and could ultimately result in a negative impact on our operating results.

In addition, existing tax laws, statutes, rules, regulations or ordinances could be interpreted, modified or applied adversely to us, possibly with retroactive effect, which could require us or our customers to pay additional tax amounts, as well as require us or our customers to pay fines or penalties, as well as interest on past amounts. If we are unsuccessful in collecting such taxes due from our customers, we could be held liable for such costs, thereby adversely impacting our operating results.
We may be subject to additional tax liabilities.

We are subject to income, sales, use, value added and other taxes in the United States and other jurisdictions in which we conduct business, and such laws and rates vary by jurisdiction. Certain jurisdictions in which we do not collect sales, use, value added or other taxes on our sales may assert that such taxes are applicable, which could result in tax assessments, penalties and interest, and we may be required to pay or collect such taxes in the future. If we receive an adverse determination as a result of an audit or related litigation, or we unilaterally determine that we have misinterpreted provisions of the tax regulations to which we are subject, there could be a material effect on our tax provision, net income or cash flows in the period or periods for which that determination is made.
Because our long-term growth strategy involves expansion of our sales to customers outside the United States, our business will be susceptible to the risks associated with international operations.
A component of our growth strategy involves the expansion of our international operations and worldwide customer base. To date, we have realized an immaterial amount of revenue from customers outside the United States. Operating in international markets will require significant resources and management attention and will subject us to regulatory, economic, geographic and political risks that are different from those in the United States. Because of our limited experience with international operations and significant differences between the United States and international markets, our international expansion efforts may not be successful in creating demand for our software solutions outside of the United States or in effectively selling our software solutions in any international markets we may enter. If we invest substantial time and resources to expand our international operations and are unable to do so successfully, our business and operating results could suffer.
Our reported financial results may be adversely affected by changes in accounting principles generally accepted in the United States.

Generally accepted accounting principles in the United States, are subject to interpretation by the Financial Accounting Standards Board, the SEC and various bodies formed to promulgate and interpret appropriate accounting principles. A change in these principles or interpretations could have a significant impact on our reported financial results, and could affect the reporting of transactions completed before the announcement of a change.

Risks Related to Our Class A Common Stock

The market price of our Class A common stock may be volatile or may decline regardless of our operating performance, which could result in substantial losses for our stockholders.

The market price of our Class A common stock has been, and is likely to continue to be, highly volatile, and fluctuations in the price of our Class A common stock could cause you to lose all or part of your investment. For example, during 2018, the share price of our Class A common stock on the NASDAQ Global Market fluctuated between $37.56 and $91.49.

There are numerous factors that could cause fluctuations in the market price of our Class A common stock, including:
- volatility in the trading volume of our Class A common stock;
- price and volume fluctuations in the overall stock market;
- volatility in the market prices and trading volumes of securities issued by software companies;
- changes in operating performance and stock market valuations of software companies generally, and of companies that sell cloud-based solutions within our targeted verticals in particular;
- sales of shares of our Class A common stock by us or our stockholders, or perceptions that such sales may occur;
- any future announcements to repurchase our Class A common stock, and any actual share repurchases that we may undertake from time to time;
- failure of securities analysts to maintain coverage of us, changes in financial estimates by securities analysts who follow us, or our failure to meet these estimates or the expectations of investors;
- the guidance we may provide to the public, any changes in that guidance, and our performance relative to that guidance;
- announcements by us or our competitors of new products or services;
- public reaction to our press releases, filings with the SEC and other public announcements;
- rumors and market speculation involving us or other software companies;
- actual or anticipated changes in our operating results or fluctuations in our operating results;
- actual or anticipated developments in our business, our competitors' businesses or the competitive landscape generally;
- legal proceedings, enforcement actions or regulatory inquiries relating to us or our competitors;
- developments or disputes concerning our intellectual property or other proprietary rights;
- announced or completed acquisitions of businesses or technologies by us or our competitors;
- new laws or regulations or new interpretations of existing laws or regulations applicable to our business or the industries in which we operate;
- changes in accounting standards, policies, guidelines, interpretations or principles;
- changes in our management; and
- general economic conditions and trends, including slow or negative growth of our markets.

In addition, in the past, following periods of volatility in the overall market and the market price of a particular company's securities, securities class action litigation has often been instituted against these companies. If instituted against us, any such litigation, regardless of its merit or final outcome, could result in substantial costs and a diversion of our management's attention, thereby adversely affecting our operating results and, potentially, the price of our Class A common stock.

The dual class structure of our common stock has the effect of concentrating voting control with a limited number of stockholders, including our executive officers, directors and principal stockholders, which will limit your ability to influence corporate matters.

Our Class B common stock has 10 votes per share, and our Class A common stock has one vote per share. At December 31, 2018, the holders of the outstanding shares of our Class B common stock, including our executive officers, directors, and principal stockholders, collectively hold approximately 92% of the combined voting power of our outstanding capital stock. Because of the 10-to-1 voting ratio between our Class B common stock and Class A common stock, the holders of our Class B common stock collectively control a majority of the combined voting power of our outstanding capital stock and therefore are able to exercise significant influence and control over the establishment and implementation of our future business plans and strategic objectives, as well as to control all matters submitted to our stockholders for approval. These persons may manage our business in ways with which you disagree and which may be adverse to your interests. This concentrated control may also have the effect of delaying, deterring or preventing a change-in-control transaction, depriving our stockholders of an opportunity to receive a premium for their capital stock or negatively affecting the market price of our Class A common stock.

Transfers by holders of our Class B common stock will generally result in those shares converting to Class A common stock, subject to limited exceptions. The conversion of our Class B common stock to Class A common stock will have the effect, over time, of increasing the relative voting power of the holders of our Class B common stock who retain their shares over the long term.

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

S&P Dow Jones, a provider of widely followed stock indices, has announced that companies with multiple classes of stock, will not be eligible for inclusion in certain of their indices. As a result, our Class A common stock will not be eligible for those stock indices. Additionally, FTSE Russell, another provider of widely followed stock indices, requires new constituents of its indices to have at least five percent of their voting rights in the hands of public stockholders. At December 31, 2018, the holders of the outstanding shares of our Class B common stock, including our executive officers, directors, and principal stockholders, collectively hold approximately 92% of the combined voting power of our outstanding capital stock. Many investment funds are precluded from investing in companies that are not included in such indices, and these funds would be unable to purchase our Class A common stock. We cannot assure you that other stock indices will not take a similar approach in the future. Exclusion from indices could make our Class A common stock less attractive to investors and, as a result, the market price of our Class A common stock could be adversely affected.

In addition, several shareholder advisory firms have announced their opposition to the use of multiple class structures. As a result, the dual class structure of our common stock may cause shareholder advisory firms to publish negative commentary about our corporate governance practices or otherwise seek to cause us to change our capital structure. Any actions or publications by shareholder advisory firms critical of our corporate governance practices or capital structure could also adversely affect the value of our Class A common stock.

Share repurchases could increase the volatility of the trading price of our common stock and diminish our cash reserves, and we cannot guarantee that our share repurchase program will enhance long-term stockholder value.

In October 2018, our Board of Directors adopted a $30.0 million Share Repurchase Program relating to our outstanding shares of our Class A common stock. In February 2019, our Board of Directors adopted a $100.0 million Share Repurchase Program relating to our outstanding shares of our Class A common stock, which is inclusive of, and not in addition to, the remaining availability under the October 2018 authorization. Although our Board of Directors has authorized the Repurchase Program, it does not obligate us to repurchase any specific dollar amount or number of shares, there is no expiration date for the Repurchase Program, and the Repurchase Program may be modified, suspended or terminated at any time and for any reason. The timing and actual number of shares repurchased under the Repurchase Program will depend on a variety of factors, including the acquisition price of the shares, our liquidity position, general market and economic conditions, legal and regulatory requirements and other considerations. Our ability to repurchase shares may also be limited by restrictive covenants in our existing credit agreement or in future borrowing arrangements we may enter into from time to time.

Repurchases of our shares could increase the volatility of the trading price of our shares, which could have a negative impact on the trading price of our shares. Similarly, the future announcement of the termination or suspension of the Repurchase Program, or our decision not to utilize the full authorized repurchase amount under the Repurchase Program, could result in a decrease in the trading price of our shares. In addition, the Repurchase Program could have the impact of diminishing our cash reserves, which may impact our ability to finance our growth, complete acquisitions and execute our strategic plan. There can be no assurance that any share repurchases we do elect to make will enhance stockholder value because the market price of our common stock may decline below the levels at which we repurchased our shares. Although our share repurchase program is intended to enhance long-term stockholder value, we cannot guarantee that it will do so and short-term stock price fluctuations could reduce the effectiveness of the Repurchase Program.

Anti-takeover provisions contained in our amended and restated certificate of incorporation and amended and restated bylaws, as well as provisions of Delaware law, could impair a takeover attempt.

Our amended and restated certificate of incorporation and our amended and restated bylaws contain provisions that could have the effect of rendering more difficult hostile takeovers, change-in-control transactions or changes in our board of directors or management. Among other things, these provisions:

- authorize the issuance of preferred stock with powers, preferences and rights that may be senior to our common stock, which can be created and issued by our board of directors without prior stockholder approval;
- provide for the adoption of a staggered board of directors whereby our board is divided into three classes, each of which has a different three-year term;
- provide that the number of directors will be fixed by our board of directors;
- prohibit our stockholders from filling vacancies on our board of directors;
- provide for the removal of a director only for cause and then only by the affirmative vote of the holders of a majority of the combined voting power of our outstanding capital stock;
- prohibit stockholders from calling special stockholder meetings;
- prohibit stockholders from acting by written consent without holding a meeting of stockholders;
- require the vote of at least two-thirds of the combined voting power of our outstanding capital stock to approve amendments to our certificate of incorporation or bylaws;
- require advance written notice of stockholder proposals and director nominations;
- provide for a dual-class common stock structure, as discussed above; and
- require the approval of the holders of at least a majority of the outstanding shares of our Class B common stock, voting as a separate class, prior to consummating a change-in-control transaction.

As a Delaware corporation, we are also subject to provisions of Delaware law, including Section 203 of the Delaware General Corporation Law, which may delay, deter or prevent a change-in-control transaction. Section 203 imposes certain restrictions on mergers, business combinations and other transactions between us and holders of 15% or more of our common stock.

Any provision of Delaware law, our amended and restated certificate of incorporation, or our amended and restated bylaws, that has the effect of rendering more difficult, delaying, deterring or preventing a change-in-control transaction could limit the opportunity for our stockholders to receive a premium for their shares of our capital stock, and could also affect the price that some investors are willing to pay for our Class A common stock.

Future sales of shares of our Class A common stock, or the perception that these sales could occur, could depress the market price of our Class A common stock.

Sales of a substantial number of shares of our Class A common stock in the public market, or the perception that these sales might occur, could cause the market price of our Class A common stock to decline or make it more difficult for you to sell your Class A common stock at a time and price that you deem appropriate, and could impair our ability to raise capital through the sale of additional equity securities. We are unable to predict the effect that sales, or the perception that our shares may be available for sale, will have on the prevailing market price of our Class A common stock.

At December 31, 2018, we had an aggregate of 1.5 million options outstanding that, if fully exercised, would result in the issuance of additional shares of Class A common stock or Class B common stock, as applicable. Our Class B common stock converts into Class A common stock on a one-for-one basis. In addition, at December 31, 2018, we had 0.7 million restricted stock units, or RSUs, outstanding which, if fully vested and settled in shares, would result in the issuance of additional shares of Class A common stock. All of the shares of Class A common stock issuable upon the exercise of options (or upon conversion of shares of Class B common stock issued upon the exercise of options), or upon the vesting and settlement of RSUs, have been registered for public resale under the Securities Act. Accordingly, these shares will be able to be freely sold in the public market upon issuance.

Certain holders of our Class A common stock and Class B common stock have rights, subject to certain conditions, to require us to file registration statements for the public resale of such shares (in the case of Class B common stock, the Class A common stock issuable upon conversion of such shares) or to include such shares in registration statements that we may file for us or other stockholders. Any sales of securities by these stockholders could have a material adverse effect on the market price of our Class A common stock.

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

The trading market for our Class A common stock is influenced, to some extent, by the research and reports that securities or industry analysts publish about us, our business, our market or our competitors. If any of the analysts who cover us adversely change their recommendations regarding our Class A common stock or provide more favorable recommendations about our competitors, the market price of our Class A common stock may decline. If any of the analysts who cover us were to cease coverage of us or fail to publish reports on us regularly, visibility of our company in the financial markets could decrease, which in turn could cause the market price or trading volume of our Class A common stock to decline.

We do not expect to declare any dividends in the foreseeable future.

We have never declared or paid any cash dividends on our existing common stock. We do not anticipate declaring or paying any cash dividends to holders of our Class A common stock in the foreseeable future and intend to retain all future earnings for use in the growth of our business. In addition, the terms of our Credit Agreement restrict our ability to pay dividends. Consequently, investors may need to rely on sales of our Class A common stock after price appreciation, which may never occur, as the only way to realize any future gains on their investment. Investors should not purchase our Class A common stock with the expectation of receiving cash dividends.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

Our corporate headquarters is located in three adjacent office buildings in Santa Barbara, California. The lease on the first building covers approximately 43,300 square feet and expires in December 2021. The lease on the second building covers approximately 35,900 square feet and expires in April 2023. The term of those leases can be extended for two additional three-year terms at our election. The lease on the third building covers approximately 86,000 square feet and expires in September 2028. The term of this lease may be extended for two additional five year terms at our election.

We also lease space in San Diego, California, Plano, Texas, Richardson, Texas and Boston, Massachusetts under leases that expire at various times between 2020 and 2022 with various term extensions available.

We intend to procure additional space as we add employees and expand our operations geographically. We believe our current facilities are adequate for our current needs and that, should it be needed, suitable additional or alternative space will be available to us to accommodate any such expansion of our operations.

We lease all of our facilities and do not own any real property.

ITEM 3. LEGAL PROCEEDINGS

In September 2017, a putative federal class action styled Leo v. AppFolio, Inc. (Civ. No. 3:17-cv-05771; W.D. Wash.) was filed naming us as a defendant and alleging certain violations of the FCRA in connection with our tenant screening Value+ service (the "Leo Litigation"). The parties reached an agreement to settle the Leo Litigation in the fourth quarter of 2018. The court has approved the proposed settlement on a preliminary basis, and recently directed the parties to provide notice to the classes. We do not, and will not, admit any liability whatsoever in connection with the claims and allegations in the Leo Litigation. The final settlement will be subject to court approval. As a result of the pending settlement of the Leo Litigation, we recorded an expense, net of expected insurance proceeds, of $1.1

million during the twelve months ended December 31, 2018, within cost of revenue. Our insurer has agreed to pay its portion of the settlement proceeds directly to the settlement fund following final court approval.

In addition, from time to time, we are involved in various legal proceedings arising from or related to claims incident to the normal course of our business activities. Although the results of such legal proceedings and claims cannot be predicted with certainty, we believe we are not currently a party to any legal proceeding(s) which, if determined adversely to us, would, individually or taken together, have a material adverse effect on our business, operating results, financial condition or cash flows. However, regardless of the merit of any claims raised or the ultimate outcome, legal proceedings may generally have an adverse impact on us as a result of defense and settlement costs, diversion of management resources and other factors.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

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

Market for our Common Stock

Our Class A common stock began trading publicly on the NASDAQ Global Market under the symbol "APPF" on June 26, 2015. Prior to that date, there was no public trading market for our Class A common stock.

Our Class B common stock is not listed or traded on any stock exchange.

Holders of Record

At February 15, 2019, there were 27 holders of record of our Class A common stock and 102 holders of record of our Class B common stock. Because many of our shares of Class A common stock are held by brokers and other institutions on behalf of stockholders, we are unable to estimate the total number of stockholders represented by these record holders.

Dividend Policy

We have never declared or paid any cash dividends on our capital stock. We have no plans to declare or pay any dividends on our capital stock in the foreseeable future and intend to retain all future earnings, if any, generated by our operations for use in the growth of our business. Any future decision to declare or pay dividends will be made by our board of directors in its sole discretion and will depend upon our financial condition, results of operations, capital requirements, general economic conditions and other factors that our board of directors deems relevant at the time of its decision. Investors should not purchase our Class A common stock with the expectation of receiving cash dividends.

Stock Repurchase Program

In October 2018, our Board of Directors ("Board") authorized a $30.0 million Share Repurchase Program of its outstanding Class A Common Stock. Share repurchases made under the Program were made through open market transactions as follows (in millions, except price per share and share amounts):

	Total Number of Shares Repurchased[1] (in thousands)	Average Price Paid per Share[2]	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs[1]	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs (in millions)
October 31, 2018	—	—	—	30,000
November 1, 2018 to November 30, 2018	343,675	$ 58.10	343,675	10,100
December 1, 2018 to December 31, 2018	27,076	$ 59.87	27,076	8,445

(1)These repurchased shares of common stock were recorded as treasury stock and were accounted for under the cost method. None of the repurchased shares of common stock have been retired.
(2)Excludes broker commissions.

On February 20, 2019 the Board of Directors authorized a $100.0 million Share Repurchase Program of its outstanding Class A Common Stock. Under the Program, share repurchases may be made from time to time as directed by a Committee consisting of three Directors, in open market purchases or privately negotiated transactions at a repurchase price that the members of the Committee unanimously believe is below intrinsic value conservatively determined. This Program does not obligate the Company to repurchase any specific dollar amount or number of shares, there is no expiration date to the Program, and it may be modified, suspended or terminated at any time and for any reason.
Pursuant to the $30.0 million Share Repurchase Program announced in October 2018, the Company has repurchased 370,751 shares for an aggregate purchase price of $21.6 million. The balance of $8.4 million remaining under the October authorization is included within the $100.0 million Share Repurchase Program authorized on February 20, 2019.

Stock Performance Graph

The following performance graph compares the cumulative total return on our Class A common stock with that of the S&P 500 Index and the NASDAQ Computer Index. This chart assumes $100 was invested in our Class A common stock at the close of market on June 26, 2015, which was our initial trading day, and in the S&P 500 Index and the NASDAQ Computer Index, and assumes the reinvestment of any dividends.

The comparisons in the graph below are based upon historical data and are not indicative of, nor intended to forecast, future performance of our common stock.

This performance graph shall not be deemed “filed” for purposes of Section 18 of the Exchange Act or incorporated by reference into any of our other filings under the Securities Act or the Exchange Act, except as shall be expressly set forth by specific reference in such filing.

Unregistered Sales of Equity Securities
None.

Use of Proceeds
None.

ITEM 6. SELECTED FINANCIAL DATA

The following tables present our historical selected consolidated financial data for the periods indicated. We have derived the selected Consolidated Statements of Operations data for the fiscal years ended December 31, 2018, 2017 and 2016 and the selected Consolidated Balance Sheet data at December 31, 2018 and 2017 from our audited Consolidated Financial Statements included elsewhere in this Annual Report. We have derived the selected Consolidated Statements of Operations data for the fiscal years ended December 31, 2015 and 2014 and the selected Consolidated Balance Sheet data at December 31, 2016, 2015 and 2014 from our audited Consolidated Financial Statements, which are not included in this Annual Report. Our historical results are not necessarily indicative of the results we expect in the future.

The following historical selected consolidated financial data should be read in conjunction with, and are qualified in their entirety by reference to, the section of this Annual Report entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our Consolidated Financial Statements and the related notes included elsewhere in this Annual Report.

	Year Ended December 31,				
	2018 [(1)]	2017	2016	2015	2014
	(in thousands, except per share data)				
Consolidated Statements of Operations Data:					
Revenue	$190,071	$143,803	$105,586	$74,977	$47,671
Costs and operating expenses:					
Cost of revenue (exclusive of depreciation and amortization)[(2)]	73,549	55,283	44,630	33,903	22,555
Sales and marketing[(2)]	33,288	28,709	28,827	26,076	16,876
Research and product development[(2)]	24,111	16,578	12,638	9,554	6,505
General and administrative[(2)]	24,891	21,199	17,979	14,343	6,489
Depreciation and amortization	14,576	12,699	9,935	6,104	3,805
Total costs and operating expenses	170,415	134,468	114,009	89,980	56,230
Income (loss) from operations	19,656	9,335	(8,423)	(15,003)	(8,559)
Other (expense) income, net	(56)	(96)	(37)	5	(121)
Interest income (expense), net	787	535	246	(595)	59
Income (loss) before provision for income taxes	20,387	9,774	(8,214)	(15,593)	(8,621)
Provision for income taxes	420	58	67	75	—
Net income (loss)	$19,967	$9,716	$(8,281)	$(15,668)	$(8,621)
Net income (loss) per common share:					
Basic	0.59	0.29	(0.25)	(0.73)	(0.98)
Diluted	0.56	0.28	(0.25)	(0.73)	(0.98)
Weighted average common shares outstanding:					
Basic	34,128	33,849	33,561	21,336	8,757
Diluted	35,562	35,151	33,561	21,336	8,757

(1) We acquired WegoWise on August 31, 2018. The results of WegoWise have been included in our results of operations from date of acquisition. Refer to Note 3 - Acquisition of WegoWise of our Consolidated Financial Statements included elsewhere in this Annual Report for additional information regarding this transaction.

(2) The following table presents stock-based compensation expense included in each respective expense category:

	Year Ended December 31,				
	2018	2017	2016	2015	2014
	(in thousands)				
Stock-based compensation expense included in costs and operating expenses:					
Cost of revenue (exclusive of depreciation and amortization)	$1,103	$725	$471	$124	$68
Sales and marketing	1,034	723	442	115	48
Research and product development	1,079	657	382	41	19
General and administrative	3,121	3,991	3,006	727	757
Total stock-based compensation expense	$6,337	$6,096	$4,301	$1,007	$892

	At December 31,				
	2018	2017	2016	2015	2014
	(in thousands)				
Consolidated Balance Sheet Data:					
Cash and cash equivalents and investment securities[1]	$101,963	$68,310	$52,860	$56,715	$5,412
Capitalized software, net	20,485	17,609	15,539	10,021	5,509
Total assets	175,741	110,248	92,583	90,481	25,434
Deferred revenue	3,414	7,080	7,638	4,953	3,780
Current and long-term debt, net	49,815	—	—	—	—
Convertible preferred stock	—	—	—	—	63,166
Total stockholders' equity (deficit)	91,846	85,079	69,682	72,697	(51,467)

[1] Amounts for the years ended December 31, 2018, 2017, 2016, and 2015 include cash and cash equivalents, investment securities-current and investment securities-noncurrent. We held no investment securities during the year ended December 31, 2014.

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

The following discussion and analysis of our financial condition and results of operations should be read together with our Consolidated Financial Statements and the related notes included elsewhere in this Annual Report. This discussion and analysis contains forward-looking statements that are based on our current expectations and reflect our plans, estimates and anticipated future financial performance. See the section of this Annual Report entitled "Cautionary Note Regarding Forward-Looking Statements" for additional information. These statements involve numerous risks and uncertainties. Our actual results may differ materially from those expressed or implied by these forward-looking statements as a result of many factors, including those set forth in the section of this Annual Report entitled "Risk Factors."

Overview

Our mission is to revolutionize vertical industry businesses by providing great software and services. To that end, today we offer industry-specific, cloud-based business software solutions, services and data analytics to the real estate market, which comprises a significant majority of our revenue, and, to a lesser extent, to the legal market.

We were formed in 2006 with a vision to revolutionize the way that small and medium-sized businesses, or SMBs, grow and compete by enabling their digital transformation.

In 2008, we entered the real estate market with our first product, AppFolio Property Manager, a property management solution designed to address the unique operational and business requirements of property management companies. In 2012, we entered the legal market with the acquisition of MyCase, a legal practice and case management solution primarily for small law firms. Recognizing that our customers and their stakeholders would benefit from additional business-critical services, we launched a series of Value+ services beginning in 2009. Through our market validation approach and ongoing investment in product development, we continuously update our software solutions with new and innovative core functionality and Value+ services, as well as assess opportunities in adjacent markets and new verticals.

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Our real estate software solutions provide our property manager customers with a system of record to automate essential business processes, a system of engagement to enhance business interactions between our customers and their clients and other stakeholders, and a system of intelligence to leverage data to predict and optimize business workflows in order to enable superior customer experiences and increase efficiency across our customers' businesses.
We also provide software solutions to the legal market that enable law firms to administer their practice and manage their caseloads more efficiently by centralizing case details and communications in a single system.
We have focused on growing our revenue by increasing the size of our customer base in the markets we serve, increasing the number of units under management, introducing new or expanded Value+ services, retaining customers, and increasing the adoption and utilization of our Value+ services by new and existing customers.
To date, we have experienced rapid revenue growth due to our investments in research and product development, sales and marketing, customer service and support, and infrastructure. We intend to continue to invest in growth across our organization as we expand in our current markets, adjacent markets and into new verticals. These investments to grow our business will continue to increase our costs and operating expenses on an absolute basis. Many of these investments will occur in advance of our realization of revenue or any other benefit, which will make it difficult to determine if we are allocating our resources efficiently. We expect our operating margins will improve over the long term, but this trend may be interrupted from time to time as a result of accelerated investment opportunities occurring in advance of realization of revenue.
We have managed, and plan to continue to manage, our business towards the achievement of long-term growth that we believe will positively impact long-term stockholder value, and not towards the realization of short-term financial or business metrics, or short-term stockholder value. Accordingly, if opportunities arise that might cause us to sacrifice our performance with respect to short-term financial or business metrics, but that we believe are in the best interests of our stockholders in the long term, we will take those opportunities.
Our property management software solution for the real estate market provides property managers of various sizes (including third-party managers, owner-operators and real estate investors) innovative tools and services designed to streamline their property management businesses. Our software solution serves a variety of property types, including single- and multi-family residential, commercial, community association, and student housing, and is continuously evolving to help our customers more effectively market, manage and grow their businesses. Core functionality addresses key operational issues, including accounting and business analytics and management, marketing and leasing functionality, and communications with key stakeholders, among others. Further, we recently released AppFolio Property Manager PLUS, a new tier of our property management software solution with an expanded suite of capabilities designed to enable our customers to obtain insights and make strategic decisions to drive performance of their businesses at scale.
Today our real estate property manager customers directly and indirectly account for more than 90% of our annual revenue. We define our real estate property manager customer base as the number of customers subscribing to our core solutions. Customer count and property manager units under management are presented in the table below:

	Quarter Ended							
	December 31, 2018	September 30,	June 30,	March 31,	December 31, 2017	September 30,	June 30,	March 31,
Property manager customers	13,046	12,641	12,317	12,030	11,708	11,258	10,820	10,468
Property manager units under management (in millions)	3.91	3.70	3.55	3.40	3.25	3.08	2.93	2.83

Our legal software solution, MyCase, enables small law firms to administer their practices and manage their caseloads more efficiently. MyCase is continuously evolving to help our customers more effectively market, manage and grow their businesses, and contains core functionality that addresses key operational issues, including managing calendars, contacts and documents, time tracking, billing and collections, communicating with clients and sharing sensitive and privileged materials.

Our legal customers directly and indirectly account for less than 10% of our annual revenue. We define our legal customer base as the number of customers subscribing to our core solutions, exclusive of free trial periods. Legal customer count is summarized in the table below:

	Quarter Ended							
	December 31, 2018	September 30,	June 30,	March 31,	December 31, 2017	September 30,	June 30,	March 31,
Law firm customers	10,279	10,173	10,001	9,706	9,349	9,128	8,913	8,676

Key Components of Results of Operations

Revenue

We charge our customers on a subscription basis for our core solutions and certain of our Value+ services. Our subscription fees are designed to scale to the size of our customers' businesses. We recognize subscription revenue over time on a straight-line basis over the contract term beginning on the date that our service is made available to the customer. We generally invoice our customers for subscription services in monthly or annual installments, typically in advance of the subscription period. Revenue from subscription services is impacted by a number of factors, including the change in the number and type of our customers, the size and needs of our customers' businesses, our customer renewal rates, and the level of adoption of our Value+ subscription services by new and existing customers.

We also charge our customers usage-based fees for using certain Value+ services. Certain of the usage-based fees are paid by either our customers or clients of our customers. Usage-based fees are charged on a flat fee per transaction basis with no minimum usage commitments. We recognize revenue for usage-based services in the period the service is rendered. We generally invoice our customers for usage-based services on a monthly basis for services rendered in the preceding month. Revenue from usage-based services is impacted by a number of factors, including the number of new and existing customers that adopt and utilize our Value+ services, the size and needs of our customers and our customer renewal rates.

We experience limited seasonality in our Value+ services revenue, primarily with respect to certain leasing-related services we provide to our property manager customers, including our tenant screening services and new tenant applications. These customers historically have processed fewer applications for new tenants during the winter holiday season; therefore, revenue associated with our leasing services typically declines in the fourth quarter. As a result of this seasonal decline in revenue, we have typically experienced slower sequential revenue growth or a sequential decline in revenue in the fourth quarter of each of our most recent fiscal years. We expect this seasonality to continue in the foreseeable future although the impact from seasonality may decline as our revenue from other services increases.

We offer assistance to our customers with on-boarding to our core solutions, as well as website design services. We generally invoice our customers for these other services in advance of the services being completed. We recognize revenue for these other services upon completion of the related service. We generate revenue from legacy RentLinx customers by providing services that allow these customers to advertise rental houses and apartments online. Revenue derived from customers using the RentLinx services outside of our property manager core solution platform is recorded in other revenue. We also generate revenue from legacy WegoWise customers by providing subscriptions to utility tracking software, compliance reporting and implementation services. Revenue derived from customers using the WegoWise services outside of our property manager core solution platform is also recorded in other revenue.

Costs and Operating Expenses

Cost of Revenue. Cost of revenue consists of fees paid to third-party service providers associated with delivering certain of our Value+ services (including legal fees and costs associated with the delivery and provision of those services, as well as loss reserves and other costs associated with our legal liability to landlord insurance services), personnel-related costs (including salaries, incentive-based compensation, benefits, and stock-based compensation) for our employees focused on customer service and the support of our operations, platform infrastructure costs (such as data center operations and hosting-related costs), payment processing fees, and allocated shared costs. We typically allocate shared costs across our organization based on headcount within the applicable part of our organization. Cost of revenue excludes depreciation of property and equipment, and amortization of capitalized software development costs and intangible assets. We intend to continue to invest in customer service and support and the expansion of our technology infrastructure as we grow the number of our customers and roll out additional Value+ services. We also intend to expand our Value+ offerings over time, which could impact cost of revenue both in absolute dollars and as an overall percentage of revenue.

Sales and Marketing. Sales and marketing expense consists of personnel-related costs (including salaries, sales commissions, incentive-based compensation, benefits, and stock-based compensation) for our employees focused on sales and marketing, costs associated with sales and marketing activities, and allocated shared costs. Marketing activities include advertising, online lead generation, lead nurturing, customer and industry events, and the creation of industry-related content and collateral. Beginning January 1, 2018, due to the adoption of ASU No. 2014-09, Revenue from Contracts with Customers, or ASU 2014-09, sales commissions and other incremental costs to acquire customers and grow adoption and utilization of our Value+ services by our new and existing customers are deferred and then amortized on a straight-line basis over a period of benefit that we have determined to be three years. We focus our sales and marketing efforts on generating awareness of our software solutions, creating sales leads, establishing and promoting our brands, and cultivating an educated community of successful and vocal customers. We intend to continue to invest in sales and marketing as we grow to increase the size of our customer base and increase the adoption and utilization of Value+ services by our new and existing customers.

Research and Product Development. Research and product development expense consists of personnel-related costs (including salaries, incentive-based compensation, benefits, and stock-based compensation) for our employees focused on research and product development, fees for third-party development resources, and allocated shared costs. Our research and product development efforts are focused on enhancing the ease of use and functionality of our existing software solutions by adding new core functionality, Value+ services and other improvements, as well as developing new products and services. We capitalize the portion of our software development costs that meets the criteria for capitalization. Amortization of capitalized software development costs is included in depreciation and amortization expense. We intend to continue to invest in research and product development as we continue to introduce new core functionality, roll out new Value+ services, develop new products and services, and expand into adjacent markets and new verticals.

General and Administrative. General and administrative expense consists of personnel-related costs (including salaries, a majority of total incentive-based compensation, benefits, and stock-based compensation) for employees in our executive, finance, information technology, human resources, corporate development, legal and administrative organizations. In addition, general and administrative expense includes fees for third-party professional services (including audit, legal, tax, and consulting services), transaction costs related to business combinations, other corporate expenses, and allocated shared costs. We intend to continue to incur incremental general and administrative costs associated with supporting the growth of our business.

Depreciation and Amortization. Depreciation and amortization expense includes depreciation of property and equipment, amortization of capitalized software development costs and amortization of intangible assets. We depreciate or amortize property and equipment, software development costs and intangible assets over their expected useful lives on a straight-line basis, which approximates the pattern in which the economic benefits of the assets are consumed. As we expand our facilities footprint and increase our base of employees, we expect to have increased property and equipment expenditures and incremental depreciation expense. In addition, as we continue to invest in our research and product development organization and the development or acquisition of new technology, we expect to have increased capitalized software development costs and incremental amortization.

Interest Income, net. Interest income includes interest earned on investment securities, amortization and accretion of the premium and discounts paid from the purchase of investment securities, and interest earned on notes receivable and on cash deposited in our bank accounts. Interest expense includes interest paid on outstanding borrowings under the credit agreement with Wells Fargo, as administrative agent, and the lenders that are parties thereto, or the Credit Agreement.

Results of Operations for the Years Ended December 31, 2018, 2017 and 2016

The following table presents our results of operations for the periods presented in dollars (in thousands) and as a percentage of revenue:

	Year Ended December 31,					
	2018		2017		2016	
	Amount	%	Amount	%	Amount	%
Consolidated Statements of Operations Data:						
Revenue	$190,071	100.0 %	$143,803	100.0 %	$105,586	100.0 %
Costs and operating expenses:						
Cost of revenue (exclusive of depreciation and amortization)(1)	73,549	38.7	55,283	38.4	44,630	42.3
Sales and marketing(1)	33,288	17.5	28,709	20.0	28,827	27.3
Research and product development(1)	24,111	12.7	16,578	11.5	12,638	12.0
General and administrative(1)	24,891	13.1	21,199	14.7	17,979	17.0
Depreciation and amortization	14,576	7.7	12,699	8.8	9,935	9.4
Total costs and operating expenses	170,415	89.7	134,468	93.5	114,009	108.0
Income (loss) from operations	19,656	10.3	9,335	6.5	(8,423)	(8.0)
Other expense, net	(56)	—	(96)	(0.1)	(37)	—
Interest income, net	787	0.4	535	0.4	246	0.2
Income (loss) before provision for income taxes	20,387	10.7	9,774	6.8	(8,214)	(7.8)
Provision for income taxes	420	0.2	58	—	67	0.1
Net income (loss)	$19,967	10.5 %	$9,716	6.8 %	$(8,281)	(7.8)%

(1) The following table presents stock-based compensation expense included in each respective expense category:

	Year Ended December 31,		
	2018	2017	2016
Stock-based compensation expense included in costs and operating expenses:			
Cost of revenue (exclusive of depreciation and amortization)	$1,103	$725	$471
Sales and marketing	1,034	723	442
Research and product development	1,079	657	382
General and administrative	3,121	3,991	3,006
Total stock-based compensation expense	$6,337	$6,096	$4,301

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Revenue

	Year Ended December 31,			2018 to 2017 % Change	2017 to 2016 % Change
	2018	2017	2016		
	(dollars in thousands)				
Core solutions	$70,549	$57,132	$43,775	23 %	31 %
Value+ services	113,072	80,847	56,965	40 %	42 %
Other	6,450	5,824	4,846	12 %	20 %
Total revenue	$190,071	$143,803	$105,586	32 %	36 %

Fiscal 2018 Compared to Fiscal 2017

Total revenues were $190.1 million for the fiscal year ended December 31, 2018, or fiscal 2018, compared to $143.8 million for the fiscal year ended December 31, 2017, or fiscal 2017, an increase of $46.3 million, or 32%. Core solutions revenue was $70.5 million for fiscal 2018, compared to $57.1 million for fiscal 2017, an increase of $13.4 million, or 23%. Value+ services revenue was $113.1 million for fiscal 2018, compared to $80.8 million for fiscal 2017, an increase of $32.3 million, or 40%. Other revenue was $6.5 million for fiscal 2018, compared to $5.8 million for fiscal 2017, an increase of $0.7 million, or 12%. The increase in revenue was mainly attributed to the growth in the number of property manager customers and units under management. Combining new customer acquisition and strong customer renewal rates, we experienced a 20% year over year increase in the number of property management units under management resulting from a 11% year over year increase in the number of property manager customers utilizing our core solutions. In addition, property managers, residents, applicants, and owners increased usage of our Value+ services platforms during that period.

In each of fiscal 2018 and fiscal 2017, we derived more than 90% of our revenue from our real estate property manager customers.

Fiscal 2017 Compared to Fiscal 2016

Total revenues were $143.8 million for fiscal 2017, compared to $105.6 million for the fiscal year ended December 31, 2016, or fiscal 2016, an increase of $38.2 million, or 36%. Core solutions revenue was $57.1 million for fiscal 2017, compared to $43.8 million for fiscal 2016, an increase of $13.4 million, or 31%. Value+ services revenue was $80.8 million for fiscal 2017 compared to $57.0 million for fiscal 2016, an increase of $23.9 million, or 42%. Other revenue was $5.8 million for fiscal 2017, compared to $4.8 million for fiscal 2016, an increase of $1.0 million, or 20%. The increase in revenue was mainly attributed to the growth in the number of property manager customers and units under management. Combining new customer acquisition and strong customer renewal rates, we experienced a 21% year over year increase in the number of property management units under management resulting from a 17% year over year increase in the number of property manager customers utilizing our core solutions. In addition, property managers, residents, applicants, and owners increased usage of our Value+ services platforms during that period.

In each of fiscal 2017 and fiscal 2016, we derived more than 90% of our revenue from our real estate property manager customers.

Cost of Revenue (Exclusive of Depreciation and Amortization)

	Year Ended December 31,			2018 to 2017 % Change	2017 to 2016 % Change
	2018	2017	2016		
	(dollars in thousands)				
Cost of revenue (exclusive of depreciation and amortization)	$73,549	$55,283	$44,630	33 %	24 %
Stock-based compensation, included above	$1,103	$725	$471	52 %	54 %
Percentage of revenue	38.7 %	38.4 %	42.3 %		

Fiscal 2018 Compared to Fiscal 2017

Cost of revenue (exclusive of depreciation and amortization) expense was $73.5 million for fiscal 2018, compared to $55.3 million for fiscal 2017, an increase of $18.2 million, or 33%. The increase in cost of revenue was attributed to the 32%

increase in revenue over the same period. The increase was primarily driven by an increase in third-party costs of $8.5 million associated with the 40% increase in our Value+ services due to incremental adoption and utilization of those services, a $5.9 million increase in personnel-related investments to support the increased number of customers and growth of our business, and a $3.8 million increase in allocated and other costs, which include an increase in legal fees and costs associated with settling a litigation matter, net of expected insurance proceeds of $1.1 million, as well as expanded facilities, IT and other expenses incurred in support of our growth. See Note 9, Commitments and Contingencies of our Consolidated Financial Statements included elsewhere in this Annual Report for additional information regarding legal fees and settlement costs included in cost of revenue (exclusive of depreciation and amortization).

As a percentage of revenue, cost of revenue (exclusive of depreciation and amortization) was 38.7% for fiscal 2018, compared to 38.4% for fiscal 2017. The change in cost as a percentage of revenue was related to the relative pace of growth in our Value+ services compared to other types of revenue, and the related costs associated with those revenues. The slight increase in costs as a percentage of revenue was also impacted by improvements due to price increases for our solutions, and improvements from volume-based pricing with our third-party service partners, offset by an increase in legal fees and costs associated with settling a litigation matter. Cost of revenue, excluding the litigation expense, would have improved as a percent of revenue.

Fiscal 2017 Compared to Fiscal 2016

Cost of revenue (exclusive of depreciation and amortization) expense was $55.3 million for fiscal 2017, compared to $44.6 million for fiscal 2016, an increase of $10.7 million, or 24%. The increase in cost was attributed to the 36% increase in revenue over the same period. The increase was primarily driven by an increase in third-party costs of $7.0 million associated with the 42% increase in our Value+ services due to incremental adoption and utilization of those services, a $2.3 million increase in personnel-related investments to support the increased number of customers and growth of our business, and a $1.3 million increase in allocated and other costs, driven by expanded facilities, IT and other expenses incurred in support of our growth.

As a percentage of revenue, cost of revenue (exclusive of depreciation and amortization) was 38.4% for fiscal 2017, compared to 42.3% for fiscal 2016. The change in cost as a percentage of revenue was related to the relative pace of growth in our Value+ services compared to other types of revenue, and the related costs associated with those revenues. The improvement in costs as a percentage of revenue was primarily driven by our ability to increase revenue with a more moderate increase in personnel-related costs, and a slight improvement in pricing with our third-party service providers as we continue to grow.

Sales and Marketing

	Year Ended December 31,			2018 to 2017 % Change	2017 to 2016 % Change
	2018	2017	2016		
	(dollars in thousands)				
Sales and marketing	$33,288	$28,709	$28,827	16 %	— %
Stock-based compensation, included above	1,034	723	442	43 %	64 %
Percentage of revenue	17.5 %	20.0 %	27.3 %		

Fiscal 2018 Compared to Fiscal 2017

Sales and marketing expense was $33.3 million for fiscal 2018, compared to $28.7 million for fiscal 2017, an increase of $4.6 million, or 16%. The increase was driven by increases in advertising and promotion costs of $1.7 million, sales and marketing personnel-related costs of $1.5 million, and allocated and other costs of $1.4 million, driven by expanded facilities, IT and other expenses supporting our growth.

As a percentage of revenue, sales and marketing expense was 17.5% for fiscal 2018, compared to 20.0% for fiscal 2017. The decrease was primarily driven by our adoption of ASU 2014-09. Under ASU 2014-09, sales commissions and other incremental costs to acquire customers are deferred and then amortized on a straight-line basis over a period of benefit that we have determined to be three years. Previously, these costs were expensed as incurred. We intend to continue to invest in sales and marketing as we grow to increase the size of our customer base and increase the adoption and utilization of our Value+ services by our new and existing customers.

Fiscal 2017 Compared to Fiscal 2016

Sales and marketing expenses remained relatively flat year over year as we focused our sales and marketing efforts to acquire larger property manager customers.

Research and Product Development

	Year Ended December 31,			2018 to 2017 % Change	2017 to 2016 % Change
	2018	2017	2016		
	(dollars in thousands)				
Research and product development	$24,111	$16,578	$12,638	45 %	31 %
Stock-based compensation, included above	1,079	657	382	64 %	72 %
Percentage of revenue	12.7 %	11.5 %	12.0 %		

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Fiscal 2018 Compared to Fiscal 2017

Research and product development expense was $24.1 million for fiscal 2018, compared to $16.6 million for fiscal 2017, an increase of $7.5 million, or 45%. The increase was driven by an increase in personnel-related costs, net of capitalized software development costs, of $5.3 million due to headcount growth, and an increase in allocated and other costs of $2.2 million, driven by expanded facilities, IT and other expenses supporting our growth.

We intend to continue to invest in research and product development as we continue to introduce additional functionality into our software solutions, services and data offerings, develop or integrate acquired Value+ services to attract new customers and expand offerings to existing customers, develop new products to serve new or existing customers and expand into adjacent markets or new verticals.

Fiscal 2017 Compared to Fiscal 2016

Research and product development expense was $16.6 million for fiscal 2017, compared to $12.6 million for fiscal 2016, an increase of $3.9 million, or 31%. The increase was driven by an increase in personnel-related costs, net of capitalized software development costs, of $3.7 million, due to headcount growth, and an increase in allocated and other costs driven by expanded facilities, IT and other expenses supporting our growth.

General and Administrative

	Year Ended December 31,			2018 to 2017 % Change	2017 to 2016 % Change
	2018	2017	2016		
	(dollars in thousands)				
General and administrative	$24,891	$21,199	$17,979	17 %	18 %
Stock-based compensation, included above	3,121	3,991	3,006	(22)%	33 %
Percentage of revenue	13.1 %	14.7 %	17.0 %		

Fiscal 2018 Compared to Fiscal 2017

General and administrative expense was $24.9 million for fiscal 2018, compared to $21.2 million for fiscal 2017, an increase of $3.7 million, or 17%. The increase was driven by increases in personnel-related costs of $1.2 million and in professional services fees and allocated and other costs of $2.5 million. The increase in personnel-related costs was primarily due to headcount growth, net of a $0.8 million decrease in stock-based compensation. Equity denominated performance-based compensation will continue to decrease for certain executives with the introduction of a Long-Term Cash Bonus Plan, adopted in fiscal 2018. No accrual has yet been made under the newly adopted plan as a result of the high level of uncertainty regarding potential future payments under the plan. The increase in professional services fees and allocated and other costs primarily related to legal and other services fees associated with expanded audit services, increased leasing activities, due diligence and acquisition related activities, as well as other costs incurred to support our growth.

Fiscal 2017 Compared to Fiscal 2016

General and administrative expense was $21.2 million for fiscal 2017, compared to $18.0 million for fiscal 2016, an increase of $3.2 million, or 18%. The increase was driven by increases in personnel-related costs due to headcount growth and in incentive-based compensation. The increase in incentive-based compensation was primarily due to a stock option modification impacting awards held by our former Chief Executive Officer who announced his retirement in August 2017.

Depreciation and Amortization

	Year Ended December 31,			2018 to 2017 % Change	2017 to 2016 % Change
	2018	2017	2016		
	(dollars in thousands)				
Depreciation and amortization	$14,576	$12,699	$9,935	15 %	28 %
Percentage of revenue	7.7 %	8.8 %	9.4 %		

Fiscal 2018 Compared to Fiscal 2017

Depreciation and amortization expense was $14.6 million for fiscal 2018, compared to $12.7 million for fiscal 2017, an increase of $1.9 million, or 15%. The increase was driven by increased amortization expense associated with higher accumulated capitalized software development balances.

Fiscal 2017 Compared to Fiscal 2016

Depreciation and amortization expense was $12.7 million for fiscal 2017, compared to $10.0 million for fiscal 2016, an increase of $2.8 million, or 28%. The increase was driven by increased amortization expense associated with higher accumulated capitalized software development balances.

Interest Income, net

	Year Ended December 31,			2018 to 2017 % Change	2017 to 2016 % Change
	2018	2017	2016		
	(dollars in thousands)				
Interest income, net	$787	$535	$246	47 %	117 %
Percentage of revenue	0.4 %	0.4 %	0.2 %		

Fiscal 2018 Compared to Fiscal 2017

Interest income, net was $0.8 million for fiscal 2018, compared to $0.5 million for fiscal 2017, an increase of $0.3 million, or 47%. The increase was driven by an increase in interest income from higher investment security balances in the more recent period offset by increased interest expense related to our Revolving Facility. See Note 8, Long-term Debt of our Consolidated Financial Statements included elsewhere in this Annual Report for additional information regarding the Second Amendment to Credit Agreement.

Fiscal 2017 Compared to Fiscal 2016

Interest income, net was $0.5 million for fiscal 2017, compared to $0.2 million for fiscal 2016, an increase of $0.3 million, or 117%. The increase resulted from higher investment security balances in 2017.

Provision for Income Taxes

	Year Ended December 31,			2018 to 2017 % Change	2017 to 2016 % Change
	2018	2017	2016		
	(dollars in thousands)				
Provision for income taxes	$420	$58	$67	624 %	(13)%
Percentage of revenue	0.2 %	— %	0.1 %		

The provision for income taxes relates to minimum state taxes and the amortization of tax deductible goodwill that is not an available source of income to realize the deferred tax asset.

Quarterly Results of Operations

The following table presents selected unaudited quarterly consolidated statements of operations data for each of the eight quarters during the years ended December 31, 2018 and December 31, 2017. We have prepared the unaudited quarterly consolidated statements of operations data on a basis consistent with the audited annual Consolidated Financial Statements included elsewhere in this Annual Report. In the opinion of management, the financial information in this table reflects all normal and recurring adjustments necessary for the fair statement of this data. This information should be read in conjunction with the Consolidated Financial Statements and related notes included elsewhere in this Annual Report. The results of historical periods are not necessarily indicative of the results for any future period.

	Quarter Ended							
	December 31, 2018	September 30,	June 30,	March 31,	December 31, 2017	September 30,	June 30,	March 31,
	(in thousands, except per share data)							
Consolidated Statements of Operations Data:								
Revenue	$50,365	$ 50,126	$47,240	$42,340	$37,897	$ 37,903	$35,877	$32,126
Costs and operating expenses:								
Cost of revenue (exclusive of depreciation and amortization)(1)	19,925	19,282	17,729	16,613	14,536	14,053	13,701	12,993
Sales and marketing(1)	9,577	8,681	7,625	7,405	7,153	7,257	7,192	7,107
Research and product development(1)	6,588	6,440	5,750	5,333	4,580	4,367	4,002	3,629
General and administrative(1)	7,786	6,541	5,248	5,316	5,889	5,405	5,101	4,804
Depreciation and amortization	3,792	3,705	3,579	3,500	3,352	3,237	3,114	2,996
Total costs and operating expenses	47,668	44,649	39,931	38,167	35,510	34,319	33,110	31,529
Income from operations	2,697	5,477	7,309	4,173	2,387	3,584	2,767	597
Other income (expense), net	(36)	1	(18)	(3)	(3)	(5)	(60)	(28)
Interest income, net	156	229	226	176	158	155	120	102
Income before provision for income taxes	2,817	5,707	7,517	4,346	2,542	3,734	2,827	671
Provision for income taxes	168	183	43	26	(35)	52	30	11
Net income	$2,649	$ 5,524	$7,474	$4,320	$2,577	$ 3,682	$2,797	$660
Net income (loss) per common share:								
Basic	$0.08	$ 0.16	$0.22	$0.13	$0.08	$ 0.11	$0.08	$0.02
Diluted	$0.07	$ 0.16	$0.21	$0.12	$0.07	$ 0.10	$0.08	$0.02

(1) The following table presents stock-based compensation expense included in each respective expense category:

	Quarter Ended							
	December 31, 2018	September 30,	June 30,	March 31,	December 31, 2017	September 30,	June 30,	March 31,
	(in thousands)							
Stock-based compensation expense included in costs and operating expenses:								
Cost of revenue (exclusive of depreciation and amortization)	$351	$ 282	$250	$220	$198	$ 189	$209	$129
Sales and marketing	326	270	228	210	207	186	210	120

Research and product development	349	218	287	225	186	173	182	116
General and administrative	892	994	572	663	1,201	1,040	1,018	732
Total stock-based compensation expense	$1,918	$ 1,764	$1,337	$1,318	$1,792	$ 1,588	$1,619	$1,097

The following table presents selected consolidated statements of operations data for the specified periods as a percentage of our revenue for those periods:

	Quarter Ended December 31, 2018	September 30,	June 30,	March 31,	December 31, 2017	September 30,	June 30,	March 31,
Consolidated Statements of Operations Data:								
Revenue	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %
Costs and operating expenses:								
Cost of revenue (exclusive of depreciation and amortization)	39.6	38.5	37.5	39.2	38.4	37.1	38.2	40.4
Sales and marketing	19.0	17.3	16.1	17.5	18.9	19.1	20.0	22.1
Research and product development	13.1	12.8	12.2	12.6	12.1	11.5	11.2	11.3
General and administrative	15.5	13.0	11.1	12.6	15.5	14.3	14.2	15.0
Depreciation and amortization	7.5	7.4	7.6	8.3	8.8	8.5	8.7	9.3
Total costs and operating expenses	94.6	89.0	84.5	90.1	93.7	90.5	92.3	98.1
Income (loss) from operations	5.4	10.9	15.5	9.9	6.3	9.5	7.7	1.9
Other (expense), net	(0.1)	—	—	—	—	—	(0.2)	(0.1)
Interest income, net	0.3	0.5	0.5	0.4	0.4	0.4	0.3	0.3
Income (loss) before provision for income taxes	5.6	11.4	15.9	10.3	6.7	9.9	7.9	2.1
Provision for income taxes	0.3	0.4	0.1	0.1	(0.1)	0.1	0.1	—
Net income (loss)	5.3 %	11.0 %	15.8 %	10.2 %	6.8 %	9.7 %	7.8 %	2.1 %

Quarterly Revenue and Cost Trends

Our quarterly revenue trends generally reflect increased revenue from our property manager customers. The overall increase was primarily a result of a quarter-over-quarter increases in the number of our customers, property manager units under management, and strong customer renewal rates, as well as an increase in Value+ services revenue primarily attributable to the expansion of our electronic payments services and leasing services. We experience limited seasonality in our Value+ services revenue, primarily with respect to certain leasing-related services we provide to our property manager customers, including our tenant screening services and new tenant applications. These customers historically have processed fewer applications for new tenants during the winter holiday season; therefore, revenue associated with our leasing services typically declines in the fourth quarter. As a result of this seasonal decline in revenue, we have typically experienced slower sequential revenue growth or a sequential decline in revenue in the fourth quarter of each of our most recent fiscal years. We expect this seasonality to continue in the foreseeable future.

Total costs and operating expenses as a percentage of revenue fluctuated throughout the year. As a percentage of revenue, total costs and operating expenses were favorable in each quarter of fiscal 2018 as compared to fiscal 2017, due primarily to our adoption of ASU No. 2014-09, Revenue from Contracts with Customers, or ASU 2014-09. Under ASU 2014-09, sales commissions and other incremental costs to acquire customers are deferred and then amortized on a straight-line basis over a period of benefit that we have determined to be three years. In fiscal 2017 these costs were expensed as incurred. Cost of revenue (exclusive of depreciation and amortization) fluctuated each quarter based on the mix of Value+ services, related third-party costs and the increased legal fees and costs associated with settling a litigation matter (for additional information regarding the litigation settlement, refer to Note 9, Commitments and Contingencies, of our Consolidated Financial Statements included elsewhere in this Annual Report). Sales and marketing costs as a percentage of revenue fluctuated each quarter based on the impact of ASU 2014-09, our investment in advertising and promotion costs, as well as variable compensation related to our sales efforts and our expanding service offerings. Research and product development costs fluctuated each quarter based on the growing headcount and related compensation in our product and engineering organizations and the offsetting variable amount of software development costs that were capitalized each quarter. General and administrative expenses generally reflected increased operating leverage in the business year-over-year. The quarterly fluctuation in general and administrative expenses was primarily due to the impact of increased headcount and related compensation, incentive-based compensation and professional services fees related to our business growth. In addition, we had increased legal and professional fees during the third and fourth quarters related to litigation and acquisitions. We expect continued quarterly fluctuation in each of the foregoing cost and expenses due to additional investment into the business and many of the factors mentioned above.

Our quarter-over-quarter total costs and operating expenses as a percentage of revenue for each quarter during fiscal 2017 improved. Cost of revenue (exclusive of depreciation and amortization) as a percentage of revenue fluctuated each quarter based on the mix of Value+ services and related third-party costs. Research and development expenses as a percentage of revenue increased primarily due to increased software development costs that were capitalized during the fourth quarter. General and administrative expenses as a percentage of revenue increased in the fourth quarter primarily due to the impact of increased compensation due to an increase in headcount and incentive-based compensation.

Liquidity and Capital Resources

Cash and Cash Equivalents

At December 31, 2018 and 2017, our principal sources of liquidity were cash and cash equivalents and investment securities, which had an aggregate balance of $102.0 million and $68.3 million, respectively.

Working Capital

At December 31, 2018, we had working capital of $79.8 million, compared to working capital of $29.9 million at December 31, 2017. The increase in our working capital was primarily due to increases in cash and cash equivalents due to the funding of the term loan, prepaid and other current assets due to an increase in deferred costs in connection with the adoption of ASU 2014-09, accounts receivable due to an increase in revenue from Value+ services, and decreases in short-term investment securities due to the reclassification of long-term securities. The increase in our working capital was partially offset by maturities and sales of securities, increases in accrued expenses from the continued growth of our business, increases in legal fees and costs associated with settling a litigation mater, and a decrease in deferred revenue.

Revolving Facility

On December 24, 2018, we amended our credit facility with Wells Fargo, as administrative agent, and the lenders that are parties thereto to provide for advances of up to $50.0 million under our Revolving Facility. At both December 31, 2018 and 2017, we had no outstanding balance under our Revolving Facility. For additional information regarding the amendment to our Credit Agreement, refer to Note 8, Long-term Debt of our Consolidated Financial Statements included elsewhere in this Annual Report.

Liquidity Requirements

We believe that our existing cash and cash equivalents, investment securities, available borrowing capacity of $50.0 million under our Revolving Facility, and cash generated from operating activities will be sufficient to meet our working capital and capital expenditure requirements for at least the next twelve months.

Capital Requirements

Our future capital requirements will depend on many factors, including the continued market acceptance of our software solutions, the change in the number of our customers, the adoption and utilization of our Value+ services by new and existing customers, the timing and extent of the introduction of new core functionality, products and Value+ services, the timing and extent of our expansion into adjacent or new markets and the timing and extent of our investments across our organization. In addition, we have in the past entered into, and may in the future enter into, arrangements to acquire or invest in new technologies or markets adjacent to those we serve today or entirely new verticals. Furthermore, our board of directors has authorized our management to repurchase up to $100.0 million of shares of our Class A common stock in open market transactions, privately negotiated transactions or otherwise. For additional information regarding our share repurchase program, refer to Note 15, Subsequent Events of our Consolidated Financial Statements included elsewhere in this Annual Report.

Cash Flows

The following table presents our cash flows for the periods indicated (in thousands):

	Year Ended December 31,		
	2018	2017	2016
Net cash provided by operating activities	$36,268	$29,371	$11,500
Net cash used in investing activities	(4,644)	(22,828)	(13,065)
Net cash provided by (used in) financing activities	26,346	(1,133)	201
Net increase (decrease) in cash and cash equivalents	$57,970	$5,410	$(1,364)

Cash Provided by Operating Activities

Our primary source of operating cash inflows is cash collected from our customers in connection with their use of our core solutions and Value+ services. Our primary uses of cash from operating activities are for personnel-related expenditures and third-party costs incurred to support the delivery of our software solutions.

For the year ended December 31, 2018, cash provided by operating activities was $36.3 million resulting from our net income of $20.0 million, adjusted by non-cash charges of $21.1 million and a net decrease in our operating assets and liabilities of $4.8 million. The non-cash charges primarily consisted of $14.6 million of depreciation and amortization of our property and equipment and capitalized software, and $6.3 million of stock-based compensation. The net decrease in our operating assets and liabilities was primarily attributable to a $6.4 million increase in other assets due to the capitalization of deferred costs in accordance with the applicable accounting guidance, a $6.1 million increase in prepaid expenses and other current assets, a $4.6 million decrease in deferred revenue due to an increase in the number of customers invoiced monthly versus annually and a $0.9 million increase in accounts receivable primarily driven by growth in our Value+ services. The decrease in our operating assets and liabilities was partially offset by a $6.1 million increase in other liabilities, a $3.3 million increase in accrued expenses and an increase of $1.2 million in accrued employee expenses related to an overall increase in personnel-related costs.

For the year ended December 31, 2017, cash provided by operating activities was $29.4 million resulting from our net income of $9.7 million, adjusted by non-cash charges of $18.9 million and a net increase in our operating assets and liabilities of $0.7 million. The non-cash charges primarily consisted of $12.7 million of depreciation and amortization of our property and equipment and capitalized software and $6.1 million of stock-based compensation. The net increase in our operating assets and liabilities was primarily attributable to a $3.2 million increase in accrued employee expenses related to an overall increase in personnel-related costs. The increase in our operating assets and liabilities was partially offset by a $1.0 million increase in prepaid expenses and other current assets, a $0.9 million increase in accounts receivable, and a $0.6 million decrease in deferred revenue.

For the year ended December 31, 2016, cash provided by operating activities was $11.5 million resulting from our net loss of $8.3 million, adjusted by non-cash charges of $14.7 million and a net increase in our operating assets and liabilities of $5.0 million. The non-cash charges primarily consisted of $9.9 million of depreciation and amortization of our property and equipment and capitalized software and $4.3 million of stock-based compensation. The net increase in our operating assets and liabilities was primarily attributable to a $2.7 million increase in deferred revenue in line with our increased revenues, a $2.2 million increase in accrued employee expenses related to an overall increase in personnel-related costs, a $1.1 million increase in accrued expenses primarily due to payment processing fees and fees associated with our tenant screening services driven by growth in our Value+ services, and a $0.8 million increase in other liabilities. The increase in our operating assets and liabilities was partially offset by a $0.9 million decrease in accounts payable, a $0.5 million increase in accounts receivable and a $0.4 million increase in our prepaid expenses and current assets, in conjunction with our growth and expansion during 2016.

Cash Used in Investing Activities

Cash used in investing activities is generally comprised of purchases, maturities and sales of investment securities, additions to capitalized software development, cash paid for business acquisitions and capital expenditures.

For the year ended December 31, 2018, investing activities used $4.6 million in cash primarily as a result of $29.5 million of investment securities purchased offset by $32.8 million of maturities and $20.9 million of sales of investment securities. In addition, we used $14.4 million of cash to acquire WegoWise, incurred capitalized software development costs of $12.3 million for the continued investment in our software development, and made capital expenditures of $2.1 million to purchase property and equipment for the continued growth and expansion of our

business.
For the year ended December 31, 2017, investing activities used $22.8 million in cash primarily as a result of $26.6 million of investment securities purchased offset by $16.5 million of maturities. In addition, we incurred capitalized software

development costs of $10.5 million for the continued investment in our software development, and made capital expenditures of $2.2 million to purchase property and equipment for the continued growth and expansion of our business.

For the year ended December 31, 2016, investing activities used $13.1 million in cash primarily as a result of $31.6 million of investment securities purchased offset by $21.3 million of maturities and $12.6 million of sales of investment securities. In addition, we incurred capitalized software development costs of $11.2 million for the continued investment in our software development, and made capital expenditures of $4.2 million to purchase property and equipment for the continued growth and expansion of our business.

Cash Provided by (Used in) Financing Activities

Cash provided by (used in) financing activities is generally comprised of proceeds from the exercise of stock options, net share settlements for employee tax withholdings associated with the vesting of restricted stock units, or RSUs, and activities associated with the Revolving Facility.

For the year ended December 31, 2018, financing activities provided $26.3 million in cash primarily as a result of $50.0 million of proceeds from the issuance of a term loan, partially offset by $21.6 million used to repurchase our common stock and $3.1 million as a result of tax withholdings from RSU net settlements offset by proceeds from stock option exercises.

For the year ended December 31, 2017, financing activities used $1.1 million in cash primarily as a result of tax withholdings from RSU net settlements offset by proceeds from stock option exercises.

For the year ended December 31, 2016, financing activities provided $0.2 million in cash primarily as a result of proceeds from stock option exercises offset by tax withholdings from RSU net settlements.

Contractual Obligations and Other Commitments

The following table presents our contractual obligations and other commitments at December 31, 2018:

	Payments Due by Period				
	Total	Less than 1 year	1 to 3 years	3 to 5 years	More than 5 years
	(in thousands)				
Debt principal and interest[1]	$60,185	$3,335	$8,018	$48,832	$—
Operating lease obligations	27,036	4,211	8,927	4,770	9,128
	$87,221	$7,546	$16,945	$53,602	$9,128

[1] Interest payments were calculated using the applicable interest rate at December 31, 2018.

At December 31, 2018, liabilities for unrecognized tax benefits of $3.0 million were not included in our contractual obligations in the table above because, due to their nature, there is a high degree of uncertainty regarding the timing of future cash outflows and other events that would extinguish these liabilities.

For additional information regarding our contractual obligations, commitments and indemnification arrangements, refer to Note 8, Long-term Debt and Note 9, Commitments and Contingencies of our Consolidated Financial Statements included elsewhere in this Annual Report.

Off-Balance Sheet Arrangements

At December 31, 2018, we did not have any off-balance sheet arrangements.

Critical Accounting Policies and Estimates

Our Consolidated Financial Statements and the related notes included elsewhere in this Annual Report are prepared in accordance with generally accepted accounting principles in the United States. The preparation of our Consolidated Financial Statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the dates of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ materially from those estimates.

We believe that the following critical accounting policies involve a greater degree of judgment or complexity than our other accounting policies. Accordingly, these are the policies we believe are the most critical to a full understanding and evaluation of our Consolidated Financial Statements. For additional information, refer to Note 2, Summary of Significant Accounting Policies of our Consolidated Financial Statements included elsewhere in this Annual Report.

Revenue Recognition

We generate revenue from our customers primarily for subscriptions to access our core solutions and Value+ services for our cloud-based software solutions. Revenue is recognized upon transfer of control of promised services in an amount that reflects the consideration we expect to receive in exchange for those services. We enter into contracts that can include various combinations of services, which are generally capable of being distinct, distinct within the context of the contract, and accounted for as separate performance obligations. Revenue is recognized net of any taxes collected from customers, which are subsequently remitted to governmental authorities.

Contracts with Multiple Performance Obligations

Many of our contracts with customers contain multiple performance obligations. For these contracts, the performance obligations include access and use of our core solutions, implementation services, and customer support. We account for individual performance obligations separately if they are distinct. Determining whether products and services are considered distinct performance obligations that should be accounted for separately versus together may require significant judgment.

The transaction price is allocated to each performance obligation on a relative standalone selling price basis. Judgment is required to determine the standalone selling price for each distinct performance obligation. We typically have more than one standalone selling price for individual products and services due to the stratification of those products and services by customers and circumstances. In these instances, we determine the standalone selling price based on our overall pricing objectives, taking into consideration customer demographics and other factors. Fees are fixed based on rates specified in the subscription agreements, which do not provide for any refunds or adjustments.

Deferred Costs

Deferred costs, which primarily consist of sales commissions, are considered incremental and recoverable costs of obtaining a contract with a customer. These costs are deferred and then amortized on a straight-line basis over a period of benefit that we have determined to be three years. We typically do not pay commissions for contract renewals. We determined the period of benefit by taking into consideration our customer contract term, the useful life of our internal-use software, average customer life, and other factors.

Capitalized Software Development Costs

Software development cost consist of certain payroll and stock compensation costs incurred to develop functionality of our internal-use software solutions. We capitalize certain software development costs for new offerings as well as significant upgrades and enhancements to our existing software solutions. Capitalized software development costs are amortized using the straight-line method over an estimated useful life of three years. We do not transfer ownership of our software, or lease our software, to third parties. We believe there are two key estimates within the capitalized software balance, which are the determination of the useful life of the software and the determination of the amounts to be capitalized.

We determined that a three year life is appropriate for our internal-use software based on our best estimate of the useful life of the internally developed software after considering factors such as continuous developments in the technology, obsolescence and anticipated life of the service offering before significant upgrades. Based on our prior experience, internally generated software will generally remain in use for a minimum of three years before being significantly replaced or modified to keep up with evolving customer and company needs. While we do not anticipate any significant changes to this three year estimate, a change in this estimate could produce a material impact on our financial statements.

We determine the amount of internal software costs to be capitalized based on the amount of time spent by our software engineers on projects. Costs associated with building or significantly enhancing our software solutions and new internally built software solution are capitalized, while costs associated with planning new developments and maintaining our software solutions are expensed as incurred. There is judgment involved in estimating the stage of development as well as estimating time allocated to a particular project. A significant change in the time spent on each project could have a material impact on the amount capitalized and related amortization expense in subsequent periods.

Business Combinations

The results of a business acquired in a business combination are included in our Consolidated Financial Statements from the date of acquisition. We allocate the purchase price, including the fair value of contingent consideration, to the identifiable assets and liabilities of the acquired business at their acquisition date fair values. The excess of the purchase price over the amount allocated to the identifiable assets and liabilities, if any, is recorded as goodwill. Determining the fair value of assets acquired and liabilities assumed requires management to make significant judgments and estimates, including the selection of valuation methodologies, estimates of future revenue and cash flows, discount rates and selection of comparable companies.

Acquisition-related transaction costs are not included as a component of consideration transferred, but are accounted for as an operating expense in the period in which the costs are incurred.

Income Taxes

We recognize deferred tax liabilities and assets for the expected future tax consequences of temporary differences between the carrying amounts and the tax bases of assets and liabilities. Deferred income tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in the Consolidated Statements of Operations in the period that includes the enactment date. A valuation allowance is recorded when it is more likely than not that some of the deferred tax assets will not be realized.

We recognize the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by the taxing authorities, based on the technical merits of the position. The tax benefits recognized in our Consolidated Financial Statements from such positions are then measured based on the largest benefit that has a greater than 50% likelihood of being realized. We recognize interest and penalties accrued with respect to uncertain tax positions, if any, in our provision for income taxes in the Consolidated Statements of Operations.

Recent Accounting Pronouncements

For information regarding recent accounting pronouncements, refer to Note 2, Summary of Significant Accounting Policies of our Consolidated Financial Statements included elsewhere in this Annual Report.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURE ABOUT MARKET RISK

Interest Rate Risk

Short-term Investments

At December 31, 2018, we had cash and cash equivalents of $74.1 million consisting of bank deposits and money market funds and $27.9 million of investment securities consisting of corporate bonds, United States government agency securities and certificates of deposit. The primary objective of investing in securities is to support our liquidity and capital needs. We did not purchase these investments for trading or speculative purposes and have not used any derivative financial instruments to manage our interest rate risk exposure.

Our investment securities are exposed to market risk due to interest rate fluctuations. While fluctuations in interest rates do not impact our interest income from our investment securities as all of these securities have fixed interest rates, changes in interest rates may impact the fair value of the investment securities. Since our investment securities are held as available for sale, all changes in fair value impact our other comprehensive income unless an investment security is considered impaired in which case changes in fair value are reported in other expense. At December 31, 2018, a hypothetical 100 basis point decrease in interest rates would have resulted in an approximate increase in fair value of our investment securities of $0.2 million and a hypothetical 100 basis point increase in interest rates would have resulted in an approximate decrease in fair value of our investment securities of $0.2 million. This estimate is based on a sensitivity model which measured an instant change in interest rates by 1% or 100 basis points at December 31, 2018.

Revolving Facility

At December 31, 2018, we had a $50.0 million balance outstanding under our Term Loan, which bears interest at a variable rate (refer to Note 8, Long-term Debt of our Consolidated Financial Statements included elsewhere in this Annual Report for additional information). If interest rates rise, our debt service obligations on the borrowings under the Revolving Facility would increase even if the amount borrowed remained the same, which would affect our results of operations. At December 31, 2018, a hypothetical 100 basis point increase in interest rates would have had an immaterial impact on our interest expense under our Term Loan.

Inflation Risk

We have not been exposed to, nor do we anticipate being exposed to, material risks due to changes in inflation rates.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

The supplementary financial information required by this Item 8 is included in Item 7 of this Annual Report in the section entitled "Quarterly Results of Operations."

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of AppFolio, Inc.

Opinion on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of AppFolio, Inc. and its subsidiaries (the "Company") as of December 31, 2018 and 2017, and the related consolidated statements of operations, comprehensive income (loss), stockholders' equity (deficit), and cash flows for each of the three years in the period ended December 31, 2018, including the related notes (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control - Integrated Framework (2013) issued by the COSO.

Change in Accounting Principle

As discussed in Note 2 to the consolidated financial statements, the Company changed the manner in which it accounts for revenues from contracts with customers in 2018.

Basis for Opinion

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

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

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

As described in Management's Report on Internal Control over Financial Reporting, management has excluded WegoWise from its assessment of internal control over financial reporting as of December 31, 2018 because it was acquired by the Company in a purchase business combination during 2018. We have also excluded WegoWise from our audit of internal control over financial reporting. WegoWise is a wholly-owned subsidiary whose total assets and total revenues excluded from management's assessment and our audit of internal control over financial reporting each represent less than 1% of the related consolidated financial statement amounts as of and for the year ended December 31, 2018.

Definition and Limitations of Internal Control over Financial Reporting

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

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

/s/ PricewaterhouseCoopers LLP
Los Angeles, California
February 28, 2019

We have served as the Company's auditor since 2012.

APPFOLIO, INC.
CONSOLIDATED BALANCE SHEETS
(in thousands, except par values)

	December 31,	
	2018	2017
Assets		
Current assets		
Cash and cash equivalents	$74,076	$16,109
Investment securities—current	16,631	29,800
Accounts receivable, net	5,516	3,387
Prepaid expenses and other current assets	11,775	4,546
Total current assets	107,998	53,842
Investment securities—noncurrent	11,256	22,401
Property and equipment, net	6,871	6,696
Capitalized software, net	20,485	17,609
Goodwill	15,548	6,737
Intangible assets, net	5,895	1,725
Other assets	7,688	1,238
Total assets	$175,741	$110,248
Liabilities and Stockholders’ Equity		
Current liabilities		
Accounts payable	$1,481	$610
Accrued employee expenses	12,377	10,710
Accrued expenses	8,281	4,289
Deferred revenue	3,414	7,080
Other current liabilities	1,447	1,223
Long-term debt, net—current portion	1,213	—
Total current liabilities	28,213	23,912
Long-term debt, net	48,602	—
Long-term deferred rent and other liabilities	7,080	1,257
Total liabilities	83,895	25,169
Commitments and contingencies (Note 9)		