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

FORM 10-K

(Mark One)

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

For the fiscal year ended December 31, 2018

or

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

For the transition period from _____ to _____

Commission File Number: 001-34846

RealPage, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**75-2788861**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
2201 Lakeside Blvd. Richardson, Texas	**75082-4305**
(Address of principal executive offices)	**(Zip Code)**

(972) 820-3000
(Registrant's telephone number, including area code)

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

Common Stock, $0.001 par value	**The NASDAQ Stock Market LLC**
(Title of class)	**(Name of each exchange on which registered)**

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

Indicate by check mark if the Registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☒ No ☐

Indicate by check mark if the Registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒

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

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

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

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

Large accelerated filer	☒	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	☐
		Emerging growth company	☐

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

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

Based on the closing price of the registrant's common stock on the last business day of the registrant's most recently completed second fiscal quarter, which was June 30, 2018, the aggregate market value of its shares held by non-affiliates on that date was approximately $4,177,183,676. On February 15, 2019, 93,590,150 shares of the registrant's Common Stock, $0.001 par value, were outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Registrant's definitive proxy statement for its 2019 Annual Meeting of Stockholders to be filed within 120 days of the Registrant's fiscal year ended December 31, 2018 are incorporated by reference into Part III of this Annual Report on Form 10-K where indicated.

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

We have made forward-looking statements in this Annual Report on Form 10-K that are subject to risks and uncertainties. Forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, are subject to the "safe harbor" created by those sections. The forward-looking statements in this Annual Report on Form 10-K are based on our management's beliefs and assumptions and on information currently available to our management. Statements preceded by, followed by, or that otherwise include the words "anticipates," "aspires," "believes," "can," "continue," "could," "estimates," "expects," "intends," "may," "plans," "potential," "predicts," "projects," "seeks," "should," "will" or "would" or similar expressions and the negatives of those terms are generally forward-looking in nature and not historical facts. These forward-looking statements involve known and unknown risks, uncertainties, and other factors, which may cause our actual results, performance, time frames or achievements to be materially different from any future results, performance, time frames or achievements expressed or implied by the forward-looking statements. We discuss many of these risks, uncertainties and other factors in this document in greater detail under the heading "Risk Factors." We believe it is important to communicate our expectations to our investors. However, there may be events in the future that we are not able to predict accurately or over which we have no control. The risks described in "Risk Factors" included in this Annual Report on Form 10-K, as well as any other cautionary language in this Annual Report on Form 10-K, provide examples of risks, uncertainties and events that may cause our actual results to differ materially from the expectations we describe in our forward-looking statements. Before you invest in our common stock, you should be aware that the occurrence of the events described in "Risk Factors" and elsewhere in this Annual Report on Form 10-K could harm our business.

Given these risks, uncertainties and other factors, you should not place undue reliance on these forward-looking statements. Also, these forward-looking statements represent our estimates and assumptions only as of the date of this Annual Report on Form 10-K. You should read this document completely and with the understanding that our actual future results may be materially different from what we expect. We hereby qualify our forward-looking statements by these cautionary statements. Except as required by law, we assume no obligation to update these forward-looking statements publicly, or to update the reasons actual results could differ materially from those anticipated in these forward-looking statements, even if new information becomes available in the future.

PART I

Item 1. Business.

Company Overview

RealPage, Inc., a Delaware corporation (together with its subsidiaries, the "Company" or "we" or "us"), is a leading global provider of software and data analytics to the real estate industry. Our platform of data analytics and software solutions enables the rental real estate industry to manage property operations (such as marketing, pricing, screening, leasing, and accounting), identify opportunities through market intelligence, and obtain data-driven insight for better operational and financial decision-making. Our integrated, on demand platform provides a single point of access and a massive repository of real-time lease transaction data, including prospect, renter, and property data. By leveraging data as well as integrating and streamlining a wide range of complex processes and interactions among the rental real estate ecosystem (owners, managers, prospects, renters, service providers, and investors), our platform helps our clients improve financial and operational performance and prudently place and harvest capital.

We sell our solutions through our direct sales organization. Our total revenues were approximately $869.5 million, $671.0 million, and $568.1 million for the years ended December 31, 2018, 2017, and 2016, respectively. In the same periods, we had operating income of approximately $66.1 million, $30.0 million, and $31.2 million, respectively, and net income of approximately $34.7 million, $0.4 million, and $16.7 million, respectively.

Our company was formed in 1998 to acquire Rent Roll, Inc., which marketed and sold on premise property management systems for the conventional and affordable multifamily rental housing markets. In June 2001, we released OneSite, our first on demand property management system. Since 2002, we have expanded our platform of solutions to include property management, leasing and marketing, resident services, and asset optimization capabilities. In addition to the multifamily markets, we now serve the single family, senior living, student living, military housing, commercial, hospitality, and vacation rental markets. In addition, since July 2002, we have completed over 40 acquisitions of complementary technologies to supplement our internal product development and sales and marketing efforts and expand the scope of our solutions, the types of rental housing and vacation rental properties served by our solutions, and our client base. In connection with this expansion and these acquisitions, we have committed greater resources to developing and increasing sales of our platform of data analytics and on demand solutions. As part of our strategy, we plan to continue to pursue acquisitions of complementary businesses, products, and technologies.

Industry Overview

The rental real estate market is large, growing, and complex.

The rental real estate market is large and characterized by challenging and location-specific operating requirements, diverse industry participants, significant mobility among renters, and a variety of property types, including single family and a wide range of multifamily property types, including conventional, affordable, privatized military, student, and senior housing. According to the U.S. Census Bureau American Housing Survey for the United States, there were 43.9 million rental real estate units in the United States in 2017. Based on U.S. Census Bureau data and our own estimates, we believe that the overall size of the U.S. rental real estate market, including rent, utilities, and insurance, exceeds $560.0 billion annually. We estimate that the total addressable market for our current data analytics and on demand software solutions is approximately $10.0 billion per year. This estimate assumes that each of the 43.9 million rental units in the United States has the potential to generate annually a range of approximately $180 in revenue per unit for single family units to approximately $350 in revenue per unit for conventional multifamily units. In addition, we estimate that the student and senior markets have the potential to generate annually approximately $460 in revenue per unit, and affordable housing markets will generate annually approximately $150 in revenue per unit. We base this potential revenue assumption on our review of the purchasing patterns of our existing clients with respect to our data analytics and on demand software solutions, the solutions currently utilized by our existing clients, the number of units our clients manage with these solutions, and our current pricing for data analytics and on demand software solutions.

The global vacation rental market is large and generally segmented by the type of property and seasonality. Based on our industry research, we estimate the total global vacation rental market to be approximately $130.0 billion annually. Professional vacation managers, representing roughly 2.0 million units, are responsible for approximately half of the total vacation rental transactions in the market and the other half of the total transactions relate to properties that are individually managed by the property owners. We estimate that the total addressable market for our vacation rental solutions is approximately $1.7 billion per year. This estimate assumes that each of the 2.0 million units managed has the potential to generate annual revenue per unit of $850. We estimate the potential revenue assumptions based on our review of market industry research and realistic solution penetration rates, as well as related trends affecting the vacation rental market, including the analysis of vacancy rates and the average number of nights booked.

The homeowner association ("HOA") market is estimated to contain over 16.0 million units and we estimate that the total addressable market for our HOA solutions is approximately $1.0 billion per year. This estimate assumes that each of the 16.0 million units managed has the potential to generate annual revenue per unit of $60. We estimate the potential revenue assumptions based on our review of market industry research and realistic solution penetration rates, as well as related trends affecting the HOA market.

We believe there is increasing demand for solutions that bring efficiency and precision to the rental real estate industry, which has historically lacked the tools available to many other investment classes. We leverage our massive pool of lease transaction data to provide our clients with analytical tools and actionable intelligence to inform the prudent allocation of capital. We believe that the use of precision data analytics and price optimization solutions represent a significant opportunity to increase yield from the approximately $3.2 trillion of apartment stock in the U.S., turning over at a rate of approximately $170.0 billion per year.

Rental real estate management spans both the renter life cycle and the operations of a property.

The renter life cycle can be separated into four key stages: prospect, applicant, residency or stay, and post-residency or post-stay. Each stage has unique requirements, and a property owner's or manager's ability to effectively address these requirements can significantly impact revenue and profitability.

In addition to managing the renter life cycle, property owners and managers must also manage the operations of their properties. Critical components of property operations include materials and service provider procurement; insurance and risk mitigation; utility and energy management; yield management; information technology and telecommunications management; accounting; expense tracking and management; document management; security; staff hiring and training; staff performance measurement and management; and marketing.

Managing the renter life cycle and the operations of a property involves several different constituents, including property owners and managers, prospects, renters, service providers, and investors. Property owners can include single-property owners, multi-property owners, national residential apartment syndicates that may own thousands of units through a variety of investment funds, and real estate investment trusts ("REITs"). Property managers often are responsible for a large number of properties that can range from single family units to multifamily apartment communities. Property owners and managers also need to manage a variety of service providers, including utilities, insurance providers, video, voice and data providers, and maintenance and capital goods suppliers. Managing these diverse relationships, combined with renter turnover, property turnover, as well as regulatory and compliance requirements, can make the operations of even a small portfolio of rental properties complex. Challenges are compounded for real estate portfolio managers responsible for a large number of geographically dispersed properties, which require overseeing potentially hundreds of thousands of individual rental processes.

Legacy information technology solutions designed to manage the rental real estate management process are inadequate.

During the 1970's and 1980's, the rental real estate industry was highly fragmented and regionally organized. During this period, the first property management systems and software solutions emerged to help property owners and managers with basic accounting and record keeping functions. These solutions provided limited functionality and scalability and often were not tailored to the specific needs of the rental real estate industry.

Beginning in the mid 1990's, the rental real estate market began to consolidate and large, nationally focused and publicly financed companies emerged, which aggregated significant numbers of units. The rise of national real estate portfolio managers, many of them accountable to public shareholders, created a need for more sophisticated and scalable property management systems that included a centralized database and were designed to optimize and automate multiple business processes within the renter life cycle and property operations. Despite increasing market demands, the available solutions continued to be insufficient to fully address the complex requirements of the rental real estate industry, which moved beyond basic accounting and record keeping functions to also include value-added services, such as Internet marketing, applicant screening, billing solutions and analytics for pricing, and yield optimization. Additionally, the rise of national syndicates and REITs fueled the need for tools that provide increased visibility into the operational performance of portfolio properties and market analysis resources to maximize return on investment.

To address its complex and evolving requirements, the rental real estate industry has historically implemented a myriad of single point solutions; general purpose applications, such as Microsoft Excel; and/or internally developed solutions to manage their properties. These solutions can be expensive to implement and maintain; often lack integrated functionality to help rental real estate owners, managers, and investors maximize operational yields; and do not have dynamic reporting and analysis tools necessary to optimize investment returns or support capital allocation decisions. In addition, many professionals in the rental real estate industry still rely on paper or spreadsheet-based approaches, which are typically time-intensive and prone to human error or internal mismanagement.

The rental real estate industry has relied upon print and Internet listing firms to attract leads required to fill available vacancies.

We believe these historical solutions are inadequate because they:

- require significant customization to implement, which frequently inhibits upgrading to new versions or platforms in a timely manner;
- require information technology ("IT") resources to support integration points between property management systems and disparate value-added services;
- require IT resources to implement and maintain data security, data integrity, performance, and business continuity solutions;
- lack scalability and flexibility to account for the expansion or contraction of a property portfolio;
- lack material organic lease generation capability and do not track the cost of leads generated by each source;
- lack effective spend management capabilities for controlling property management costs;
- lack comprehensive analytics for pricing and yield optimization;
- lack workflow level integration;
- do not provide owners, managers, and investors with visibility into overall property performance; and
- cannot be easily updated to meet new regulations and compliance requirements.

On demand software solutions are well suited to meet the rental real estate market's needs.

The ubiquitous nature of the Internet, widespread broadband adoption, and improved network reliability and security has enabled the deployment and delivery of business-critical applications online. The on demand delivery model is substantially more economical than traditional on premise software solutions that generally have higher deployment and support costs and require the client to purchase and maintain the associated servers, storage, networks, security, and disaster recovery solutions.

The RealPage Solution

We provide a technology platform of data analytics and on demand software solutions that integrates and streamlines rental real estate management and property operations. Our platform provides the analytical and software solutions necessary to optimize operational yields and returns on investment, and contributes to a more efficient property management process and an improved experience for all of the constituents involved in the rental real estate ecosystem.

Benefits to our Clients

We believe the benefits of our solutions for our clients include the following:

Increased revenues: Our data analytics and on demand software solutions enable our clients to increase their revenues and optimize operational yields by improving their sales and marketing effectiveness; pricing and occupancy; and collection of rental payments, utility expenses, late fees, and other charges. Additionally, our solutions enable our clients to realize new sources of revenue from complementary solutions and services.

Reduced operating costs: Our data analytics and on demand software solutions help our clients reduce costs and optimize operational yields by streamlining and automating many ongoing property management functions; centralizing and controlling purchasing by on-site personnel; and transferring costs from the site to more efficient, centrally managed operations. Our on demand delivery model also reduces a rental property's operating costs by eliminating the need to own and support the applications or associated hardware infrastructure. In addition, our integrated solutions consolidate the initial implementation and training costs and ongoing support associated with multiple applications. This is particularly important for rental real estate professionals who want to reduce enterprise-class IT infrastructure, support, and staff training.

Improved quality of service for renters and prospects: Our solutions improve the level of service that rental real estate properties provide to renters and prospects by enabling certain types of transactions to be completed online; expediting the processing of rental applications, maintenance service requests, and payments; and increasing the frequency and quality of communication with their renters and prospects. This provides higher renter satisfaction and increased differentiation from competing properties that do not use our solutions while optimizing operational yields.

Streamlined and simplified property management business processes: Our platform provides integrated solutions for managing a wide variety of property management processes that have traditionally been managed by separate manual or disaggregated applications. Our on demand software solutions utilize common authentication that enables data sharing and workflow automation of certain business processes, thereby eliminating redundant data entry and simplifying many recurring tasks. The efficiency of our solutions allows for optimization of operational yields.

Greater visibility into real estate investment portfolio: Our portfolio management solutions are designed specifically for general partners, limited partners, property management professionals, and other real estate investment firms. These solutions allow stakeholders to quickly combine financial and operating metrics based upon portfolio attributes to evaluate performance,

trends, and operations across a portfolio, as well as facilitate the assessment of potential asset management strategies. These solutions provide an unprecedented level of visibility into a real estate portfolio, including information down to the property level, and are designed to work with any property management system. Our portfolio management solutions provide stakeholders the critical information necessary to maximize investment returns and prudently allocate and harvest capital investment.

Ability to integrate third-party products and services: Our open architecture and application framework facilitate the integration of third-party applications and services into our solutions. This enables our clients to conduct these business functions through the same system that they already use for many of their other tasks and to leverage the same repository of lease transaction data, including prospect, renter, and property data, which supports our solutions.

Increased visibility into property performance: Our platform of data analytics and on demand software solutions enable rental real estate owners, managers, and investors to gain a comprehensive view of the operational and financial performance of each of their properties. Our solutions provide a library of standard reports, dashboards, scorecards, and alerts, and we also provide interfaces to several widely used report writers and business intelligence tools. We maintain a massive repository of real-time lease transaction data, subsets of which can be utilized to factor rental payment history into applicant screening processes and to create more accurate supply and demand models and statistically-based price elasticity models to improve price optimization. This enables our clients to optimize both operational yields and investment returns.

Simple implementation and support: Our platform of solutions includes pre-configured extensions that meet the specific needs of a variety of property types and can be easily tailored by our clients to meet more specific requirements of their properties and business processes. We strive to minimize the need for professional consulting services to implement our solutions and train personnel.

Improved scalability: We host our solutions for our clients, thereby reducing or eliminating our clients' costs associated with expanding or contracting IT infrastructure as their property portfolios evolve. We also bear the risk of technological obsolescence because we own and manage our data center infrastructure and are continually upgrading it to newer generations of technology without incremental cost to our clients.

Competitive Strengths of our Solutions

The competitive strengths of our solutions are as follows:

Integrated on demand software platform based on a repository of real-time lease transaction data: Our solutions are delivered through an integrated on demand software platform that provides a single point of access via the Internet with a common repository of lease transaction data, including prospect, renter, and property data, which permits our solutions to access requested data through offline data transfer or in real-time.

Large and growing apartment real estate ecosystem: At December 31, 2018, our client base of over 12,200 clients used one or more of our integrated data analytics or on demand software solutions to help manage the operations of approximately 16.2 million rental real estate units. Our solutions automate and streamline many of the recurring transactions and interactions among this large and expanding apartment real estate ecosystem, including prospect inquiries, applications, monthly rent payments, and service requests. As the number of constituents of the apartment real estate ecosystem increases, the volume of lease transaction date in our repository and its value to the constituents of the ecosystem grows.

Comprehensive platform of data analytics and on demand software solutions and services for the rental real estate industry: Our platform of solutions and services provides a broad range of analytical and on demand capabilities for managing the renter life cycle and core operational processes for property management. This integrated, on demand platform enables our clients to optimize operational yields and investment returns.

Precision data analytics and price optimization tools based on in-depth lease transaction data: The combination of our massive pool of lease transaction data, our expertise in apartment marketing dynamics, our data science team that can extract actionable insights, and our forecasting abilities creates a unique competitive advantage. Our statistical-based modeling and forecasting solutions provide our clients with granular, market-specific intelligence which facilitates the optimization of operational yields and returns on investment. We believe the use of precision data analytics and price optimization solutions represents a significant opportunity to increase yields from the approximate $3.2 trillion of apartment stock in the U.S., turning over at a rate of $170.0 billion per year.

Open cloud computing architecture: Our cloud computing architecture enables our solutions to interface with our clients' existing systems and allows our clients to outsource the management of third-party business applications. This open architecture enables our clients to buy our solutions incrementally while continuing to use existing third-party solutions, allowing us to shorten sales cycles and increase adoption of our solutions within our target markets.

Deep rental real estate industry expertise: We have been serving the rental real estate industry exclusively for over 20 years, and the members of our senior management team have extensive experience in the rental real estate industry. We

design our solutions based on our extensive expertise, insight into industry trends and developments, and property management best practices that help our clients simplify the challenges of owning and managing rental properties.

Experienced management team with strong integrating and operating track record: We have a highly seasoned and effective management team with extensive expertise in the rental real estate industry. By leveraging this expertise and knowledge, we have developed, and continue to improve, data analytics and on demand software solutions which help our clients simplify the challenges of owning and managing rental properties, increase operational yields, and make better capital placement and harvesting decisions. Our management team has a proven ability to acquire and integrate complementary businesses and technologies, as demonstrated by the over 40 acquisitions we have completed since July 2002. We continue to attract and retain experienced management talent to support our growth.

Our Strategy

We plan to continue to leverage our platform of solutions and industry presence to maintain our position as a leading provider of technology solutions to the real estate industry. The key elements of our strategy to accomplish this objective are as follows:

Acquire new clients: We intend to actively pursue new client relationships with property management professionals and investors that do not currently use our solutions. In addition to marketing our property management solutions, we will seek to sell our software-enabled, value-added services to clients of other third-party property management systems by utilizing our open architecture to facilitate integration of our solutions with those systems.

Increase the adoption of the RealPage platform: Many of our clients rely on our platform to manage their daily operations and track all of their critical prospect, renter, and property information. Additionally, some of our clients utilize our software-enabled, value-added services to complement third-party Enterprise Resource Planning ("ERP") systems. We have continually introduced new software-enabled, value-added services to complement our platform of solutions and marketed our on demand solutions to our clients who are utilizing third-party ERP systems. We believe that the penetration of our on demand software solutions to date has been modest, and significant potential exists for additional on demand revenue from sales of these solutions to our client base. We have significant opportunities to further leverage the critical role that our solutions play in our clients' operations by increasing the adoption of our platform of solutions and value-added services within our existing client base, and we intend to actively focus on up-selling and cross-selling our solutions to our clients.

Add new features and functionality to our rental real estate industry platform: We believe that we offer the most comprehensive platform of data analytics and on demand software solutions for the rental real estate industry. Our platform enables our clients to control many aspects of the residential rental property management process. We are able to add new capabilities that further enhance our platform, and we intend to continue developing and introducing new solutions to sell to both new and existing clients. These solutions may include localized solutions to support our clients as they grow their international operations. We also intend to develop new relationships with third-party application providers that can use our open architecture to offer additional product and service capabilities to their clients through our platform.

Pursue acquisitions of complementary businesses, products, and technologies: Since July 2002, we have completed over 40 acquisitions that have enabled us to expand our platform, enter into new rental property markets, and expand our client base. We intend to continue to pursue acquisitions of complementary businesses, products, and technologies. We continue to selectively evaluate our capital allocation strategy to focus on the most efficient sources of capital available to us for the acquisition of businesses and technologies that may help us accomplish these and other strategic objectives.

Solutions and Services

Our platform is designed to serve as a single system of record for all of the constituents of the rental real estate ecosystem; to support the entire renter life cycle, from prospect to applicant to residency or guest to post-residency or post-stay; and to optimize operational yields and returns on investment. Common authentication, work flow, and user experience across solution categories enables each of these constituents to access different applications as appropriate for their roles.

Our platform consists of four primary categories of solutions: Property Management, Leasing and Marketing, Resident Services, and Asset Optimization. These solutions provide complementary asset performance and investment decision support; risk mitigation, billing and utility management; resident engagement, spend management, operations and facilities management; and lead generation and lease management capabilities that collectively enable our clients to manage all the stages of the renter life cycle. Each of our solution categories includes multiple product centers that provide distinct capabilities that can be bundled as a package or licensed separately. Each product center integrates with a central repository of lease transaction data, including prospect, renter, and property data. In addition, our open architecture allows third-party applications to access our solutions using our RealPage Exchange platform.

We offer different versions of our platform for different types of properties in different real estate markets. For example, our platform supports the specific and distinct requirements of:

- conventional single family properties;
- conventional multifamily properties;
- affordable Housing and Urban Development ("HUD") properties;
- affordable tax credit properties;
- rural housing properties;
- privatized military housing;
- commercial properties;
- student housing;
- senior living;
- homeowner association properties;
- short term rentals; and
- vacation rentals.

Property Management

Our property management solutions are referred to as ERP systems. These solutions manage core property management business processes, including leasing, accounting, budgeting, purchasing, facilities management, document management, and support and advisory services. The solutions include a central database of prospect, applicant, renter, and property information that is accessible in real time by our other solutions. Our property management solutions also interface with most popular general ledger accounting systems through our RealPage Exchange platform. This makes it possible for clients to deploy our solutions using our accounting system or a third-party accounting system. Our property management solution category consists of these primary solutions: OneSite, Propertyware, RealPage Financial Services, Kigo, Spend Management Solutions, SmartSource IT, and EasyLMS.

OneSite

OneSite is our flagship on demand property management solution for multifamily properties and is tailored to the specific needs of different property types (conventional multifamily, affordable properties, rural housing, privatized military housing, senior living, student living, and commercial). OneSite offers functionality that generates lease documents, manages service requests, measures acuity of senior residents, enables senior community management, and manages procurement activities.

Propertyware

Propertyware is our on demand property management system for single-family properties and small, centrally managed multifamily

properties. Propertyware functionality includes accounting, maintenance and work order management, marketing,

spend management, and portal services. In addition, we offer our screening and payment solutions through our Propertyware brand to single family and small, centrally managed multifamily properties.

RealPage Financial Services

RealPage Financial Services is an on demand offering of products and services for all back office accounting. The RealPage Financial Suite includes budgeting, property accounting, corporate accounting, job cost, and investment accounting. SmartSource Accounting provides for full outsourcing of back office accounting services.

Kigo

Kigo is our on demand vacation rental property management system. Kigo offers solutions for vacation rental property management that include vacation rental calendars, scheduling, reservations, accounting, channel management, website design, payment processing, and other tasks to aid the management of leads, revenue, resources, and lodging calendars.

Spend Management Solutions

Our spend management solutions enable property owners and managers to better control costs. Spend management functionality includes purchase order automation; automated approval workflows, including mobile approvals; eProcurement solutions and services leveraging our volume to negotiate vendor discounts; budget and spend limit controls; centralized expense reporting; invoice management; bid management for capital projects; and automated vendor compliance tools.

SmartSource IT

SmartSource IT provides outsourced IT management and support services to allow property owners and managers to focus on core competencies and scale operations as portfolios adjust with lower risk and greater flexibility, enhancing end user productivity. SmartSource IT services include end user desktop support for both corporate and property employees, IT purchasing, Office 365 license management, server hosting, and resident technology services. This robust set of IT services reduces IT complexity and lowers the total cost of technology ownership while providing superior security and performance.

EasyLMS

EasyLMS is a learning management system for property management professionals and their staff. EasyLMS substantially reduces training time by compartmentalizing subject matter and disseminating lessons in 10 to 15 minute increments for easier consumption during the workday. The system also incorporates gamification and active engagement to enhance the effectiveness of the learning solution and knowledge retention.

Leasing and Marketing

Leasing and marketing solutions aim to optimize marketing spend and the leasing process. These solutions manage core leasing and marketing processes, including websites and syndication, paid lead generation, organic lead generation, lead management, automated lead closure, lead analytics, real-time unit availability, automated online apartment leasing, applicant screening, and creative content design. Our leasing and marketing solutions category consists of the following primary solutions: Online Leasing, Contact Center, Websites & Syndication, Intelligent Lease Management, LeaseLabs, Lead2Lease CRM, Resident Screening, and MyNewPlace.

Online Leasing

Online Leasing is our on demand leasing platform that transacts the entire leasing process online. Among other functions, the platform utilizes widgets that enable renters to confirm unit availability, generate a price quote, apply for residency, and fully execute a lease.

Contact Center

Contact Center is our 24/7 on demand lead closure and resident maintenance support solution. Contact Center provides both live agent and automated platforms. Communication channels and functionality include call, web chat, email with instant call reply, email for leasing, as well as RealPage Live Agent calls and answer automation for maintenance support. Contact Center is a strategic service partner offering a combination of people, process, and technology to track all leads, schedule visits, and capture emergency and non-emergency maintenance requests on behalf of our clients.

Websites & Syndication

Websites and Syndication anchor our on demand organic lead generation platform. Functionality includes property website design and enhanced search engine optimized (“SEO”) content (e.g. high-resolution photography, video tours, animated tours, 3D floor plans, and interactive site maps), mobile applications and integration with online leasing to drive traffic and lead quality. Syndication tools ensure consistency across multiple marketing channels and include classified directory campaign services, renter social referrals, reputation management, surveys, real-time reporting, and enhanced lead management.

Intelligent Lease Management ("ILM")

Acquired in 2017, ILM is a leading product in the multifamily industry that scores every inbound and outbound interaction with prospective renters to enhance leasing performance. The solution also provides near-real-time metrics to deliver insight into the effectiveness of a community's marketing and advertising sources in attracting qualified prospects.

LeaseLabs

LeaseLabs provides digital marketing services and software. We acquired LeaseLabs, Inc. ("LeaseLabs") in 2018 to extend our marketing platform by adding marketing analytical services, creative content design, direct marketing through social media channels, reputation management and geo-targeting solutions. LeaseLabs combined with our other solutions provide (i) marketing content, content management, and digital rights management from PropertyPhotos.com, (ii) websites and microsites, and (iii) ILM. This combined offering will be branded as the Go Direct Marketing Suite.

Lead2Lease CRM

Lead2Lease CRM is a lead management tool that cultivates lead generation, tracks lead activity and communications, and influences lead conversion.

Resident Screening

Screening is part of our risk mitigation platform to reduce rental payment delinquency. Resident screening uses many disparate data sources, including national credit bureaus and a large, proprietary database of on demand rental payment histories, to evaluate applicant credit profiles. Additional functionality includes criminal background checks and eviction history from real-time databases aggregated by third-party data providers. In addition, certain functionality enables owners and managers to optimize credit thresholds based on occupancy levels, and adjust deposit and rent amounts based on the default risk of the renter in a yield neutral manner.

MyNewPlace

MyNewPlace is a paid lead generation site that helps renters find rental housing options utilizing functionality that includes enhanced photography, 3D floor plans, SEO-enhanced descriptions, and neighborhood information. Our acquisition of Lease Rent Options in 2017 included the Rent Jungle product, which added additional functionality to our lead generation and leasing solutions.

Resident Services

Our resident services solutions provide a platform to optimize the transactional and social experience of prospects and renters, and enhance a property's reputation. These solutions facilitate core renter management business processes including utility billing, renter payment processing, service requests, lease renewal, renter's insurance, and consulting and advisory services. Our resident services solution category primarily consists of the following solutions: Resident Utility Management, Resident Payments, Resident Portal, Contact Center Maintenance, and Renter's Insurance.

Resident Utility Management

Resident Utility Management is our on demand billing and utility management platform. In 2016, we augmented our utility management solutions with the acquisition of NWP Services Corporation ("NWP"), and we further expanded the service through our acquisition of American Utility Management ("AUM") in 2017. In 2018, we acquired BluTrend, LLC ("BluTrend") to expand our utility management platform with automation technology that speeds up invoice processing by extracting invoice data directly from utility companies, thereby eliminating the time to mail invoices. Combining the complementary functionalities of these solutions with our existing platform offers our clients automated convergent billing, utility invoice processing, utility cost management, automated energy recovery, infrastructure services (e.g., accounting, community energy, media, data, and telecom), the ability to benchmark energy consumption and cost, and sub-metering services.

Resident Payments

Payments is our on demand payment-processing platform that enables electronic collection of rent and other payments. Provided through our RealPage Payments subsidiaries with both operator and renter processing options for fee reduction, the platform accommodates the processing of multiple payment types including check, money order, automated clearing house ("ACH"), debit cards, and credit cards. Our acquisition of ClickPay Services, Inc. ("ClickPay") in 2018 significantly expands our footprint into the HOA owner-occupied segment of real estate, broadens our presence in the New York metropolitan market and solidifies the integration of our front-end leasing platform into third-party property management systems.

Resident Portal

Resident Portal is our on demand platform for facilitating renter transactions, social engagement, and community management. Resident portal functionality includes online community facilitation (between multifamily property managers, local vendors, and other renters), service request placement and status, and lease renewals.

Contact Center Maintenance

Contact Center Maintenance is our on demand platform for service request management. Functionality from the platform includes service call, email, and chat routing technology; service request tracking; and remote agent staffing, on a permanent or overflow basis to optimize the service request process. Enhancements include automated answering services and other features that amplify the ability of multifamily property managers to communicate with their residents.

Renter's Insurance

Renter's Insurance is part of our risk mitigation platform to reduce liability and property damage risk. The platform offers liability and content protection renter's insurance under the consumer-facing brand name "eRenterPlan." Liability policies protect property owners and managers against financial loss due to renter-caused damage, while content protection provides additional coverage for a renter's personal belongings in the event of loss. Our DepositIQ product allows residents an option of purchasing an affordable nonrefundable surety bond to guarantee lease obligations.

Asset Optimization

Our asset optimization solutions aim to optimize property financial and operational performance, and provide comprehensive analytics-based decision support for optimum investment performance throughout the phases of real estate investment (e.g., acquisition, operation, renovation, and disposition). These solutions facilitate core asset management, business intelligence, performance benchmarking and investment analysis including real-time yield management, revenue growth forecasting, key variable sensitivity forecasting, internal operating metric benchmarking and external market benchmarking. Our asset optimization solution category consists of these primary solutions: YieldStar Revenue Management, Business Intelligence, and Asset and Investment Management.

YieldStar Revenue Management

YieldStar is our on demand yield management platform. The platform includes real-time statistical models leveraging a repository of lease transaction data to calculate optimal rent for each rental unit, pricing management advisory services, and MPF Research, an apartment market research database. The data coverage and forecasting capabilities of YieldStar were expanded through our 2017 acquisitions of Axiometrics and Lease Rent Options. Augmenting our data science talent and modeling tools through these acquisitions allows our customers to achieve better harvesting and placement of capital in the rental housing industry.

Business Intelligence

Business intelligence is our on demand business intelligence platform designed to enable property owners and managers to outperform their peers. In 2018, we acquired Rentlytics, Inc. ("Rentlytics") to expand our business intelligence and performance analytics platform to provide owners and operators with normalized data across multiple third-party systems in order to resolve system incompatibility, data accuracy issues and time-to-analysis delays. Business intelligence functionality includes easy-to-use customized internal reporting at any aggregation level and during any time horizon, simultaneously leveraging operational, financial and marketing data. In addition, the platform includes a robust peer-benchmarking component that leverages a massive repository of lease transaction data for assessing both internal and external market performance metrics, economic tools for revenue forecasting, and key operating variable forecasting.

Asset and Investment Management

Asset and Investment Management is an integrated analytics platform providing general partners, limited partners, REITs and property management companies with increased transparency into their portfolios. The anchor component, Portfolio Asset Management ("PAM"), enables the collection of property level financial information and operational data across a portfolio, regardless of asset type or operational platform. Using PAM, portfolio managers can collect, share, analyze and report on critical metrics, facilitating better investment and operational decisions.

Professional Services

We have developed repeatable, cost-effective consulting and implementation services to assist our clients in taking advantage of our capabilities and solutions. Our consulting and implementation methodology leverages the nature of our on demand software architecture, the industry-specific expertise of our professional services employees, and the design of our platform to simplify and expedite the implementation process. Our consulting and implementation services include project and application management procedures, business process evaluation, business model development and data conversion. Our consulting teams work closely with customers to facilitate the smooth transition and operation of our solutions.

We offer training programs for training administrators and onsite property managers on the use of our solutions. Training options include regularly hosted classroom and online instruction (through our online learning courseware), as well as online webinars. Our clients can integrate their own training content with our content to deliver an integrated and customized training program for their on-site property managers.

On Demand Delivery Infrastructure

Our IT infrastructure operates four redundant 40 GBPS dedicated fiber links connecting data centers containing hundreds of servers and multiple storage area networks. This architecture makes it possible to expand the data center incrementally with little or no disruption as more users or additional applications are added. With approximately 9,500 virtual servers, 700 physical servers and 8.0 petabytes of data storage, we leverage this infrastructure and massive repository of lease transaction data to power our platform of solutions.

Our infrastructure is based on an open architecture that enables end users and third-party applications to access our suite of property management-based software-as-a-service ("SAAS") hosted applications through our public and private web services, web applications and application program interfaces ("APIs"). Billions of web transactions are processed per business day through our SAAS offering hosted on this expandable and open architecture based interface.

As of December 31, 2018, we employed approximately 330 employees who were responsible for maintaining data security, integrity, availability, performance and business continuity in our cloud computing facilities. We annually obtain a Service Organization Controls audit performed under Statements on Standards for Attestation Engagements No. 18 on a specified set of internal controls. Certain clients conduct separate business continuity audits of their own.

In addition to our production data centers, we manage a separate development and quality assurance testing facility used to control the pre-production testing required before each new release of our on demand software. We typically deploy new releases of the software underlying our on demand software solutions on a monthly or quarterly schedule depending on the solution.

RealPage Support

Our clients can access our support professionals by phone, web, chat or email for assistance in resolving issues and general questions about our solutions. We offer two product support options: Standard and Platinum Support. Standard Support includes product support during business hours Monday through Friday. Platinum Support includes the features of Standard Support, with customized engagement that includes a designated senior product support liaison. We also sponsor the RealPage User Group to facilitate communications between us and our community of users. The RealPage User Group is governed by a steering committee of our clients, which consists of two elected positions and subcommittee chairs, each representing a RealPage product center or group of product centers.

Product Development

We devote a substantial portion of our resources to developing new solutions and enhancing existing solutions, conducting product and quality assurance testing, improving core technology, and strengthening our technological expertise in the rental real estate industry. We typically deploy new releases of the software underlying our on demand software solutions on a monthly or quarterly schedule depending on the solution. As of December 31, 2018, our product development group consisted of approximately 610 employees in the United States and 720 employees located primarily in Hyderabad, India; Manila, Philippines; and Cebu City, Philippines. Product development expense totaled $118.5 million, $89.5 million and $73.6 million during the years ended December 31, 2018, 2017, and 2016, respectively.

Sales and Marketing

We sell our rental real estate software and services through our direct sales organization. We organize our sales force by geographic region, size of our prospective clients, and property type. We believe this focus provides a higher level of service and understanding of our clients' unique needs. Our typical sales cycle with a prospective client begins with the generation of a sales lead through Internet marketing, email campaigns, telemarketing efforts, trade shows, or other means of referral. The sales lead is followed by an assessment of the prospective client's requirements, sales presentations, and product demonstrations. Our sales cycle can vary substantially from client to client but typically requires three to six months for larger clients and one to six weeks for smaller clients.

In addition to new client sales, we sell additional solutions and consulting services to our existing clients to help them more efficiently and effectively manage their properties as the rental real estate market evolves and competitive conditions change.

We generate qualified client leads, accelerate sales opportunities, and build brand awareness through our marketing programs. Our marketing programs target property management company executives, technology professionals, and senior business leaders. Our marketing team focuses on the unique needs of clients within our target markets. Our marketing programs include the following activities:

- field marketing events for clients and prospects;
- participation in, and sponsorship of, user conferences, trade shows, and industry events;
- client programs, including client user meetings and our online client community;

- online marketing activities, including online advertising and SEO, email campaigns, web campaigns, white papers, free product trials and demos, webcasts, case studies, and the use of social media, including blogging, Facebook, LinkedIn, and Twitter;
- public relations;
- use of our website to provide product and company information, as well as learning opportunities for potential clients; and
- ongoing consumer email marketing campaigns that drive adoption of transactional products, such as online payments and renter's insurance, by residents on behalf of our property management clients.

We host an annual user conference where clients both participate in and lead various types of sessions and planned discussions designed to help accelerate business performance through the use of our integrated platform of solutions. The conference features a variety of client speakers, panelists, and presentations focused on businesses of all sizes. The event also brings together our clients, technology vendors, service providers, and other key participants in the rental real estate industry to exchange ideas and best practices for improving business performance. Attendees gain insight into our product plans and participate in interactive sessions that give them the opportunity to provide input into new features and functionality.

Strategic Relationships

We maintain relationships with a variety of technology vendors and service providers to enhance the capabilities of our integrated platform of solutions. This approach allows us to expand our platform and client base and to enter new markets. We have established the following types of strategic relationships:

Technology Vendors

We have relationships with a number of leading technology companies whose products we integrate into our platform or offer to complement our solutions. The cooperative relationships with our software and hardware technology partners allow us to build, optimize, and deliver a broad range of solutions to our clients.

Service Providers

We have relationships with a number of service providers that offer complementary services that integrate into our platform and address key requirements of rental property owners and managers, including credit card and ACH services, transaction processing capabilities, and insurance underwriting services.

Clients

We are committed to developing long-term client relationships and working closely with our clients to configure our solutions to meet the evolving needs of the rental real estate industry. Our clients include REITs, leading property management companies, fee managers, regionally based owner operators, vacation property owners, and service providers. As of December 31, 2018, we had over 12,200 clients who used one or more of our on demand software solutions to help manage the operations of approximately 16.2 million rental real estate units. Our clients include each of the ten largest multifamily property management companies in the United States, ranked as of January 1, 2018 by the NMHC, based on number of units managed. For the years ended December 31, 2018, 2017 and 2016, no one client accounted for more than 10% of our revenue. Revenues for our largest client were 5.9%, 6.2%, and 5.7% of total revenues for the years ended December 31, 2018, 2017, and 2016, respectively.

Intellectual Property

We rely on a combination of copyright, trademark, and trade secret laws, as well as confidentiality procedures and contractual restrictions, to establish and protect our proprietary rights. These laws, procedures, and restrictions provide only limited protection. We currently have a limited number of patents and pending patent applications. In the future, we may file additional patent applications, but patents may not be issued with respect to these patent applications, or if patents are issued, they may not provide us with any competitive advantages, may not be issued in a manner that gives us the protection that we seek, and may be successfully challenged by third parties.

We endeavor to enter into agreements with our employees and contractors and with parties with whom we do business in order to limit access to and disclosure of our proprietary information. We cannot be certain that the steps we have taken will prevent unauthorized use or reverse engineering of our technology. Moreover, others may independently develop technologies that are competitive with ours or that infringe on our intellectual property. The enforcement of our intellectual property rights also depends on any legal actions against these infringers being successful, but these actions may not be successful, even when our rights have been infringed.

Furthermore, effective patent, trademark, trade dress, copyright, and trade secret protection may not be available in every country in which our solutions are available over the Internet. In addition, the legal standards relating to the validity, enforceability, and scope of protection of intellectual property rights are uncertain and still evolving.

Employees

As of December 31, 2018, we had approximately 6,200 employees. We believe that our success is attributable in large part to our employees and an experienced management team, many members of which have years of industry experience in building, implementing, marketing, and selling property management solutions critical to business operations. Our future performance depends upon the continued service of our key sales, marketing, technical, and senior management personnel and our continuing ability to attract and retain highly qualified personnel. We believe we have a corporate culture that attracts highly qualified and motivated employees. We consider our current relationship with our employees to be good. Our employees are not represented by a labor union and are not subject to a collective bargaining agreement.

Available Information

We maintain an Internet website at *www.realpage.com.* We make available, free of charge, on our website, our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports, as soon as reasonably practicable after providing such reports to the Securities and Exchange Commission ("SEC").

We file annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, proxy statements, and other documents with the SEC under the Securities Exchange Act of 1934, as amended. The SEC maintains an Internet website that contains reports, proxy, and information statements and other information regarding issuers, including RealPage, Inc., that file electronically with the SEC. The public can obtain any document we file with the SEC at *www.sec.gov*. Information contained on, or connected to, our website is not incorporated by reference into this Annual Report on Form 10-K and should not be considered part of this Annual Report on Form 10-K or any other filing that we make with the SEC.

Item 1A. Risk Factors.

Financial Risks Related to Our Business

Our quarterly operating results have fluctuated in the past and may fluctuate in the future, which could cause our stock price to decline.

Our quarterly operating results may fluctuate as a result of a variety of factors, many of which are outside of our control. Fluctuations in our quarterly operating results may be due to a number of factors, including the risks and uncertainties discussed elsewhere in this filing. Some of the important factors that could cause our revenues and operating results to fluctuate from quarter to quarter include:

- the extent to which on demand software solutions maintain market acceptance;
- fluctuations in leasing activity by our clients;
- our ability to timely introduce enhancements to our existing solutions and new solutions;
- our ability to renew the use of our on demand solutions for units managed by our existing clients and to increase the use of our on demand solutions for the management of units by our existing and new clients;
- changes in our pricing policies or those of our competitors or new competitors;
- the variable nature of our sales and implementation cycles;
- our ability to anticipate and adapt to external forces and the emergence of new technologies and products;
- our ability to enter into new markets and capture additional market share;
- our ability to integrate acquisitions in a cost-effective and timely manner;
- the timing of revenue and expenses related to recent and potential acquisitions or dispositions of businesses or technologies;
- changes in local economic, political and regulatory environments of our international operations;
- general economic, industry and market conditions in the rental housing industry that impact our current and potential clients;
- the amount and timing of our investment in research and development activities;
- technical difficulties, service interruptions, data or document losses or security breaches;
- our ability to hire and retain qualified key personnel, including particular key positions in our sales force and IT department;
- changes in the legal, regulatory or compliance environment related to the rental housing industry or the markets in which we operate, including without limitation changes related to fair credit reporting, payment processing, data

protection and privacy, utility billing, insurance, the Internet and e-commerce, licensing, telemarketing, electronic communications, consumer protection, the Health Insurance Portability and Accountability Act of 1996 ("HIPAA") and the Health Information Technology Economic and Clinical Health Act ("HITECH");

- the amount and timing of operating expenses and capital expenditures related to the expansion of our operations and infrastructure;
- increase in the number or severity of insurance claims on policies sold by us;
- litigation and settlement costs, including unforeseen costs;
- new accounting pronouncements and changes in accounting standards or practices, particularly any affecting the recognition of subscription revenue or accounting for mergers and acquisitions; and
- changes in tax policy in the United States and globally that affect the deductibility of certain expenses and how our profits are taxed, including the "Tax Reform Act," as defined below.

Fluctuations in our quarterly operating results or guidance that we provide may lead analysts to change their long-term models for valuing our common stock, cause us to face short-term liquidity issues, impact our ability to retain or attract key personnel or cause other unanticipated issues, all of which could cause our stock price to decline. As a result of the potential variations in our quarterly revenue and operating results, we believe that quarter-to-quarter and year-to-date period comparisons of our revenues and operating results may not be meaningful and the results of any one quarter should not be relied upon as an indication of future performance.

If we are unable to continue to manage the growth of our diverse and complex operations, our financial performance may suffer.

The growth in the size, dispersed geographic locations, complexity and diversity of our business and the expansion of our product lines and client base has placed, and our anticipated growth may continue to place, a significant strain on our managerial, administrative, operational, financial and other resources. We had approximately 6,200 employees and over 12,200 on demand clients as of December 31, 2018. We expect to continue to experience growth, including through acquisitions. Our ability to effectively manage our anticipated future growth will depend on, among other things, the following:

- successfully supporting and maintaining a broad range of current and emerging solutions;
- identifying suitable acquisition targets and efficiently managing the closing of acquisitions and the integration of targets into our operations;
- maintaining continuity in our senior management and key personnel;
- attracting, retaining, training and motivating our employees, particularly technical, client service and sales personnel;
- enhancing our financial and accounting systems and controls;
- enhancing our information technology infrastructure, processes and controls;
- successfully completing system upgrades and enhancements; and
- managing expanded operations in geographically dispersed locations.

If we do not manage the size, complexity and diverse nature of our business effectively, we could experience product performance issues, delayed software releases and longer response times for assisting our clients with implementation of our solutions and could lack adequate resources to support our clients on an ongoing basis, any of which could adversely affect our reputation in the market and our ability to generate revenue from new or existing clients.

Because we recognize subscription revenue over the term of the applicable client agreement, a decline in subscription renewals or new service agreements may not be reflected immediately in our operating results.

We generally recognize revenue from clients ratably over the terms of their client agreements, which are typically for a period of one or more years. As a result, much of the revenue we report in each quarter is deferred revenue from client agreements entered into during previous quarters. Consequently, a decline in new or renewed client agreements in any one quarter will not be fully reflected in our revenue or our results of operations until future periods. Accordingly, this revenue recognition model also makes it difficult for us to rapidly increase our revenue through additional sales in any period, as revenue from new clients must be recognized over the applicable subscription term.

Transactions relating to our Convertible Notes may adversely affect our financial condition and operating results.

Holders of the Convertible Notes are entitled to convert the Convertible Notes under certain conditions for specified periods at their option prior to the scheduled maturity of the Convertible Notes. When holders elect to convert their Convertible Notes, unless we elect to satisfy our conversion obligation by delivering solely shares of our common stock (other than paying cash in lieu of delivering any fractional share), we are required to settle a portion or all of our conversion obligation through the payment of cash, which could adversely affect our liquidity. In addition, even if holders do not elect to convert their Convertible Notes, we could be required under applicable accounting rules to reclassify all or a portion of the outstanding principal of the Convertible Notes as a current rather than long-term liability, which would result in a material reduction of our net working capital.

The accounting method for convertible debt securities that may be settled in cash, such as the Convertible Notes, could have a material effect on our reported financial results.

In May 2008, the Financial Accounting Standards Board ("FASB") issued FASB Staff Position No. APB 14-1, Accounting for Convertible Debt Instruments That May Be Settled in Cash Upon Conversion (Including Partial Cash Settlement), which has subsequently been codified as Accounting Standards Codification 470-20, Debt with Conversion and Other Options, which we refer to as ASC 470-20. Under ASC 470-20, an entity must separately account for the liability and equity components of the convertible debt instruments, such as the Convertible Notes, that may be settled entirely or partially in cash upon conversion in a manner that reflects the issuer's economic interest cost. The effect of ASC 470-20 on the accounting for the Convertible Notes is that the equity component is required to be included in the additional paid-in capital section of stockholders' equity on our Consolidated Balance Sheets, and the value of the equity component would be treated as original issue discount for purposes of accounting for the debt component of the Convertible Notes. As a result, we will be required to record a greater amount of non-cash interest expense in current periods presented as a result of the amortization of the discounted carrying value of the Convertible Notes to their face amount over the term of the Convertible Notes. We will report lower net income in our financial results because ASC 470-20 will require interest to include both the current period's amortization of the debt discount and the instrument's coupon interest, which could adversely affect our reported or future financial results, and the trading price of our common stock.

In addition, under certain circumstances, convertible debt instruments, such as the Convertible Notes, that may be settled entirely or partly in cash are currently accounted for utilizing the treasury stock method, the effect of which is that the shares issuable upon conversion of the Convertible Notes are not included in the calculation of diluted earnings per share except to the extent that the conversion value of the Convertible Notes exceeds their principal amount. Under the treasury stock method, for diluted earnings per share purposes, the transaction is accounted for as if the number of shares of common stock that would be necessary to settle such excess, if we elected to settle such excess in shares, are issued. We cannot be sure that the accounting standards in the future will continue to permit the use of the treasury stock method. If we are unable to use the treasury stock method in accounting for the shares issuable upon conversion of the Convertible Notes, then our diluted earnings per share would be adversely affected.

If we are not able to integrate past or future acquisitions successfully, our operating results and prospects could be harmed.

We have acquired new technology and domain expertise through multiple acquisitions, including our most recent acquisitions of Rentlytics, LeaseLabs, BluTrend, ClickPay, LRO, On-Site, PEX, AUM, and Axiometrics. We expect to continue making acquisitions in the future. The success of our future acquisition strategy will depend on our ability to identify, negotiate, complete and integrate acquisitions. Acquisitions are inherently risky, and any acquisitions we complete may not be successful. Any acquisitions we pursue involve numerous risks, including the following:

- difficulties in integrating and managing the operations and technologies of the companies we acquire;
- diversion of our management's attention from normal daily operations of our business;
- our inability to maintain the clients, the key employees, the key business relationships and the reputations of the businesses we acquire;
- our inability to generate sufficient revenue from acquisitions to offset our increased expenses associated with acquisitions;
- difficulties in predicting or achieving the synergies between acquired businesses and our own businesses;
- our responsibility for the liabilities of the businesses we acquire, including, without limitation, liabilities arising out of their failure to maintain effective data security, data integrity, disaster recovery and privacy controls prior to the acquisition, or their infringement or alleged infringement of third-party intellectual property, contract or data access rights prior to the acquisition;
- difficulties in complying with new markets or regulatory standards to which we were not previously subject;

- delays in our ability to implement internal standards, controls, procedures and policies in the businesses we acquire; and
- adverse effects of acquisition activity on the key performance indicators we use to monitor our performance.

Our current acquisition strategy includes the acquisition of complementary businesses, products, and solutions. In order to integrate and fully realize the benefits of such acquisitions, we expect to build application interfaces that enable such clients to use a wide range of our solutions while they continue to use their legacy management systems. In addition, over time we expect to migrate each acquired company's clients to our on demand property management solutions to retain them as clients and to be in a position to offer them our solutions on a cost-effective basis. These efforts may be unsuccessful or entail costs that result in losses or reduced profitability.

Unanticipated events and circumstances occurring in future periods may affect the realizability of our intangible assets obtained through acquisitions. The events and circumstances that we consider include significant under-performance relative to projected future operating results and significant changes in our overall business or product strategies. These events and circumstances may cause us to revise our estimates and assumptions used in analyzing the value of our other intangible assets with indefinite lives, and any such revision could result in a non-cash impairment charge that could have a material impact on our financial results.

We may be unable to secure the equity or debt funding necessary to finance future acquisitions on terms that are acceptable to us, or at all. If we finance acquisitions by issuing equity or convertible debt securities, our existing stockholders will likely experience ownership dilution, and if we finance future acquisitions with debt funding, we will incur interest expense and may have to comply with additional financing covenants or secure that debt obligation with our assets.

Variability in our sales and activation cycles could result in fluctuations in our quarterly results of operations and cause our stock price to decline.

The sales and activation cycles for our solutions, from initial contact with a prospective client to contract execution and activation, vary widely by client and solution. We do not recognize revenue until the solution is activated. While most of our activations follow a set of standard procedures, a client's priorities may delay activation and our ability to recognize revenue, which could result in fluctuations in our quarterly operating results. Additionally, certain of our products are offered in suites containing multiple solutions, resulting in additional fluctuation in activations depending on each client's priorities with respect to solutions included in the suite.

Many of our clients are price sensitive, and if market dynamics require us to change our pricing model or reduce prices, our operating results will be harmed.

Many of our existing and potential clients are price sensitive, and uncertain global economic conditions, as well as decreased leasing velocity, have contributed to increased price sensitivity in the multifamily housing market and the other markets that we serve. As market dynamics change, or as new and existing competitors introduce more competitive pricing or pricing models, we may be unable to renew our agreements with existing clients or clients of the businesses we acquire or attract new clients at the same price or based on the same pricing model as previously used. As a result, it is possible that we may be required to change our pricing model, offer price incentives or reduce our prices, which could harm our revenue, profitability and operating results.

Economic trends that affect the rental housing market may have a negative effect on our business.

Our clients include a range of organizations whose success is closely linked to the rental housing market. Economic trends that negatively or positively affect the rental housing market may adversely affect our business. Instability or downturns affecting the rental housing market may have a material adverse effect on our business, prospects, financial condition and results of operations by:

- decreasing demand for leasing and marketing solutions;
- reducing the number of occupied sites and units on which we earn revenue;
- preventing our clients from expanding their businesses and managing new properties;
- causing our clients to reduce spending on our solutions;
- subjecting us to increased pricing pressure in order to add new clients and retain existing clients;
- causing our clients to switch to lower-priced solutions provided by our competitors or internally developed solutions;
- delaying or preventing our collection of outstanding accounts receivable; and
- causing payment processing losses related to an increase in client insolvency.

In addition, economic trends that reduce the frequency of renter turnover or the quantity of new renters may reduce the number of rental transactions completed by our clients and may, as a result, reduce demand for our rental, leasing or marketing transaction specific services.

We may require additional capital to support business growth or acquisitions, and this capital might not be available on terms acceptable to us or at all.

We intend to continue to make investments to support our business growth and may require additional funds to respond to business challenges or opportunities, including the need to develop new solutions or enhance our existing solutions, enhance our operating infrastructure or acquire businesses and technologies. Accordingly, we may need to engage in equity or debt financings to secure additional funds. If we raise additional funds through further issuances of equity or convertible debt securities, our existing stockholders could suffer significant ownership dilution, and any new equity securities we issue could have rights, preferences and privileges superior to those of holders of our common stock. On May 29, 2018, we consummated an underwritten public offering of 8.05 million shares of our common stock, with total gross proceeds of $458.9 million. In 2017 and the first quarter of 2018, we amended our Credit Facility to increase our borrowing capacity, and in 2017 we completed a convertible debt offering in which we sold $345.0 million of Convertible Notes. Future debt financing could increase our interest expense and could involve additional restrictive covenants relating to our capital raising activities and other financial and operational matters, which may make it more difficult for us to obtain additional capital and to pursue business opportunities, including potential acquisitions. In addition, we may not be able to obtain additional financing on terms favorable to us, if at all. If we are unable to obtain adequate financing or financing on terms satisfactory to us when we require it, our ability to continue to support our business growth and to respond to business challenges or opportunities could be significantly limited.

Our Credit Facility contains restrictions that impact our business and expose us to risks that could adversely affect our liquidity and financial condition.

All of our obligations under the Credit Facility are secured by substantially all of our assets. All of our existing and future domestic subsidiaries are required to guarantee our obligations under the Credit Facility, other than certain immaterial subsidiaries, foreign subsidiary holding companies and our payment processing subsidiaries. Such guarantees by existing and future domestic subsidiaries are and will be secured by substantially all of the assets of such subsidiaries.

Our Credit Facility contains customary covenants, subject in each case to customary exceptions and qualifications, which limit our and certain of our subsidiaries' ability to, among other things:

- incur additional indebtedness or guarantee indebtedness of others;
- create liens on our assets;
- enter into mergers or consolidations;
- dispose of assets;
- prepay certain indebtedness;
- make changes to our governing documents and certain of our agreements;
- pay dividends and make other distributions on our capital stock, and redeem and repurchase our capital stock;
- make investments, including acquisitions; and
- enter into transactions with affiliates.

Our Credit Facility also contains, subject in each case to customary exceptions and qualifications, customary affirmative covenants. We are also required to comply with a maximum Consolidated Net Leverage Ratio, a maximum Consolidated Senior Secured Net Leverage Ratio, and a minimum Consolidated Interest Coverage Ratio. See additional discussion of these requirements in Note 8 to the Consolidated Financial Statements under Item 8 of this Annual Report on Form 10-K. As of December 31, 2018, we were in compliance with all of the covenants under our Credit Facility.

The Credit Facility contains customary events of default, subject to customary cure periods for certain defaults, that include, among others, non-payment defaults, covenant defaults, material judgment defaults, bankruptcy and insolvency defaults, cross-defaults to certain other material indebtedness, ERISA defaults, inaccuracy of representations and warranties and a change in control default.

Even if we comply with all of the applicable covenants, the restrictions on the conduct of our business could adversely affect our business by, among other things, limiting our ability to take advantage of financings, mergers, acquisitions and other corporate opportunities that may be beneficial to the business. Even if the Credit Facility was terminated, additional debt we could incur in the future may subject us to similar or additional covenants.

A significant decline in our cash flow could impair our ability to make payments under our debt obligations.

If we experience a decline in cash flow due to any of the factors described in this "Risk Factors" section or otherwise, we could have difficulty paying interest and principal amounts due on our indebtedness and meeting the financial covenants set forth in our Credit Facility. If we are unable to generate sufficient cash flow or otherwise obtain the funds necessary to make required payments under our Credit Facility or Convertible Notes Indenture, or if we fail to comply with the requirements of our indebtedness, we could default under our Credit Facility or Convertible Notes Indenture. Any default that is not cured or waived could result in the termination of the revolving commitments, the acceleration of the obligations under the Credit Facility or Convertible Notes Indenture, an increase in the applicable interest rate under the Credit Facility and a requirement that our subsidiaries that have guaranteed the Credit Facility pay the obligations in full, and would permit our lenders to exercise remedies with respect to all of the collateral that is securing the Credit Facility, including substantially all of our and our subsidiary guarantors' assets. Any such default could have a material adverse effect on our liquidity and financial condition.

If we fail to maintain proper and effective internal controls, our ability to produce accurate and timely financial statements could be impaired, which could harm our operating results, our ability to operate our business and investors' views of us.

Ensuring that we have adequate internal financial and accounting controls and procedures so that we can produce accurate financial statements on a timely basis is a costly and time-consuming effort that needs to be re-evaluated frequently. Our 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 in accordance with United States generally accepted accounting principles. We are required to comply with Section 404 of the Sarbanes-Oxley Act of 2002, or the Sarbanes-Oxley Act, which requires annual management assessment of the effectiveness of our internal control over financial reporting and a report by our independent auditors. During May 2018 and as disclosed in our Form 10-Q for the quarter ended March 31, 2018, we were the subject of a targeted email phishing campaign that led to a business email compromise, pursuant to which an unauthorized party gained access to an external third party system used by a subsidiary that we acquired in 2017. As a result, our management determined that the related control deficiencies constituted a material weakness. See Note 1 to our Consolidated Financial Statements herein for additional information regarding this matter. This material weakness was remediated during the quarter ended June 30, 2018. If we fail to maintain proper and effective internal controls in the future, our ability to produce accurate and timely financial statements could be impaired, which could harm our operating results, harm our ability to operate our business and reduce the trading price of our stock.

Changes in, or errors in our interpretations and applications of, financial accounting standards or practices may cause adverse, unexpected financial reporting fluctuations and affect our reported results of operations.

A change in accounting standards or practices can have a significant effect on our reported results and may even affect our reporting of transactions completed before the change is effective. New accounting pronouncements and varying interpretations of accounting pronouncements have occurred and may occur in the future. Changes to existing rules or the questioning of current practices or errors in our interpretations and applications of financial accounting standards or practices may adversely affect our reported financial results or the way in which we conduct our business.

For more information on recently issued accounting standards, see Note 2 to our Consolidated Financial Statements included in Part II, Item 8 of this Annual Report on Form 10-K.

We generate commission revenue from the insurance policies we sell as a registered insurance agent, and if insurance premiums decline or if the insureds experience greater than expected losses, our revenues could decline and our operating results could be harmed.

Through our wholly owned subsidiaries, we generate commission revenue from offering liability and renter's insurance. We also sell additional insurance products, including auto and other personal lines insurance, to renters that buy renter's insurance from us. These policies are ultimately underwritten by various insurance carriers. Some of the property owners and managers that participate in our programs opt to require renters to purchase rental insurance policies and agree to grant to us exclusive marketing rights at their properties. If demand for residential rental housing declines, property owners and managers may be forced to reduce their rental rates and to stop requiring the purchase of rental insurance in order to reduce the overall cost of renting. If property owners or managers cease to require renter's insurance, elect to offer policies from competing providers or insurance premiums decline, our revenues from selling insurance policies will be adversely affected.

Additionally, one type of commission paid by insurance carriers to us is contingent commission, which is affected by claims experienced at the properties for which the renters purchase insurance. In the event that the severity or frequency of claims by the insureds increase unexpectedly, the contingent commission we typically earn will be adversely affected. As a result, our quarterly, or annual, operating results could fall below the expectations of analysts or investors, in which event our stock price may decline.

Our ability to use net operating losses to offset future taxable income may be subject to certain limitations.

In general, under Section 382 of the Internal Revenue Code of 1986, as amended, or the Internal Revenue Code, a corporation that undergoes an "ownership change" is subject to limitations on its ability to utilize its pre-change net operating losses, or NOLs, to offset future taxable income. Our ability to utilize NOLs of companies that we have acquired or may acquire in the future may be subject to limitations. Future changes in our stock ownership, some of which are outside of our control, could result in an ownership change under Section 382 of the Internal Revenue Code. For these reasons, we may not be able to utilize a material portion of the NOLs reflected on our balance sheet, even if we maintain profitability.

If we are required to collect sales and use taxes on the solutions we sell in additional taxing jurisdictions, we may be subject to liability for past sales and our future sales may decrease.

States and some local taxing jurisdictions have differing rules and regulations governing sales and use taxes, and these rules and regulations are subject to varying interpretations that may change over time. We review these rules and regulations periodically and currently collect and remit sales taxes in taxing jurisdictions where we believe we are required to do so. However, additional state and/or local taxing jurisdictions may seek to impose sales or other tax collection obligations on us, including for past sales. A successful assertion that we should be collecting additional sales or other taxes on our solutions could result in substantial tax liabilities for past sales, discourage clients from purchasing our solutions or otherwise harm our business and operating results. This risk may be greater with regard to solutions acquired through acquisitions because the acquired entities may not have had the same practices and procedures that we have in place.

We may also become subject to tax audits or similar procedures in jurisdictions where we already collect and remit sales taxes. A successful assertion that we have not collected and remitted taxes at the appropriate levels may also result in substantial tax liabilities for past sales. Liability for past taxes may also include very substantial interest and penalty charges. Our client contracts provide that our clients must pay all applicable sales and similar taxes. Nevertheless, clients may be reluctant to pay back taxes and may refuse responsibility for interest or penalties associated with those taxes. If we are required to collect and pay back taxes and the associated interest and penalties, and if our clients fail or refuse to reimburse us for all or a portion of these amounts, we will incur unplanned expenses that may be substantial. Moreover, imposition of such taxes on our solutions going forward will effectively increase the cost of such solutions to our clients and may adversely affect our ability to continue to sell those solutions to existing clients or to gain new clients in the areas in which such taxes are imposed.

Changes to applicable U.S. or foreign tax laws and regulations may have a material adverse effect on our business, financial condition and results of operations.

We are subject to federal and state income taxes in the United States and various foreign jurisdictions, and our domestic and international tax liabilities are subject to the allocation of expenses in differing jurisdictions. Our tax rate is affected by changes in the mix of earnings and losses in jurisdictions with differing statutory tax rates, including jurisdictions in which we have completed or may complete acquisitions and the valuation of deferred tax assets and liabilities, including our ability to utilize our net operating losses. Increases in our effective tax rate could harm our operating results.

The Tax Cuts and Jobs Act ("Tax Reform Act"), which was signed into law on December 22, 2017, contains significant changes to the U.S. federal income tax laws, including changes to the corporate tax rate, business-related deductions, and taxation of foreign earnings, among others, that are generally effective for taxable years beginning after December 31, 2017. Throughout calendar year 2018, the U.S. Treasury and certain states issued proposed and final legislation and clarifying guidance with respect to the various provisions of the Tax Reform Act. Additional legislation and guidance may still be issued in the future, which could have a material adverse impact on the value of our U.S. deferred tax assets, result in significant changes to currently computed income tax liabilities for past and current tax periods, and increase our future U.S. tax expense. The implementation by us of new practices and processes designed to comply with, and benefit from, the Tax Reform Act and its rules and regulations could require us to make substantial changes to our business practices, allocate additional resources, and increase our costs, which could negatively affect our business, results of operations and financial condition.

Operational Risks Related to Our Business

The nature of our platform is complex and highly integrated, and if we fail to successfully manage releases or integrate new solutions, it could harm our revenues, operating income and reputation.

We manage a complex platform of solutions that consists of our property management solutions, integrated software-enabled value-added services and advertising and lease generation services. Many of our solutions include a large number of product centers that are highly integrated and require interoperability with other RealPage, Inc. products, as well as products and services of third-party service providers. Additionally, we typically deploy new releases of the software underlying our on demand software solutions on a bi-weekly, monthly or quarterly schedule, depending on the solution. Due to this complexity and the condensed development cycles under which we operate, we may experience errors in our software, corruption or loss of our data or unexpected performance issues from time to time. For example, our solutions may face interoperability difficulties with software operating systems or programs being used by our clients, or new releases, upgrades, fixes or the integration of acquired technologies may have unanticipated consequences on the operation and performance of our other solutions. If we encounter integration challenges or discover errors in our solutions late in our development cycle, it may cause us to delay our launch dates. Any major integration or interoperability issues or launch delays could have a material adverse effect on our revenues, operating income and reputation.

Our business depends substantially on the renewal of our products and services for on demand units managed by our clients and the increase in the use of our on demand products and services for on demand units.

We generally license our solutions pursuant to client agreements with a term of one year or longer. The pricing of the agreements is typically based on a price per unit basis. Our clients have no obligation to renew these agreements after their term expires, or to renew these agreements at the same or higher annual contract value. In addition, under specific circumstances, our clients have the right to cancel their client agreements before they expire, for example, in the event of an uncured breach by us, or in some circumstances, upon the sale or transfer of a client property, by giving 30 days' notice or paying a cancellation fee. In addition, clients often purchase a higher level of professional services in the initial term than they do in renewal terms to ensure successful activation. As a result, our ability to grow is dependent in part on clients purchasing additional solutions or increasing the number of units they own or manage after the initial term of their client agreement. Though we maintain and analyze historical data with respect to rates of client renewals, upgrades and expansions, those rates may not accurately predict future trends in renewal of on demand units. Our clients' on demand unit renewal rates may decline or fluctuate for a number of reasons, including, but not limited to, their level of satisfaction with our solutions, our pricing, our competitors' pricing, reductions in our clients' spending levels or reductions in the number of on demand units managed by our clients. If our clients cancel or amend their agreements with us during their term, do not renew their agreements, renew on less favorable terms or do not purchase additional solutions or professional services in renewal periods, our revenue may grow more slowly than expected or decline and our profitability may be harmed.

Additionally, we have experienced, and expect to continue to experience, some level of on demand unit attrition as properties are sold and the new owners and managers of properties previously owned or managed by our clients do not continue to use our solutions. We cannot predict the amount of on demand unit turnover we will experience in the future. However, we have experienced higher rates of on demand unit attrition with our Propertyware property management system, primarily because it serves smaller properties than our OneSite property management system, and we may experience higher levels of on demand unit attrition to the extent Propertyware grows as a percentage of our revenues. If we experience increased on demand unit turnover, our financial performance and operating results could be adversely affected.

On demand revenue that is derived from products that help owners and managers lease and market apartments, such as certain products in LeaseStar and LeasingDesk, may decrease as occupancy rates rise. We have also experienced, and expect to continue to experience, some number of consolidations of our clients with other parties. In addition, if one of our clients is consolidated with another client, the acquiring client may have negotiated lower prices for our solutions or may use fewer of our solutions than the acquired client. In each case, the consolidated entity may attempt to negotiate lower prices for using our solutions as a result of the entity's increased size. These consolidations may cause us to lose on demand units or require us to reduce prices as a result of enhanced client leverage, which could cause our financial performance and operating results to be adversely affected.

We may not be able to continue to add new clients and retain and increase sales to our existing clients, which could adversely affect our operating results.

Our revenue growth is dependent on our ability to continually attract new clients while retaining and expanding our service offerings to existing clients. Growth in the demand for our solutions may be inhibited and we may be unable to sustain growth in our sales for a number of reasons, including, but not limited to:

- our failure to develop new or additional solutions;
- our inability to market our solutions in a cost-effective manner to new clients or in new vertical or geographic markets;
- our inability to expand our sales to existing clients;
- our inability to build and promote our brand; and
- perceived or actual security, integrity, reliability, quality or compatibility problems with our solutions.

A substantial amount of our past revenue growth was derived from purchases of upgrades and additional solutions by existing clients. Our costs associated with increasing revenue from existing clients are generally lower than costs associated with generating revenue from new clients. Therefore, a reduction in the rate of revenue increase from our existing clients, even if offset by an increase in revenue from new clients, could reduce our profitability and have a material adverse effect on our operating results.

If we are unable to successfully develop or acquire and sell enhancements and new solutions, our revenue growth will be harmed and we may not be able to meet profitability expectations.

The industry in which we operate is characterized by rapidly changing client requirements, technological developments and evolving industry standards. Our ability to attract new clients and increase revenue from existing clients will depend in large part on our ability to successfully develop, bring to market and sell enhancements to our existing solutions and new solutions that effectively respond to the rapid changes in our industry. Any enhancements or new solutions that we develop or acquire may not be introduced to the market in a timely or cost-effective manner and may not achieve the broad market acceptance necessary to generate the revenue required to offset the operating expenses and capital expenditures related to development or acquisition. If we are unable to timely develop or acquire and sell enhancements and new solutions that keep pace with the rapid changes in our industry, our revenue will not grow as expected and we may not be able to maintain or meet profitability expectations.

Any disruption of service at our data centers or other facilities could interrupt or delay our clients' access to our solutions, which could harm our operating results.

The ability of our clients to access our service is critical to our business. We host our products and services, support our operations and service our clients primarily from data centers in the Dallas, Texas area, but also from data centers located elsewhere in the United States and in Europe.

We may fail to provide such service as a result of numerous factors, many of which are beyond our control, including, without limitation: mechanical failure, power outage, human error, physical or electronic security breaches, war, terrorism and related conflicts or similar events worldwide, fire, earthquake, hurricane, flood and other natural disasters, sabotage and vandalism. We attempt to mitigate these risks at our Texas-based data centers and other facilities through various business continuity efforts, including: redundant infrastructure, 24 x 7 x 365 system activity monitoring, backup and recovery procedures, use of a secure off-site storage facility for backup media, separate test systems and rotation of management and system security measures, but our precautions may not protect against all potential problems. Disaster recovery procedures are in place to facilitate the recovery of our operations, products and services within the stated service level goals. Our secondary data center is equipped with physical space, power, storage and networking infrastructure and Internet connectivity to support the solutions we provide in the event of the interruption of services at our primary data center. Even with this secondary data center, however, our operations would be interrupted during the transition process should our primary data center experience a failure. Moreover, both our primary and secondary data centers are located in the greater metropolitan Dallas area. As a result, any regional disaster could affect both data centers and result in a material disruption of our services.

Problems at one or more of our data centers, whether or not within our control, could result in service disruptions or delays or loss or corruption of data or documents. This could damage our reputation, cause us to issue credits to clients, subject us to potential liability or costs related to defending against claims, or cause clients to terminate or elect not to renew their agreements, any of which could negatively impact our revenues and harm our operating results.

Interruptions or delays in service from our third-party data center providers could impair our ability to deliver certain of our products to our clients, resulting in client dissatisfaction, damage to our reputation, loss of clients, limited growth and reduction in revenue.

Our products and services are hosted and supported from data centers in various geographic locations within the continental United States and Europe, and are operated by third-party providers. Our operations depend on our third-party data center providers' abilities to protect these facilities against damage or interruption from natural disasters, power or telecommunications failures, criminal acts and similar events. In the event that any of our third-party hosting or facilities arrangements is terminated, or if there is a lapse of service or damage to a facility, we could experience interruptions in the availability of our on demand software as well as delays and additional expenses in arranging new facilities and services.

Despite precautions taken at these third party data centers, the occurrence of spikes in usage volume, a natural disaster, an act of terrorism, adverse changes in United States or foreign laws and regulations, vandalism or sabotage, a decision to close a third-party facility without adequate notice, or other unanticipated problems at a facility could result in lengthy interruptions in the availability of our on demand software. Even with current and planned disaster recovery arrangements, our business could be harmed. Also, in the event of damage or interruption, our insurance policies may not adequately compensate us for any losses that we may incur. These factors in turn could further reduce our revenue, subject us to liability and cause us to issue credits or cause clients to fail to renew their subscriptions, any of which could materially adversely affect our business.

We provide service level commitments to our clients, and our failure to meet the stated service levels could significantly harm our revenue and our reputation.

Our client agreements provide that we maintain certain service level commitments to our clients relating primarily to product functionality, network uptime, critical infrastructure availability and hardware replacement. For example, our service level agreements generally require that our solutions are available 98% of the time during coverage hours (normally 6:00 a.m. though 10:00 p.m. Central time daily) 365 days per year (other than certain permitted exceptions such as maintenance). If we are unable to meet the stated service level commitments, we may be contractually obligated to provide clients with refunds or credits. Additionally, if we fail to meet our service level commitments a specified number of times within a given time frame or for a specified duration, our clients may terminate their agreements with us or extend the term of their agreements at no additional fee. As a result, a failure to deliver services for a relatively short duration could cause us to issue credits or refunds to a large number of affected clients or result in the loss of clients. In addition, we cannot assure that our clients will accept these credits, refunds, termination or extension rights in lieu of other legal remedies that may be available to them. Our failure to meet our commitments could also result in substantial client dissatisfaction or loss. Because of the loss of future revenues through the issuance of credits or the loss of clients or other potential liabilities, our revenue could be significantly impacted if we cannot meet our service level commitments to our clients.

We face intense competitive pressures and our failure to compete successfully could harm our business and operating results.

We compete in a number of markets including accounting software, property management software for multifamily, single family and commercial solutions, vertically-integrated cloud computing services, software-enabled value-added services including applicant screening, insurance, relationship management ("CRM"), marketing and web portals, Internet listing services, utility billing and energy management, revenue management, multifamily housing and commercial real estate market research, spend management, payment processing, affordable housing compliance and audit services and vacation rentals. The markets for many of our solutions are intensely competitive, fragmented and rapidly changing. Some of these markets have relatively low barriers to entry. With the introduction of new technologies and market entrants, we expect competition to intensify in the future. Increased competition could result in pricing pressures, reduced sales and reduced margins. Often we compete to sell our solutions against existing systems that our potential clients have already made significant expenditures to install.

Our competitors vary depending on our product and service. Certain competitors compete with us in a number of areas, including Yardi, Inc., Entrata, Inc., MRI Software LLC, AppFolio, Inc., and CoStar Group, Inc. Other competitors compete with us with respect to a single product or category of products. We compete in various markets, with different competitive considerations in these various markets. In many of our markets we compete with a number of providers, including those who market specifically to multifamily, single family, and commercial real estate owners and property managers as well as other providers. In addition, many of our existing or potential clients have developed or may develop their own solutions that may be competitive with our solutions. We also may face competition for potential acquisition targets from our competitors who are seeking to expand their offerings.

With respect to all of our competitors, we compete based on a number of factors, including total cost of ownership, level of integration with property management systems, ease of implementation, product functionality and scope, performance, security, scalability and reliability of service, brand and reputation, sales and marketing capabilities and financial resources. Some of our existing competitors and new market entrants may enjoy substantial competitive advantages, such as greater name recognition, longer operating histories, larger installed client bases and larger sales and marketing budgets, as well as greater financial, technical and other resources. In addition, any number of our existing competitors or new market entrants could combine or consolidate, or obtain new financing through public or private sources, to become a more formidable competitor with greater resources. As a result of such competitive advantages, our existing and future competitors may be able to:

- develop superior products or services, gain greater market acceptance and expand their offerings more efficiently or more rapidly;
- adapt to new or emerging technologies and changes in client requirements more quickly;
- take advantage of acquisition and other opportunities more readily;
- adopt more aggressive pricing policies, such as offering discounted pricing for purchasing multiple bundled products;
- devote greater resources to the promotion of their brand and marketing and sales of their products and services; and
- devote greater resources to the research and development of their products and services.

If we are not able to compete effectively, our operating results will be harmed.

We integrate our software-enabled value-added services with competitive property management software for some of our clients. Our application infrastructure, marketed to our clients as SmartSource IT, is based on an open architecture that enables third-party applications to access and interface with applications hosted in SmartSource IT through our RealPage Exchange platform. Likewise, through this platform our SmartSource IT services are able to access and interface with other third-party applications, including third-party property management systems. We also provide services to assist in the implementation, training, support and hosting with respect to the integration of some of our competitors' applications with our solutions. We sometimes rely on the cooperation of our competitors to implement solutions for our clients. However, frequently our reliance on the cooperation of our competitors can result in delays in integration. There is no assurance that our competitors, even if contractually obligated to do so, will continue to cooperate with us or will not prospectively alter their obligations to do so. We also occasionally develop interfaces between our software-enabled value-added services and competitor property management software without their cooperation or consent. There is no assurance that our competitors will not alter their applications in ways that inhibit or prevent integration or assert that their intellectual property rights restrict our ability to integrate our solutions with their applications. Moreover, regardless of merit, such interface-related activity may result in costly litigation.

Material defects or errors in the software we use to deliver our solutions could harm our reputation, result in significant costs to us and impair our ability to sell our solutions.

The software applications underlying our solutions are inherently complex and may contain material defects or errors, particularly when first introduced or when new versions or enhancements are released. We have, from time to time, found defects in the software applications underlying our solutions, and new errors in our existing solutions may be detected in the future. Any errors or defects that cause performance problems or service interruptions could result in:

- a reduction in new sales or subscription renewal rates;
- unexpected sales credits or refunds to our clients, loss of clients and other potential liabilities;
- delays in client payments, increasing our collection reserve and collection cycle;
- diversion of development resources and associated costs;
- harm to our reputation and brand; and
- unanticipated litigation costs.

Additionally, the costs incurred in correcting defects or errors could be substantial and could adversely affect our operating results.

Failure to effectively manage the development, sale and support of our solutions and data processing efforts outside the United States could harm our business.

Our success depends on our ability to process high volumes of client data, enhance existing solutions and develop new solutions rapidly and cost effectively. We currently maintain offices in Hyderabad, India; Cebu, Philippines and Manila, Philippines where we employ development and data processing personnel or conduct other business functions important to our operations. We believe that performing these activities in Hyderabad, Cebu and Manila increases the efficiency and decreases the costs of our related operations. We maintain an office in Barcelona, Spain where certain of our vacation rental product development, sales and support operations are based. We also maintain offices in London, England and Sydney, Australia, where we provide property management, online leasing and resident software solutions. We believe our access to a multilingual employee base enhances our ability to serve vacation and other rental property managers outside the United States and in non-English speaking countries. Managing and staffing international operations requires management's attention and financial resources. The level of cost savings achieved by our international operations may not exceed the amount of investment and additional resources required to manage and operate these international operations. Our product offerings outside the United States may not be profitable or otherwise successful. Additionally, if we experience difficulties as a result of political, social, economic or environmental instability, change in applicable law, limitations of local infrastructure or problems with our workforce or facilities at our or third parties' international operations, our business could be harmed due to delays in product release schedules or data processing services.

We rely on third-party technologies and services that may be difficult to replace or that could cause errors, failures or disruptions of our service, any of which could harm our business.

We rely on third-party providers in connection with the delivery of our solutions. Such providers include, but are not limited to, computer hardware and software vendors, database and data providers and cloud hosting providers. We utilize equipment, software and services from various third party providers. Our OneSite Accounting service relies on a software-as-a-service, or SaaS, accounting system developed and maintained by a third-party service provider. We host this application in our data centers and provide supplemental development resources to extend this accounting system to meet the unique requirements of the rental housing industry. Our shared cloud portfolio reporting service utilizes software licensed from a third party. We expect to utilize additional service providers as we expand our platform. Although the third-party technologies and services that we currently require are commercially available, such technologies and services may not continue to be available on commercially reasonable terms, or at all. Any loss of the right to use any of these technologies or services could result in delays in the provisioning of our solutions until alternative technology is either developed by us, or, if available, is identified, obtained and integrated, and such delays could harm our business. It also may be time consuming and costly to enter into new relationships. Additionally, any errors or defects in the third-party technologies we utilize or delays or interruptions in the third-party services we rely on could result in errors, failures or disruptions of our services, which also could harm our business.

We depend upon third-party service providers for important payment processing functions. If these third-party service providers do not fulfill their contractual obligations or choose to discontinue their services, our business and operations could be disrupted and our operating results would be harmed.

We rely on several large payment processing service providers to enable us to provide payment processing services to our clients, including electronic funds transfers, or EFT, check services, bank card authorization, data capture, settlement and merchant accounting services and access to various reporting tools. We and our clients also rely on third-party hardware manufacturers to manufacture the check scanning hardware which is utilized to process transactions. Some service providers are competitors who also directly or indirectly sell payment processing services to clients in competition with us. With respect to these service providers, we have significantly less control over the systems and processes 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. Accordingly, the failure of these organizations and service providers to renew their contracts with us or fulfill their contractual obligations and perform satisfactorily could result in significant disruptions to our operations and adversely affect operating results. In addition, the businesses we have acquired, or may acquire in the future, typically rely on other payment processing service providers. We may encounter difficulty converting payment processing services from these service providers to our payment processing platform. If we are required to find an alternative source for performing these functions, we may have to expend significant money, time and other resources to develop or obtain an alternative, and if developing or obtaining an alternative is not accomplished in a timely manner and without significant disruption to our business, we may be unable to fulfill our responsibilities to clients or meet their expectations, with the attendant potential for liability claims, damage to our reputation, and loss of ability to attract or maintain clients.

If our security measures are breached and unauthorized access is obtained to our software platform, service infrastructure, or our clients' or their renters' or prospects' data, we may incur significant liabilities, third parties may misappropriate our intellectual property or financial assets, our solutions may be perceived as not being secure and clients may curtail or stop using our solutions.

Maintaining the security of our software platform and service infrastructure is of paramount importance to us and our clients, and we devote significant resources to this effort. Breaches of the security measures we take to protect our software platform and service infrastructure and our and our clients' confidential or proprietary information that is stored on and transmitted through those systems could disrupt and compromise the security of our internal systems and on demand applications, impair our ability to provide products and services to our clients and protect the privacy of their data, compromise our confidential or technical business information harming our competitive position, result in theft or misuse of our intellectual property or financial assets or otherwise adversely affect our business.

The solutions we provide involve the collection, storage and transmission of confidential personal and proprietary information regarding our clients and our clients' current and prospective renters and business partners. Specifically, we collect, store and transmit a variety of client data such as demographic information and payment histories of our clients' prospective and current renters and business partners. Additionally, we collect and transmit sensitive financial data such as credit card and bank account information. Treatment of certain types of data, such as personally identifiable information, protected health information and sensitive financial data may be subject to federal or state regulations requiring heightened privacy and security. If our data security or data integrity measures are breached or otherwise fail or prove to be inadequate for any reason, as a result of third-party actions or our employees' or contractors' errors or malfeasance or otherwise, and unauthorized persons obtain access to this information, or the data is otherwise compromised, we could incur significant liability to our clients and to their prospective or current renters or business partners, significant costs associated with internal regulatory investigations and litigation, or significant fines and sanctions by payment processing networks or governmental authorities. Any of these events or circumstances could result in damage to our reputation and material harm to our business.

We also rely upon our clients as users of our system to promote security of the system and the data within it, such as administration of client-side access credentialing and control of client-side display of data. On occasion, our clients have failed to perform these activities in such a manner as to prevent unauthorized access to data. To date, these breaches have not resulted in claims against us or in material harm to our business, but we cannot be certain that the failure of our clients in future periods to perform these activities will not result in claims against us, which could expose us to potential litigation, damage to our reputation and material harm to our business.

There can be no certainty that the measures we have taken to protect our software platform and service infrastructure, our confidential and proprietary information and the privacy and integrity of our clients', their current or prospective renters' and business partners' data are adequate to prevent or remedy unauthorized access to our system. Because techniques used to obtain unauthorized access to, or to sabotage, systems change frequently and generally are not recognized until launched against a target, we may be unable to anticipate these techniques or to implement adequate preventive measures. Experienced computer programmers seeking to intrude or cause harm, or hackers, have penetrated our service infrastructure in the past and are likely to attempt to do so in the future. Hackers may consist of sophisticated organizations, competitors, governments or individuals who launch targeted attacks to gain unauthorized access to our systems and financial assets. A hacker who is able to penetrate our service infrastructure could misappropriate proprietary or confidential information or financial assets or cause interruptions in our services. For example, during May 2018, as disclosed in our Form 10-Q for the quarter ended March 31, 2018, we were the subject of a targeted email phishing campaign that led to a business email compromise, pursuant to which an unauthorized party gained access to an external third party system used by a subsidiary that we acquired in 2017. The incident resulted in the diversion of approximately $6.0 million of funds, net of recoveries, intended for disbursement to three clients. Although we continue to vigorously pursue recovery of our losses and related expenses arising from this incident, there can be no assurance of recovery or of the timing of any such recovery.

We might be required to expend significant capital and resources to protect against, or to remedy, problems caused by hackers, and we may not have a timely remedy against a hacker who is able to penetrate our service infrastructure. In addition to purposeful breaches, inadvertent actions or the transmission of computer viruses could expose us to security risks. If an actual or perceived breach of our security occurs or if our clients and potential clients perceive vulnerabilities, the market perception of the effectiveness of our security measures could be harmed, we could lose sales and clients and our business could be materially harmed.

Our business is subject to the risks of international operations.

Compliance with complex foreign and U.S. laws and regulations that apply to our international operations increases our cost of doing business. These numerous and sometimes conflicting laws and regulations include internal control and disclosure rules, data privacy and filtering requirements, anti-corruption laws, such as the Foreign Corrupt Practices Act, and other local laws prohibiting corrupt payments to governmental officials, and antitrust and competition regulations, among others.

Violations of these laws and regulations could result in fines and penalties, criminal sanctions against us, our officers, or our employees, prohibitions on the conduct of our business and on our ability to carry on operations in one or more countries, and could also materially affect our brand, our international expansion efforts, our ability to attract and retain employees, our business and our operating results. Although we have implemented policies and procedures designed to ensure compliance with these laws and regulations, there can be no assurance that our employees, contractors, or agents will not violate our policies.

In addition, we are subject to a variety of risks inherent in doing business internationally, including:

- political, social, economic or environmental instability, terrorist attacks and security concerns in general;
- limitations of local infrastructure;
- fluctuations in currency exchange rates;
- higher levels of credit risk and payment fraud;
- reduced protection for intellectual property rights in some countries;
- difficulties in staffing and managing global operations and the increased travel, infrastructure and legal compliance costs associated with multiple international locations;
- compliance with statutory equity requirements and management of tax consequences; and
- outbreaks of highly contagious diseases.

If we are unable to manage the complexity of our international operations successfully, our financial results could be adversely affected.

We rely on our management team and need additional personnel to grow our business, and the loss of one or more key employees or our inability to attract and retain qualified personnel could harm our business.

Our success and future growth depend on the skills, working relationships and continued services of our management team. The loss of our Chief Executive Officer or other senior executives, or our inability to successfully integrate certain new members of our management, could adversely affect our business. Our future success also will depend on our ability to attract, retain and motivate highly skilled software developers, marketing and sales personnel, technical support and product development personnel in the United States and internationally. All of our employees work for us on an at-will basis. Competition for these types of personnel is intense, particularly in the software industry. As a result, we may be unable to attract or retain qualified personnel. Our inability to attract and retain the necessary personnel could adversely affect our business.

Legal and Regulatory Risks Related to Our Business

We face a number of risks in our payment processing business that could result in a reduction in our revenues and profits.

In connection with our electronic payment processing services, we process renter payments and subsequently submit these renter payments to our clients after varying clearing times established by us. These payments are settled through our sponsor banks, and in the case of EFT, our Originating Depository Financial Institutions, or ODFIs. The renter payments that we process for our clients at our sponsor banks are identified in our Consolidated Balance Sheets as restricted cash and the corresponding liability for these renter payments is identified as client deposits. Our electronic payment processing business and related maintenance of custodial accounts subjects us to a number of risks, including, but not limited to:

- liability for client costs related to disputed or fraudulent transactions if those costs exceed the amount of the client reserves we have during the clearing period or after renter payments have been settled to our clients;
- electronic processing limits on the amount of custodial balances that any single ODFI, or collectively all of our ODFIs, will underwrite;
- reliance on sponsor banks, card payment processors and other payment service provider partners to process electronic transactions;
- failure by us or our sponsor banks to adhere to applicable laws and regulatory requirements or the standards of the electronic payments rules and regulations and other rules and regulations that may impact the provision of electronic payment services;

- continually evolving laws and regulations governing payment processing and money transmission, the application or interpretation of which is not clear in some jurisdictions;
- incidences of fraud, a security breach or our failure to comply with required external audit standards;
- our inability to increase or modify our fees at times when sponsor banks, electronic payment partners or associations increase their transaction processing fees or impose restrictions on the type, structure or amount of fees we can charge;
- repricing actions taken by card associations or payment networks or imposed as a result of governmental regulation or due to competitive pressures, which could negatively impact the prices we can charge customers for our services; and
- inconsistent and conflicting laws, regulations and card association or payment network rules that may result in fee structures that cause consumer confusion, complaints or litigation.

If any of these risks related to our electronic payment processing business were to materialize, our business or financial results could be negatively affected. Although we attempt to structure and adapt our payment processing operations to comply with these complex and evolving laws and regulations, our efforts may not guarantee compliance. In the event that we are found to be in violation of these legal requirements, we may be subject to monetary fines, cease and desist orders, mandatory product changes, or other penalties that could have an adverse effect on our results of operations. Additionally, with respect to the processing of EFTs, we are exposed to financial risk and EFTs between a renter and our client may be returned for various reasons such as insufficient funds or stop payment orders. These returns are charged back to the client by us. However, if we or our sponsor banks are unable to collect such amounts from the client's account or if the client refuses or is unable to reimburse us for the chargeback, we bear the risk of loss for the amount of the transfer. While we have not experienced material losses resulting from chargebacks in the past, there can be no assurance that we will not experience significant losses from chargebacks in the future. Any increase in chargebacks not paid by our clients may adversely affect our financial condition and results of operations.

We entered into a service provider agreement with a financial institution merchant service provider under which we are a registered independent sales organization, or ISO, of the merchant service providers. The merchant service provider acts as a merchant acquiring bank for processing our client credit card and debit card payments ("Card Payments"), and we serve as an ISO. As an ISO, we assume the underwriting risk for processing Card Payments on behalf of our clients. If we experience excessive chargebacks, either we or the merchant service provider has the authority to cease client card processing services, and such events could result in a material adverse effect on our revenues, operating income, and reputation.

Evolution and expansion of our payment processing business may subject us to additional regulatory requirements and other risks, for which failure to comply or adapt could harm our operating results.

The evolution and expansion of our payment processing business may subject us to additional risks and regulatory requirements, including laws governing money transmission and payment processing/settlement services. These requirements vary throughout the markets in which we operate, and have increased over time as the geographic scope and complexity of our product services have expanded. While we maintain a compliance program focused on applicable laws and regulations throughout the payments industry, there is no guarantee that we will not be subject to fines, criminal and civil lawsuits or other regulatory enforcement actions in one or more jurisdictions, or be required to adjust business practices to accommodate future regulatory requirements.

In order to maintain flexibility in the growth and expansion of our payments operations, we have obtained money transmitter licenses (or their equivalents) in several states, the District of Columbia and Puerto Rico. Our efforts to maintain these licenses could result in significant management time, effort, and cost, and may still not guarantee compliance given the constant state of change in these regulatory frameworks. Accordingly, costs associated with changes in compliance requirements, regulatory audits, enforcement actions, reputational harm, or other regulatory limits on our ability to grow our payment processing business could adversely affect our financial results.

Because certain solutions we provide depend on access to client data, decreased access to this data or the failure to comply with the evolving laws and regulations governing privacy of data, cloud computing and cross-border data transfers, or the failure to address privacy concerns applicable to such data, could harm our business.

Certain of our solutions depend on our continued access to our clients' data regarding their prospective and current renters, including data compiled by other third-party service providers who collect and store data on behalf of our clients. Federal, state and foreign governments have adopted and continue to adopt new laws and regulations addressing data privacy and the collection, processing, storage, transmission, use and disclosure of personal information. Such laws and regulations are subject to differing interpretations and may be inconsistent among jurisdictions. These and other requirements could reduce demand for our solutions or restrict our ability to store and process data or, in some cases, impact our ability to offer our services and solutions in certain locations.

In addition to government activity, privacy advocacy and other industry groups have established or may establish new self-regulatory standards that may place additional burdens on us. Our clients may expect us to meet voluntary certification or other standards established by third parties. If we are unable to maintain these certifications or meet these standards, it could adversely affect our ability to provide our solutions to certain clients and could harm our business.

Any restrictions on the use of or decrease in the availability of data from our clients, or other third parties that collect and store such data on behalf of our clients, and the costs of compliance with, and other burdens imposed by, applicable legislative and regulatory initiatives may limit our ability to collect, aggregate or use this data. Any limitations on our ability to collect, aggregate or use such data could reduce demand for certain of our solutions. Additionally, any inability to adequately address privacy concerns, even if unfounded, or comply with applicable privacy laws, regulations and policies, could result in liability to us or damage to our reputation and could inhibit sales and market acceptance of our solutions and harm our business.

Assertions by a third party that we infringe its intellectual property, whether successful or not, could subject us to costly and time-consuming litigation or expensive licenses.

The software and technology industries are characterized by the existence of a large number of patents, copyrights, trademarks and trade secrets and by frequent litigation based on allegations of infringement, misappropriation, misuse and other violations of intellectual property rights. We have received in the past, and may receive in the future, communications from third parties claiming that we have infringed or otherwise misappropriated the intellectual property rights or terms of use of others. Our technologies may not be able to withstand any third-party claims against their use. Since we currently have a limited number of patents, we may not be able to use patent infringement as a defensive strategy in such litigation. Additionally, although we have licensed from other parties proprietary technology covered by patents, we cannot be certain that any such patents will not be challenged, invalidated or circumvented. If such patents are invalidated or circumvented, this may allow existing and potential competitors to develop products and services that are competitive with, or superior to, our solutions.

Many of our client agreements require us to indemnify our clients for certain third-party claims, such as intellectual property infringement claims, which could increase our costs of defending such claims and may require that we pay damages if there were an adverse ruling or settlement related to any such claims. These types of claims could harm our relationships with our clients, may deter future clients from purchasing our solutions or could expose us to litigation for these claims. Even if we are not a party to any litigation between a client and a third party, an adverse outcome in any such litigation could make it more difficult for us to defend our intellectual property in any subsequent litigation in which we are a named party.

Litigation could force us to stop selling, incorporating or using our solutions that include the challenged intellectual property or redesign those solutions that use the technology. In addition, we may have to pay damages if we are found to be in violation of a third party's rights. We may have to procure a license for the technology, which may not be available on reasonable terms, if at all, may significantly increase our operating expenses or may require us to restrict our business activities in one or more respects. As a result, we may also be required to develop alternative non-infringing technology, which could require significant effort and expense. There is no assurance that we would be able to develop alternative solutions or, if alternative solutions were developed, that they would perform as required or be accepted in the relevant markets. In some instances, if we are unable to offer non-infringing technology, or obtain a license for such technology, we may be required to refund some or the entire license fee paid for the infringing technology by our clients.

Our exposure to risks associated with the use of intellectual property may be increased as a result of acquisitions, as we have a lower level of visibility into the development process with respect to acquired technology or the care taken to safeguard against infringement risks. Such risks include, without limitation, patent infringement risks, copyright infringement risks, risks arising from the inclusion of open source software that is subject to onerous license provisions that could even require disclosure of our proprietary source code, or violations of terms of use for third party solutions that our acquisition targets use. Third parties may make infringement and similar or related claims after we have acquired technology that had not been asserted prior to our acquisition.

Any failure to protect and successfully enforce our intellectual property rights could compromise our proprietary technology and impair our brands.

Our success depends on our ability to protect our proprietary rights to the technologies we use in our solutions. 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. We rely on a combination of copyright, service mark, trademark and trade secret laws, as well as confidentiality procedures and contractual restrictions, to establish and protect our proprietary rights, all of which provide only limited protection. We currently have a limited number of issued patents and pending patent applications, and we may be unable to obtain patent protection in the future. In addition, if any patents are issued in the future, they may not provide us with any competitive advantages, may not be issued in a manner that gives us the protection that we seek and may be successfully challenged by third parties. Unauthorized parties may attempt to copy or otherwise obtain and use the technologies underlying our solutions. Monitoring unauthorized use of our technologies is

difficult, and we do not know whether the steps we have taken will prevent unauthorized use of our technology. If we are unable to protect our proprietary rights, we may find ourselves at a competitive disadvantage to others who have not incurred the substantial expense, time and effort required to create similar innovative products.

We cannot assure that any future service mark or trademark registrations will be issued for pending or future applications or that any registered service marks or trademarks will be enforceable or provide adequate protection of our proprietary rights. If we are unable to secure new marks, maintain already existing marks and enforce the rights to use such marks against unauthorized third-party use, our ability to brand, identify and promote our solutions in the marketplace could be impaired, which could harm our business.

We customarily enter into agreements with our employees, contractors and certain parties with whom we do business to limit access to, use of, and disclosure of our confidential and proprietary information. The legal and technical steps we have taken, however, may not prevent unauthorized use or the reverse engineering of our technology. Moreover, we may be required to release the source code of our software to third parties under certain circumstances. For example, some of our client agreements provide that if we cease to maintain or support a certain solution without replacing it with a successor solution, then we may be required to release the source code of the software underlying such solution. In addition, others may independently develop technologies that are competitive to ours or infringe our intellectual property. Moreover, it may be difficult or practically impossible to detect copyright infringement or theft of our software code. Enforcement of our intellectual property rights also depends on our legal actions being successful against these infringers, but these actions may not be successful, even when our rights have been infringed. Furthermore, the legal standards relating to the validity, enforceability and scope of protection of intellectual property rights in Internet-related industries are uncertain and still evolving.

Additionally, as we sell our solutions internationally, effective patent, trademark, service mark, copyright and trade secret protection may not be available or as robust in every country in which our solutions are available. As a result, we may not be able to effectively prevent competitors outside the United States from infringing or otherwise misappropriating our intellectual property rights, which could reduce our competitive position and ability to compete or otherwise harm our business.

We may be unable to halt the operations of websites that aggregate or misappropriate data from our websites.

From time to time, third parties have misappropriated data from our websites through website scraping, software robots or other means and aggregated this data on their websites with data from other companies. In addition, copycat websites have misappropriated data on our network and attempted to imitate our brand or the functionality of our website. When we have become aware of such websites, we have employed technological or legal measures in an attempt to halt their operations. However, we may be unable to detect all such websites in a timely manner and, even if we could, technological and legal measures may be insufficient to halt their operations. In some cases, particularly in the case of websites operating outside of the United States, our available remedies may not be adequate to protect us against the impact of the operation of such websites. Regardless of whether we can successfully enforce our rights against the operators of these websites, any measures that we may take could require us to expend significant financial or other resources, which could harm our business, results of operations or financial condition. In addition, to the extent that such activity creates confusion among consumers or advertisers, our brand and business could be harmed.

Legal proceedings against us could be costly and time consuming to defend.

We are from time to time subject to legal proceedings and claims that arise in the ordinary course of business, including claims brought by our clients or vendors in connection with commercial disputes, claims brought by our clients' current or prospective renters, including class action lawsuits based on asserted statutory or regulatory violations, employment-based claims made by our current or former employees, and other claims brought by administrative agencies, government regulators, or insurers.

As previously disclosed, in March 2015, we were named in a purported class action lawsuit in the United States District Court for the Eastern District of Pennsylvania, styled *Stokes v. RealPage, Inc.*, Case No. 2:15-cv-01520. The claims in this purported class action relate to alleged violations of the Fair Credit Reporting Act ("FCRA") in connection with background screens of prospective tenants of our clients.

As previously disclosed, in November 2014, we were named in a purported class action lawsuit in the United States District Court for the Eastern District of Virginia, styled *Jenkins v. RealPage, Inc.*, Case No. 3:14cv758. The claims in this purported class action relate to alleged violations of the FCRA in connection with background screens of prospective tenants of our clients.

Following various procedural motions, on June 19, 2017, the court in both the *Stokes* case and *Jenkins* case consolidated the cases, for purposes of settlement. On June 30, 2017, the parties signed a Settlement Agreement and Release covering both cases, and the plaintiffs in the consolidated cases filed an uncontested motion for preliminary approval of the class action settlement and the notice to the class. On August 3, 2017, the court issued a written order preliminarily approving the proposed

class settlement. Following the final approval hearing on February 6, 2018, the court entered an order granting final approval of the settlement.

On February 23, 2015, we received from the Federal Trade Commission ("FTC") a Civil Investigative Demand consisting of interrogatories and a request to produce documents relating to our compliance with the FCRA. We responded to the request and requests for additional information by the FTC. On November 2, 2017, the FTC staff informed us of its belief that there was a basis for claims that could include monetary and injunctive relief against us for failing to follow reasonable procedures to assure maximum possible accuracy of our tenant screening reports. We believe that our business practices did not, and do not, violate the FCRA or any other laws.

In October 2018, we reached a settlement with the FTC resolving all issues raised by the FTC related to this matter. Under the settlement, we paid $3.0 million to the FTC and agreed to continue to comply with the FCRA. The settlement does not require any changes to our current business practices.

Litigation, enforcement actions and other legal proceedings, regardless of their outcome, may result in substantial costs and may divert management's attention and our resources, which may harm our business, overall financial condition and operating results. In addition, legal claims that have not yet been asserted against us may be asserted in the future. Although we maintain insurance, there is no guarantee that such insurance will be available or sufficient to cover any such legal proceedings or claims. For example, insurance may not cover such legal proceedings or claims or the insurer may withhold or dispute coverage of such legal proceedings or claims on various grounds, including by alleging such coverage is beyond the scope of such policies, that we are not in compliance with the terms of such insurance policies or that such policies are not in effect, even after proceeds under such insurance policies have been received by us. We are currently involved in discussions with our insurance carrier regarding coverage for a May 2018 targeted email phishing incident that led to a business email compromise and the diversion of funds totaling approximately $6.0 million, net of recoveries, that were intended for disbursement to three of our clients. The insurance carrier made payment on a portion of our claim in January 2019, and while there can be no assurance of the final outcome, we intend to vigorously pursue repayment of the remaining losses. See Item 7. Management Discussion and Analysis of Financial Condition and Results of Operations - Recent Developments - Other Events for additional details. Insurance may not be sufficient for one or more such legal proceedings or claims and may not continue to be available on terms acceptable to us, or at all. A legal proceeding or claim brought against us that is uninsured or under-insured could result in unanticipated costs, thereby harming our operating results.

We could be sued for contract, warranty or product liability claims, and such lawsuits may disrupt our business, divert management's attention and our financial resources or have an adverse effect on our financial results.

We provide warranties to clients of certain of our solutions and services relating primarily to product functionality, network uptime, critical infrastructure availability and hardware replacement. General errors, defects, inaccuracies or other performance problems in the software applications underlying our solutions or inaccuracies in or loss of the data we provide to our clients could result in financial or other damages to our clients. Additionally, errors associated with any delivery of our services, including utility billing, could result in financial or other damages to our clients. There can be no assurance that any warranty disclaimers, general disclaimers, waivers or limitations of liability set forth in our contracts would be enforceable or would otherwise protect us from liability for damages. We maintain general liability insurance coverage, including coverage for errors and omissions, in amounts and under terms that we believe are appropriate. There can be no assurance that this coverage will continue to be available on terms acceptable to us, or at all, or in sufficient amounts to cover one or more claims, or that the insurer will not deny coverage for any future claim or dispute coverage of such legal proceedings or claims even after proceeds under such insurance policies have been received by us. The successful assertion of one or more claims against us that exceeds available insurance coverage, could have a material adverse effect on our business, prospects, financial condition and results of operations.

The rental housing industry, electronic commerce and many of the products and services that we offer, including background screening services, utility billing, affordable housing compliance and audit services, insurance and payments are subject to extensive and evolving governmental regulation. Changes in regulations or our failure to comply with regulations could harm our operating results.

The rental housing industry is subject to extensive and complex federal, state and local laws and regulations. Our services and solutions must work within the extensive and evolving legal and regulatory requirements applicable to us, our clients or our third-party service providers, including, but not limited to, those under the Fair Credit Reporting Act, the Fair Housing Act, the Deceptive Trade Practices Act, the Drivers Privacy Protection Act, the Gramm-Leach-Bliley Act, the Fair and Accurate Credit Transactions Act, the United States Tax Reform Act of 1986 (TRA86), which is an IRS law governing tax credits, the Privacy Rules, Safeguards Rule and Consumer Report Information Disposal Rule promulgated by the Federal Trade Commission, or FTC, the FTC's Telemarketing Sales Rule, the Telephone Consumer Protection Act (TCPA), the CAN-SPAM Act, the Electronic Communications Privacy Act, the regulations of the United States Department of Housing and Urban Development, or HUD, HIPAA/HITECH, rules and regulations of the Consumer Financial Protection Bureau (CFPB), the Americans with Disabilities Act, and complex and divergent state and local laws and regulations related to data privacy and security, credit and

consumer reporting, deceptive trade practices, discrimination in housing, telemarketing, electronic communications, call recording, utility billing and energy and gas consumption. These regulations are complex, change frequently and may become more stringent over time. Although we attempt to structure and adapt our solutions and service offerings to comply with these complex and evolving laws and regulations, we may be found to be in violation. If we are found to be in violation of any applicable laws or regulations, we could be subject to administrative and other enforcement actions as well as class action lawsuits or demands for client reimbursement. Additionally, many applicable laws and regulations provide for penalties or assessments on a per occurrence basis. Due to the nature of our business, the type of services we provide and the large number of transactions processed by our solutions, our potential liability in an enforcement action or class action lawsuit could be significant. In addition, entities such as HUD, the FTC and the CFPB have the authority to promulgate rules and regulations that may impact us, our clients and our business.

On February 23, 2015, we received from the FTC a Civil Investigative Demand consisting of interrogatories and a request to produce documents relating to our compliance with the FCRA. We responded to the request and requests for additional information by the FTC. On November 2, 2017, the FTC staff informed us of its belief that there was a basis for claims that could include monetary and injunctive relief against us for failing to follow reasonable procedures to assure maximum possible accuracy of our tenant screening reports. We believe that our business practices did not, and do not, violate the FCRA or any other laws.

In October 2018, we reached a settlement with the FTC resolving all issues raised by the FTC related to this matter. Under the settlement, we paid $3.0 million to the FTC and agreed to continue to comply with the FCRA. The settlement does not require any changes to our current business practices.

We believe increased regulation is likely in the area of data privacy, and laws and regulations applying to the solicitation, collection, processing or use of personally identifiable information or consumer information could affect our and our clients' ability to use and share data, potentially reducing demand for our on demand software solutions. In October 2015, the European Court of Justice invalidated the U.S.-EU Safe Harbor framework, which had been the primary compliance mechanism for establishing data transfers outside of the European Economic Area in accordance with the European Union's Data Protection Directive 95-46 EC. In July 2016, the U.S. and European Union entered into a new compliance framework, (the "Privacy Shield"), which was intended to replace the U.S.-EU Safe Harbor framework. The Privacy Shield is subject to review by European courts, and this creates some uncertainty regarding compliance with applicable privacy laws and regulations. While alternative compliance options exist, the long-term viability of the overall compliance framework remains in question, which could result in increased regulation, cost of compliance and limitations on data transfers for both our clients and us. In May 2018, the General Data Protection Regulation ("GDPR") became effective in the European Union, and imposed new requirements and restrictions upon companies that process personal data of EU citizens. In June 2018, the State of California passed the California Consumer Privacy Act ("CCPA"), which creates new requirements and restrictions for processing personal data of California citizens beginning January 1, 2020. If we are unable to meet the requirements of applicable privacy laws and regulations, the Privacy Shield, GDPR or CCPA with respect to our services subject to these provisions, we may incur monetary or other penalties which could harm our business or financial condition.

Some of our LeaseStar products operate under the real estate brokerage laws of numerous states and require maintaining licenses in many of these states. Brokerage laws in these states could change, affecting our ability to provide some LeaseStar or, if applicable, other products in these states.

We deliver our on demand software solutions over the Internet and sell and market certain of our solutions over the Internet. As Internet commerce continues to evolve, increasing regulation by federal, state or foreign agencies becomes more likely. Taxation of products or services provided over the Internet or other charges imposed by government agencies or by private organizations for accessing the Internet may also be imposed. Any regulation imposing greater fees for Internet use or restricting information exchange over the Internet could result in a decline in the use of the Internet and the viability of on demand software solutions, which could harm our business and operating results.

Our LeasingDesk insurance business is subject to governmental regulation which could reduce our profitability or limit our growth.

Through our wholly owned subsidiaries, we hold insurance agent licenses from a number of individual state departments of insurance and are subject to state governmental regulation and supervision in connection with the operation of our LeasingDesk insurance business. In addition, we have appointed numerous sub-producing agents to generate insurance business for its eRenterPlan product. These sub-producing agents primarily consist of property owners and managers who market the eRenterPlan to residents. The sub-producing agents are subject to the same state regulation and supervision, and we cannot ensure that these sub-producing agents will not violate these regulations, and thus expose the LeasingDesk business to sanctions by these state departments of insurance for any such violations. Furthermore, state insurance departments conduct periodic examinations, audits and investigations of the affairs of insurance agents. This state governmental supervision could reduce our profitability or limit the growth of our LeasingDesk insurance business by increasing the costs of regulatory compliance, limiting or restricting the solutions we provide or the methods by which we provide them or subjecting us to the possibility of regulatory actions or proceedings. Our continued ability to maintain these insurance agent 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.

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

We are required to maintain a 50-state general agency insurance license as well as individual insurance licenses for each sales agent involved in the solicitation of insurance products. Both the agency and individual licenses require compliance with state insurance regulations, payment of licensure fees, and continuing education programs. In the event that regulatory compliance requirements are not met, we could be subject to license suspension or revocation, state Department of Insurance audits and regulatory fines. As a result, our ability to engage in the business of insurance could be restricted, and our revenue and financial results will be adversely affected.

Risks Related to Ownership of our Common Stock

The concentration of our capital stock owned by insiders may limit your ability to influence corporate matters.

Our executive officers, directors, and entities affiliated with them together beneficially owned approximately 17.9% of our common stock as of December 31, 2018. Of such amount, Stephen T. Winn, our President, Chief Executive Officer and Chairman of the Board, and entities beneficially owned by Mr. Winn held an aggregate of approximately 16.4% of our common stock as of December 31, 2018. Beneficial ownership is determined in accordance with the rules of the SEC. The number of shares of common stock deemed outstanding includes all shares of restricted stock and those shares issuable upon exercise of options that may be exercised within 60 days after December 31, 2018. The significant concentration of ownership may adversely affect the trading price of our common stock because investors often perceive disadvantages in owning stock in companies with controlling stockholders. Mr. Winn and entities beneficially owned by Mr. Winn may exert significant influence over our management and affairs and matters requiring stockholder approval, including the election of directors and the approval of significant corporate transactions, such as mergers, consolidations or the sale of substantially all of our assets. Consequently, this concentration of ownership may have the effect of delaying or preventing a change of control, including a merger, consolidation or other business combination involving us, or discouraging a potential acquirer from making a tender offer or otherwise attempting to obtain control, even if that change of control would benefit our other stockholders.

The trading price of our common stock may be volatile.

The trading price of our common stock could be subject to wide fluctuations in response to various factors, including, but not limited to, those described in this “Risk Factors” section, some of which are beyond our control. Factors affecting the trading price of our common stock include:

- variations in our operating results or in expectations regarding our operating results;
- variations in operating results of similar companies;
- changes in our financial guidance and how our actual results compare to such guidance;
- changes in the estimates of our operating results or changes in recommendations by any research analysts that elect to follow our common stock;
- announcements of technological innovations, new solutions or enhancements, acquisitions, strategic alliances or agreements by us or by our competitors;

- announcements by competitors regarding their entry into new markets, and new product, service and pricing strategies;
- marketing, advertising or other initiatives by us or our competitors;
- increases or decreases in our sales of products and services for use in the management of units by clients and increases or decreases in the number of units managed by our clients;
- threatened or actual litigation;
- major changes in our board of directors or management;
- recruitment or departure of key personnel;
- market conditions in our industry and the economy as a whole;
- the overall performance of the equity markets;
- sales of our shares of common stock by existing stockholders;
- volatility in our stock price, which may lead to higher stock-based expense under applicable accounting standards; and
- adoption or modification of regulations, policies, procedures or programs applicable to our business.

In addition, the stock market in general, and the market for technology and specifically Internet-related companies, has experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of those companies. Broad market and industry factors may harm the market price of our common stock regardless of our actual operating performance. 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. This litigation, if instituted against us, could result in substantial costs and a diversion of our management's attention and our resources, whether or not we are successful in such litigation.

Future sales of our common stock in the public market could lower the market price for our common stock.

In the future, we may sell additional shares of our common stock to raise capital. On June 5, 2018, we amended our certificate of incorporation to increase the number of authorized shares of common stock by 125,000,000 shares, bringing the total authorized shares of common stock to 250,000,000. In addition, on May 29, 2018, we consummated an underwritten public offering of 8.05 million shares of our common stock, with total gross proceeds raised of $458.9 million. A substantial number of shares of our common stock is reserved for issuance upon the exercise of stock options and upon conversion of the Convertible Notes. We cannot predict the size of future issuances or the effect, if any, that they may have on the market price for our common stock. The issuance and sale of substantial amounts of common stock, or the perception that such issuances and sales may occur, could adversely affect the market price of our common stock and impair our ability to raise capital through the sale of additional equity.

The Note Hedges and Warrant transactions may affect the value of our common stock.

In connection with the pricing of the Convertible Notes, we entered into Note Hedges transactions with the option counterparties. We also entered into Warrant transactions with the option counterparties. The Note Hedges transactions are expected generally to reduce the potential dilution upon conversion of the Convertible Notes and/or offset any cash payments we are required to make in excess of the principal amount of Convertible Notes once converted, as the case may be. However, the Warrants could separately have a dilutive effect on our common stock to the extent that the market price per share of our common stock exceeds the strike price of the Warrants.

In connection with establishing their initial hedges of the Note Hedges and Warrants, the option counterparties or their respective affiliates expected to enter into various derivative transactions with respect to our common stock concurrently with or shortly after the pricing of the Convertible Notes. The option counterparties or their respective affiliates may modify any such hedge positions by entering into or unwinding various derivatives with respect to our common stock and/or purchasing or selling our common stock or other securities of ours in secondary market transactions prior to the maturity of the Convertible Notes (and are likely to do so during any observation period related to a conversion of the Convertible Notes). This activity could also cause or avoid an increase or a decrease in the market price of our common stock.

Our charter documents and Delaware law could prevent a takeover that stockholders consider favorable and could also reduce the market price of our stock.

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

- a classified board of directors whose members serve staggered three-year terms;
- not providing for cumulative voting in the election of directors;
- authorizing our board of directors to issue, without stockholder approval, preferred stock with rights senior to those of our common stock;
- prohibiting stockholder action by written consent; and
- requiring advance notification of stockholder nominations and proposals.

These and other provisions of our amended and restated certificate of incorporation and our amended and restated bylaws and under Delaware law could discourage potential takeover attempts, reduce the price that investors might be willing to pay in the future for shares of our common stock and result in the market price of our common stock being lower than it would be without these provisions.

If securities analysts do not continue to publish research or reports about our business or if they publish negative evaluations of our stock, the price of our stock could decline.

We expect that the trading price for our common stock may be affected by research or reports that industry or financial analysts publish about us or our business. If one or more of the analysts who cover us downgrade their evaluations of our stock, the price of our stock could decline. If one or more of these analysts cease coverage of our company, we could lose visibility in the market for our stock, which in turn could cause our stock price to decline.

We do not anticipate paying any cash dividends on our common stock.

We do not anticipate paying any cash dividends on our common stock in the foreseeable future. If we do not pay cash dividends, you would receive a return on your investment in our common stock only if the market price of our common stock has increased when you sell your shares. In addition, the terms of our credit facilities currently restrict our ability to pay dividends. See additional discussion under the Dividend Policy heading of Part II, Item 5 of our Annual Report on Form 10-K.

Item 1B. Unresolved Staff Comments.

None.

Item 2. Properties.

At December 31, 2018, we leased approximately 457,000 square feet of space for our corporate headquarters in Richardson, Texas under a lease agreement that expires in August 2028. We also have offices in Campbell, California; Costa Mesa, California; Irvine, California; Manhattan Beach, California; Sacramento, California; San Diego, California; Broomfield, Colorado; Tampa, Florida; Alpharetta, Georgia; Duluth, Georgia; Lombard, Illinois; Ann Arbor, Michigan; Bloomington, Minnesota; Hackensack, New Jersey; New York, New York; Mason, Ohio; Greenville, South Carolina; Dallas, Texas; Richardson, Texas; South Burlington, Vermont; Hyderabad, India; Cebu, Philippines; Manila, Philippines; Barcelona, Spain; and London, United Kingdom. We also license data center space and employ the services of cloud service providers at multiple locations in the U.S. and internationally. We believe our current and planned office and data center facilities will be adequate for the foreseeable future.

Item 3. Legal Proceedings.

On February 23, 2015, we received from the FTC a Civil Investigative Demand consisting of interrogatories and a request to produce documents relating to our compliance with the Fair Credit Reporting Act (“FCRA”). We responded to the request and requests for additional information by the FTC. On November 2, 2017, the FTC staff informed us of its belief that there was a basis for claims that could include monetary and injunctive relief against us for failing to follow reasonable procedures to assure maximum possible accuracy of our tenant screening reports. We believe that our business practices did not, and do not, violate the FCRA or any other laws.

In October 2018, we reached a settlement with the FTC resolving all issues raised by the FTC related to this matter. Under the settlement, we paid $3.0 million to the FTC and agreed to continue to comply with the FCRA. The settlement does not require any changes to our current business practices.

We are subject to legal proceedings and claims arising in the ordinary course of business. We are involved in litigation and other legal proceedings and claims, including purported class action lawsuits, that have not been fully resolved. At this time, we believe that any reasonably possible adverse outcome of such matters would not be material either individually or in

the aggregate. Our view of these matters may change in the future as litigation and events related thereto unfold. See the risk factors "*Assertions by a third party that we infringe its intellectual property, whether successful or not, could subject us to costly and time-consuming litigation or expensive licenses," "The rental housing industry, electronic commerce and many of the products and services that we offer, including background screening services, utility billing, affordable housing compliance and audit services, insurance and payments are subject to extensive and evolving governmental regulation. Changes in regulations or our failure to comply with regulations could harm our operating results,"* and "*Legal proceedings against us could be costly and time consuming to defend"* in Part I, Item 1A of this Form 10-K under the heading "Risk Factors."

Item 4. Mine Safety Disclosures.

Not applicable.

PART II

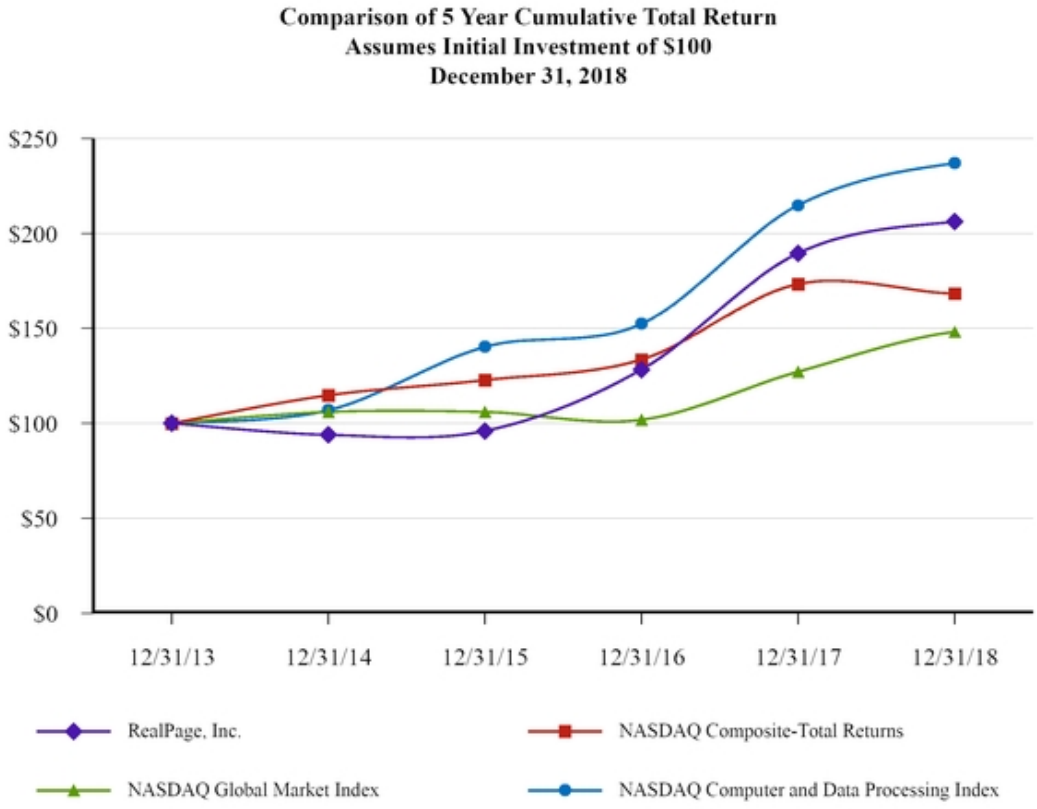
Item 5. Market for Registrant's Common Equity, Related Stockholder Matters, and Issuer Purchases of Equity Securities.

Market Information and Holders

Our common stock is traded on the NASDAQ Global Select Market under the symbol "RP." As of February 15, 2019, there were approximately 302 holders of record of our common stock. Restricted shares granted under our stock-based expense plans which have not yet vested are considered to be held by one holder. Because many of our shares of common stock are held by brokers and other institutions on behalf of stockholders, the number of record holders of our shares is not indicative of the total number of stockholders.

Performance Graph

The following graph compares the relative performance of our common stock, the NASDAQ Global Market Index, NASDAQ Composite, and the NASDAQ Computer and Data Processing Index. This graph covers the annual periods ending December 31, 2013 through December 31, 2018. In each case, this graph assumes a $100 investment on the last trading day of the fiscal year ended December 31, 2013 (and reinvestment of all dividends, if any), in each of our common stock, the NASDAQ Global Market Index, NASDAQ Composite, and the NASDAQ Computer and Data Processing Index.



	December 31, 2013	December 31, 2014	December 31, 2015	December 31, 2016	December 31, 2017	December 31, 2018
RealPage, Inc.	$ 100.00	$ 93.93	$ 96.02	$ 128.31	$ 189.48	$ 206.12
NASDAQ Composite—Total Returns	100.00	114.75	122.74	133.62	173.22	168.30
NASDAQ Global Market Index	100.00	106.01	106.00	101.91	127.16	148.17
NASDAQ Computer and Data Processing Index	100.00	106.92	140.18	152.41	214.71	236.87

Issuer Purchases of Equity Securities

The following table provides information with respect to repurchases of our common stock made during the fourth quarter of 2018 by RealPage, Inc. or any "affiliated purchaser" of RealPage, Inc. as defined in Rule 10b-18(a)(3) under the Exchange Act:

Period	Total Number of Shares Purchased	Average Price Paid per Share	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 [1]
October 1, 2018 through October 31, 2018	—	$ —	—	$ 100,000,000
November 1, 2018 through November 30, 2018	449,664	46.99	449,664	78,869,061
December 1, 2018 through December 31, 2018	150,000	46.34	150,000	71,917,676
Total	599,664	$ 46.83	599,664	$ 71,917,676

[1] In October 2018, our board of directors approved a new share repurchase program authorizing the repurchase of up to $100.0 million of our outstanding common stock. The share repurchase program is effective through October 25, 2019.

Item 6. Selected Financial Data.

The following selected financial data is derived from our audited Consolidated Financial Statements. Over the last five fiscal years, we have acquired a number of companies as disclosed in Note 3 "Acquisitions" of the Notes to Consolidated Financial Statements under Item 8 of this Annual Report on Form 10-K. The results of our acquired companies have been included in our Consolidated Financial Statements since their respective dates of acquisition and have contributed to the growth in our results of operations. This information should be read in conjunction with our audited Consolidated Financial Statements, the related notes, and the information in Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations," and included elsewhere in this Annual Report on Form 10-K. Our historical results are not necessarily indicative of our future results.

Amounts presented below reflect the correction of an immaterial error related to the misclassification of amortization expense on certain acquired intangible assets. Additionally, the amounts below reflect a change in presentation of our Consolidated Statements of Operations to add "Amortization of product technologies" and "Amortization of intangible assets" as separate line items within such statements. Refer to Note 2 of the accompanying Consolidated Financial Statements for further discussion of these items.

	Year Ended December 31,				
	2018	2017	2016	2015	2014
	(in thousands, except per share data)				
Revenue:					
On demand	$ 833,709	$ 642,622	$ 542,531	$ 450,962	$ 390,622
Professional and other	35,771	28,341	25,597	17,558	13,929
Total revenue	869,480	670,963	568,128	468,520	404,551
Cost of revenue	328,382	258,135	225,539	184,400	164,159
Amortization of product technologies	35,797	22,163	17,669	14,213	10,712
Gross profit	505,301	390,665	324,920	269,907	229,680
Operating expenses:					
Product development	118,525	89,452	73,607	68,799	64,418
Sales and marketing	163,887	140,473	121,707	111,944	99,870
General and administrative	118,208	112,975	85,013	68,814	69,202
Amortization of intangible assets	35,911	17,755	12,599	11,164	11,693
Impairment of intangible assets	2,720	—	750	20,801	—
Total operating expenses	439,251	360,655	293,676	281,522	245,183
Operating income (loss)	66,050	30,010	31,244	(11,615)	(15,503)
Interest expense and other, net	(31,750)	(14,769)	(3,758)	(1,449)	(1,104)
Income (loss) before income taxes	34,300	15,241	27,486	(13,064)	(16,607)
Income tax (benefit) expense	(425)	14,864	10,836	(3,846)	(6,333)
Net income (loss)	$ 34,725	$ 377	$ 16,650	$ (9,218)	$ (10,274)
Net income (loss) per share attributable to common stockholders:					
Basic	$ 0.40	$ 0.00	$ 0.22	$ (0.12)	$ (0.13)
Diluted	$ 0.38	$ 0.00	$ 0.21	$ (0.12)	$ (0.13)
Weighted average common shares outstanding:					
Basic	87,290	79,433	76,854	76,689	76,991
Diluted	91,531	82,398	77,843	76,689	76,991

	Year Ended December 31,				
	2018	2017	2016	2015	2014
	(in thousands, except client and employee data)				
Consolidated Balance Sheet Data:					
Cash and cash equivalents[1]	$ 228,159	$ 69,343	$ 104,886	$ 30,911	$ 26,936
Total current assets	$ 540,753	$ 308,579	$ 297,455	$ 221,943	$ 186,819
Total assets	$ 2,097,773	$ 1,516,293	$ 788,098	$ 623,201	$ 566,294
Total current liabilities	$ 412,232	$ 332,907	$ 250,527	$ 215,347	$ 196,709
Total deferred revenue	$ 125,606	$ 122,160	$ 95,891	$ 91,179	$ 80,388
Current and long-term debt[2]	$ 596,572	$ 648,818	$ 122,429	$ 40,292	$ 20,866
Total liabilities	$ 1,034,749	$ 1,014,418	$ 403,335	$ 296,749	$ 237,514
Total stockholders' equity	$ 1,063,024	$ 501,875	$ 384,763	$ 326,452	$ 328,780
Other Financial Data:					
Adjusted EBITDA[3]	$ 231,176	$ 163,445	$ 127,210	$ 92,191	$ 70,589
Operating cash flow	$ 244,807	$ 140,263	$ 129,449	$ 95,930	$ 83,574
Capital expenditures	$ 50,933	$ 49,752	$ 75,241	$ 33,384	$ 37,062
Selected Operating Data:					
Number of on demand clients at period end	12,266	12,414	11,042	11,998	10,744
Number of on demand units at period end	16,219	13,003	10,989	10,568	9,560
Total number of employees at period end	6,267	5,462	4,410	4,122	3,875

(1) Excludes restricted cash.

(2) Includes capital lease obligations.

(3) A definition of this non-GAAP financial measure and a discussion of our use of it is included in Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations," in this Annual Report on Form 10-K .

The following table presents a reconciliation of net income (loss) to Adjusted EBITDA:

	Year Ended December 31,				
	2018	2017	2016	2015	2014
	(in thousands)				
Net income (loss)	$ 34,725	$ 377	$ 16,650	$ (9,218)	$ (10,274)
Acquisition-related and other deferred revenue adjustments	1,890	3,058	(949)	(2,157)	435
Depreciation, asset impairment, and loss on disposal of assets	35,211	27,752	25,813	44,385	19,288
Amortization of product technologies and intangible assets	71,708	39,918	30,268	25,377	22,404
Loss due to cyber incident, net of recoveries	4,952	—	—	—	—
Acquisition-related expense (income)	2,437	5,557	363	(1,841)	1,987
Costs related to the Hart-Scott-Rodino review process	78	11,012	—	—	—
Interest expense, net	29,959	15,072	3,825	1,367	1,117
Income tax (benefit) expense	(425)	14,864	10,836	(3,846)	(6,333)
Litigation-related expense	—	—	—	2	4,915
Headquarters relocation costs	—	—	3,552	—	—
Stock-based expense	50,641	45,835	36,852	38,122	37,050
Adjusted EBITDA	$ 231,176	$ 163,445	$ 127,210	$ 92,191	$ 70,589

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 "Selected Financial Data" and our audited Consolidated Financial Statements and accompanying notes included elsewhere in this filing. This discussion contains forward-looking statements, based on current expectations and related to our plans, estimates, beliefs, and anticipated future financial performance. These statements involve risks and uncertainties, and our actual results may differ materially from those anticipated in these forward-looking statements as a result of many factors, including those set forth under "Risk Factors," "Special Note Regarding Forward-Looking Statements," and elsewhere in this filing.

Overview

We are a leading global provider of software and data analytics to the real estate industry. Clients use our platform of solutions to improve operating performance and increase capital returns. By leveraging data as well as integrating and streamlining a wide range of complex processes and interactions among the rental real estate ecosystem, our platform helps our clients improve financial and operational performance and prudently place and harvest capital.

The substantial majority of our revenue is derived from sales of our on demand software solutions, representing 95.9%, 95.8%, and 95.5% of our total revenue during 2018, 2017, and 2016, respectively. We also derive revenue from our professional and other services, and a small percentage of our revenue is derived from sales of our on premise software solutions. Our on demand software solutions are sold pursuant to subscription license agreements, and our on premise software solutions are sold pursuant to term or perpetual licenses and associated maintenance agreements. For our insurance-based solutions, we earn revenue based on a commission rate that considers earned premiums, agent commission, incurred losses, and profit retained by our underwriting partner. Our transaction-based solutions are priced based on a fixed rate per transaction. We sell our solutions through our direct sales organization and derive substantially all of our revenue from sales in the United States. Our revenue has increased from $671.0 million in 2017 to $869.5 million in 2018. The increase in revenue was driven by incremental revenue from our recent acquisitions and growth in the sales of our on demand software solutions.

We believe there is increasing demand for solutions that bring efficiency and precision to the rental real estate industry, which has historically lacked the tools available to many other investment classes. While the use of, and transition to, data analytics and on demand software solutions in the rental real estate industry is growing rapidly, we believe it remains at a relatively early stage of adoption. Additionally, there is a modest level of penetration of our on demand software solutions in our existing client base. These factors present us with significant opportunities to generate revenue through sales of additional data analytics and on demand software solutions.

Our company was formed in 1998 to acquire Rent Roll, Inc., which marketed and sold on premise property management systems for the conventional and affordable multifamily rental housing markets. In June 2001, we released OneSite, our first on demand property management system. Since 2002, we have expanded our platform of solutions to include property management, leasing and marketing, resident services, and asset optimization capabilities. In addition to the multifamily markets, we now serve the single family, senior living, student living, military housing, commercial, hospitality, homeowner association, short-term rental and vacation rental markets. Since July 2002, we have completed over 40 acquisitions of complementary technologies to supplement our internal product development and sales and marketing efforts and expand the scope of our solutions, the types of rental housing and vacation rental properties served by our solutions, and our client base. In connection with this expansion and these acquisitions, we have committed greater resources to developing and increasing sales of our platform of data analytics and on demand solutions. As of December 31, 2018, we had approximately 6,200 employees.

Recent Developments

Credit Facility

In March 2018, we executed the Seventh Amendment to our 2014 Credit Facility. This amendment allowed for an increase of $150.0 million in available credit under our Revolving Facility, to a total aggregate commitment for revolving loans up to $350.0 million. Among other modifications, the Seventh Amendment provided for an increase in the maximum Net Leverage Ratio and Senior Leverage Ratio to 5.00 to 1.00 and 3.75 to 1.00, respectively. The Seventh Amendment also replenished the Accordion Feature to allow us, subject to certain conditions, to request additional term loans or revolving commitments up to an aggregate principal amount of $150.0 million, plus an amount that would not cause our Senior Leverage Ratio to exceed 3.50 to 1.00.

Refer to Note 8 of the accompanying Consolidated Financial Statements for applicable definitions, further discussion of this amendment, and other terms and conditions of the Credit Facility.

Public Offering

On May 29, 2018, we consummated an underwritten public offering of 8.05 million shares of our common stock, which included 1.05 million shares sold pursuant to the underwriters' full exercise of their option to purchase additional shares. The offering was priced at $57.00 per share for total gross proceeds of $458.9 million. The aggregate net proceeds to us were $441.9 million, after deducting underwriting discounts and offering expenses in the aggregate amount of $16.9 million. The offering was made pursuant to an effective shelf registration statement filed with the SEC on May 21, 2018.

Acquisition Activity

Rentlytics

In October 2018, we entered into an agreement and plan of merger whereby we acquired 100% of the capital stock of Rentlytics, a provider of business intelligence and data analytics software and services to the multi-family housing industry. The acquisition of Rentlytics expands our business intelligence and performance analytics platform. Aggregate purchase consideration for this acquisition was $55.4 million.

LeaseLabs

In September 2018, we acquired substantially all of the assets of LeaseLabs, a full-stack marketing solutions provider to the multifamily housing industry. LeaseLabs provides online, social media and website marketing services to property management companies. The acquisition of LeaseLabs improves our marketing platform and allows owners and operators to better direct their advertising and marketing spend, thereby increasing the number of qualified leads, accentuating their brand and reducing overall marketing costs. Aggregate purchase consideration for LeaseLabs was $112.9 million.

BluTrend

In July 2018, we acquired substantially all of the assets of BluTrend, a provider of utility management services for the multifamily housing industry. The acquired assets will be integrated with our existing resident utility management platform. We acquired BluTrend for aggregate purchase consideration of $8.5 million.

ClickPay

In April 2018, we acquired substantially all of the outstanding membership units of NovelPay, LLC ("NovelPay"), other than those owned by ClickPay Services, Inc. On the same day, we acquired all of the outstanding stock of ClickPay Services, Inc. (collectively with NovelPay, "ClickPay"). ClickPay provides an electronic payment platform servicing resident units across multiple segments of real estate, which offers integrated payment services to increase operational efficiencies for property owners and managers. The acquisition of ClickPay broadens our presence in the real estate industry, and solidifies the integration of our leasing platform with third-party property management systems. Aggregate purchase consideration for this acquisition was $221.1 million.

Refer to Note 3 of the accompanying Consolidated Financial Statements for further discussion of these acquisitions.

Other Event

During May 2018 and as disclosed in our Form 10-Q for the quarter ended March 31, 2018, we were the subject of a targeted email phishing campaign that led to a business email compromise, pursuant to which an unauthorized party gained access to an external third party system used by a subsidiary that we acquired in 2017. The incident resulted in the diversion of approximately $6.0 million, net of recovered funds, intended for disbursement to three clients. We immediately restored all funds to the client accounts. During the quarter ended June 30, 2018, we remediated the material weakness that gave rise to the incident and implemented additional preventive and detective control procedures.

We maintain insurance coverage to limit our losses related to criminal and network security events. During January 2019, we received approximately $1.0 million from our primary insurance carrier as a partial repayment toward our losses from the business email compromise. We are currently involved in discussions with our insurance carrier regarding coverage of the remaining losses, and intend to vigorously pursue repayment of these losses. Due to the ongoing discussions with our insurance carrier and the uncertainty regarding timing and full collectability of the loss, we recorded an allowance of $5.0 million for the remaining amount of the loss, which is included in the line "General and administrative" in the accompanying Consolidated Statements of Operations. For the year ended December 31, 2018, total charges from the phishing incident included in our Consolidated Statements of Operations were $5.4 million for losses and related expenses that are not probable of recovery.

Key Business Metrics

In addition to financial measures, we monitor our operating performance using a number of financially and non-financially derived metrics that are not included in our consolidated financial statements. We monitor the key performance indicators reflected in the following table:

	Year Ended December 31,		
	2018	2017	2016
	(in thousands, except dollar per unit data)		
Revenue:			
Total revenue	$ 869,480	$ 670,963	$ 568,128
On demand revenue	$ 833,709	$ 642,622	$ 542,531
On demand revenue as a percentage of total revenue	95.9%	95.8%	95.5%
Non-GAAP total revenue	$ 871,370	$ 674,021	$ 567,179
Non-GAAP on demand revenue	$ 835,599	$ 645,680	$ 541,582
Adjusted EBITDA	$ 231,176	$ 163,445	$ 127,210
Ending on demand units	16,219	13,003	10,989
Average on demand units	14,847	11,711	11,042
On demand annual client value	$ 876,637	$ 751,183	$ 556,813
On demand revenue per ending on demand unit	$ 54.05	$ 57.77	$ 50.67

On demand revenue: This metric represents the GAAP revenue derived from license and subscription fees relating to our on demand software solutions, typically licensed over one year terms; commission income from sales of renter's insurance policies; and transaction fees for certain of our on demand software solutions. We consider on demand revenue to be a key business metric because we believe the market for our on demand software solutions represents the largest growth opportunity for our business.

On demand revenue as a percentage of total revenue: This metric represents on demand revenue for the period presented divided by total revenue for the same period. We use on demand revenue as a percentage of total revenue to measure our success executing our strategy to increase the penetration of our on demand software solutions and expand our recurring revenue streams attributable to these solutions. We expect our on demand revenue to remain a significant percentage of our total revenue although the actual percentage may vary from period to period due to a number of factors, including the timing of acquisitions; professional and other revenues; and on premise perpetual license sales and maintenance fees.

Non-GAAP total revenue: This metric is calculated by adding acquisition-related and other deferred revenue adjustments to total revenue. We believe it is useful to include deferred revenue written down for GAAP purposes under purchase accounting rules and revenue deferred due to a lack of historical experience determining the settlement of the contractual obligation in order to appropriately measure the underlying performance of our business operations in the period of activity and associated expense. Further, we believe this measure is useful to investors as a way to evaluate our ongoing performance.

The following provides a reconciliation of GAAP to non-GAAP total revenue:

	Year Ended December 31,		
	2018	2017	2016
	(in thousands)		
Total revenue	$ 869,480	$ 670,963	$ 568,128
Acquisition-related and other deferred revenue adjustments	1,890	3,058	(949)
Non-GAAP total revenue	$ 871,370	$ 674,021	$ 567,179

Non-GAAP on demand revenue: This metric reflects total on demand revenue plus acquisition-related and other deferred revenue adjustments, as described above. We believe inclusion of these items provides a useful measure of the underlying performance of our on demand business operations in the period of activity and associated expense. Further, we believe that investors and financial analysts find this measure to be useful in evaluating our ongoing performance because it provides a more accurate depiction of on demand revenue.

The following provides a reconciliation of GAAP to non-GAAP on demand revenue:

	Year Ended December 31,		
	2018	2017	2016
	(in thousands)		
On demand revenue	$ 833,709	$ 642,622	$ 542,531
Acquisition-related and other deferred revenue adjustments	1,890	3,058	(949)
Non-GAAP on demand revenue	$ 835,599	$ 645,680	$ 541,582

Adjusted EBITDA: We define Adjusted EBITDA as net income, plus (1) acquisition-related and other deferred revenue adjustments, (2) depreciation, asset impairment, and the loss on disposal of assets, (3) amortization of product technologies and intangible assets, (4) loss due to cyber incident, net of recoveries, (5) acquisition-related expense, (6) costs arising from the Hart-Scott-Rodino review process for our acquisitions, (7) interest expense, net, (8) income tax (benefit) expense, (9) headquarters relocation costs, and (10) stock-based expense. We believe that investors and financial analysts find this non-GAAP financial measure to be useful in analyzing our financial and operational performance, comparing this performance to our peers and competitors, and understanding our ability to generate income from ongoing business operations.

The following provides a reconciliation of net income to Adjusted EBITDA:

	Year Ended December 31,		
	2018	2017	2016
	(in thousands)		
Net income	$ 34,725	$ 377	$ 16,650
Acquisition-related and other deferred revenue adjustments	1,890	3,058	(949)
Depreciation, asset impairment, and loss on disposal of assets	35,211	27,752	25,813
Amortization of product technologies and intangible assets	71,708	39,918	30,268
Loss due to cyber incident, net of recoveries	4,952	—	—
Acquisition-related expense	2,437	5,557	363
Costs related to the Hart-Scott-Rodino review process	78	11,012	—
Interest expense, net	29,959	15,072	3,825
Income tax (benefit) expense	(425)	14,864	10,836
Headquarters relocation costs	—	—	3,552
Stock-based expense	50,641	45,835	36,852
Adjusted EBITDA	$ 231,176	$ 163,445	$ 127,210

Ending on demand units: This metric represents the number of rental housing units managed by our clients with one or more of our on demand software solutions at the end of the period. We use ending on demand units to measure the success of our strategy of increasing the number of rental housing units managed with our on demand software solutions. Property unit counts are provided to us by our clients as new sales orders are processed. Property unit counts may be adjusted periodically as information related to our clients' properties is updated or supplemented, which could result in adjustments to the number of units previously reported.

Average on demand units: We calculate average on demand units as the average of the beginning and ending on demand units for each quarter in the period presented. This metric is a measure of our success increasing the number of on demand software solutions utilized by our clients to manage their rental housing units, our overall revenue, and profitability.

On demand annual client value ("ACV"): ACV represents our estimate of the annual value of our on demand revenue contracts at a point in time. We monitor this metric to measure our success in increasing the number of on demand units, and the amount of software solutions utilized by our clients to manage their rental housing units.

On demand revenue per ending on demand unit ("RPU"): We define RPU as ACV divided by ending on demand units. We monitor this metric to measure our success in increasing the penetration of on demand software solutions utilized by our clients to manage their rental housing units.

Non-GAAP Financial Measures

We report our financial results in accordance with GAAP; however, we believe that, in order to properly understand our short-term and long-term financial, operational, and strategic trends, it may be helpful for investors to exclude certain non-cash or non-recurring items when used as a supplement to financial performance measures in accordance with GAAP. These non-cash or non-recurring items result from facts and circumstances that vary in both frequency and impact on continuing operations. We also use results of operations excluding such items to evaluate our operating performance compared against prior periods, make operating decisions, determine executive compensation, and serve as a basis for long-term strategic planning. These non-GAAP financial measures provide us with additional means to understand and evaluate the operating results and trends in our ongoing business by eliminating certain non-cash expenses and other items that we believe might otherwise make comparisons of our ongoing business with prior periods more difficult, obscure trends in ongoing operations, reduce our ability to make useful forecasts, or obscure the ability to evaluate the effectiveness of certain business strategies and management incentive structures. In addition, we also believe that investors and financial analysts find this information helpful in analyzing our financial and operational performance and comparing this performance to our peers and competitors. These non-GAAP financial measures are used in conjunction with traditional GAAP financial measures as part of our overall assessment of our performance.

We do not place undue reliance on non-GAAP financial measures as measures of operating performance. Non-GAAP financial measures should not be considered substitutes for other measures of financial performance or liquidity reported in accordance with GAAP. There are limitations to using non-GAAP financial measures, including that other companies may calculate these measures differently than we do; that they do not reflect changes in, or cash requirements for, our working capital; and that they do not reflect our capital expenditures or future requirements for capital expenditures. We compensate for the inherent limitations associated with using non-GAAP financial measures through disclosure of these limitations, presentation of our financial statements in accordance with GAAP, and reconciliation of non-GAAP financial measures to the most directly comparable GAAP financial measures.

We exclude or adjust each of the items identified below from the applicable non-GAAP financial measure referenced above for the reasons set forth with respect to each excluded item:

Acquisition-related and other deferred revenue: These items are included to reflect deferred revenue written down for GAAP purposes under purchase accounting rules and revenue deferred due to a lack of historical experience determining the settlement of the contractual obligation in order to appropriately measure the underlying performance of our business operations in the period of activity and associated expense.

Asset impairment and loss on disposal of assets: These items comprise gains and/or losses on the disposal and impairment of long-lived assets, and impairment of indefinite-lived intangible assets, which are not reflective of our ongoing operations. We believe exclusion of these items facilitates a more accurate comparison of our results of operations between periods.

Depreciation of long-lived assets: Long-lived assets are depreciated over their estimated useful lives in a manner reflecting the pattern in which the economic benefit is consumed. Management is limited in its ability to change or influence these charges after the asset has been acquired and placed in service. We do not believe that depreciation expense accurately reflects the performance of our ongoing operations for the period in which the charges are incurred, and are therefore not considered by management in making operating decisions.

Amortization of product technologies and intangible assets: These items are amortized over their estimated useful lives and generally cannot be changed or influenced by management after acquisition. Accordingly, these items are not considered by us in making operating decisions. We do not believe such charges accurately reflect the performance of our ongoing operations for the period in which such charges are incurred.

Loss due to cyber incident, net of recoveries - This item relates to losses, net of recoveries, arising from the May 2018 incident in which we were the subject of a targeted email phishing campaign. We believe this loss is not reflective of our ongoing operations and that exclusion of this item facilitates a more accurate comparison of our results of operations between periods.

Acquisition-related expense: These items consist of direct costs incurred in our business acquisition transactions and the impact of changes in the fair value of acquisition-related contingent consideration obligations. We believe exclusion of these items facilitates a more accurate comparison of the results of our ongoing operations across periods and eliminates volatility related to changes in the fair value of acquisition-related contingent consideration obligations.

Costs arising from Hart-Scott-Rodino review process: This item consists of direct costs incurred related to reviews by the United States Federal Trade Commission and Department of Justice of our 2017 acquisitions of LRO and On-Site, and our 2018 acquisition of LeaseLabs under the Hart-Scott-Rodino Antitrust Improvements Act. We believe that these costs are not

reflective of our ongoing operations or our normal acquisition activity. Exclusion of these costs facilitates a more accurate comparison of our results across periods.

Headquarters relocation costs: These items consist of duplicative rent and other expenses related to the relocation of our corporate headquarters and data center, which was substantially completed in the third quarter of 2016. These costs are not reflective of our ongoing operations due to their non-recurring nature.

Stock-based expense: This item is excluded because these are non-cash expenditures that we do not consider part of ongoing operating results when assessing the performance of our business, and also because the total amount of the expenditure is partially outside of management's control because it is based on factors such as stock price, volatility, and interest rates, which may be unrelated to our performance during the period in which the expenses are incurred.

Key Components of Our Results of Operations

As described in Note 2 of the accompanying Consolidated Financial Statements for the year ended December 31, 2018, we have changed the presentation of our Consolidated Statements of Operations to add "Amortization of product technologies" and "Amortization of intangible assets" as separate line items within such statements. Amounts shown as amortization of product technologies were previously included within "Cost of revenue", and amounts shown as amortization of intangible assets were previously included within the "Sales and marketing" operating expense category. Amounts for prior periods have been reclassified in order to conform to the current period presentation.

Revenue

We derive our revenue from two primary sources: our on demand software solutions and our professional and other services.

On demand revenue: Revenue from our on demand software solutions is comprised of license and subscription fees relating to our on demand software solutions, typically licensed for one year terms; commission income from sales of renter's insurance policies; and transaction fees for certain on demand software solutions, such as payment processing, spend management, and billing services. For our insurance based solutions, our agreement provides for a fixed commission on earned premiums related to the policies sold by us. The agreement also provides for a contingent commission to be paid to us in accordance with the agreement. Our transaction-based solutions are priced based on a fixed rate per transaction.

Professional and other revenue: Revenue from professional and other services consists of consulting and implementation services; training; and other ancillary services. We complement our solutions with professional and other services for our clients willing to invest in enhancing the value or decreasing the implementation time of our solutions. Our professional and other services are typically priced as time and materials engagements. Professional and other revenue also includes revenues generated from sub-meter installation services under our resident utility management solutions, and our on premise solutions.

Cost of Revenue

Cost of revenue consists primarily of personnel costs related to our operations; support services; training and implementation services; expenses related to the operation of our data centers; and fees paid to third-party service providers. Personnel costs include salaries, bonuses, stock-based expense, and employee benefits. Cost of revenue also includes an allocation of facilities costs, overhead costs, and depreciation, which are allocated based on headcount.

Amortization of Product Technologies

Amortization of product technologies includes amortization of developed product technologies related to strategic acquisitions and amortization of capitalized development costs.

Operating Expenses

We classify our operating expenses into three primary categories: product development, sales and marketing, and general and administrative. Our operating expenses primarily consist of personnel costs; costs for third-party contracted development; marketing; legal; accounting and consulting services; and other professional service fees. Personnel costs for each category of operating expenses include salaries, bonuses, stock-based expense, and employee benefits for employees in that category. Our operating expenses also include an allocation of our facilities costs; overhead costs and depreciation based on headcount for that category.

Product development: Product development expense consists primarily of personnel costs for our product development employees and executives, information technology and facilities, and fees to contract development vendors. Our product development efforts are focused primarily on increasing the functionality and enhancing the ease of use of our platform of solutions and expanding our suite of data analytics and on demand software solutions. In addition to our locations in the United States, we maintain product development and service centers in Hyderabad, India; Manila, Philippines; and Cebu City, Philippines.

Sales and marketing: Sales and marketing expense consists primarily of personnel costs for our sales, marketing, and business development employees and executives; information technology; travel and entertainment; and marketing programs. Marketing programs consist of amounts paid for product marketing, renter's insurance; other advertising; trade shows; user conferences; public relations; and industry sponsorships and affiliations.

General and administrative: General and administrative expense consists of personnel costs for our executives, finance and accounting, human resources, management information systems, and legal personnel. In addition, general and administrative expense includes fees for professional services, including legal, accounting, and other consulting services; information technology and facilities costs; and acquisition-related costs, including direct costs incurred to complete our acquisitions and changes in the fair value of our acquisition-related contingent consideration obligations.

Amortization of intangible assets: Amortization of intangible assets consist of amortization of purchased intangible assets, including client relationships; key vendor and supplier relationships; finite-lived trade names; and non-compete agreements, obtained in connection with our acquisitions.

Interest Expense and Other, Net

Interest expense, net, consists primarily of interest income, interest expense, and impairments on investments. Interest income represents earnings from our cash and cash equivalents. Interest expense is associated with amounts borrowed under the Credit Facility, Convertible Notes, capital lease obligations, and certain acquisition-related liabilities, and includes expense from the amortization of related discounts and debt issuance costs. We participate in interest rate swap agreements, the purpose of which is to eliminate variability in interest rate payments on a portion of the Term Loans. For that portion, the swap agreements replace the Term Loan's variable rate with a fixed rate.

Critical Accounting Policies and Estimates

Our Consolidated Financial Statements are prepared in accordance with GAAP. In many cases, the accounting treatment of a particular transaction is specifically dictated by GAAP and does not require management's judgment in its application, while in other cases, management's significant judgment is required to make estimates, assumptions, and judgments that affect the reported amount of assets, liabilities, revenue, expenses, and related disclosures. We base our estimates and assumptions on historical experience and other factors that we believe to be reasonable under the circumstances. In some instances, we could reasonably use different accounting estimates, and in other instances, results could differ significantly from our estimates. We evaluate our estimates and assumptions on an ongoing basis. To the extent that there are differences between our estimates and actual results, our future financial statement presentation, financial condition, results of operations, and cash flows will be affected.

While our significant accounting policies are more fully described in Note 2 "Summary of Significant Accounting Policies" to our Consolidated Financial Statements included in Part II, Item 8 of this Annual Report on Form 10-K, we believe that the following accounting policies are critical to understanding our historical and future performance, as these policies relate to the more significant areas involving our management's judgments, assumptions and estimates.

Revenue Recognition

Revenues are derived from: on demand software solutions, and professional services and other goods and services. We recognize revenue as we satisfy one or more service obligations under the terms of a contract, generally as control of goods and services are transferred to our clients. Revenue is measured as the amount of consideration we expect to receive in exchange for transferring goods or providing services. We include estimates of variable consideration in revenue to the extent that it is probable that a significant reversal of cumulative revenue will not occur.

On Demand Revenue

Our on demand revenue consists of license and subscription fees, transaction fees related to certain of our software-enabled value-added services, and commissions derived from our selling certain risk mitigation services.

We generally recognize revenue from subscription fees on a straight-line basis over the access period beginning on the date that we make our service available to the client. Our subscription agreements generally are non-cancellable, have an initial term of one year or longer and are billed either monthly, quarterly or annually in advance. Non-refundable upfront fees billed at the initial order date that are not associated with an upfront service obligation are recognized as revenue on a straight-line basis over the period in which the client is expected to benefit, which we consider to be three years.

We recognize revenue from transaction fees in the month the related services are performed based on the amount we have the right to invoice.

We offer risk mitigation services to our clients by acting as an insurance agent and derive commission revenue from the sale of insurance products to our clients' residents. The commissions are based upon a percentage of the premium that the

insurance company charges to the policyholder and are subject to forfeiture in instances where a policyholder cancels prior to the end of the policy. Our contract with our underwriting partner provides for contingent commissions to be paid to us in accordance with the agreement. Our estimate of contingent commission revenue considers the variable factors identified in the terms of the applicable agreement. We recognize commissions related to these services as earned ratably over the policy term and insurance commission receivable in "Accounts receivable, less allowances."

Professional and Other Revenue

Professional services and other revenues generally consist of the fees we receive for providing implementation and consulting services, submeter equipment and ongoing maintenance of our existing on premise licenses.

Professional services are billed either on a time and materials basis or on a fixed price basis, and revenue is recognized over time as we perform the obligation. Professional services are typically sold bundled in a contract with other on demand solutions but may be sold separately. Professional service contracts sold separately generally have terms of one year or less. For bundled arrangements, where we account for individual services as a separate performance obligation, the transaction price is allocated between separate services in the bundle based on their relative standalone selling prices.

Other revenues consist primarily of submeter equipment sales that include related installation services. Such sales are considered bundled, and revenue from these bundled sales is recognized in proportion to the number of installed units completed to date as compared to the total contracted number of units to be provided and installed. For all other equipment sales, we generally recognize revenue when control of the hardware has transferred to our client.

Revenue recognized for on premise software sales generally consists of annual maintenance renewals on existing term or perpetual license, which is recognized ratably over the service period.

Contract with Multiple Performance Obligations

The majority of the contracts we enter into with clients, including multiple contracts entered into at or near the same time with the same client, require us to provide one or more on demand software solutions, professional services and may include equipment. For these contracts, we account for individual performance obligations separately: i) if they are distinct or ii) if the promised obligation represents a series of distinct services that are substantially the same and have the same pattern of transfer to the client. Once we determine the performance obligations, we determine the transaction price, which includes estimating the amount of variable consideration, if any, to be included in the transaction price. For contracts with multiple performance obligations, we allocate the transaction price to the separate performance obligations on a relative standalone selling price basis. The standalone selling prices of our service are estimated using a market assessment approach based on our overall pricing objectives taking into consideration market conditions and other factors including the number off solutions sold, client demographics and the number and types of users with our contracts.

Sales, value add, and other taxes we collect from clients and remit to governmental authorities are excluded from revenues.

Deferred Commissions

We capitalize certain commissions as incremental costs of obtaining a contract with a client if we expect to recover those costs. The commissions are capitalized and amortized over a period of benefit determined to be three years. Deferred commissions were capitalized for open contracts at the adoption date of the new revenue standard and were capitalized for new contracts in 2018. As a result, there will be a net benefit to "Operating income" in our Consolidated Statements of Operations during 2018 as capitalization of costs exceed amortization. As capitalized costs amortize into expense over time, the accretive benefit in 2018 is expected to moderate in 2019 and normalize in 2020.

As of December 31, 2018, the current and noncurrent balance of capitalized commissions costs recorded in the lines "Other current assets" and "Other assets" in the accompanying Consolidated Balance Sheets was $6.7 million and $7.8 million, respectively. During the year ended December 31, 2018, we amortized commission costs totaling $5.4 million which are included in "Sales and marketing" expense in the accompanying Consolidated Statements of Operations. No impairment loss was recognized in relation to these capitalized costs.

Stock-Based Expense

We recognize compensation expense related to awards of stock options and restricted stock granted to employees, non-employee directors, and other service providers based on the estimated fair value of the awards on the date of grant. We recognize expense for stock options and restricted stock awards on a straight-line basis over the requisite service period of the awards. For market-based awards, expense is recognized over the requisite service period using the graded-vesting attribution method. Compensation expense is reduced for forfeitures once they occur.

The fair value of our time-based restricted stock awards is based on the closing price of our common stock on the date of grant. The fair value of our market-based restricted stock awards is estimated using a discrete model based on multiple stock price-paths developed through the use of Monte Carlo simulation. Changes to the assumptions underlying our valuation model

may have a significant impact on the underlying value of the market-based restricted stock awards, which could have a material impact on our Consolidated Financial Statements.

Income Taxes

Income taxes are recorded based on the liability method, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been recognized in our consolidated financial statements or tax returns. Deferred tax assets and liabilities are measured using the tax rates that are expected to apply to taxable income for the years in which those tax assets and liabilities are expected to be realized or settled. We recognize the effect of tax rate changes on current and accumulated deferred income taxes in the period in which the rate change was enacted.

Valuation allowances are provided when it is more likely than not that all or a portion of the deferred tax asset will not be realized. The factors used to assess the need for a valuation allowance include historical earnings, our latest forecast of taxable income, and available tax planning strategies that could be implemented to realize the net deferred tax assets. In projecting future taxable income, we begin with historical results and incorporate assumptions including the amount of future state, federal and foreign pretax operating income, the reversal of temporary differences, and the implementation of feasible and prudent tax planning strategies, if any. These assumptions require significant judgment about the forecasts of future taxable income and are consistent with the plans and estimates we are using to manage the underlying businesses.

We may recognize a tax benefit from uncertain tax positions only if it is at least more likely than not that the tax position will be sustained upon examination by the taxing authorities, based on the technical merits of the position. The tax benefits recognized in the financial statements from such a position are measured based on the largest benefit that has a greater than fifty percent likelihood of being realized upon settlement with the taxing authorities.

Business Combinations

We allocate the fair value of the purchase consideration of our acquisitions to the tangible assets acquired, liabilities assumed, and intangible assets acquired based on their estimated fair values. The excess of the fair value of purchase consideration over the fair values of these identifiable assets and liabilities is recorded as goodwill. The allocation of the purchase price requires management to make significant estimates in determining the fair values of assets acquired and liabilities assumed, especially with respect to intangible assets. These estimates can include, but are not limited to, the cash flows that an asset is expected to generate in the future, the appropriate weighted average cost of capital, and the estimated useful lives. These estimates are inherently uncertain and unpredictable. In addition, unanticipated events and circumstances may occur in future periods which may affect the realizability of these estimated asset values.

Additionally, at times we provide for the payment of additional purchase consideration to the extent certain targets are achieved in the future. The fair value of this contingent consideration is based on significant estimates and is initially recorded as part of the fair value of the purchase consideration. Changes to the fair value are reflected in the Consolidated Statements of Operations.

Goodwill and Indefinite-Lived Intangible Assets

We have recorded goodwill and indefinite-lived intangible assets in conjunction with our business acquisitions. We test goodwill and indefinite-lived intangible assets for impairment separately on an annual basis in the fourth quarter of each year, or more frequently if circumstances indicate that the assets may not be recoverable.

We evaluate impairment of goodwill either by assessing qualitative factors to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount, or by performing a quantitative assessment. If we choose to perform a qualitative assessment and after considering the totality of events or circumstances, we determine it is more likely than not that the fair value of a reporting unit is less than its carrying amount, we would perform a quantitative fair value test. To calculate any potential impairment, we compare the fair value of a reporting unit with its carrying amount, including goodwill. Any excess of the carrying amount of the reporting unit’s goodwill over its fair value is recognized as an impairment loss, and the carrying value of goodwill is written down. For purposes of goodwill impairment testing, we have one reporting unit.

We quantitatively evaluate indefinite-lived intangible assets by estimating the fair value of those assets based on estimated future earnings derived from the assets using the income approach. Assets with indefinite lives that have been determined to be inseparable due to their interchangeable use are grouped into single units of accounting for purposes of testing for impairment. If the carrying amount of an identified intangible asset with an indefinite life exceeds its fair value, we recognize an impairment loss equal to the excess of carrying value over fair value.

Internally Developed Software

We capitalize certain development costs incurred in connection with software development for our solutions to be marketed to external users. Costs incurred in the preliminary stages of development are expensed as incurred. Once an application has reached the technological feasibility stage, internal and external costs including costs of materials, services, and

payroll and payroll-related costs for employees, are capitalized, if direct and incremental, until the software is available for general release to customers. Minor upgrades and enhancements are also expensed as incurred. Costs related to specific upgrades and enhancements when it is probable the expenditures will result in additional functionality are capitalized.

Costs incurred to develop software intended solely for our internal use, such as internal administration and finance and accounting systems, are capitalized during the application development stage.

Capitalized costs are recorded as part of property, equipment, and software. Internally developed software is amortized on a straight-line basis over its estimated useful life, generally five years. Management evaluates the useful lives of these assets on an annual basis and tests for impairment whenever events or changes in circumstances occur that could impact the recoverability of these assets.

Recent Accounting Pronouncements

See Note 2 “Summary of Significant Accounting Policies” to our Consolidated Financial Statements for discussion about new accounting pronouncements adopted and those pending.

Results of Operations

The following tables set forth our results of operations for the specified periods. The period-to-period comparison of financial results is not necessarily indicative of future results.

Amounts presented below reflect the correction of an immaterial error related to the misclassification of amortization expense on certain acquired intangible assets. Additionally, the amounts below reflect a change in presentation of our Consolidated Statements of Operations to add “Amortization of product technologies” and “Amortization of intangible assets” as separate line items within such statements. Refer to Note 2 of the accompanying Consolidated Financial Statements for further discussion of these items.

Consolidated Statements of Operations Data

	Year Ended December 31,		
	2018	2017	2016
	(in thousands)		
Revenue:			
On demand	$ 833,709	$ 642,622	$ 542,531
Professional and other	35,771	28,341	25,597
Total revenue	869,480	670,963	568,128
Cost of revenue [1]	328,382	258,135	225,539
Amortization of product technologies	35,797	22,163	17,669
Gross profit	505,301	390,665	324,920
Operating expenses:			
Product development [1]	118,525	89,452	73,607
Sales and marketing [1]	166,607	140,473	122,457
General and administrative [1]	118,208	112,975	85,013
Amortization of intangible assets	35,911	17,755	12,599
Total operating expenses	439,251	360,655	293,676
Operating income	66,050	30,010	31,244
Interest expense and other, net	(31,750)	(14,769)	(3,758)
Income before income taxes	34,300	15,241	27,486
Income tax (benefit) expense	(425)	14,864	10,836
Net income	$ 34,725	$ 377	$ 16,650

(1) Includes stock-based expense as follows:

	Year Ended December 31,		
	2018	2017	2016
	(in thousands)		
Cost of revenue	$ 4,403	$ 3,842	$ 3,310
Product development	9,923	8,423	7,071
Sales and marketing	16,573	14,592	11,364
General and administrative	19,742	18,978	15,107

The following table sets forth our results of operations for the specified periods as a percentage of our revenue for those periods. The period-to-period comparison of financial results is not necessarily indicative of future results.

	Year Ended December 31,		
	2018	2017	2016
	(as a percentage of total revenue)		
Revenue:			
On demand	95.9 %	95.8 %	95.5%
Professional and other	4.1	4.2	4.5
Total revenue	100.0	100.0	100.0
Cost of revenue	37.8	38.5	39.7
Amortization of product technologies	4.1	3.3	3.1
Gross profit	58.1	58.2	57.2
Operating expenses:			
Product development	13.6	13.3	13.0
Sales and marketing	19.2	20.9	21.4
General and administrative	13.6	16.8	15.1
Amortization of intangible assets	4.1	2.7	2.2
Total operating expenses	50.5	53.7	51.7
Operating income	7.6	4.5	5.5
Interest expense and other, net	(3.6)	(2.2)	(0.7)
Income before income taxes	4.0	2.3	4.8
Income tax (benefit) expense	—	2.2	1.9
Net income	4.0 %	0.1 %	2.9 %

Comparison of the years ended December 31, 2018 and 2017

Revenue

	Year Ended December 31,			
	2018	2017	Change	% Change
	(in thousands, except dollar per average on demand unit data)			
Revenue:				
On demand	$ 833,709	$ 642,622	$ 191,087	29.7 %
Professional and other	35,771	28,341	7,430	26.2
Total revenue	$ 869,480	$ 670,963	$ 198,517	29.6
Non-GAAP on demand revenue	$ 835,599	$ 645,680	$ 189,919	29.4
Ending on demand units	16,219	13,003	3,216	24.7
Average on demand units	14,847	11,711	3,136	26.8
On demand annual client value	$ 876,637	$ 751,183	$ 125,454	16.7
On demand revenue per ending on demand unit	$ 54.05	$ 57.77	$ (3.72)	(6.4)%

On demand revenue: During the year ended December 31, 2018, on demand revenue increased $191.1 million, or 29.7%, as compared to the same period in 2017. This increase was driven by incremental revenue from our recent acquisitions and growth across our platform of solutions, most significantly in resident services. On demand revenue per ending on demand unit decreased from $57.77 to $54.05 during the year ended December 31, 2018, driven by our acquisition of ClickPay which has a lower revenue per unit than the rest of our on demand units. Excluding the impact of the ClickPay acquisition, on demand revenue per ending on demand unit increased 5.5% year-over-year as a result of our 2017 acquisitions and the consistent organic growth of our resident services, property management, and asset optimization solutions.

On demand revenue associated with our property management solutions grew $20.0 million, or 12.0%, during the twelve months ended December 31, 2018, as compared to the same period in 2017. This increase was primarily driven by the growth of our spend management solutions and adoption of our OneSite property management solutions.

On demand revenue from our resident services solutions continued to experience significant growth, increasing by $78.3 million, or 28.8%, year-over-year. This growth was principally driven by our payments solutions and incremental revenue from our recent acquisitions.

On demand revenue from our leasing and marketing solutions increased $42.5 million, or 34.4%, during the year ended December 31, 2018, as compared to the same period in 2017. This increase was largely attributable to incremental revenue from our acquisition of On-Site in the third quarter of 2017 and, to a lesser extent, our 2018 acquisition of LeaseLabs and our 2017 acquisition of LRO.

On demand revenue from our asset optimization solutions increased year-over-year by $50.3 million, or 63.1%, primarily driven by incremental revenue from our acquisition of LRO in the fourth quarter of 2017, as well as organic growth across our asset optimization platform, evidencing market acceptance of data-driven solutions.

Professional and other revenue: Professional and other revenue increased by $7.4 million during the year ended December 31, 2018, due to the growth in our professional services within our asset optimization and property management solutions, an increase in sub-meter installation services, and the impact of our adoption of ASC 606.

On demand unit metrics: As of December 31, 2018, one or more of our on demand solutions was utilized in the management of approximately 16.2 million rental property units. On demand units increased year-over-year by 3.2 million units, or 24.7%. This growth is attributable to our 2018 acquisitions, which accounted for approximately 15.6% of total ending on demand units, new client sales, and marketing efforts to existing clients.

Cost of Revenue

	Year Ended December 31,			
	2018	2017	Change	% Change
	(in thousands)			
Cost of revenue	$ 311,907	$ 242,503	$ 69,404	28.6%
Stock-based expense	4,403	3,842	561	14.6
Depreciation expense	12,072	11,790	282	2.4
Total cost of revenue	$ 328,382	$ 258,135	$ 70,247	27.2%

During the year ended December 31, 2018, cost of revenue, excluding stock-based expense and depreciation expense, increased $69.4 million, as compared to the same period in 2017. Direct costs increased $29.2 million, primarily driven by incremental costs from our recent acquisitions and higher transaction volume from our payment processing solutions. Personnel expense increased year-over-year by $27.3 million, primarily attributable to new employees from our recent acquisitions and investments to support our ongoing organic growth. Information technology and facilities cost also increased $10.9 million during the year ended December 31, 2018 compared to the prior year, primarily due to incremental costs from our recent acquisitions and investments to support our continued growth.

Amortization of Product Technologies

	Year Ended December 31,			
	2018	2017	Change	% Change
	(in thousands)			
Amortization of product technologies	$ 35,797	$ 22,163	$ 13,634	61.5%

During the year ended December 31, 2018, amortization of product technologies increased $13.6 million compared to the prior year. Higher amortization expense was driven by the addition of developed product technologies in connection with our recent acquisitions and an increase in amortization of developed software related to investment in innovation and product solutions.

Our gross margin remained essentially flat at 58.1% for the year ended December 31, 2018.

Operating Expenses

Product development

	Year Ended December 31,			
	2018	2017	Change	% Change
	(in thousands)			
Product development expense	$ 102,935	$ 74,421	$ 28,514	38.3 %
Stock-based expense	9,923	8,423	1,500	17.8
Depreciation expense	5,667	6,608	(941)	(14.2)
Total product development expense	$ 118,525	$ 89,452	$ 29,073	32.5 %

Product development expense, excluding stock-based expense and depreciation expense, increased year-over-year by $28.5 million. Incremental headcount from our recent acquisitions and investments to support our product and innovation initiatives contributed to a year-over-year increase in personnel expense of $18.3 million compared to prior year. Facilities, platform and technology infrastructure investments, as well as incremental costs from recent acquisitions, resulted in an increase of $8.1 million. Consulting and professional fees increased $2.0 million compared to prior year, primarily driven by our recent acquisitions.

Product development expense as a percentage of total revenue was 13.6% in 2018, up slightly from 13.3% in 2017, primarily driven by our platform, infrastructure and innovation investments.

Sales and marketing

	Year Ended December 31,			
	2018	2017	Change	% Change
	(in thousands)			
Sales and marketing expense	$ 145,081	$ 123,394	$ 21,687	17.6%
Stock-based expense	16,573	14,592	1,981	13.6
Depreciation expense	4,953	2,487	2,466	99.2
Total sales and marketing expense	$ 166,607	$ 140,473	$ 26,134	18.6%

Sales and marketing expense for the year ended December 31, 2018, excluding stock-based expense and depreciation expense, increased $21.7 million, as compared to the same period in 2017. Personnel expense increased $10.8 million year-over-year, driven by investments in our sales force and product marketing team and incremental headcount from our recent acquisitions. These investments were net of a $3.4 million reduction in commission expense from 2017 to 2018 resulting from our adoption of ASC 606 under which we capitalize a significant portion of commissions earned by our sales force and amortize such commissions to expense over a three year customer benefit period. This net benefit is expected to moderate in 2019 and normalize in 2020. Marketing program costs increased year-over-year by $4.1 million, reflecting investments to accelerate client demand across our portfolio of solutions. In addition, in the fourth quarter of 2018, we recorded an impairment charge of $2.7 million related to the indefinite-lived trade name of our 2010 acquisition of Level One, due to a change in our long-term marketing strategy for this product offering, which included a shift away from the use of a separate Level One branding and towards a RealPage Contact Center branding.

Sales and marketing expense as a percentage of total revenue decreased from 20.9% for the year ended December 31, 2017, to 19.2% for the year ended December 31, 2018. This decrease is primarily due to scale built in our sales and marketing engine and lower sales commission expense from the adoption of ASC 606 as discussed above.

General and administrative

	Year Ended December 31,			
	2018	2017	Change	% Change
	(in thousands)			
General and administrative expense	$ 92,680	$ 87,654	$ 5,026	5.7 %
Stock-based expense	19,742	18,978	764	4.0
Depreciation expense	5,786	6,343	(557)	(8.8)
Total general and administrative expense	$ 118,208	$ 112,975	$ 5,233	4.6 %

General and administrative expense, excluding stock-based expense and depreciation expense, increased year-over-year by $5.0 million. Personnel expense increased $14.1 million, reflecting investments to support our continued growth and incremental headcount from our recent acquisitions. For the year ended December 31, 2018, we recognized a loss of $5.4 million in connection with a targeted email phishing campaign. Loss on disposal of assets increased $1.5 million primarily due to early retirement of assets from 2018 upgrades in our data center infrastructure. Legal and professional fees decreased $9.4 million compared to prior year, principally related to 2017 costs associated with the Hart-Scott-Rodino review process for the LRO and On-Site acquisitions. These costs were partially offset by our settlement with the FTC. Information technology and facilities expense also decreased $5.3 million due to refinements in our allocation methodology following recent acquisitions.

General and administrative expense as a percentage of total revenue decreased from 16.8% to 13.6% during the year ended December 31, 2018, as compared to the same period in 2017, primarily due to the 2017 costs associated with the Hart-Scott-Rodino review process. Excluding the impact of these costs, general and administrative expense as a percentage of total revenue decreased year-over-year from 15.2% to 13.6%, primarily due to scale across our administrative functions.

Amortization of intangible assets

	Year Ended December 31,			
	2018	2017	Change	% Change
	(in thousands)			
Amortization of intangible assets	$ 35,911	$ 17,755	$ 18,156	102.3%

During the year ended December 31, 2018, amortization expense of intangible assets increased $18.2 million compared to the prior year, primarily driven by the addition of finite-lived client relationship and trade name assets in connection with our recent acquisitions.

Interest Expense and Other, Net

	Year Ended December 31,			
	2018	2017	Change	% Change
	(in thousands)			
Interest expense	$ (32,402)	$ (16,012)	$ (16,390)	102.4 %
Interest income	2,443	940	1,503	159.9
Impairment loss on investment	(2,000)	—	(2,000)	100.0
Other income	209	303	(94)	(31.0)
Total interest expense and other, net	$ (31,750)	$ (14,769)	$ (16,981)	115.0 %

Interest expense and other for the year ended December 31, 2018, increased $17.0 million as compared to the same period in 2017. These increases were primarily due to interest and amortization expense related to our Convertible Notes issued in May 2017, and higher interest expense under our Credit Facility, as a result of additional borrowings in support of our 2017 and 2018 acquisitions. The increase was also attributable to the $2.0 million impairment loss relating to our investment in WayBlazer based on WayBlazer's voluntary bankruptcy filing in the third quarter of 2018.

Provision for Income Taxes

Our effective tax rate was (1.2)% and 97.5% for the years ended December 31, 2018 and 2017, respectively. For the year ended December 31, 2018, we recognized a consolidated tax benefit of $0.4 million on income before income taxes of $34.3 million. We recognized a domestic income tax benefit of $0.8 million, with an effective tax rate of (2.6)%. This rate resulted primarily from a decrease in tax expense of approximately $11.8 million attributable to excess stock compensation deductions recognized in connection with the vesting of certain restricted stock grants and the exercise of certain stock options in 2018. Prior to our adoption of ASC 2016-09 effective January 1, 2017, the benefit of such stock compensation deductions when realized was recognized in additional paid in capital rather than as a benefit or charge to the tax provision. We incurred foreign income tax expense of $0.4 million with an effective rate of 19.5%. Our foreign effective tax rate is lower than foreign statutory rates primarily because a portion of our foreign operations in India and the Philippines occur in tax advantaged economic zones or are subject to statutory tax holidays.

Our high consolidated tax rate in 2017 resulted primarily from the enactment of the Tax Reform Act which resulted in a one-time net tax charge of $27.3 million associated with the remeasurement of net U.S. deferred tax assets at a reduced 21% corporate income tax rate and the imposition of a one-time transition tax on the mandatory deemed repatriation of foreign earnings. These charges were partially offset by excess stock compensation deductions of $19.1 million for 2017.

For further discussion, including a reconciliation of our effective tax rate from the statutory federal rate, see Note 12 to the Consolidated Financial Statements included in Part II, Item 8 of this Annual Report on Form 10-K.

Comparison of the years ended December 31, 2017 and 2016

Revenue

	Year Ended December 31,			
	2017	2016	Change	% Change
	(in thousands, except dollar per average on demand unit data)			
Revenue:				
On demand	$ 642,622	$ 542,531	$ 100,091	18.4%
Professional and other	28,341	25,597	2,744	10.7
Total revenue	$ 670,963	$ 568,128	$ 102,835	18.1
Non-GAAP on demand revenue	$ 645,680	$ 541,582	$ 104,098	19.2
Ending on demand units	13,003	10,989	2,014	18.3
Average on demand units	11,711	11,042	669	6.1
On demand annual client value	$ 751,183	$ 556,813	$ 194,370	34.9
On demand revenue per ending on demand unit	$ 57.77	$ 50.67	$ 7.10	14.0%

On demand revenue: During the year ended December 31, 2017, on demand revenue increased $100.1 million, or 18.4%, as compared to the same period in 2016. This increase was driven by incremental revenue from our 2017 acquisitions and growth across our platform of solutions, most significantly in resident services. Revenue per ending on demand unit increased from $50.67 to $57.77 during the year ended December 31, 2017, despite the dilutive effect of our year-over-year growth in on demand units.

On demand revenue associated with our property management solutions grew $14.1 million, or 9.2%, during the twelve months ended December 31, 2017, as compared to the same period in 2016. This increase was primarily driven by strong performance in our spend management solutions, as well as adoption of our OneSite property management and accounting solutions.

On demand revenue from our resident services solutions continued to experience significant growth, increasing by $54.1 million, or 24.8%, year-over-year. This growth was principally driven by our payments solutions and our resident utility management solutions, which benefited from incremental revenue from our acquisition of AUM. The performance of our renter's insurance products also contributed to this growth, despite the adverse impact of Hurricanes Harvey and Irma during the third quarter of 2017.

On demand revenue from our leasing and marketing solutions increased $7.3 million, or 6.3%, during the year ended December 31, 2017, as compared to the same period in 2016. This increase was largely attributable to incremental revenue from our acquisition of On-Site in the third quarter of 2017. The increase was partially offset by lower revenues as a result of the sale of our senior living referral services in the fourth quarter of 2016 and from our contact center, which was adversely effected by unfavorable macro-economic conditions and increased competition.

On demand revenue from our asset optimization solutions increased year-over-year by $24.6 million, or 44.7%, primarily driven by incremental revenue from our 2017 acquisition of Axiometrics and, to a lesser extent, our acquisition of LRO. On demand revenue also benefited from year-over-year growth across our asset optimization platform, evidencing market acceptance of data-driven solutions.

Professional and other revenue: Professional and other revenue increased by $2.7 million during the year ended December 31, 2017, primarily driven by our acquisition of AUM in the second quarter of 2017 as well as growth from our asset optimization solutions, including our portfolio asset management solution. This growth was partially offset by lower implementation and consulting revenue during the year ended December 31, 2017, as compared to the same period in 2016.

On demand unit metrics: As of December 31, 2017, one or more of our on demand solutions was utilized in the management of approximately 13.0 million rental property units. On demand units increased year-over-year by 2.0 million units, or 18.3%. This growth is attributable to our 2017 acquisitions, new client sales, and marketing efforts to existing clients.

Cost of Revenue

	Year Ended December 31,			
	2017	2016	Change	% Change
	(in thousands)			
Cost of revenue	$ 242,503	$ 210,825	$ 31,678	15.0%
Stock-based expense	3,842	3,310	532	16.1
Depreciation expense	11,790	11,404	386	3.4
Total cost of revenue	$ 258,135	$ 225,539	$ 32,596	14.5%

During the year ended December 31, 2017, cost of revenue, excluding stock-based expense and depreciation expense, increased $31.7 million, as compared to the same period in 2016. Personnel expense was the primary driver of this increase, growing year-over-year by $17.6 million. This growth was largely attributable to employees from our 2017 acquisitions and investments to support our growth. Higher transaction volume from our payments solutions and incremental costs from our recent acquisitions drove an increase in direct costs of $13.1 million during the year ended December 31, 2017.

Amortization of Product Technologies

	Year Ended December 31,			
	2017	2016	Change	% Change
	(in thousands)			
Amortization of product technologies	$ 22,163	$ 17,669	$ 4,494	25.4%

During the year ended December 31, 2017, amortization of product technologies increased $4.5 million, as compared to the same period in 2016. This increase was attributable to additions of developed product technologies in connection with our 2017 acquisitions.

Our gross margin increased during the year ended December 31, 2017, as compared to the prior year, moving from 57.2% to 58.2%. This increase was driven by greater scale across our multifamily business and improving efficiencies in certain lower margin products. In addition, our recent acquisitions in the asset optimization product category have contributed to margin expansion due to margin profiles that are more heavily weighted to pure software rather than software-enabled services.

Operating Expenses

Product development

	Year Ended December 31,			
	2017	2016	Change	% Change
	(in thousands)			
Product development expense	$ 74,421	$ 60,800	$ 13,621	22.4%
Stock-based expense	8,423	7,071	1,352	19.1
Depreciation expense	6,608	5,736	872	15.2
Total product development expense	$ 89,452	$ 73,607	$ 15,845	21.5%

Product development expense, excluding stock-based expense and depreciation expense, increased year-over-year by $13.6 million. Incremental costs from our recent acquisitions resulted in a year-over-year increase of $6.9 million in product development expense. Additionally, our innovation investments drove a combined increase of $5.5 million in personnel expense and professional fees in 2017.

Product development expense as a percentage of total revenue in 2017 was relatively consistent with 2016, at 13.3% and 13.0%, respectively.

Sales and marketing

	Year Ended December 31,			
	2017	2016	Change	% Change
	(in thousands)			
Sales and marketing expense	$ 123,394	$ 108,693	$ 14,701	13.5%
Stock-based expense	14,592	11,364	3,228	28.4
Depreciation expense	2,487	2,400	87	3.6
Total sales and marketing expense	$ 140,473	$ 122,457	$ 18,016	14.7%

Sales and marketing expense for the year ended December 31, 2017, excluding stock-based expense and depreciation expense, increased $14.7 million, as compared to the same period in 2016. Personnel expense increased $11.1 million year-over-year, reflecting incremental headcount from our 2017 acquisitions and investment in our sales force to drive future growth. Investments to accelerate demand across our portfolio of solutions drove a year-over-year increase in marketing program costs of $2.9 million. These combined investments resulted in improved sales force productivity and strong new sales bookings.

Sales and marketing expense as a percentage of total revenue decreased from 21.4% for the year ended December 31, 2016, to 20.9% for the year ended December 31, 2017. This decrease reflects increased efficiency and productivity in our sales operations.

General and administrative

	Year Ended December 31,			
	2017	2016	Change	% Change
	(in thousands)			
General and administrative expense	$ 87,654	$ 64,881	$ 22,773	35.1%
Stock-based expense	18,978	15,107	3,871	25.6
Depreciation expense	6,343	5,025	1,318	26.2
Total general and administrative expense	$ 112,975	$ 85,013	$ 27,962	32.9%

General and administrative expense, excluding stock-based expense and depreciation expense, increased year-over-year by $22.8 million. Professional fees increased year-over-year by $18.9 million, driven by costs related to the Hart-Scott-Rodino review process for our acquisitions of LRO and On-Site, and higher levels of other legal activity. Personnel expense increased $3.2 million between the two periods, primarily reflecting additional headcount from our 2017 acquisitions. The increase in general and administrative expense was partially offset by costs incurred in 2016 related to the relocation of our corporate headquarters and data center which were not incurred in 2017, and a year-over-year decrease of $1.5 million related to sales tax matters.

General and administrative expense as a percentage of total revenue increased from 15.0% to 16.8% during the year ended December 31, 2017, as compared to the same period in 2016. This increase was largely driven by acquisition-related professional fees, as described above. Excluding the costs related to the Hart-Scott-Rodino review process incurred in connection with our acquisitions of LRO and On-Site, general and administrative expense was relatively flat between the periods, at 15.0% in 2016 and 15.2% in 2017.

Amortization of intangible assets

	Year Ended December 31,			
	2017	2016	Change	% Change
	(in thousands)			
Amortization of intangible assets	$ 17,755	$ 12,599	$ 5,156	40.9%

During the year ended December 31, 2017, amortization expense of intangible assets increased $5.2 million, as compared to the same periods in 2016. Higher amortization expense was primarily driven by the addition of finite-lived client relationship and trade name intangible assets in connection with our recent acquisitions.

Interest Expense and Other, Net

	Year Ended December 31,			
	2017	2016	Change	% Change
	(in thousands)			
Interest expense	$ (16,012)	$ (3,826)	$ (12,186)	318.5%
Interest income	940	1	939	NM [1]
Other income	303	67	236	352.2
Total interest expense and other, net	$ (14,769)	$ (3,758)	$ (11,011)	293.0%

[1] not meaningful

Interest expense and other for the year ended December 31, 2017, increased $11.0 million as compared to the same period in 2016. Higher interest and amortization expense, driven by our issuance of the Convertible Notes in May 2017 and borrowings under our Credit Facility in the fourth quarter of 2017, were the largest contributors to this increase.

Provision for Income Taxes

Our effective tax rate was 97.5% and 39.4% for the years ended December 31, 2017 and 2016, respectively. For the year ended December 31, 2017, we recognized a consolidated tax expense of $14.9 million on income before income taxes of $15.2 million. We recognized a domestic income tax expense of $14.3 million, with an effective tax rate of 115.4%. This primarily resulted from (1) the recognition of tax expense of $27.3 million as a result of the Tax Reform Act as described below and (2) a decrease in tax expense of approximately $19.1 million, resulting from excess stock compensation deductions recognized in connection with the vesting of certain restricted stock grants and the exercise of certain stock options in 2017. Prior to our adoption of ASC 2016-09 effective January 1, 2017, the benefit of such stock compensation deductions when realized was recognized in additional paid in capital rather than as a benefit or charge to the tax provision. We incurred foreign income tax expense of $0.5 million with an effective rate of 18.9%. Our foreign effective tax rate is lower than foreign statutory rates primarily because a significant portion of our foreign operations in India and the Philippines occur in tax advantaged economic zones or are subject to statutory tax holidays.

On December 22, 2017, the Tax Reform Act was signed into law making significant changes to the Internal Revenue Code. Changes include, but are not limited to, a corporate tax rate reduction from 35% to 21% effective for tax years beginning after December 31, 2017, the transition of U.S international taxation from a worldwide tax system to a territorial system, and a one-time transition tax on the mandatory deemed repatriation of cumulative foreign earnings as of December 31, 2017. In the fourth quarter of 2017, we recorded additional income tax expense of $27.3 million as a result of the Tax Reform Act. Of this amount, $25.1 million was due to the remeasurement of certain deferred tax assets and liabilities, based on the rates at which they were expected to reverse in the future, and $2.2 million was related to the one-time transition tax on the mandatory deemed repatriation of foreign earnings based on cumulative foreign earnings of $17.7 million.

For further discussion, including a reconciliation of our effective tax rate from the statutory federal rate, see Note 12 to the Consolidated Financial Statements included in Part II, Item 8 of this Annual Report on Form 10-K.

Quarterly Results of Operations

The following table presents our unaudited consolidated quarterly results of operations for the eight fiscal quarters ended December 31, 2018. This information is derived from our unaudited condensed consolidated financial statements, and includes all adjustments that we consider necessary for the fair statement of our financial position and operating results for the quarters presented. Operating results for individual periods are not necessarily indicative of the operating results for a full year. Historical results are not necessarily indicative of the results to be expected in future periods. You should read this data together with our Consolidated Financial Statements and the related notes to those financial statements included elsewhere in this filing.

Amounts presented below reflect the correction of an immaterial error related to the misclassification of amortization expense on certain acquired intangible assets. Additionally, the amounts below reflect a change in presentation of our Consolidated Statements of Operations to add "Amortization of product technologies" and "Amortization of intangible assets" as separate line items within such statements. Refer to Note 2 of the accompanying Consolidated Financial Statements for further discussion of these items.

	Three Months Ended,							
	December 31, 2018	September 30, 2018	June 30, 2018	March 31, 2018	December 31, 2017	September 30, 2017	June 30, 2017	March 31, 2017
	(in thousands, except per share amounts)							
Revenue:								
On demand	$ 218,051	$ 215,413	$ 206,945	$ 193,300	$ 180,104	$ 161,578	$154,727	$ 146,213
Professional and other	8,923	9,540	9,307	8,001	7,576	7,480	6,579	6,706
Total revenue	226,974	224,953	216,252	201,301	187,680	169,058	161,306	152,919
Cost of revenue	88,063	85,540	81,942	72,837	69,135	65,794	63,853	59,353
Amortization of product technologies	9,429	8,946	9,127	8,295	7,413	5,497	4,753	4,500
Gross profit	129,482	130,467	125,183	120,169	111,132	97,767	92,700	89,066
Operating expenses:								
Product development	29,772	28,942	30,771	29,040	25,890	21,885	21,290	20,387
Sales and marketing	45,084	43,179	40,664	37,680	37,925	36,802	34,699	31,047
General and administrative	32,638	30,036	28,444	27,090	30,350	31,004	27,370	24,251
Amortization of intangible assets	9,588	9,738	8,496	8,089	7,154	3,838	3,474	3,289
Total operating expenses	117,082	111,895	108,375	101,899	101,319	93,529	86,833	78,974
Operating income	12,400	18,572	16,808	18,270	9,813	4,238	5,867	10,092
Interest expense and other, net	(6,746)	(8,816)	(8,518)	(7,670)	(6,220)	(4,677)	(2,786)	(1,086)
Income (loss) before income taxes	5,654	9,756	8,290	10,600	3,593	(439)	3,081	9,006
Income tax (benefit) expense	(618)	683	(189)	(301)	24,458	(7,273)	(3,132)	811
Net income (loss)	$ 6,272	$ 9,073	$ 8,479	$ 10,901	$ (20,865)	$ 6,834	$ 6,213	$ 8,195
Net income (loss) per share attributable to common stockholders:								
Basic	$ 0.07	$ 0.10	$ 0.10	$ 0.13	$ (0.26)	$ 0.09	$ 0.08	$ 0.10
Diluted	$ 0.07	$ 0.09	$ 0.09	$ 0.13	$ (0.26)	$ 0.08	$ 0.08	$ 0.10

The following table sets forth our results of operations for the specified periods as a percentage of our revenue for those periods. The period-to-period comparison of financial results is not necessarily indicative of future results.

	Three Months Ended,							
	December 31, 2018	September 30, 2018	June 30, 2018	March 31, 2018	December 31, 2017	September 30, 2017	June 30, 2017	March 31, 2017
	(as a percentage of total revenue)							
Revenue:								
On demand	96.1 %	95.8 %	95.7 %	96.0 %	96.0 %	95.6 %	95.9 %	95.6 %
Professional and other	3.9	4.2	4.3	4.0	4.0	4.4	4.1	4.4
Total revenue	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Cost of revenue	38.8	38.0	37.9	36.2	36.8	38.9	39.6	38.8
Amortization of product technologies	4.2	4.0	4.2	4.1	3.9	3.3	2.9	2.9
Gross profit	57.0	58.0	57.9	59.7	59.3	57.8	57.5	58.3
Operating expenses:								
Product development	13.1	12.9	14.2	14.4	13.8	12.9	13.2	13.3
Sales and marketing	19.9	19.1	18.8	18.7	20.2	21.8	21.5	20.3
General and administrative	14.4	13.4	13.2	13.5	16.2	18.3	17.0	15.9
Amortization of intangible assets	4.1	4.3	4.0	4.0	3.9	2.3	2.1	2.2
Total operating expenses	51.5	49.7	50.2	50.6	54.1	55.3	53.8	51.7
Operating income	5.5	8.3	7.7	9.1	5.2	2.5	3.7	6.6
Interest expense and other, net	(3.0)	(4.0)	(3.9)	(3.8)	(3.3)	(2.8)	(1.7)	(0.7)
Income (loss) before income taxes	2.5	4.3	3.8	5.3	1.9	(0.3)	2.0	5.9
Income tax (benefit) expense	(0.3)	0.3	(0.1)	(0.1)	13.0	(4.3)	(1.9)	0.5
Net income (loss)	2.8 %	4.0 %	3.9 %	5.4 %	(11.1)%	4.0 %	3.9 %	5.4 %

Reconciliation of Quarterly Non-GAAP Financial Measures

The following table presents a reconciliation of net income (loss) to Adjusted EBITDA for the eight fiscal quarters ended December 31, 2018:

	Three Months Ended,							
	December 31, 2018	September 30, 2018	June 30, 2018	March 31, 2018	December 31, 2017	September 30, 2017	June 30, 2017	March 31, 2017
	(in thousands)							
Net income (loss)	$ 6,272	$ 9,073	$ 8,479	$ 10,901	$ (20,865)	$ 6,834	$ 6,213	$ 8,195
Acquisition-related and other deferred revenue adjustments	1,056	418	103	313	710	698	945	705
Depreciation, asset impairment, and loss on disposal of assets	10,445	9,286	7,662	7,818	6,817	7,331	6,929	6,675
Amortization of product technologies and intangible assets	19,017	18,684	17,623	16,384	14,567	9,335	8,227	7,789
Loss due to cyber incident, net of recoveries	4,952	—	—	—	—	—	—	—
Acquisition-related (income) loss	(257)	519	1,168	1,007	2,508	485	1,354	1,210
Costs related to the Hart-Scott-Rodino review process	—	78	—	—	2,310	5,993	2,228	481
Interest expense and other, net	6,780	6,874	8,584	7,721	6,335	4,813	2,804	1,120
Income tax (benefit) expense	(618)	683	(189)	(301)	24,458	(7,273)	(3,132)	811
Stock-based expense	13,149	13,479	13,695	10,318	10,103	11,764	13,876	10,092
Adjusted EBITDA	$ 60,796	$ 59,094	$ 57,125	$ 54,161	$ 46,943	$ 39,980	$ 39,444	$ 37,078

Liquidity and Capital Resources

Our primary sources of liquidity as of December 31, 2018, consisted of $228.2 million of cash and cash equivalents, $350.0 million available under our Revolving Facility, amounts available under the Credit Facility's Accordion Feature, and $21.1 million of working capital (excluding $228.2 million of cash and cash equivalents and $120.7 million of deferred revenue).

Our principal uses of liquidity have been to fund our operations, working capital requirements, capital expenditures and acquisitions, to service our debt obligations, and to repurchase shares of our common stock. We expect that working capital requirements, capital expenditures, acquisitions, debt service, and share repurchases will continue to be our principal needs for liquidity over the near term. We made capital expenditures of $50.9 million during the year ended December 31, 2018. Due to anticipated expenditures related to our international growth, our recent acquisitions, investments related to those acquisitions, and data content and analytics investments, we expect capital expenditures to be between 5% and 6% of total revenue during the year ending December 31, 2019. We expect our capital expenditure rate to decrease to 5% of total revenue over the next few years. In addition, we have made several acquisitions in which a portion of the cash purchase price is payable at various times through 2021, with a majority of the deferred cash obligations payable during 2019. We expect to fund these obligations from cash provided by operating activities or funds available under our Credit Facility.

Public Offering

In May 2018, we filed a shelf registration statement on Form S-3 with the SEC, which became effective upon filing. The shelf registration allows us to periodically offer and sell, in one or more future offerings, an indeterminate amount of our common stock, preferred stock, debt securities, and other securities specified therein. On May 29, 2018, we consummated an underwritten public offering of 8.05 million shares of our common stock, which included the underwriters' full exercise of their option to purchase additional shares. The aggregate net proceeds to us were $441.9 million, after deducting underwriting discounts and offering expenses in the aggregate amount of $16.9 million. We used $150.0 million of the net proceeds from this offering for repayment of indebtedness outstanding under our revolving facility and have used additional amounts for general corporate purposes and acquisitions. We intend to use the remaining net proceeds for general corporate purposes, including working capital, sales and marketing activities, research and development activities, general and administrative matters and capital expenditures. We may also continue to use the net proceeds from this offering for acquisitions of, or investments in, technologies, solutions or businesses that complement our business.

We believe that our existing cash and cash equivalents, working capital (excluding deferred revenue and cash and cash equivalents), and our cash flows from operations are sufficient to fund our operations, working capital requirements, and planned capital expenditures; and to service our debt obligations for at least the next twelve months. Our future working capital requirements will depend on many factors, including our rate of revenue growth, the timing and size of future acquisitions, the expansion of our sales and marketing activities, the timing and extent of spending to support product development efforts, the timing of introductions of new solutions and enhancements to existing solutions, and the continuing market acceptance of our solutions. We expect to enter into acquisitions of complementary businesses, applications, or technologies in the future that could require us to seek additional equity or debt financing. Additional funds may not be available on terms favorable to us, or at all.

The following table sets forth cash flow data for the periods indicated therein:

	Year Ended December 31,		
	2018	2017	2016
	(in thousands)		
Net cash provided by operating activities	$ 244,807	$ 140,263	$ 129,449
Net cash used in investing activities	(331,296)	(699,862)	(140,181)
Net cash provided by financing activities	304,085	536,349	82,943

Changes in Cash and Cash Equivalents during the year ended December 31, 2018:

Net Cash Provided by Operating Activities

During 2018, net cash provided by operating activities consisted of net income of $34.7 million, net non-cash adjustments to net income of $168.1 million, and a net inflow of cash from changes in assets and liabilities of $42.0 million. Non-cash adjustments to net income primarily consisted of depreciation and amortization expense of $100.2 million, stock-based expense of $50.6 million, and amortization of debt discount and issuance costs of $12.5 million,

Changes in working capital during 2018 included net cash inflows from customer deposits of $57.2 million, which was primarily attributable to the timing of cash settlements for previously initiated resident transactions related to our payments solutions. This item was partially offset by net cash outflows for prepaid expenses and other current assets of $11.9 million,

which was primarily due to the capitalization of sales commissions earned during 2018 and purchases of annual software licenses.

Net Cash Used in Investing Activities

In 2018, our investing activities resulted in a net cash outflow of $331.3 million. We used $278.6 million, net of cash and restricted cash acquired, to acquire ClickPay, BluTrend, LeaseLabs, and Rentlytics. We also used $50.9 million for capital expenditures during the period, which primarily included capitalized software development costs and expenditures to support our information technology infrastructure.

Net Cash Provided by Financing Activities

The net cash provided by our financing activities during 2018 primarily consisted of aggregate net proceeds from our common stock offering of $441.9 million, net of underwriting discounts and expenses directly attributable to the offering. This was partially offset by payments on our Revolving Facility of $50.0 million, net of proceeds, payments on our term loans of $14.1 million, payments of acquisition-related consideration of $28.4 million, treasury stock purchases of $28.1 million under our share repurchase program, and activity under our stock-based expense plans of $15.8 million, primarily attributable to shares repurchased from employees to cover their cost of taxes upon vesting of restricted stock.

Changes in Cash and Cash Equivalents during the year ended December 31, 2017:

Net Cash Provided by Operating Activities

During 2017, net cash provided by operating activities consisted of net income of $0.4 million and net non-cash adjustments to net income of $135.3 million. Non-cash adjustments to net income primarily consisted of depreciation and amortization expense of $67.1 million, stock-based expense of $45.8 million, income tax-related items of $13.8 million, and amortization of debt discount and issuance costs of $7.3 million.

Net changes in assets and liabilities contributed $4.6 million to operating cash flows during the year ended December 31, 2017. Cash flows from working capital in 2016 benefited from the receipt of payments of $19.0 million from the tenant improvement allowance related to our new corporate headquarters. Amounts due under this allowance were all received in 2016. Changes in working capital during 2017 included net cash inflows from deferred revenue of $17.1 million, accounts payable and accrued liabilities of $3.7 million, and customer deposits of $3.1 million. These items were partially offset by net cash outflows related to accounts receivable of $18.8 million, which is reflective of our revenue growth during the year ended December 31, 2017.

Net Cash Used in Investing Activities

In 2017, our investing activities resulted in a net cash outflow of $699.9 million. The completion of our 2017 acquisitions was the primary driver of our investing activities during the year. We used $649.9 million, net of cash and restricted cash acquired, to acquire LRO, On-Site, PEX, AUM, and Axiometrics. We also used $49.8 million for capital expenditures during the period, which primarily included capitalized software development costs and expenditures to support our information technology infrastructure.

Net Cash Provided by Financing Activities

The net cash provided by our financing activities primarily consisted of proceeds from the issuance of the Convertible Notes of $304.2 million, net of the purchase of the Note Hedges, proceeds from the issuance of the Warrants, and related issuance costs. The net cash inflow was also a result of the receipt of proceeds, net of payments, of $195.8 million and $50.0 million from our Term Loans and Revolving Facility, respectively. These items were partially offset by payments of acquisition-related consideration of $8.5 million.

Changes in Cash and Cash Equivalents during the year ended December 31, 2016:

Net Cash Provided by Operating Activities

During 2016, net cash provided by operating activities consisted of net income of $16.7 million, net adjustments to net income of $94.8 million and a net inflow of cash from changes in assets and liabilities of $17.9 million. Adjustments to net income primarily consisted of depreciation and amortization expense of $54.8 million, stock-based expense of $36.9 million, income tax-related items of $2.4 million, and charges recognized in net income of $1.2 million related to the disposition and impairment of our long-lived assets.

Changes in assets and liabilities included net cash inflows from accounts payable and accrued liabilities of $5.8 million and from changes in prepaid expenses and other current assets of $21.0 million, primarily related to the receipt of payments from our tenant improvement allowance for our new corporate headquarters. Net inflows from changes in other current and long-term liabilities of $5.8 million and deferred revenue of $4.5 million also contributed to the increase from changes in working capital. These items were partially offset by net cash outflows related to accounts receivable of $12.2 million and customer deposits of $6.8 million.

Net Cash Used in Investing Activities

In 2016, our investing activities resulted in a net cash outflow of $140.2 million. We used $66.4 million, net of cash and restricted cash acquired, in our acquisitions of NWP, AssetEye, and eSupply and $70.7 million for capital expenditures, net of proceeds from disposal of assets. Capital expenditures during the period were primarily to support our strategy of consolidating our real estate footprint, capitalized software development costs, and to support our information technology infrastructure and were reduced by the proceeds from the sale of certain assets associated with our senior living referral services. Additionally, in the third quarter of 2016, we purchased a minority interest in an unrelated company that specializes in the aggregation of commercial lease data for $3.0 million.

Net Cash Provided by Financing Activities

The net cash provided by our financing activities consisted largely of proceeds of $122.4 million from the Term Loan we entered into in February 2016, net of payments during the year ended December 31, 2016, of $2.3 million. Concurrent with the receipt of the Term Loan, we repaid $40.0 million of the outstanding Revolving Facility. Other significant uses of cash during the period included treasury stock purchases of $21.2 million under our share repurchase program, payments of acquisition-related consideration of $5.7 million, and other expenditures totaling $1.1 million consisting of financing costs related to the Term Loan and payments under our capital lease obligations. Finally, activity under our stock-based compensation plans resulted in net inflows of $28.5 million, of which $6.0 million was related to excess tax benefits from stock-based compensation.

Contractual Obligations, Commitments, and Contingencies

The following table summarizes our contractual cash obligations as of December 31, 2018, including interest when applicable, for long-term debt and other obligations for the next five years and thereafter:

	Payments Due by Period				
	Total	Less Than 1 year	1-3 years	3-5 years	More Than 5 years
	(in thousands)				
Convertible Notes [1]	$ 365,053	$ 5,175	$ 10,350	$ 349,528	$ —
Term Loans [2]	339,274	27,584	81,849	229,841	—
Operating lease obligations	100,209	16,996	24,135	20,662	38,416
Acquisition-related liabilities [3]	42,048	30,020	12,028	—	—
	$ 846,584	$ 79,775	$ 128,362	$ 600,031	$ 38,416

(1) Represents the aggregate principal amount of $345.0 million and anticipated coupon interest payments related to our Convertible Notes and excludes the unamortized discount and debt issuance costs reflected in our Consolidated Balance Sheets.

(2) Represents the contractually required principal payments for our Term Loan and Delayed Draw Term Loan and excludes unamortized debt issuance costs reflected in our Consolidated Balance Sheets. These amounts also include the future interest obligations of our Term Loans, which were estimated using a LIBOR forward rate curve and include the related effects of our interest rate swap agreements.

(3) Represents obligations in connection with our acquisitions comprised of undiscounted amounts payable for our deferred cash obligations. These amounts exclude deferred stock obligations, contingent consideration of up to $9.9 million with a fair value of $6.0 million, and potential reductions related to the sellers' indemnification obligations.

Credit Facility

On September 30, 2014, we entered into an agreement for a secured credit facility (the "Credit Facility"). The Credit Facility matures on February 27, 2022, and includes the following:

Revolving Facility

The Credit Facility provides an aggregate principal amount of up to $350.0 million of revolving loans, with sublimits of $10.0 million for the issuance of letters of credit and $20.0 million for swingline loans ("Revolving Facility"). Advances under the Revolving Facility may be voluntarily prepaid and re-borrowed. All outstanding principal and accrued but unpaid interest under the Revolving Facility is due at maturity.

Term Loan and Delayed Draw Term Loan

In February 2016, we originated a term loan in the original principal amount of $125.0 million under the Credit Facility ("Term Loan"). We made quarterly principal payments of $0.8 million through March 31, 2018, that increased to $1.5 million beginning on June 30, 2018, and that will increase again to $3.1 million beginning on June 30, 2020. In December 2017, we drew funds of $200.0 million available under the delayed draw term loan ("Delayed Draw Term Loan"). We made quarterly principal payments of $1.3 million through March 31, 2018, that increased to $2.5 million beginning on June 30, 2018, and that will increase again to $5.0 million beginning on June 30, 2020.

Principal payments on the Term Loan and Delayed Draw Term Loan (collectively, the "Term Loans") are due in quarterly installments, as described above, and may not be re-borrowed. All outstanding principal and accrued but unpaid interest is due on the maturity date. We may prepay the Term Loans in whole or in part at any time, without premium or penalty.

Accordion Feature

The Credit Facility also allows us, subject to certain conditions, to request additional term loans or revolving commitments up to an aggregate principal amount of $150.0 million, plus an amount that would not cause our Senior Leverage Ratio to exceed 3.50 to 1.00.

Refer to Note 8 of the accompanying Consolidated Financial Statements for a complete discussion of the Credit Facility, including its terms and conditions.

Convertible Notes

In May 2017, we completed a private offering of Convertible Notes with an aggregate principal amount of $345.0 million. The net proceeds from this offering were $304.2 million, after adjusting for debt issue costs, including the underwriting discount and the net cash used to purchase the Note Hedges and sell the Warrants. The Convertible Notes accrue interest at an annual rate of 1.50%, which is payable semi-annually on May 15 and November 15 of each year. The Convertible Notes mature on November 15, 2022, and may not be redeemed by us prior to their maturity.

The holders may convert their notes to shares of our common stock, at their option, on or after May 15, 2022. Prior to May 15, 2022, holders may only convert their notes under certain circumstances specified in the Indenture. The Convertible Notes are convertible at an initial rate of 23.84 shares per $1,000 of principal (equivalent to an initial conversion price of approximately $41.95 per share of our common stock). Upon conversion, we will pay or deliver, as the case may be, cash, shares of our common stock, or a combination of cash and shares of our common stock, at our election. It is our stated intention to settle the principal balance of the Convertible Notes in cash and any conversion obligation in excess of the principal portion in shares of our common stock.

In conjunction with the Convertible Notes offering, we purchased Note Hedges and issued Warrants for approximately 8.2 million shares of our common stock. We paid $62.5 million to purchase the Note Hedges and received proceeds of $31.5 million from the issuance of the Warrants. The Note Hedges have an exercise price of $41.95 per share, consistent with the conversion price of the Convertible Notes, and expire in November 2022. The Note Hedges are generally expected to reduce the potential dilution to our common stock (or, in the event the conversion is settled in cash, to reduce our cash payment obligation) in the event that at the time of conversion our stock price exceeds the conversion price under the Convertible Notes. The Warrants have a strike price of $57.58 per share and expire in ratable portions on a series of expiration dates commencing on February 15, 2023.

Refer to Note 8 of the accompanying Consolidated Financial Statements for a complete discussion of these transactions and their accounting implications.

Share Repurchase Program

In May 2014, our board of directors approved a share repurchase program authorizing the repurchase of up to $50.0 million of our outstanding common stock for a period of up to one year after the approval date. Our board of directors approved a one year extension of this program in 2015, 2016, and 2017. This program expired in May 2018.

In October 2018, our board of directors approved a new share repurchase program authorizing the repurchase of up to $100.0 million of our outstanding common stock. The share repurchase program is effective through October 25, 2019. Shares repurchased under both repurchase programs are retired following the repurchase.

Repurchase activity during the years ended December 31, 2018, 2017 and 2016 was as follows:

	Year Ended December 31,		
	2018	2017	2016
Number of shares repurchased	599,664	—	1,012,823
Weighted-average cost per share	$ 46.83	$ —	$ 20.98
Total cost of shares repurchased, in thousands	$ 28,082	$ —	$ 21,244

Off-Balance Sheet Arrangements

We do not have any off-balance sheet financing arrangements, and we do not have any relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities, which have been established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk.

Market risk represents the risk of loss that may impact our financial position due to adverse changes in financial market prices and rates. Our market risk exposure is primarily a result of fluctuations in interest rates. We do not hold or issue financial instruments for trading purposes.

We had cash and cash equivalents of $228.2 million and $69.3 million at December 31, 2018 and 2017, respectively. We hold cash and cash equivalents for working capital purposes. We do not have material exposure to market risk with respect to investments, as our investments consist primarily of highly liquid investments purchased with original maturities of three months or less.

We had $115.0 million and $190.0 million outstanding under our Term Loan and Delayed Draw Term Loan, respectively, at December 31, 2018. The Term Loan and Delayed Draw Term Loan are reflected net of unamortized debt issuance costs of $0.3 million and $1.0 million, respectively, in the accompanying Consolidated Balance Sheets. At December 31, 2018, there were no amounts outstanding under our Revolving Facility, and we had a $50.0 million outstanding balance as of December 31, 2017. At our option, amounts borrowed under the Credit Facility accrue interest at a per annum rate equal to either LIBOR, plus a margin ranging from 1.25% to 2.25%, or the Base Rate, plus a margin ranging from 0.25% to 1.25%. The base LIBOR rate is, at our discretion, equal to either one, two, three, or six month LIBOR. The Base Rate is defined as the greater of Wells Fargo's prime rate, the Federal Funds Rate plus 0.50%, or one month LIBOR plus 1.00%. If the applicable variable interest rates changed by 50 basis points, our interest expense for the year ended December 31, 2018, as reported in the accompanying Consolidated Statements of Operations, would change by approximately $1.4 million.

On March 31, 2016, we entered into two interest rate swap agreements to eliminate variability in interest payments on a portion of the Term Loans. For that portion, the swap agreements replace the term note's variable rate with a blended fixed rate of 0.89%.

On December 24, 2018, we entered into two interest rate swap agreements to eliminate variability in interest payments on a portion of the Term Loans. For that portion, the swap agreements replace the term note's variable rate with a blended fixed rate of 2.57%. We do not use derivative financial instruments for speculative or trading purposes; however, we may adopt additional specific hedging strategies in the future.

Item 8. Financial Statements and Supplementary Data.

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of RealPage, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of RealPage, Inc. (the Company) as of December 31, 2018 and 2017, the related consolidated statements of operations, comprehensive income, stockholders' equity and cash flows for each of the three years in the period ended December 31, 2018, and the related notes and the financial statement schedule listed in the Index under Item 15(c) (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated February 27, 2019 expressed an unqualified opinion thereon.

Basis for Opinion

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

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Ernst & Young LLP

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

Dallas, Texas

February 27, 2019

Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of RealPage, Inc.

Opinion on Internal Control over Financial Reporting

We have audited RealPage, Inc.'s internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, RealPage, Inc. (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on the COSO criteria.

As indicated in the accompanying "Management's Report on Internal Control over Financial Reporting," management's assessment of and conclusion on the effectiveness of internal control over financial reporting did not include the internal controls of NovelPay, LLC and ClickPay Services, Inc. (collectively known as ClickPay), LeaseLabs, Inc. (LeaseLabs), and Rentlytics, Inc. (Rentlytics), which are included in the 2018 consolidated financial statements of the Company. ClickPay constituted approximately 11% and 3% of total assets and total revenues, respectively, as of December 31, 2018. LeaseLabs constituted approximately 6% and 1% of total assets and total revenues, respectively, as of December 31, 2018. Rentlytics constituted approximately 3% and less than 1% of total assets and total revenues, respectively, as of December 31, 2018. Our audit of internal control over financial reporting of the Company also did not include an evaluation of the internal control over financial reporting of ClickPay, LeaseLabs, and Rentlytics.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2018 and 2017, the related consolidated statements of operations, comprehensive income, stockholders' equity and cash flows for each of the three years in the period ended December 31, 2018, and the related notes and the financial statement schedule listed in the Index under Item 15(c) and our report dated February 27, 2019 expressed an unqualified opinion thereon.

Basis for Opinion

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

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

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

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

/s/ Ernst & Young LLP

Dallas, Texas

February 27, 2019

RealPage, Inc.

Consolidated Balance Sheets
(in thousands, except per share and share amounts)

	December 31,	
	2018	2017
Assets		
Current assets:		
Cash and cash equivalents	$ 228,159	$ 69,343
Restricted cash	154,599	96,002
Accounts receivable, less allowances of $8,850 and $3,951 at December 31, 2018 and 2017, respectively	123,596	124,505
Prepaid expenses	19,214	12,107
Other current assets	15,185	6,622
Total current assets	540,753	308,579
Property, equipment, and software, net	153,528	148,428
Goodwill	1,053,119	751,052
Intangible assets, net	287,378	252,337
Deferred tax assets, net	42,602	44,887
Other assets	20,393	11,010
Total assets	$ 2,097,773	$ 1,516,293
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	$ 25,312	$ 26,733
Accrued expenses and other current liabilities	95,482	79,379
Current portion of deferred revenue	120,704	116,622
Current portion of term loans	16,133	14,116
Customer deposits held in restricted accounts	154,601	96,057
Total current liabilities	412,232	332,907
Deferred revenue	4,902	5,538
Revolving facility	—	50,000
Term loans, net	287,582	303,261
Convertible notes, net	292,843	281,199
Other long-term liabilities	37,190	41,513
Total liabilities	1,034,749	1,014,418
Commitments and contingencies (Note 10)		
Stockholders' equity:		
Preferred stock, $0.001 par value: 10,000,000 shares authorized and zero shares issued and outstanding at December 31, 2018 and 2017, respectively	—	—
Common stock, $0.001 par value: 250,000,000 and 125,000,000 shares authorized, 95,991,162 and 87,153,085 shares issued and 93,650,127 and 83,180,401 shares outstanding at December 31, 2018 and 2017, respectively	96	87
Additional paid-in capital	1,187,683	637,851
Treasury stock, at cost: 2,341,035 and 3,972,684 shares at December 31, 2018 and 2017, respectively	(65,470)	(61,260)
Accumulated deficit	(58,793)	(75,046)
Accumulated other comprehensive (loss) income	(492)	243
Total stockholders' equity	1,063,024	501,875
Total liabilities and stockholders' equity	$ 2,097,773	$ 1,516,293

See accompanying notes.

RealPage, Inc.

Consolidated Statements of Operations
(in thousands, except per share amounts)

	Year Ended December 31,		
	2018	2017	2016
Revenue:			
On demand	$ 833,709	$ 642,622	$ 542,531
Professional and other	35,771	28,341	25,597
Total revenue	869,480	670,963	568,128
Cost of revenue	328,382	258,135	225,539
Amortization of product technologies	35,797	22,163	17,669
Gross profit	505,301	390,665	324,920
Operating expenses:			
Product development	118,525	89,452	73,607
Sales and marketing	166,607	140,473	122,457
General and administrative	118,208	112,975	85,013
Amortization of intangible assets	35,911	17,755	12,599
Total operating expenses	439,251	360,655	293,676
Operating income	66,050	30,010	31,244
Interest expense and other, net	(31,750)	(14,769)	(3,758)
Income before income taxes	34,300	15,241	27,486
Income tax (benefit) expense	(425)	14,864	10,836
Net income	$ 34,725	$ 377	$ 16,650
Net income per share attributable to common stockholders:			
Basic	$ 0.40	$ 0.00	$ 0.22
Diluted	$ 0.38	$ 0.00	$ 0.21
Weighted average common shares outstanding:			
Basic	87,290	79,433	76,854
Diluted	91,531	82,398	77,843

See accompanying notes.

RealPage, Inc.

Consolidated Statements of Comprehensive Income
(in thousands)

	Year Ended December 31,		
	2018	2017	2016
Net income	$ 34,725	$ 377	$ 16,650
Other comprehensive (loss) income:			
Unrealized gain on derivative instruments, net of tax	61	318	400
Reclassification adjustment for (gains) losses included in earnings on derivative instruments, net of tax	(613)	(77)	136
Foreign currency translation adjustment	(183)	55	(43)
Other comprehensive (loss) income, net of tax	(735)	296	493
Comprehensive income	$ 33,990	$ 673	$ 17,143

See accompanying notes.

RealPage, Inc.

Consolidated Statements of Stockholders' Equity
(in thousands)

	Common Stock		Additional Paid-in	Accum. Other Comprehensive	Accumulated	Treasury Stock		Total Stockholders'
	Shares	Amount	Capital	(Loss) Income	Deficit	Shares	Amount	Equity
Balance as of January 1, 2016	82,919	$ 83	$471,668	$ (546)	$(120,415)	4,125	$(24,338)	$326,452
Stock option exercises	1,569	2	28,487	—	—	—	—	28,489
Issuance of restricted stock	2,587	2	(1)	—	—	—	—	1
Treasury stock purchased, at cost	—	—	—	—	—	1,863	(27,264)	(27,264)
Retirement of treasury stock	(1,013)	(1)	(5,748)	—	(15,495)	(1,013)	21,244	—
Stock-based compensation	—	—	36,688	—	—	—	—	36,688
Net tax benefit from stock-based compensation	—	—	3,254	—	—	—	—	3,254
Other comprehensive income - derivative instruments	—	—	—	536	—	—	—	536
Foreign currency translation	—	—	—	(43)	—	—	—	(43)
Net income	—	—	—	—	16,650	—	—	16,650
Balance as of December 31, 2016	86,062	86	534,348	(53)	(119,260)	4,975	(30,358)	384,763
Cumulative effect of adoption of ASU 2016-09	—	—	6	—	43,837	—	—	43,843
Stock option exercises	991	1	27,013	—	—	(354)	—	27,014
Issuance of restricted stock	100	—	(2)	—	—	(1,795)	2	—
Treasury stock purchased, at cost	—	—	—	—	—	1,147	(30,904)	(30,904)
Stock-based compensation	—	—	46,146	—	—	—	—	46,146
Other comprehensive income - derivative instruments	—	—	—	241	—	—	—	241
Foreign currency translation	—	—	—	55	—	—	—	55
Equity component of convertible notes, net of issuance costs and deferred tax	—	—	61,390	—	—	—	—	61,390
Purchases of convertible note hedges	—	—	(62,549)	—	—	—	—	(62,549)
Issuance of warrants	—	—	31,499	—	—	—	—	31,499
Net income	—	—	—	—	377	—	—	377
Balance as of December 31, 2017	87,153	87	637,851	243	(75,046)	3,973	(61,260)	501,875

Cumulative effect of adoption of ASU 2014-09	—	—	—	—	2,221	—	—	2,221
Public offering of common stock, net of $16,949 of offering costs	8,050	8	441,893	—	—	—	—	441,901
Issuance of common stock in connection with our acquisitions	1,361	2	75,148	—	—	—	—	75,150
Stock option exercises	27	—	2,468	—	—	(632)	10,695	13,163
Issuance of restricted stock	—	—	(14,598)	—	—	(1,807)	14,598	—
Treasury stock purchased, at cost	—	—	473	—	—	1,407	(57,585)	(57,112)
Retirement of treasury stock	(600)	(1)	(7,388)	—	(20,693)	(600)	28,082	—
Stock-based compensation	—	—	51,836	—	—	—	—	51,836
Other comprehensive income - derivative instruments	—	—	—	(552)	—	—	—	(552)
Foreign currency translation	—	—	—	(183)	—	—	—	(183)
Net income	—	—	—	—	34,725	—	—	34,725
Balance as of December 31, 2018	95,991	$ 96	$1,187,683	$ (492)	$(58,793)	2,341	$(65,470)	$1,063,024

See accompanying notes.

RealPage, Inc.

Consolidated Statements of Cash Flows
(in thousands)

	Year Ended December 31,		
	2018	2017	2016
Cash flows from operating activities:			
Net income	$ 34,725	$ 377	$ 16,650
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	100,186	67,146	54,834
Amortization of debt discount and issuance costs	12,464	7,296	443
Deferred taxes	(2,179)	13,791	8,386
Stock-based expense	50,641	45,835	36,852
Excess tax benefit from stock-based compensation	—	—	(5,998)
Loss on disposal and impairment of long-lived assets	6,733	524	1,247
Acquisition-related consideration	284	684	(877)
Changes in assets and liabilities, net of assets acquired and liabilities assumed in business combinations:			
Accounts receivable	(717)	(18,821)	(12,239)
Prepaid expenses and other current assets	(11,894)	945	21,040
Other assets	(4,543)	(717)	(187)
Accounts payable	1,266	268	652
Accrued compensation, taxes, and benefits	3,288	3,438	5,220
Deferred revenue	3,478	17,114	4,452
Customer deposits	57,230	3,055	(6,834)
Other current and long-term liabilities	(6,155)	(672)	5,808
Net cash provided by operating activities	244,807	140,263	129,449
Cash flows from investing activities:			
Purchases of property, equipment, and software	(50,933)	(49,752)	(75,241)
Proceeds from disposal of property, equipment, and software	—	—	4,500
Acquisition of businesses, net of cash and restricted cash acquired	(278,563)	(649,910)	(66,440)
Purchase of other investments	(1,800)	(200)	(3,000)
Net cash used in investing activities	(331,296)	(699,862)	(140,181)
Cash flows from financing activities:			
Proceeds from term loans	—	199,400	124,688
Payments on term loans	(14,116)	(3,551)	(2,345)
Proceeds from revolving credit facility	140,000	50,000	—
Payments on revolving credit facility	(190,000)	—	(40,000)
Proceeds from borrowings on convertible notes	—	345,000	—
Purchase of convertible senior note hedges	—	(62,549)	—
Proceeds from issuance of warrants	—	31,499	—
Payments of deferred financing costs	(1,136)	(10,734)	(392)
Payments on capital lease obligations	(227)	(335)	(548)
Payments of acquisition-related consideration	(28,388)	(8,491)	(5,684)
Proceeds from public offering, net of underwriters' discount and offering costs	441,901	—	—
Proceeds from exercise of stock options	13,163	27,014	28,490
Excess tax benefit from stock-based compensation	—	—	5,998
Purchase of treasury stock related to stock-based compensation	(29,030)	(30,904)	(6,020)
Purchase of treasury stock under share repurchase program	(28,082)	—	(21,244)
Net cash provided by financing activities	304,085	536,349	82,943
Net increase (decrease) in cash and cash equivalents	217,596	(23,250)	72,211
Effect of exchange rate on cash	(183)	55	(43)
Cash, cash equivalents and restricted cash:			
Beginning of period	165,345	188,540	116,372
End of period	$ 382,758	$ 165,345	$ 188,540

RealPage, Inc.

Consolidated Statements of Cash Flows, continued
(in thousands)

	Year Ended December 31,		
	2018	**2017**	**2016**
Supplemental cash flow information:			
Cash paid for interest	$ 18,204	$ 6,754	$ 2,833
Cash paid for income taxes, net of refunds	$ 3,121	$ 1,855	$ 693
Non-cash investing and financing activities:			
Fair value of stock consideration in connection with our acquisitions	$ 53,334	$ —	$ —
Redemption of noncontrolling interest in connection with acquisition of ClickPay	$ 21,816	$ —	$ —
Accrued property, equipment, and software	$ 1,447	$ 5,777	$ 3,993

The following table provides a reconciliation of cash, cash equivalents and restricted cash reported within the Consolidated Balance Sheets and to that shown in the Consolidated Statements of Cash Flows:

	Year Ended December 31,		
	2018	**2017**	**2016**
Cash and cash equivalents	$ 228,159	$ 69,343	$ 104,886
Restricted cash	154,599	96,002	83,654
Total cash, cash equivalents and restricted cash shown in the Consolidated Statements of Cash Flows	$ 382,758	$ 165,345	$ 188,540

See accompanying notes.

RealPage, Inc.

Notes to Consolidated Financial Statements

1. The Company

RealPage, Inc., a Delaware corporation (together with its subsidiaries, the "Company" or "we" or "us"), is a leading global provider of software and data analytics to the real estate industry. Our platform of data analytics and software solutions enables the rental real estate industry to manage property operations (such as marketing, pricing, screening, leasing, and accounting), identify opportunities through market intelligence, and obtain data-driven insight for better operational and financial decision-making. Our integrated, on demand platform provides a single point of access and a massive repository of real-time lease transaction data, including prospect, renter, and property data. By leveraging data as well as integrating and streamlining a wide range of complex processes and interactions among the rental real estate ecosystem (owners, managers, prospects, renters, service providers, and investors), our platform helps our clients improve financial and operational performance and prudently place and harvest capital.

During May 2018 and as disclosed in our Form 10-Q for the quarter ended March 31, 2018, we were the subject of a targeted email phishing campaign that led to a business email compromise, pursuant to which an unauthorized party gained access to an external third party system used by a subsidiary that we acquired in 2017. The incident resulted in the diversion of approximately $6.0 million, net of recovered funds, intended for disbursement to three clients. We immediately restored all funds to the client accounts. During the quarter ended June 30, 2018, we remediated the material weakness that gave rise to the incident and implemented additional preventive and detective control procedures.

We maintain insurance coverage to limit our losses related to criminal and network security events. During January 2019, we received approximately $1.0 million from our primary insurance carrier as a partial repayment toward our losses from the business email compromise. We are currently involved in discussions with our insurance carrier regarding coverage of the remaining losses, and intend to vigorously pursue repayment of these losses. Due to the ongoing discussions with our insurance carrier and the uncertainty regarding timing and full collectability of the loss, we recorded an allowance of $5.0 million for the remaining amount of the loss, which is included in the line "General and administrative" in the accompanying Consolidated Statements of Operations. For the year ended December 31, 2018, total charges from the phishing incident included in our Consolidated Statements of Operations was $5.4 million for losses and related expenses that are not probable of recovery.

2. Summary of Significant Accounting Policies

Basis of Presentation

The accompanying consolidated financial statements and footnotes have been prepared pursuant to the rules and regulations of the Securities and Exchange Commission ("SEC"). The consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America ("GAAP") and include the accounts of RealPage, Inc. and its wholly-owned subsidiaries. All intercompany accounts and transactions have been eliminated in consolidation.

Effective with the quarter ended September 30, 2018, we changed the presentation of our Consolidated Statements of Operations to add "Amortization of product technologies" and "Amortization of intangible assets" as separate line items within such statements. Amounts shown as amortization of product technologies were previously included within "Cost of revenue", and amounts shown as amortization of intangible assets were previously included within the "Sales and marketing" operating expense category. We believe this revised presentation helps readers of our financial statements isolate non-cash amortization expenses that arise from our acquisitions and internally developed software.

Certain prior period amounts reported in our consolidated financial statements and notes thereto have been reclassified to conform to the current period's presentation.

Correction of an Immaterial Error in Previously Issued Financial Statements

In the third quarter of 2018, we identified an error related to the misclassification of amortization expense related to intangible assets on certain acquired technologies, recognized as "Sales and marketing" expense. Such expense should have been recognized as a component of "Cost of revenue". As a result, our cost of revenue was understated, and our sales and marketing expense was overstated by identical amounts, which also resulted in an overstatement of gross profit and total operating expenses by the same amount for the effected periods. There was no effect on reported revenues, net income, earnings per share, or cash flows. In accordance with Staff Accounting Bulletin ("SAB") No. 99, *Materiality*, and SAB No. 108, *Considering the Effects of Prior Year Misstatements when Quantifying Misstatements in Current Year Financial Statements*, we evaluated the materiality of the error from a qualitative and quantitative perspective and concluded that the effect of the misclassification was not material to our previously issued consolidated financial statements.

We have corrected the presentation of the amortization expense for all prior periods presented in this Form 10-K. The immaterial error correction resulted in an increase of cost of revenue and reduction in sales and marketing expense of $6.9 million and $0.9 million for the years ended December 31, 2017 and 2016, respectively. There was no change in our accounting for amortization expense related to client relationship, non-compete agreements and trade name intangible assets.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make certain estimates and assumptions that affect the amounts reported and disclosed in the financial statements and accompanying notes. Such significant estimates include, but are not limited to, the determination of the allowances against our accounts receivable; useful lives of intangible assets; impairment assessments on long-lived assets (including goodwill); contingent commissions related to the sale of insurance products; fair value of acquired net assets and contingent consideration in connection with business combinations; the nature and timing of satisfaction of performance obligations and related reserves; fair values of stock-based awards; loss contingencies; and the recognition, measurement and valuation of current and deferred income taxes. Actual results could differ from these estimates. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable, the result of which forms the basis for making judgments about the carrying value of assets and liabilities.

Concentration of Credit Risk

Financial instruments that potentially subject us to concentrations of credit risk consist principally of cash and cash equivalents and accounts receivable. Our cash accounts are maintained at various high credit, quality financial institutions and may exceed federally insured limits. We have not experienced any losses in such accounts.

Substantially all of our accounts receivable are derived from clients in the residential rental housing market. Concentrations of credit risk with respect to accounts receivable and revenue are limited due to a large, diverse customer base. We do not require collateral from clients. We maintain an allowance for doubtful accounts based upon the expected collectability of accounts receivable.

No single client accounted for 10% or more of our revenue or accounts receivable for the years ended December 31, 2018, 2017, or 2016.

Segment and Geographic Information

Our chief operating decision maker is our Chief Executive Officer, who reviews financial information on a consolidated basis for purposes of allocating resources and evaluating financial performance. Accordingly, we have determined we operate as a single operating segment.

Principally, all of our revenue for the years ended December 31, 2018, 2017, and 2016 was earned in the United States. Net property, equipment, and software located in the United States amounted to $144.3 million and $140.0 million at December 31, 2018 and 2017, respectively. Net property, equipment, and software located in our international subsidiaries amounted to $9.2 million and $8.4 million at December 31, 2018 and 2017, respectively. Substantially all of the net property, equipment, and software held in our international subsidiaries was located in the Philippines, Spain, and India at both December 31, 2018 and 2017.

Cash, Cash Equivalents and Restricted Cash

We consider all highly liquid investments with an initial maturity of three months or less at the date of purchase to be cash equivalents. The fair value of our cash and cash equivalents approximates carrying value.

Restricted cash consists of cash collected from tenants that will be remitted primarily to our clients.

Accounts Receivable

Accounts receivable primarily represent trade receivables from clients recorded at the invoiced amount, net of allowances, which are based on our historical experience, the aging of our trade receivables, and management judgment.

Trade receivable are written off against the allowance when management determines a balance is uncollectible. During the years ended December 31, 2018, 2017, and 2016, we incurred bad debt expense of $3.7 million, $3.2 million, and $2.4 million, respectively.

Property, Equipment, and Software

Property, equipment, and software are recorded at cost less accumulated depreciation and amortization, which are computed using the straight-line method over the following estimated useful lives:

Data processing and communications equipment	3 - 5 years
Furniture, fixtures, and other equipment	3 - 5 years
Software	3 - 5 years
Leasehold improvements	Shorter of lease term or estimated useful life

Software includes both purchased and internally developed software. Gains and losses from asset disposals are included in the line "General and administrative" in the Consolidated Statements of Operations.

Internally Developed Software

We capitalize certain development costs incurred in connection with software development for our solutions to be marketed to external users. Costs incurred in the preliminary stages of development are expensed as incurred. Once an application has reached the technological feasibility stage, internal and external costs including costs of materials, services, and payroll and payroll-related costs for employees, are capitalized, if direct and incremental, until the software is available for general release to customers. Minor upgrades and enhancements are also expensed as incurred. Costs related to specific upgrades and enhancements when it is probable the expenditures will result in additional functionality are capitalized.

Costs incurred to develop software intended solely for our internal use, such as internal administration and finance and accounting systems, are capitalized during the application development stage. Interest on funds used to finance internally developed software up to the date the asset is ready for its intended use, is capitalized and included in the cost of the asset if the asset is actively under development. Capitalized interest was not significant for any period presented.

Amortization of internally developed software is included in "Amortization of product technologies" in the accompanying Consolidated Statements of Operations.

Impairment of Long-Lived Assets

Tangible long-lived assets held and used are reviewed for impairment whenever events or changes in circumstances indicate that the carrying value may not be recoverable. Factors we consider important that could trigger an impairment review include, but are not limited to, significant under-performance relative to current and historical or projected future operating results, significant changes in the manner of our use of the asset, or significant changes in our overall business and/or product strategies. If circumstances require that a long-lived asset group be tested for possible impairment, determination of recoverability is based on an estimate of the undiscounted cash flows expected to be generated by that long-lived asset or asset group. If the carrying amount of the long-lived asset or asset group is not recoverable on an undiscounted cash flow basis, we would recognize an impairment charge equal to the excess of the carrying value over its fair value.

Business Combinations

We allocate the fair value of the purchase consideration of our acquisitions to the tangible assets acquired, liabilities assumed, and intangible assets acquired based on their estimated fair values. The excess of the fair value of purchase consideration over the fair values of these identifiable assets and liabilities is recorded as goodwill. Purchase consideration includes assets transferred, liabilities assumed, and/or equity interests issued by us, all of which are measured at their fair value as of the date of acquisition. Our business combination transactions may be structured to include a combination of up-front, deferred and contingent payments to be made at specified dates subsequent to the date of acquisition. These payments may include a combination of cash and equity. Deferred and contingent payments are included in the purchase consideration based on their fair value as of the acquisition date. Deferred obligations are generally subject to adjustments specified in the underlying purchase agreement related to the seller's indemnification obligations. Contingent consideration is an obligation to make future payments to the seller contingent upon the achievement of future operational or financial targets. The fair value of these payments is estimated using a probability weighted discount model based on the achievement of the specified targets.

The valuation of the net assets acquired as well as certain elements of purchase consideration require management to make significant estimates and assumptions, especially with respect to future expected cash flows, useful lives, and discount rates. Management's estimates of fair value are based upon assumptions believed to be reasonable, but which are inherently uncertain and, as a result, actual results may differ from estimates. During the measurement period, we may record adjustments to the assets acquired and liabilities assumed with a corresponding offset to goodwill. Changes to the fair value of contingent payments is reflected in "General and administrative" costs in the accompanying Consolidated Statements of Operations.

Acquisition costs are expensed as incurred and are included in "General and administrative" in the accompanying Consolidated Statements of Operations. We include the results of operations from acquired businesses in our consolidated financial statements from the effective date of the acquisition.

Goodwill and Indefinite-Lived Intangible Assets

We test goodwill and indefinite-lived intangible assets for impairment separately on an annual basis in the fourth quarter of each year, or more frequently if circumstances indicate that the assets may not be recoverable.

We evaluate impairment of goodwill either by assessing qualitative factors to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount, or by performing a quantitative assessment. If we choose to perform a qualitative assessment and after considering the totality of events or circumstances, we determine it is more likely than not that the fair value of a reporting unit is less than its carrying amount, we would perform a quantitative fair value test. To calculate any potential impairment, we compare the fair value of a reporting unit with its carrying amount, including goodwill. Any excess of the carrying amount of the reporting unit's goodwill over its fair value is recognized as an impairment loss, and the carrying value of goodwill is written down. For purposes of goodwill impairment testing, we have one reporting unit.

We quantitatively evaluate indefinite-lived intangible assets by estimating the fair value of those assets based on estimated future earnings derived from the assets using the income approach. Assets with indefinite lives that have been determined to be inseparable due to their interchangeable use are grouped into single units of accounting for purposes of testing for impairment. If the carrying amount of an identified intangible asset with an indefinite life exceeds its fair value, we would recognize an impairment loss equal to the excess of carrying value over fair value.

Intangible Assets

Intangible assets with determinable economic lives are carried at cost, less accumulated amortization. Our intangible assets are largely acquired in business combinations and include developed technologies, client relationships, vendor relationships, non-competition agreements and trade names. Intangible assets are amortized over the shorter of the contractual life or the estimated useful life. Intangible assets are amortized on a straight-line basis, except for client relationships which are amortized proportionately to the expected discounted cash flows derived from the asset.

Estimated useful lives for intangible assets consist of the following:

Developed technologies	3 - 7 years
Client relationships	3 - 10 years
Vendor relationships	7 years
Trade names	1 - 7 years
Non-competition agreements	5 - 10 years

Amortization of acquired developed technologies is included in "Amortization of product technologies", and amortization of acquired client relationships, vendor relationships, non-competition agreements and trade names is included in "Amortization of intangible assets" in the accompanying Consolidated Statements of Operations.

Other Current and Long-Term Liabilities

Accrued expenses and other current liabilities consisted of the following at December 31, 2018 and 2017:

	December 31,	
	2018	2017
	(in thousands)	
Accrued compensation, payroll taxes, and benefits	$ 29,405	$ 25,677
Sales tax obligations	3,673	4,930
Current portion of liabilities related to acquisitions	47,173	34,430
Lease-related liabilities	2,640	2,288
Other current liabilities	12,591	12,054
Total accrued expenses and other current liabilities	$ 95,482	$ 79,379

Other long-term liabilities consisted of the following at December 31, 2018 and 2017:

	December 31,	
	2018	2017
	(in thousands)	
Accrued lease liability	$ 25,207	$ 27,760
Liabilities related to acquisitions	10,969	13,000
Other long-term liabilities	1,014	753
Total other long-term liabilities	$ 37,190	$ 41,513

Deferred Revenue

For several of our solutions, we invoice our clients in annual, monthly, or quarterly installments in advance of the commencement of the service period. Deferred revenue is recognized when billings are due or payments are received in advance of revenue recognition from our subscription and other services. Accordingly, the deferred revenue balance does not represent the total contract value of annual subscription agreements.

Revenue Recognition

Revenues are derived from on demand software solutions, professional services and other goods and services. We recognize revenue as we satisfy one or more service obligations under the terms of a contract, generally as control of goods and services are transferred to our clients. Revenue is measured as the amount of consideration we expect to receive in exchange for transferring goods or providing services. We include estimates of variable consideration in revenue to the extent that it is probable that a significant reversal of cumulative revenue will not occur. We estimate and accrue a reserve for credits and other adjustments as a reduction to revenue based on several factors, including past history.

On Demand Revenue

Our on demand revenue consists of license and subscription fees, transaction fees related to certain of our software-enabled value-added services, and commissions derived from our selling certain risk mitigation services.

We generally recognize revenue from subscription fees on a straight-line basis over the access period beginning on the date that we make our service available to the client. Our subscription agreements generally are non-cancellable, have an initial term of one year or longer and are billed either monthly, quarterly or annually in advance. Non-refundable upfront fees billed at the initial order date that are not associated with an upfront service obligation are recognized as revenue on a straight-line basis over the period in which the client is expected to benefit, which we consider to be three years.

We recognize revenue from transaction fees in the month the related services are performed based on the amount we have the right to invoice.

We offer risk mitigation services to our clients by acting as an insurance agent and derive commission revenue from the sale of insurance products to our clients' residents. The commissions are based upon a percentage of the premium that the insurance company charges to the policyholder and are subject to forfeiture in instances where a policyholder cancels prior to the end of the policy. Our contract with our underwriting partner provides for contingent commissions to be paid to us in accordance with the agreement. Our estimate of contingent commission revenue considers the variable factors identified in the terms of the applicable agreement. We recognize commissions related to these services as earned ratably over the policy term and insurance commission receivable in "Accounts receivable, less allowances".

Professional and Other Revenue

Professional services and other revenues generally consist of the fees we receive for providing implementation and consulting services, submeter equipment and ongoing maintenance of our existing on premise licenses.

Professional services are billed either on a time and materials basis or on a fixed price basis, and revenue is recognized over time as we perform the obligation. Professional services are typically sold bundled in a contract with other on demand solutions but may be sold separately. Professional service contracts sold separately generally have terms of one year or less. For bundled arrangements, where we account for individual services as a separate performance obligation, the transaction price is allocated between separate services in the bundle based on their relative standalone selling prices.

Other revenues consist primarily of submeter equipment sales that include related installation services. Such sales are considered bundled, and revenue from these bundled sales is recognized in proportion to the number of installed units completed to date as compared to the total contracted number of unites to be provided and installed. For all other equipment sales, we generally recognize revenue when control of the hardware has transferred to our client.

Revenue recognized for on premise software sales generally consists of annual maintenance renewals on existing term or perpetual license, which is recognized ratably over the service period.

Contract with Multiple Performance Obligations

The majority of the contracts we enter into with clients, including multiple contracts entered into at or near the same time with the same client, require us to provide one or more on demand software solutions, professional services and may include equipment. For these contracts, we account for individual performance obligations separately: i) if they are distinct or ii) if the promised obligation represents a series of distinct services that are substantially the same and have the same pattern of transfer to the client. Once we determine the performance obligations, we determine the transaction price, which includes estimating the amount of variable consideration, if any, to be included in the transaction price. For contracts with multiple performance obligations, we allocate the transaction price to the separate performance obligations on a relative standalone selling price basis. The standalone selling prices of our service are estimated using a market assessment approach based on our overall pricing objectives taking into consideration market conditions and other factors including the number of solutions sold, client demographics and the number and types of users within our contracts.

Sales, value add, and other taxes we collect from clients and remit to governmental authorities are excluded from revenues.

Cost of Revenue

Cost of revenue consists primarily of salaries and related personnel expenses of our operations and support personnel, including training and implementation services; expenses related to the operation of our data centers; fees paid to third-party providers; allocations of facilities overhead costs; and depreciation

Sales and Marketing Expenses and Deferred Commissions

Sales and marketing expenses consist primarily of personnel and related costs, including salaries, benefits, bonuses, commissions, travel, and stock-based compensation. Other costs included are marketing and promotional events, our annual user conference, and other online and product marketing costs. We amortize sales commissions that are directly attributable to a contract over an estimated customer benefit period of three years.

Advertising costs are expensed as incurred and totaled $26.4 million, $22.8 million, and $19.4 million for the years ended December 31, 2018, 2017, and 2016, respectively.

Stock-Based Expense

We recognize compensation expense related to stock options and shares of restricted stock based on the estimated fair value of the awards on the date of grant. We generally grant time-based stock options and restricted stock awards, which vest over a specified period of time, and market-based awards, which become eligible to vest only after the achievement of a condition based upon the trading price of our common stock and vest over a specified period of time thereafter. The fair value of employee stock options is estimated on the date of grant using a binomial option pricing model, the Black-Scholes model. The fair value of our market-based restricted stock awards is estimated using a discrete model based on multiple stock price-paths developed through the use of Monte Carlo simulation.

For time-based stock options and restricted stock awards, expense is recognized on a straight-line basis over the requisite service period. Expense associated with market-based awards is recognized over the requisite service period using the graded-vesting attribution method. Share-based compensation is reduced for forfeitures once they occur.

Income Taxes

Income taxes are recorded based on the liability method, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been recognized in our consolidated financial statements or tax returns. Deferred tax assets and liabilities are measured using the tax rates that are expected to apply to taxable income for the years in which those tax assets and liabilities are expected to be realized or settled. We recognize the effect of tax rate changes on current and accumulated deferred income taxes in the period in which the rate change was enacted.

Valuation allowances are provided when it is more likely than not that all or a portion of the deferred tax asset will not be realized. The factors used to assess the need for a valuation allowance include historical earnings, our latest forecast of taxable income, and available tax planning strategies that could be implemented to realize the net deferred tax assets.

We may recognize a tax benefit from uncertain tax positions only if it is at least more likely than not that the tax position will be sustained upon examination by the taxing authorities, based on the technical merits of the position. The tax benefits recognized in the financial statements from such a position are measured based on the largest benefit that has a greater than fifty percent likelihood of being realized upon settlement with the taxing authorities.

Fair Value Measurements

We measure our derivative financial instruments and acquisition-related contingent consideration obligations at fair value at each reporting period using a fair value hierarchy. A financial instrument's classification within the fair value hierarchy is based upon the lowest level of input that is significant to the fair value measurement. Three levels of inputs may be used to measure fair value:

Level 1 - Inputs are quoted prices in active markets for identical assets or liabilities.

Level 2 - Inputs are quoted prices for similar assets or liabilities in active markets, quoted prices for identical or similar assets or liabilities in markets that are not active, inputs other than quoted prices that are observable, and market-corroborated inputs which are derived principally from or corroborated by observable market data.

Level 3 - Inputs are derived from valuation techniques in which one or more of the significant inputs or value drivers are unobservable.

The categorization of an asset or liability is based on the inputs described above and does not necessarily correspond to our perceived risk of that asset or liability. Moreover, the methods used by us may produce a fair value calculation that is not indicative of the net realizable value or reflective of future fair values. Furthermore, although we believe our valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments and non-financial assets and liabilities could result in a different fair value measurement at the reporting date.

Certain financial instruments, which may include cash, cash equivalents, restricted cash, accounts receivable, accounts payable and accrued expenses are recorded at their carrying amounts, which approximates their fair values due to their short-term nature.

Recently Adopted Accounting Standards

Accounting Standards Update 2014-09

In May 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2014-09, *Revenue from Contracts with Customers (Topic 606)*. ASU 2014-09, as amended by certain supplementary ASU's released in 2016, replaces all current GAAP guidance on this topic and eliminates all industry-specific guidance. The new revenue recognition standard requires the recognition of revenue when promised goods or services are transferred to clients in an amount that reflects the consideration for which the entity expects to be entitled in exchange for those goods or services. ASU 2014-09 also includes Subtopic 340-40, *Other Assets and Deferred Costs - Contracts with Customers*, which requires the deferral of incremental costs of obtaining a contract with a client. Collectively, we refer to Topic 606 and Subtopic 340-40 as the "new revenue standard" or "ASC 606."

We adopted the requirements of the new revenue standard on January 1, 2018 using the modified retrospective method and applied the guidance to contracts not substantially completed as of the date of initial application, or open contracts. We recognized the cumulative effect of initially applying the new revenue standard as an adjustment to the opening balance of retained earnings at the beginning of 2018. Comparative information from prior year periods has not been restated and continues to be reported under the accounting standards in effect for those periods. The cumulative effects of the changes made to our consolidated January 1, 2018 balance sheet for the adoption of the new revenue standard were as follows:

	Balance at December 31, 2017	Adjustments due to ASU 2014-09	Balance at January 1, 2018
		(in thousands)	
Assets			
Accounts receivable, less allowances	$ 124,505	$ (7,925)	$ 116,580
Other current assets	$ 6,622	$ 2,771	$ 9,393
Deferred tax assets, net	$ 44,887	$ (780)	$ 44,107
Other assets	$ 11,010	$ 4,459	$ 15,469
Liabilities			
Current portion of deferred revenue	$ 116,622	$ (3,696)	$ 112,926
Stockholders' Equity			
Accumulated deficit	$ (75,046)	$ 2,221	$ (72,825)

Adoption of the new revenue standard resulted in changes to our accounting policies for revenue recognition, certain variable considerations, and commissions expense. The adoption of the new revenue standard did not have a significant effect

on our revenue; however, it did have an impact on the timing of when we expense commission costs incurred to obtain a contract and the reserves we establish for variable consideration from credits or other pricing accommodations we provide our clients. We expect the effect of the new revenue standard to be immaterial to our revenue on an ongoing basis. The primary effect to our net income on an ongoing basis relates to the reserve for credit accommodations and deferral of incremental commission costs incurred to obtain new contracts. Under the new revenue standard, we accrue for credit accommodations in our reserve during the month of billing, and credits reduce this reserve when issued. Further, we now initially defer commission costs and amortize these costs to expense over a period of benefit that we have determined to be three years. Deferred commissions were capitalized for open contracts at the date of initial application and are capitalized for new contracts in 2018.

See Note 4 for additional required disclosures related to the impact of adopting the new revenue standard and our accounting for costs to obtain a contract.

Accounting Standards Update 2016-18

In November 2016, the FASB issued ASU 2016-18, *Statement of Cash Flows - Restricted Cash*, which requires entities to show the changes in the total of cash, cash equivalents, restricted cash and restricted cash equivalents in the statement of cash flows. This ASU must be adopted retrospectively.

We adopted ASU 2016-18 effective January 1, 2018. As a result of our adoption, changes in customer deposits held in restricted accounts will result in an increase or reduction in our cash flows from operating activities. Under previous rules, such changes were largely offset by the corresponding change in restricted cash and had a minimal impact on our statement of cash flows. The prior period financial statements included in this filing have been adjusted to reflect the adoption of ASU 2016-18. The effects of those adjustments to the Consolidated Statements of Cash Flows have been summarized in the table below:

	Originally Reported	Effect of Change	As Adjusted
		(in thousands)	
Statement of Cash Flows for the year ended December 31, 2017			
Net cash provided by operating activities	$ 137,327	$ 2,936	$ 140,263
Net cash used in investing activities	$ (709,274)	$ 9,412	$ (699,862)
Cash, cash equivalents and restricted cash at end of period	$ 69,343	$ 96,002	$ 165,345
Statement of Cash Flows for the year ended December 31, 2016			
Net cash provided by operating activities	$ 136,216	$ (6,767)	$ 129,449
Net cash used in investing activities	$ (145,141)	$ 4,960	$ (140,181)
Cash, cash equivalents and restricted cash at end of period	$ 104,886	$ 83,654	$ 188,540

Accounting Standards Update 2016-01

In January 2016, the FASB issued ASU 2016-01, *Financial Instruments - Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities* and ASU 2018-03, *Technical Corrections and Improvements to Financial Instruments - Overall (Subtopic 825-10)* in February 2018, which provides clarification on certain guidance issued under ASU 2016-01. Among other things, ASU 2016-01 eliminates the cost method of accounting and requires that investments in equity securities that were previously accounted for under the cost method must now be measured at fair value, with changes in fair value recognized in net income. Equity instruments that do not have readily determinable fair values may be measured at cost less impairment, plus or minus changes resulting from observable price changes in orderly transactions for identical or similar investments of the same issuer. This ASU became effective on January 1, 2018. We hold an investment which was accounted for under the cost method of accounting prior to January 1, 2018, which does not have a readily determinable fair value and which has had no observable price change. Therefore, we continue to measure this investment at cost, less any impairment. The adoption of this standard did not have a material impact on our consolidated financial statements.

Recently Issued Accounting Standards

In August 2018, the FASB issued ASU 2018-15, *Intangibles-Goodwill and Other-Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That is a Service Contract.* This ASU aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software. ASU 2018-15 is effective for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years, and early adoption is permitted. The amendments in this update will be applied either retrospectively or prospectively to all implementation costs incurred after the date of adoption. We are currently evaluating the impact of this ASU on our consolidated financial statements.

In August 2017, the FASB issued ASU 2017-12, *Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities*, which expands an entity's ability to apply hedge accounting for nonfinancial and financial risk components and allows for a simplified approach for fair value hedging of interest rate risk. Certain of the amendments in this ASU as they relate to cash flow hedges, eliminate the requirement to separately record hedge ineffectiveness currently in earnings. Instead, the entire change in the fair value of the hedging instrument is recorded in Other Comprehensive Income ("OCI"), and amounts deferred in OCI will be reclassified to earnings in the same income statement line item in which the earnings effect of the hedged item is reported. ASU 2017-12 is effective for annual reporting periods beginning after December 15, 2018, including interim periods within those fiscal years, and early adoption is permitted.

We will adopt this standard effective January 1, 2019 on a modified retrospective basis and will record a cumulative effect adjustment in the opening balance of retained earnings with an offsetting adjustment to other comprehensive income. Further, after adoption, the entire change in the fair value of our interest rate swaps will be recorded in other comprehensive income and reclassified into interest expense as interest payments are made on our variable rate debt. The changes in the ASU will not have a material impact on our consolidated financial statements.

In June 2016, the FASB issued ASU 2016-13, *Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*. The amendments in this ASU replace the incurred loss impairment methodology in current GAAP with a methodology that reflects expected credit losses and requires consideration of a broader range of reasonable and supportable information to inform credit loss estimates. ASU 2016-13 is effective for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years. Early adoption is permitted in fiscal years beginning after December 15, 2018. The amendments in this ASU are to be applied through a cumulative-effect adjustment to retained earnings as of the first reporting period in which the ASU is effective. We have not yet selected a transition date and are currently evaluating the impact of adopting ASU 2016-13 on our consolidated financial statements.

In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842).* The new guidance requires lessees to recognize assets and liabilities arising from all leases with a lease term of more than 12 months, including those classified as operating leases under previous accounting guidance. It also requires disclosure of key information about leasing arrangements to increase transparency and comparability among organizations.

ASU 2016-02 is effective for interim and annual periods beginning after December 15, 2018. In July 2018, the FASB issued ASU 2018-11, Leases - Targeted Improvements, which provides for an optional transition method to allow companies to initially account for the impact of the adoption with a cumulative-effect adjustment to the opening balance of retained earnings on January 1, 2019. This eliminates the requirement to restate amounts presented prior to January 1, 2019. We will adopt the standard effective January 1, 2019 under the optional transition method, or modified retrospective approach. We have elected the package of practical expedient available under the transition provisions including: (i) not reassessing whether expired or existing contracts contain leases, (ii) not reassessing lease classification, and (iii) not revaluing initial direct costs for existing leases. We also plan to elect the practical expedient which will allow aggregation of non-lease components with the related lease components when evaluating accounting treatment. We have made an accounting policy election to exempt leases with an initial term of twelve months or less from balance sheet recognition. Instead, short-term leases will be expensed over the lease term.

The adoption of this standard will materially impact our balance sheet by recognizing a right of use asset and lease liability between approximately $75.0 million and $100.0 million. The value of lease assets and lease liabilities recognized under ASU 2016-02 will change with the passage of time and from changes in specific facts and circumstances effecting the nature and timing of our contractual lease arrangements from period to period. As a result, the lease assets and lease liabilities that are recognized as of January 1, 2019 may not be indicative of amounts to be recognized in future periods. Adoption of this ASU will modify our ongoing analysis and disclosures of lease agreements. We have implemented a new lease software solution and continue to modify our business processes and internal controls as part of the adoption.

3. Acquisitions

Fiscal Year 2018

Rentlytics

In October 2018, we entered into an agreement and plan of merger whereby we acquired 100% of the capital stock of Rentlytics, Inc. ("Rentlytics"), a provider of business intelligence and data analytics software and services to the multi-family housing industry. Aggregate purchase consideration was $55.4 million, including deferred cash obligations of up to $8.0 million that will be released on the first and second anniversary dates of the closing date, subject to any indemnification claims. The acquisition was financed using cash on hand.

The acquired identified intangible assets consisted of client relationships, developed technology and trade names and were assigned estimated useful lives of ten, seven and ten years, respectively. Preliminary goodwill recognized of $42.4 million is

primarily comprised of anticipated synergies from the expansion of our business intelligence and data analytics platform. Goodwill and acquired intangible assets are not deductible for tax purposes. Accounts receivable acquired have a gross value of $2.0 million, of which $0.4 million is estimated to be uncollectible. Acquisition costs associated with this transaction totaled $1.2 million, which also include certain change of control payments and related severance costs paid to former Rentlytics employees.

LeaseLabs

In September 2018, we acquired substantially all of the assets of LeaseLabs, Inc. ("LeaseLabs"), a full-stack marketing solutions provider to the multifamily housing industry. LeaseLabs provides online, social media and website marketing services to property management companies. Aggregate purchase consideration was $112.9 million, including deferred cash obligations of up to $11.8 million, subject to any indemnification claims, to be released on the first and second anniversary dates of the closing date, and contingent consideration of up to $9.9 million based on the collection of acquisition date accounts receivable balances during the six-month period after the acquisition date. The fair value of the contingent consideration was $7.0 million on the date of acquisition. We also issued 86,745 shares of our common stock at closing, which had a fair value of $5.3 million on the date of acquisition. We will issue shares of our common stock with a fair value of $5.0 million on the first anniversary date of the acquisition. A liability of $4.8 million has been recorded for the obligation to issue these shares. The acquisition was financed using cash on hand.

The acquired identified intangible assets consisted of client relationships, developed technology and trade names and were assigned estimated useful lives of ten, seven and ten years, respectively. Preliminary goodwill recognized of $84.7 million is primarily comprised of anticipated synergies from the expansion of our marketing platform with LeaseLabs' marketing solutions and the combination of our marketing content, websites and lead management with LeaseLabs' marketing solutions. Goodwill and acquired intangible assets are deductible for tax purposes. Accounts receivable acquired have a gross value of $3.5 million, of which $0.6 million is estimated to be uncollectible. Acquisition costs associated with this transaction totaled $0.4 million.

BluTrend

In July 2018, we acquired substantially all of the assets of Blu Trend, LLC ("BluTrend"), a provider of utility management services for the multifamily housing industry. The acquired assets will be integrated with our existing resident utility management platform. Aggregate purchase consideration was $8.5 million, including deferred cash obligations of up to $1.0 million, and deferred stock obligations of up to $1.0 million. The $2.0 million of deferred obligations are subject to indemnification claims as well as continued employment of certain BluTrend employees and will be released on the first and second anniversary dates of the closing date. The deferred obligations will be recognized as compensation expense over the two-year period after the acquisition date. The acquisition was financed using cash on hand.

The acquired identifiable intangible assets consisted of client relationships, developed technology and trade names and were assigned estimated useful lives of ten, five and two years, respectively. Preliminary goodwill recognized of $3.9 million is primarily comprised of anticipated synergies from integrating the BluTrend business into our utility management platform. Goodwill and the acquired identified intangible assets are deductible for tax purposes. Acquisition costs associated with this transaction totaled $0.1 million.

ClickPay

In April 2018, we acquired substantially all of the outstanding membership units of NovelPay, LLC ("NovelPay"), other than those owned by ClickPay Services, Inc. On the same day, we acquired all of the outstanding stock of ClickPay Services, Inc. (collectively with NovelPay, "ClickPay"). ClickPay provides an electronic payment platform servicing resident units across multiple segments of real estate, which offers integrated payment services to increase operational efficiencies for property owners and managers. The acquisition of ClickPay broadens our presence in the real estate industry, and solidifies the integration of our leasing platform with third-party property management systems.

We acquired ClickPay for purchase consideration of $221.1 million. The purchase consideration consisted of $139.0 million of cash, net of cash acquired of $7.5 million, the issuance of 870,168 shares of our common stock valued at $48.0 million, a deferred obligation of up to $10.2 million, and a liability of $24.7 million related to put and call option agreements, which had a fair value of $24.4 million on the date of acquisition. Approximately 187,480 shares of common stock issued at closing are subject to a holdback and subject to any indemnification claims made, will be released on the first anniversary date of the closing date. The deferred obligation requires us to issue shares of our common stock with a fair value of $9.8 million on the second anniversary date of the closing date. The acquisition of ClickPay was financed using funds available under our Credit Facility, as defined in Note 8, and cash on hand.

Pursuant to the acquisition agreement, certain holders initially retained units representing approximately 12% of the membership units of NovelPay, subject to put rights that could be exercised by the holders on or after September 1, 2018, and call rights that could be exercised by us on or after October 1, 2018. The exercise price of the put and call rights was the same

as the per unit price of the membership units purchased at the closing. We evaluated the put and call options and determined the put and call options were embedded within the noncontrolling interests, and the economic substance represented a financing arrangement of the noncontrolling interests because of the substantially fixed exercise price and stated exercise dates. In June 2018, we and one of the remaining NovelPay noncontrolling interest holders agreed to waive the put and call exercise date, and we completed the purchase of such holder's membership units for 395,206 shares of common stock valued at $21.8 million. In September 2018, the remaining NovelPay noncontrolling interest holders exercised their put rights, and we completed the purchase of the noncontrolling interest holders' membership units for $2.9 million in cash. As of December 31, 2018, all outstanding membership units of NovelPay have been acquired. No earnings were attributed to the noncontrolling interests in the accompanying Consolidated Statements of Operations.

The acquired identified intangible assets consisted of developed technology, client relationships, and trade names. These intangible assets were assigned estimated useful lives of seven, ten and ten years, respectively. Preliminary goodwill recognized of $173.3 million is primarily comprised of anticipated synergies from leveraging ClickPay's electronic payment platform, which is compatible with multiple third-party property management systems. Goodwill of $102.4 million arising from the acquisition of NovelPay is deductible for tax purposes; goodwill arising from the acquisition of ClickPay Services, Inc. is not. Accounts receivable acquired had a gross contractual value of $2.7 million at acquisition, of which $0.5 million was estimated to be uncollectible. Acquisition costs associated with this transaction totaled $1.6 million.

Purchase Consideration and Purchase Price Allocations

The estimated fair values of assets acquired and liabilities assumed are provisional and are based primarily on the information available as of each respective acquisition date. We believe this information provides a reasonable basis for estimating the fair values of assets acquired and liabilities assumed, but we are awaiting additional information necessary to finalize those values. Therefore, the provisional measurements of fair value are subject to change, and such changes could be significant. We expect to finalize the valuation of these assets and liabilities as soon as practicable, but no later than one year from each respective acquisition date. The components of the purchase consideration and the preliminary allocation of each purchase price, including the effects of measurement period adjustments recorded as of December 31, 2018, are as follows:

	ClickPay	BluTrend	LeaseLabs	Rentlytics
	(in thousands)			
Fair value of purchase consideration:				
Cash, net of cash acquired	$ 138,983	$ 8,500	$ 84,498	$ 47,895
Common stock issued at closing	48,034	—	5,300	—
Deferred obligations, net	9,677	—	16,094	7,517
Noncontrolling interest financing	24,369	—	—	—
Contingent consideration	—	—	7,000	—
Total fair value of purchase consideration	$ 221,063	$ 8,500	$ 112,892	$ 55,412
Fair value of net assets acquired:				
Restricted cash	$ 1,313	$ —	$ —	$ —
Accounts receivable	2,226	226	2,853	1,585
Property, equipment, and software	89	—	865	—
Deferred tax asset, net	—	—	—	988
Intangible assets:				
Developed product technologies	29,100	730	8,300	3,300
Client relationships	20,700	3,510	17,800	8,500
Trade names	2,900	30	1,100	400
Goodwill	173,250	3,887	84,674	42,351
Other assets	362	122	321	401
Accounts payable and accrued liabilities	(2,698)	(5)	(696)	(763)
Client deposits held in restricted accounts	(1,313)	—	—	—
Deferred revenue	—	—	(2,325)	(1,350)
Deferred tax liability, net	(4,866)	—	—	—
Total fair value of net assets acquired	$ 221,063	$ 8,500	$ 112,892	$ 55,412

Acquisitions Prior to 2018

We completed eight acquisitions during fiscal years 2017 and 2016. A summary of each acquisition can be found in the table below:

	Date of Acquisition	Aggregate Purchase Price	Closing Cash Payment, Net of Cash Acquired	Net Tangible Assets Acquired (Liabilities Assumed)	Identified Intangible Assets	Goodwill Recognized
				(in thousands)		
NWP Services Corporation	March 2016	$ 68,183	$ 62,190	$ 18,314	$ 16,349	$ 33,520
AssetEye, Inc.	May 2016	$ 4,911	$ 3,749	$ (928)	$ 2,685	$ 3,154
eSupply Systems, LLC	June 2016	$ 7,046	$ 5,461	$ 267	$ 3,585	$ 3,194
Axiometrics LLC	January 2017	$ 73,757	$ 66,050	$ (5,963)	$ 25,530	$ 54,190
American Utility Management	June 2017	$ 69,412	$ 64,775	$ 1,107	$ 22,398	$ 45,907
On-Site Manager, Inc.	September 2017	$ 251,109	$ 225,300	$ 3,197	$ 65,320	$ 182,592
PEX Software Limited	October 2017	$ 6,031	$ 5,103	$ (369)	$ 3,100	$ 3,300
Lease Rent Options	December 2017	$ 299,923	$ 298,040	$ 5,263	$ 91,666	$ 202,994

Purchase consideration for Axiometrics included contingent consideration of up to $5.0 million payable if certain revenue targets were achieved during the twelve-month period ending December 31, 2018. Based on information that was available at December 31, 2018, management has determined the fair value of the contingent consideration to be zero. Refer to Note 13 for additional information regarding our contingent consideration liabilities.

Deferred Obligations and Contingent Consideration Activity

The following table presents changes in our deferred cash and stock obligations and contingent consideration for the fiscal years ended December 31, 2018 and 2017:

	Deferred Cash and Stock Obligations	Contingent Consideration	Total
		(in thousands)	
Balance at January 1, 2017	$ 14,150	$ 541	$ 14,691
Additions, net of fair value discount	42,104	812	42,916
Cash payments	(8,215)	(700)	(8,915)
Accretion expense	1,049	—	1,049
Change in fair value	—	(239)	(239)
Indemnification claims and other adjustments	(2,072)	—	(2,072)
Balance at December 31, 2017	47,016	414	47,430
Additions, net of fair value discount	36,313	7,000	43,313
Cash payments	(29,600)	(247)	(29,847)
Accretion expense	1,970	—	1,970
Change in fair value	—	(1,167)	(1,167)
Indemnification claims and other adjustments	(3,557)	—	(3,557)
Balance at December 31, 2018	$ 52,142	$ 6,000	$ 58,142

Pro Forma Results of Acquisitions

The following table presents unaudited pro forma results of operations for the years ended December 31, 2018 and 2017, as if the aforementioned 2018 and 2017 acquisitions had occurred as of January 1, 2017 and January 1, 2016, respectively. The pro forma information includes the business combination accounting effects resulting from these acquisitions, including interest expense, tax expense or benefit, issuance of our common shares, and additional amortization resulting from the valuation of amortizable intangible assets. We prepared the pro forma financial information for the combined entities for comparative purposes only, and it is not indicative of what actual results would have been if the acquisitions had occurred at the beginning of the periods presented, or of future results.

	Year Ended December 31,	
	2018 Pro Forma	2017 Pro Forma
	(unaudited)	
	(in thousands, except per share amounts)	
Total revenue	$ 899,966	$ 809,987
Net income (loss)	$ 27,969	$ (14,210)
Net income (loss) per share:		
Basic	$ 0.32	$ (0.18)
Diluted	$ 0.30	$ (0.18)

4. Revenue Recognition

On January 1, 2018, we adopted the new revenue standard using the modified retrospective method for those contracts with remaining service obligations as of January 1, 2018. Results for reporting periods beginning after January 1, 2018 are presented under the new revenue standard, while prior period amounts are not adjusted and continue to be reported under the accounting standards in effect for the prior period.

We recorded a net increase to opening equity of $2.2 million as of January 1, 2018 as the cumulative effect of adopting the new revenue standard. The effect on revenues of adopting the new revenue standard for the fiscal year ended December 31, 2018 is presented in the "Impact on Consolidated Financial Statements" section below.

Disaggregation of Revenue

The following table presents our revenues disaggregated by major revenue source. Sales and usage-based taxes are excluded from revenues.

	Year Ended December 31,		
	2018	2017	2016
	(in thousands)		
On demand			
Property management	$ 186,975	$ 167,002	$ 152,890
Resident services	350,457	272,176	218,097
Leasing and marketing	166,361	123,804	116,505
Asset optimization	129,916	79,640	55,039
Total on demand revenue	833,709	642,622	542,531
Professional and other	35,771	28,341	25,597
Total revenue	$ 869,480	$ 670,963	$ 568,128

On Demand Revenue

We generate the majority of our on demand revenue by licensing software-as-a-service ("SaaS") solutions to our clients on a subscription basis. Our SaaS solutions are provided pursuant to contractual commitments that typically include a promise that we will stand ready, on a monthly basis, to deliver access to our technology platform over defined service delivery periods. These solutions represent a series of distinct services that are substantially the same and have the same pattern of transfer to the client. Revenue from our SaaS solutions is generally recognized ratably over the term of the arrangement.

Consideration for our on demand subscription services consist of fixed, variable and usage-based fees. We invoice a portion of our fees at the initial order date and then monthly or annually thereafter. Subscription fees are generally fixed based on the number of sites and the level of services selected by the client.

We sell certain usage-based services, primarily within our property management, resident services and leasing and marketing solutions, to clients based on a fixed rate per transaction. Revenues are calculated based on the number of transactions processed monthly and will vary from month to month based on actual usage of these transaction-based services over the contract term, which is typically one year in duration. The fees for usage-based services are not associated with every distinct service promised in the series of distinct services we provide our clients. As a result, we allocate variable usage-based fees only to the related transactions and recognize them in the month that usage occurs.

As part of our resident services offerings, we offer risk mitigation services to our clients by acting as an insurance agent and derive commission revenue from the sale of insurance products to our clients' residents. The commissions are based upon a percentage of the premium that the insurance company underwriting partners charge to the policyholder and are subject to forfeiture in instances where a policyholder cancels prior to the end of the policy. The overall insurance services we provide represent a single performance obligation that qualifies as a separate series in accordance with the new revenue standard. Our contracts with our underwriting partners also provide for contingent commissions to be paid to us in accordance with the agreements. The contingent commissions are not associated with every distinct service promised in the series of distinct insurance services we provide. We generally accrue and recognize contingent commissions monthly based on estimates of the variable factors identified in the terms of the applicable agreements.

Professional Services and Other Revenues

Professional services and other revenues generally consist of the fees we receive for providing implementation and consulting services, submeter equipment and ongoing maintenance of our existing on premise licenses.

Professional services revenues primarily consist of fees for implementation services, consulting services and training. Professional services are billed either on a fixed rate per hour (time) and materials basis or on a fixed price basis. Professional services are typically sold bundled in a contract with other on demand solutions but may be sold separately. For bundled arrangements, we allocate the transaction price to separate services based on their relative standalone selling prices if a service is separately identifiable from other items in the bundled arrangement and if a client can benefit from it on its own or with other resources readily available to the client.

Other revenues consist of submeter equipment sales that include related installation services, sales of other equipment and on premise software sales. Submeter hardware and installation services are considered to be part of a single performance obligation due to the significance of the integration and interdependency of the installation services with the meter equipment. Our typical payment terms for submeter installations require a percentage of the overall transaction price to be paid upfront, with the remainder billed as progress payments. We recognize submeter revenue in proportion to the number of fully installed units completed to date as compared to the total contracted number of units to be provided and installed. For all other equipment sales, we generally recognize revenue when control of the hardware has transferred to our client, which occurs at a point in time, typically upon delivery to the client.

The majority of on premise revenue consists of maintenance renewals from clients who renew for an additional one-year term. Maintenance renewal revenue is recognized ratably over the service period based upon the standalone selling price of that service obligation.

Contract Balances

Contract assets generally consist of amounts recognized as revenue before they can be invoiced to clients or amounts invoiced to clients prior to the period in which the service is provided where the right to payment is subject to conditions other than just the passage of time. These contract assets are included in "Accounts receivable" in the accompanying Consolidated Financial Statements and related disclosures. Contract liabilities are comprised of billings or payments received from our clients in advance of performance under the contract. We refer to these contract liabilities as "Deferred revenue" in the accompanying Consolidated Financial Statements and related disclosures. We recognized $113.7 million of on demand revenue during the year ended December 31, 2018, which was included in the line "Deferred revenue" in the accompanying Consolidated Balance Sheets as of the beginning of the period.

Contract Acquisition Costs

We capitalize certain commissions as incremental costs of obtaining a contract with a client if we expect to recover those costs. The commissions are capitalized and amortized over a period of benefit determined to be three years. As of December 31, 2018, the current and noncurrent balances of capitalized commissions costs recorded in the lines "Other current assets" and "Other assets" in the accompanying Consolidated Balance Sheets were $6.7 million and $7.8 million, respectively. During the year ended December 31, 2018, we amortized commission costs totaling $5.4 million. No impairment loss was recognized in relation to these capitalized costs.

Remaining Performance Obligations

Certain clients commit to purchase our solutions for terms ranging from two to seven years. We expect to recognize approximately $414.7 million of revenue in the future related to performance obligations for on demand contracts with an original duration greater than one year that were unsatisfied or partially unsatisfied as of December 31, 2018. Our estimate does not include amounts related to:

- professional and usage-based services that are billed and recognized based on services performed in a certain period;
- amounts attributable to unexercised contract renewals that represent a material right; or
- amounts attributable to unexercised client options to purchase services that do not represent a material right.

We expect to recognize revenue on approximately 68.8% of the remaining performance obligations over the next 24 months, with the remainder recognized thereafter. Revenue from remaining performance obligations for professional service contracts as of December 31, 2018 was immaterial.

Impact on Consolidated Financial Statements

The following tables summarize the effects of the adoption of ASU 2014-09 on selected line items within our Consolidated Statements of Operations and Balance Sheets:

	Year Ended December 31, 2018		
	As reported	Balances without adoption of ASU 2014-09	Effect of Change on Net Income Higher/(Lower)
		(in thousands)	
Revenue			
On demand	$ 833,709	$ 835,465	$ (1,756)
Professional and other	35,771	32,886	2,885
Total revenue	$ 869,480	$ 868,351	$ 1,129
Operating expenses			
Sales and marketing	$ 166,607	$ 174,578	$ 7,971
Net income before income taxes	$ 34,300	$ 25,200	$ 9,100
Income tax expense (benefit)	(425)	(2,608)	(2,183)
Net income	$ 34,725	$ 27,808	$ 6,917

	Balances at December 31, 2018 - as reported	Balances at December 31, 2018 without adoption of ASU 2014-09	Effect of Change Higher/(Lower)
		(in thousands)	
Assets			
Accounts receivable, less allowances	$ 123,596	$ 130,742	$ (7,146)
Other current assets	$ 15,185	$ 8,198	$ 6,987
Other assets	$ 20,393	$ 12,114	$ 8,279
Liabilities			
Current portion of deferred revenue	$ 120,704	$ 125,078	$ (4,374)
Deferred revenue	$ 4,902	$ 4,902	$ —

The adoption of ASU 2014-09 had no net effect on the Consolidated Statements of Cash Flows for the year ended December 31, 2018.

5. Accounts Receivable

Accounts receivable consisted of the following at December 31, 2018 and 2017:

	December 31,	
	2018	2017
	(in thousands)	
Trade receivables from clients	$ 120,767	$ 115,354
Insurance commissions receivable	11,679	13,102
Accounts receivable, gross	132,446	128,456
Less: Allowances	(8,850)	(3,951)
Accounts receivable, net	$ 123,596	$ 124,505

Trade receivables include amounts billed to our clients, primarily under our on demand subscription solutions. Trade receivables also includes amounts invoiced to clients prior to the period in which the service is provided and amounts for which we have met the requirements to recognize revenue in advance of invoicing the client. Insurance commissions receivable consists of commissions derived from the sale of insurance products to individuals and contingent commissions related to those policies. Contingent commissions are determined based on a calculation that considers earned agent commissions, a percent of premium retained by our underwriting partner, incurred losses, and profit retained by our underwriting partner during the time period. Contingent commissions receivables are recorded at their estimated net realizable value, based on estimates and considerations which include, but are not limited to, the historical and projected loss rates incurred by the underlying policies.

6. Property, Equipment, and Software

Property, equipment, and software consisted of the following at December 31, 2018 and 2017:

	December 31,	
	2018	2017
	(in thousands)	
Leasehold improvements	$ 63,391	$ 59,179
Data processing and communications equipment	68,015	83,922
Furniture, fixtures, and other equipment	33,840	28,752
Software	131,437	107,924
Property, equipment, and software, gross	296,683	279,777
Less: Accumulated depreciation and amortization	(143,155)	(131,349)
Property, equipment, and software, net	$ 153,528	$ 148,428

Depreciation and amortization expense for property, equipment, and purchased software was $28.5 million, $27.2 million, and $24.5 million for the years ended December 31, 2018, 2017, and 2016, respectively.

The unamortized amount of capitalized software development costs was $54.9 million and $45.5 million at December 31, 2018 and 2017, respectively. Amortization expense related to capitalized software development costs totaled $11.9 million, $8.0 million, and $5.8 million during the years ended December 31, 2018, 2017, and 2016, respectively.

7. Goodwill and Identified Intangible Assets

Changes in the carrying amount of goodwill during the years ended December 31, 2018 and 2017, were as follows, in thousands:

Balance at January 1, 2017	$ 259,938
Goodwill acquired	491,079
Measurement period and other adjustments	35
Balance at December 31, 2017	751,052
Goodwill acquired	304,162
Measurement period and other adjustments	(2,095)
Balance at December 31, 2018	$ 1,053,119

We completed our annual goodwill impairment test during the fourth quarter of the fiscal year ended December 31, 2018. Based on the results of the quantitative analysis, we concluded that there was no impairment of goodwill. In 2017 or 2016, we performed qualitative assessments which did not result in the impairment of goodwill.

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

	December 31, 2018			December 31, 2017		
	Carrying Amount	Accumulated Amortization	Net	Carrying Amount	Accumulated Amortization	Net
	(in thousands)					
Finite-lived intangible assets:						
Developed technologies	$ 207,310	$ (100,445)	$ 106,865	$ 164,640	$ (76,577)	$ 88,063
Client relationships	264,228	(107,155)	157,073	213,728	(78,390)	135,338
Vendor relationships	5,650	(5,650)	—	5,650	(5,650)	—
Trade names	22,956	(10,682)	12,274	17,556	(4,325)	13,231
Non-compete agreements	4,173	(1,395)	2,778	4,173	(605)	3,568
Total finite-lived intangible assets	504,317	(225,327)	278,990	405,747	(165,547)	240,200
Indefinite-lived intangible assets:						
Trade names	8,388	—	8,388	12,137	—	12,137
Total intangible assets	$ 512,705	$ (225,327)	$ 287,378	$ 417,884	$ (165,547)	$ 252,337

Amortization expense for finite-lived intangible assets totaled $59.8 million, $31.9 million, and $24.5 million during the years ended December 31, 2018, 2017, and 2016, respectively.

The following table sets forth the estimated amortization of intangible assets for the years ending December 31, in thousands:

2019	$ 61,916
2020	52,679
2021	45,446
2022	35,686
2023	28,553

In the fourth quarter of 2018, we recorded an impairment charge of $2.7 million related to the indefinite-lived trade name of our 2010 acquisition of Level One, based on the excess of the carrying value over its estimated fair value. Fair value was estimated using standard valuation methodologies (principally the income and market approach) incorporating market participant considerations and management's assumptions on revenue growth rates, royalty rates and discount rates. The key factor contributing to the impairment was a change in our long-term marketing strategy for this product offering, which included a shift away from the use of a separate Level One branding and towards a RealPage Contact Center branding. The remaining balance of $1.0 million was reclassified to finite-lived intangible assets as of December 31, 2018 and will be amortized over its estimated remaining useful life of five years. The method utilized to estimate the fair value incorporated significant unobservable inputs, and we concluded that the measurement should be classified within Level 3 of the fair value hierarchy.

In 2016, we sold certain assets associated with our senior living referral services and recorded an impairment of the associated trade name of $0.8 million in connection with the disposition.

These impairment charges are included in "Sales and marketing" in the accompanying Consolidated Statements of Operations.

8. Debt

On September 30, 2014, we entered into an agreement for a secured credit facility. The credit facility agreement was subsequently amended during 2016 and 2017, and was further amended in March 2018 (inclusive of these amendments, the "Credit Facility"). We incurred debt issuance costs in the amount of $1.1 million related to the execution of the March 2018 amendment. The Credit Facility matures on February 27, 2022, and includes the following:

Revolving Facility: The Credit Facility provides $350.0 million in aggregate commitments for revolving loans, with sublimits of $10.0 million for the issuance of letters of credit and $20.0 million for swingline loans ("Revolving Facility").

Term Loan: In February 2016, we originated a term loan in the original principal amount of $125.0 million under the Credit Facility ("Term Loan"). We made quarterly principal payments of $0.8 million through March 31, 2018, that increased to $1.5 million beginning on June 30, 2018, and that will increase again to $3.1 million beginning on June 30, 2020.

Delayed Draw Term Loan: In December 2017, we drew funds of $200.0 million available under the delayed draw term loan ("Delayed Draw Term Loan"). We made quarterly principal payments of $1.3 million through March 31, 2018, that increased to $2.5 million beginning on June 30, 2018, and that will increase again to $5.0 million beginning on June 30, 2020.

Revolving loans under the Credit Facility may be voluntarily prepaid and re-borrowed. Principal payments on the Term Loan and Delayed Draw Term Loan (collectively, the "Term Loans") are due in quarterly installments, as described above, and may not be re-borrowed. All outstanding principal and accrued but unpaid interest is due on the maturity date. The Term Loans are subject to mandatory repayment requirements in the event of certain asset sales or if certain insurance or condemnation events occur, subject to customary reinvestment provisions. We may prepay the Term Loans in whole or in part at any time, without premium or penalty.

Accordion Feature: The Credit Facility also allows us, subject to certain conditions, to request additional term loans or revolving commitments up to an aggregate principal amount of $150.0 million, plus an amount that would not cause our Senior Leverage Ratio, as defined below, to exceed 3.50 to 1.00 (the "Accordion Feature").

At our option, amounts outstanding under the Credit Facility accrue interest at a per annum rate equal to either LIBOR, plus a margin ranging from 1.25% to 2.25%, or the Base Rate, plus a margin ranging from 0.25% to 1.25% ("Applicable Margin"). The base LIBOR is, at our discretion, equal to either one, two, three, or six month LIBOR. The Base Rate is defined as the greater of Wells Fargo's prime rate, the Federal Funds Rate plus 0.50%, or one month LIBOR plus 1.00%. In each case, the Applicable Margin is determined based upon our Net Leverage Ratio, as defined below. Accrued interest on amounts outstanding under the Credit Facility is due and payable quarterly, in arrears, for loans bearing interest as the Base Rate and at the end of the applicable interest period in the case of loans bearing interest at the adjusted LIBOR.

Certain of our existing and future material domestic subsidiaries are required to guarantee our obligations under the Credit Facility, and the obligations under the Credit Facility are secured by substantially all of our assets and the assets of the subsidiary guarantors. The Credit Facility contains customary covenants, subject in each case to customary exceptions and qualifications, which limit our and certain of our subsidiaries' ability to, among other things, incur additional indebtedness or guarantee indebtedness of others; grant liens on our assets; enter into mergers or consolidations; dispose of assets; prepay certain indebtedness; make changes to our governing documents and certain of our agreements; pay dividends and make other distributions on our capital stock and redeem and repurchase our capital stock; make investments, including acquisitions; and enter into transactions with affiliates. Our covenants also include requirements that we comply with the following financial covenants:

Consolidated Net Leverage Ratio: The Consolidated Net Leverage Ratio ("Net Leverage Ratio"), defined as a ratio of consolidated funded indebtedness, as defined in the Credit Facility, on the last day of each fiscal quarter to the sum of the four previous consecutive fiscal quarters' consolidated EBITDA, as defined in the Credit Facility, of 5.00 to 1.00.

Consolidated Interest Coverage Ratio: The Consolidated Interest Coverage Ratio ("Interest Coverage Ratio"), defined as a ratio of the four previous fiscal quarters' consolidated EBITDA to our interest expense for the same period, excluding non-cash interest attributable to the Convertible Notes, as defined below, of 3.00 to 1.00.

Consolidated Senior Secured Net Leverage Ratio: The Consolidated Senior Secured Net Leverage Ratio ("Senior Leverage Ratio"), defined as a ratio of consolidated senior secured indebtedness, as defined in the Credit Facility, on the last day of each fiscal quarter to the four previous consecutive fiscal quarters' consolidated EBITDA, of 3.75 to 1.00.

As of December 31, 2018, we were in compliance with the covenants under our Credit Facility.

The Credit Facility contains customary events of default, subject to customary cure periods for certain defaults. In the event of a default, the obligations under the Credit Facility could be accelerated, the applicable interest rate could be increased, the loan commitments could be terminated, our subsidiary guarantors could be required to pay the obligations in full and our lenders would be permitted to exercise remedies with respect to all of the collateral that is securing the Credit Facility. Any such default that is not cured or waived could have a material adverse effect on our liquidity and financial condition.

As of December 31, 2018, we had $350.0 million of available credit under our Revolving Facility and there were no outstanding borrowings. Principal outstanding for the Revolving Facility was $50.0 million at December 31, 2017. We incur commitment fees on the unused portion of the Revolving Facility. The carrying value of the Revolving Facility approximates its fair value.

Unamortized debt issuance costs for the Revolving Facility were $1.3 million and $0.6 million at December 31, 2018 and 2017, respectively, and are included in the line "Other assets" in the Consolidated Balance Sheets.

Principal outstanding, and unamortized debt issuance costs for the Term Loans, were as follows at December 31, 2018 and 2017:

	December 31, 2018		December 31, 2017	
	Term Loan	Delayed Draw Term Loan	Term Loan	Delayed Draw Term Loan
	(in thousands)			
Principal outstanding	$ 114,990	$ 190,000	$ 120,356	$ 198,750
Unamortized issuance costs	(171)	(606)	(233)	(821)
Unamortized discount	(137)	(361)	(185)	(490)
Carrying value	$ 114,682	$ 189,033	$ 119,938	$ 197,439

The fair value of the Term Loans on December 31, 2018 and 2017 was $298.9 million and $303.8 million, respectively. The fair value was estimated by discounting future cash flows using prevailing market interest rates on debt with similar creditworthiness, terms, and maturities. We concluded that this fair value measurement should be categorized within Level 2.

Future maturities of principal under the Term Loans are as follows for the years ending December 31, in thousands:

	Term Loans
2019	$ 16,133
2020	28,232
2021	32,266
2022	228,359
	$ 304,990

Convertible Notes

In May 2017, we issued convertible senior notes with aggregate principal of $345.0 million (including the underwriters' exercise in full of their over-allotment option of $45.0 million) which mature on November 15, 2022 ("Convertible Notes"). The Convertible Notes were issued under an indenture dated May 23, 2017 ("Indenture"), by and between us and Wells Fargo Bank, N.A., as Trustee. We received net proceeds from the offering of approximately $304.2 million after adjusting for debt issuance costs, including the underwriting discount, the net cash used to purchase the Note Hedges and the proceeds from the issuance of the Warrants which are discussed below.

The Convertible Notes accrue interest at a rate of 1.50%, payable semi-annually on May 15 and November 15 of each year. On or after May 15, 2022, and until the close of business on the second scheduled trading day immediately preceding the maturity date, holders may convert their Convertible Notes at their option. The Convertible Notes are convertible at an initial rate of 23.84 shares per $1,000 of principal (equivalent to an initial conversion price of approximately $41.95 per share of our common stock). The conversion rate is subject to customary adjustments for certain events as described in the Indenture. Upon conversion, we will pay or deliver, as the case may be, cash, shares of our common stock or a combination of cash and shares of our common stock, at our election. It is our current intent to settle conversions of the Convertible Notes through combination settlement, which involves repayment of the principal portion in cash and any excess of the conversion value over the principal amount in shares of our common stock. Based on our closing stock price of $48.19 on December 31, 2018, the if-converted value exceeded the aggregate principal amount of the Convertible Notes by $51.3 million.

Holders may convert their Convertible Notes, at their option, prior to May 15, 2022 only under the following circumstances:

- during any calendar quarter commencing after the calendar quarter ending on June 30, 2017 (and only during such calendar quarter), if the last reported sale price of our common stock for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on, and including, the last trading day of the immediately preceding calendar quarter is greater than or equal to 130% of the conversion price on each applicable trading day;
- during the five business day period after any five consecutive trading day period (the "Measurement Period") in which the trading price per $1,000 principal amount of the Convertible Notes for each trading day of the Measurement Period was less than 98% of the product of the last reported sales price of our common stock and the conversion rate on each such trading day; or
- upon the occurrence of specified corporate events, as defined in the Indenture.

We may not redeem the Convertible Notes prior to their maturity date, and no sinking fund is provided for them. If we undergo a fundamental change, as described in the Indenture, subject to certain conditions, holders may require us to repurchase for cash all or any portion of their Convertible Notes. The fundamental change repurchase price is equal to 100% of the principal amount of the Convertible Notes to be repurchased, plus accrued and unpaid interest up to, but excluding, the fundamental change repurchase date. If holders elect to convert their Convertible Notes in connection with a make-whole fundamental change, as described in the Indenture, we will, to the extent provided in the Indenture, increase the conversion rate applicable to the Convertible Notes.

The Convertible Notes are senior unsecured obligations and rank senior in right of payment to any of our indebtedness that is expressly subordinated in right of payment to the Convertible Notes and equal in right of payment to any of our existing and future unsecured indebtedness that is not subordinated. The Convertible Notes are effectively junior in right of payment to any of our secured indebtedness (to the extent of the value of assets securing such indebtedness) and structurally junior to all existing and future indebtedness and other liabilities, including trade payables, of our subsidiaries. The Indenture does not limit the amount of debt that we or our subsidiaries may incur. The Convertible Notes are not guaranteed by any of our subsidiaries.

The Indenture does not contain any financial or operating covenants or restrictions on the payment of dividends, the incurrence of indebtedness, or the issuance or repurchase of securities by us or any of our subsidiaries. The Indenture contains customary events of default with respect to the Convertible Notes and provides that upon certain events of default occurring and continuing, the Trustee may, and the Trustee at the request of holders of at least 25% in principal amount of the Convertible Notes shall, declare all principal and accrued and unpaid interest, if any, of the Convertible Notes to be due and payable. In case of certain events of bankruptcy, insolvency or reorganization, involving us or a significant subsidiary, all of the principal of and accrued and unpaid interest on the Convertible Notes will automatically become due and payable.

In accounting for the issuance of the Convertible Notes, we separated the Convertible Notes into liability and equity components. We allocated $282.5 million of the Convertible Notes to the liability component, and $62.5 million to the equity component. The excess of the principal amount of the liability component over its carrying amount is amortized to interest expense over the term of the Convertible Notes using the effective interest method. The equity component will not be remeasured as long as it continues to meet the conditions for equity classification.

We incurred issuance costs of $9.8 million related to the Convertible Notes. Issuance costs were allocated to the liability and equity components based on their relative values. Issuance costs attributable to the liability component are being amortized to interest expense over the term of the Convertible Notes, and issuance costs attributable to the equity component are included along with the equity component in stockholders' equity.

The net carrying amount of the Convertible Notes at December 31, 2018 and 2017, was as follows:

	December 31,	
	2018	2017
	(in thousands)	
Liability component:		
Principal amount	$ 345,000	$ 345,000
Unamortized discount	(46,235)	(56,557)
Unamortized debt issuance costs	(5,922)	(7,244)
	$ 292,843	$ 281,199
Equity component, net of issuance costs and deferred tax:	$ 61,390	$ 61,390

The estimated fair value of the Convertible Notes at December 31, 2018 and 2017 was $441.4 million and $430.3 million, respectively. The estimated fair value is based on quoted market prices as of the last trading day of the year; however, the Convertible Notes have only a limited trading volume and as such this fair value estimate is not necessarily the value at which the Convertible Notes could be retired or transferred. We concluded this measurement should be classified within Level 2.

The following table sets forth total interest expense related to the Convertible Notes for the year ended December 31, 2018 and 2017:

	December 31,	
	2018	2017
	(in thousands)	
Contractual interest expense	$ 5,175	$ 3,119
Amortization of debt discount	10,322	5,991
Amortization of debt issuance costs	1,322	766
	$ 16,819	$ 9,876

The effective interest rate of the liability component for the year ended December 31, 2018 and 2017 was 5.87%.

Convertible Note Hedges and Warrants

On May 23, 2017, we entered into privately negotiated transactions to purchase hedge instruments ("Note Hedges"), covering approximately 8.2 million shares of our common stock at a cost of $62.5 million. The Note Hedges are subject to anti-dilution provisions substantially similar to those of the Convertible Notes, have a strike price of approximately $41.95 per share, are exercisable by us upon any conversion under the Convertible Notes, and expire on November 15, 2022.

The Note Hedges are generally expected to reduce the potential dilution to our common stock (or, in the event the conversion is settled in cash, to reduce our cash payment obligation) in the event that at the time of conversion our stock price exceeds the conversion price under the Convertible Notes. The cost of the Note Hedges is expected to be tax deductible as an original issue discount over the life of the Convertible Notes, as the Convertible Notes and the Note Hedges represent an integrated debt instrument for tax purposes. The cost of the Note Hedges was recorded as a reduction of our additional paid-in capital in the accompanying Consolidated Financial Statements.

On May 23, 2017, we also sold warrants for the purchase of up to 8.2 million shares of our common stock for aggregate proceeds of $31.5 million ("Warrants"). The Warrants have a strike price of $57.58 per share and are subject to customary anti-dilution provisions. The Warrants will expire in ratable portions on a series of expiration dates commencing on February 15, 2023. The proceeds from the issuance of the Warrants were recorded as an increase to our additional paid-in capital in the accompanying Consolidated Financial Statements.

The Note Hedges are transactions that are separate from the terms of the Convertible Notes and the Warrants, and holders of the Convertible Notes and the Warrants have no rights with respect to the Note Hedges. The Warrants are similarly separate in both terms and rights from the Note Hedges and the Convertible Notes.

9. Stock-based Expense and Employee Benefits

Stock-based Expense

Our Amended and Restated 1998 Stock Incentive Plan ("Stock Incentive Plan") provided for awards which could be granted in the form of incentive stock options, non-qualified stock options, restricted stock, stock appreciation rights, and performance restricted stock. In August 2010, we discontinued issuance of new awards under the Stock Incentive Plan and concurrently adopted the 2010 Equity Incentive Plan ("Equity Incentive Plan"). The Equity Incentive Plan, as amended, provides for awards which may be granted in the form of incentive stock options, non-statutory stock options, restricted stock, restricted stock units, stock appreciation rights, performance units, and performance shares under substantially the same terms as the Stock Incentive Plan.

We also grant awards to our directors under the Equity Incentive Plan. Prior to 2010, these awards were generally in the form of stock options. Beginning in 2010, the awards granted to our directors are generally in the form of restricted stock. The awards granted to directors generally vest ratably over a period of four quarters; however, should a director leave the board, we have the right to repurchase shares as if the awards vested on a pro rata basis.

Our board of directors periodically approves increases to the number of shares of common stock reserved for issuance under the Equity Incentive Plan. At both December 31, 2018 and 2017, there were 27,634,259 shares of our common stock reserved for awards under the Equity Incentive Plan. The Plan permits the exercise of stock options and grants of restricted stock to be fulfilled through the issuance of previously authorized but unissued common stock shares, or the reissuance of

shares held in treasury. Beginning in March 2017, we began to primarily utilize treasury shares when stock options are exercised or restricted stock is granted. Prior to that point, we generally utilized unissued common stock shares to satisfy these items.

The following table represents a consolidated summary of our stock-based plan activity:

	Year Ended December 31,		
	2018	2017	2016
	(in thousands)		
Total compensation expense recognized	$ 50,641	$ 45,835	$ 36,852
Cash proceeds related to stock-based expense transactions	$ 13,163	$ 27,014	$ 28,490
Aggregate grant-date fair value of shares and stock options that vested during the year	$ 49,711	$ 48,662	$ 28,624

Total unrecognized compensation expense related to our stock-based expense plans was $73.8 million at December 31, 2018, and is expected to be recognized over a weighted average period of 1.9 years.

Stock Option Awards

Stock options granted prior to February 2014 generally vested over a period of sixteen quarters, with 75% vesting ratably over fifteen quarters and the remaining 25% vesting in the sixteenth quarter. Beginning in February 2014, stock options granted generally vested ratably over a period of twelve quarters. Expense is recognized over the requisite service period in a manner that reflects the vesting of the related awards. Awards under the plan generally expire ten years from the date of the grant. All outstanding options were granted at exercise prices equal to or exceeding our estimate of the fair market value of our common stock at the date of grant.

The following table summarizes stock option transactions under our Stock Incentive Plan and Equity Incentive Plan:

	Number of Shares	Range of Exercise Prices	Weighted Average Exercise Price
Balance as of January 1, 2016	5,801,873	$ 0.91 – $ 29.50	$ 19.43
Exercised	(1,568,699)	1.68 – 27.18	18.16
Forfeited/cancelled	(625,431)	4.28 – 29.50	21.77
Expired	(654)	0.91 – 0.91	0.91
Balance at December 31, 2016	3,607,089	2.55 – 29.50	19.58
Exercised	(1,344,569)	5.04 – 29.50	20.09
Forfeited/cancelled	(61,892)	15.19 – 25.70	19.66
Expired	(163)	2.55 – 2.82	2.73
Balance at December 31, 2017	2,200,465	4.28 – 29.50	19.26
Exercised	(658,564)	4.92 – 29.50	20.00
Forfeited/cancelled	(11,329)	15.19 – 25.70	18.85
Expired	(2,250)	7.00 – 7.00	7.00
Balance at December 31, 2018	1,528,322	4.28 – 29.50	18.96

The below table provides information regarding outstanding stock options which were fully vested and expected to vest and exercisable options at December 31:

	2018		2017	
	Options Fully Vested	Options Exercisable	Options Fully Vested and Expected to Vest	Options Exercisable
Number of options	1,528,322	1,528,322	2,200,465	1,999,278
Weighted-average remaining contractual term (in years)	4.1	4.1	5.5	5.3
Weighted-average exercise price	$ 18.96	$ 18.96	$ 19.26	$ 19.16
Aggregate intrinsic value, in thousands	$ 44,674	$ 44,674	$ 55,106	$ 50,257

The aggregate intrinsic value of options exercised during the years ended December 31, 2018, 2017, and 2016, was $23.0 million, $25.1 million, and $11.3 million, respectively. There were no stock options awarded during the years ended December 31, 2018, 2017, and 2016.

Restricted Stock Awards

Restricted stock awards entitle the holder to receive shares of our common stock as the award vests. Grants of restricted stock are classified as time-based, market-based, or performance-based depending on the vesting criteria of the award.

Time-based restricted stock awards:

Time-based restricted stock awards granted prior to February 2014, generally vest ratably over sixteen quarters following the date of grant. Awards granted during 2014 and 2015, generally vest ratably over a period of twelve quarters beginning on the first day of the quarter immediately following the grant date. Beginning in 2016, awards granted generally vest ratably over a period of twelve quarters beginning on the first day of the second calendar quarter immediately following the grant date. The fair value of time-based restricted stock awards is based on the closing price of our common stock on the date of grant. Compensation expense for time-based restricted stock awards is recognized over the vesting period on a straight-line basis.

A summary of time-based restricted stock award activity is presented in the table below.

	Number of Shares	Weighted Average Grant-Date Fair Value
Non-vested shares at January 1, 2016	1,068,706	$ 20.05
Granted	1,793,257	20.79
Vested	(841,983)	20.14
Forfeited/cancelled	(386,479)	20.21
Non-vested shares at December 31, 2016	1,633,501	20.78
Granted	1,359,578	36.25
Vested	(953,749)	23.73
Forfeited/cancelled	(283,342)	28.01
Non-vested shares at December 31, 2017	1,755,988	30.05
Granted	1,289,866	53.26
Vested	(1,017,367)	31.92
Forfeited/cancelled	(242,675)	40.70
Non-vested shares at December 31, 2018	1,785,812	44.34

Market-based restricted stock awards:

Market-based restricted stock awards become eligible for vesting upon the achievement of specific market-based conditions based on the per share price of our common stock. Shares that become eligible to vest, if any, become Eligible Shares. Eligible Shares generally vest ratably over a period of four quarters, beginning on the first day of the quarter immediately after they become Eligible Shares. Vesting is conditional upon the recipient remaining a service provider to us, as defined in the plan document, through each applicable vesting date.

A summary of market-based restricted stock award activity is presented in the table below.

	Number of Shares	Weighted Average Grant-Date Fair Value
Balance as of January 1, 2016	1,015,095	$ 11.85
Granted	794,025	13.58
Vested	(51,250)	12.52
Forfeited/cancelled	(193,710)	11.61
Balance at December 31, 2016	1,564,160	12.73
Granted	535,441	28.18
Vested	(1,407,133)	13.69
Forfeited/cancelled	(2,303)	13.34
Balance at December 31, 2017	690,165	22.76
Granted	517,364	35.66
Vested	(677,857)	23.02
Balance at December 31, 2018	529,672	35.03

We estimate the fair value of market-based restricted stock awards using a discrete model to analyze the fair value of the subject shares. The discrete model utilizes multiple stock price-paths, through the use of Monte Carlo simulation, which are then analyzed to determine the fair value of the subject shares. The weighted average of assumptions used to value awards granted during 2018, 2017, and 2016 were as follows:

	2018	2017	2016
Risk-free interest rate	2.5%	1.8%	1.1%
Expected volatility	31.2%	31.6%	41.5%

Risk-free interest rate. We estimated the risk-free rate from the three year U.S. Treasury strip note yield curve as of the valuation date.

Expected volatility. We estimate expected volatility based on our historic and implied volatility rate.

Expense related to the market-based restricted stock awards is recognized over the requisite service period using the graded-vesting attribution method. The requisite service period is a measure of the expected time to achieve the specified market condition plus the time-based vesting period. The expected time to achieve the market condition is estimated utilizing a Monte Carlo simulation, considering only those stock price-paths in which the market condition is achieved. The estimated requisite service period for market-based restricted stock shares issued in 2018 ranged from six to ten quarters. Market-based restricted stock awards granted in 2017 had requisite service periods ranging from five to seven quarters.

Employee Benefit Plans

In 1998, our board of directors approved a defined contribution plan that provides retirement benefits under the provisions of Section 401(k) of the Internal Revenue Code. Our 401(k) Plan ("Plan") covers substantially all employees who meet a minimum service requirement. Contributions of $4.2 million, $2.9 million, and $2.4 million were made by us under the Plan for the years ended December 31, 2018, 2017, and 2016, respectively.

10. Commitments and Contingencies

Lease Commitments

We lease office facilities and equipment for various terms under long-term, non-cancellable operating lease agreements. The leases expire at various dates through 2028 and provide for renewal options. The agreements generally require us to pay for executory costs such as real estate taxes, insurance, and repairs.

In May 2015, we entered into a lease agreement for office space located in Richardson, Texas to serve as our new corporate headquarters and data center. The lease is for a term of twelve years, beginning in 2016, and includes optional extension periods. The lease agreement contains provisions for rent escalations over the term of the lease and leasehold improvement incentives. We completed the move of our corporate headquarters and data center to this new facility in the third quarter of 2016. Our lease for our previous corporate headquarters expired in December 2016.

Rent expense was $15.8 million, $13.8 million, and $14.7 million for the years ended December 31, 2018, 2017, and 2016, respectively.

Minimum annual rental commitments under non-cancellable operating leases, net of sublease income amounts, were as follows at December 31, 2018:

	Minimum Lease Commitments
	(in thousands)
2019	$ 16,996
2020	12,650
2021	11,485
2022	10,433
2023	10,229
Thereafter	38,416
	$ 100,209

Guarantor Arrangements

We have agreements whereby we indemnify our officers and directors for certain events or occurrences while the officer or director is or was serving at our request in such capacity. The term of the indemnification period is for the officer or

director's lifetime. The maximum potential amount of future payments we could be required to make under these indemnification agreements is unlimited; however, we have a director and officer insurance policy that limits our exposure and enables us to recover a portion of any future amounts paid. As a result of our insurance policy coverage, we believe the estimated fair value of these indemnification agreements is minimal. Accordingly, we had no liabilities recorded for these agreements as of December 31, 2018 or 2017.

In the ordinary course of our business, we include standard indemnification provisions in our agreements with our clients. Pursuant to these provisions, we indemnify our clients for losses suffered or incurred in connection with third-party claims that our products infringed upon any U.S. patent, copyright, trademark, or other intellectual property right. Where applicable, we generally limit such infringement indemnities to those claims directed solely to our products and not in combination with other software or products. With respect to our products, we also generally reserve the right to resolve such claims by designing a non-infringing alternative, by obtaining a license on reasonable terms, or by terminating our relationship with the client and refunding the client's fees.

The potential amount of future payments to defend lawsuits or settle indemnified claims under these indemnification provisions is unlimited in certain agreements; however, we believe the estimated fair value of these indemnification provisions is minimal, and, accordingly, we had no liabilities recorded for these agreements as of December 31, 2018 or 2017.

Litigation

From time to time, in the normal course of our business, we are a party to litigation matters and claims. Litigation can be expensive and disruptive to normal business operations. Moreover, the results of complex legal proceedings are difficult to predict and our view of these matters may change in the future as the litigation and events related thereto unfold. We expense legal fees as incurred. Insurance recoveries associated with legal costs incurred are recorded when they are deemed probable of recovery.

As previously disclosed, in March 2015, we were named in a purported class action lawsuit in the United States District Court for the Eastern District of Pennsylvania, styled *Stokes v. RealPage, Inc.*, Case No. 2:15-cv-01520. The claims in this purported class action relate to alleged violations of the Fair Credit Reporting Act ("FCRA") in connection with background screens of prospective tenants of our clients.

As previously disclosed, in November 2014, we were named in a purported class action lawsuit in the United States District Court for the Eastern District of Virginia, styled *Jenkins v. RealPage, Inc.*, Case No. 3:14cv758. The claims in this purported class action relate to alleged violations of the FCRA in connection with background screens of prospective tenants of our clients.

Following various procedural motions, on June 19, 2017, the court in both the *Stokes* case and *Jenkins* case consolidated the cases, for purposes of settlement. On June 30, 2017, the parties signed a Settlement Agreement and Release covering both cases, and the plaintiffs in the consolidated cases filed an uncontested motion for preliminary approval of the class action settlement and the notice to the class. On August 3, 2017, the court issued a written order preliminarily approving the proposed class settlement. Following the final approval hearing on February 6, 2018, the court entered an order granting final approval of the settlement.

On February 23, 2015, we received from the Federal Trade Commission ("FTC") a Civil Investigative Demand consisting of interrogatories and a request to produce documents relating to our compliance with the FCRA. We responded to the request and requests for additional information by the FTC. On November 2, 2017, the FTC staff informed us of its belief that there was a basis for claims that could include monetary and injunctive relief against us for failing to follow reasonable procedures to assure maximum possible accuracy of our tenant screening reports. We believe that our business practices did not, and do not, violate the FCRA or any other laws.

In October 2018, we reached a settlement with the FTC resolving all issues raised by the FTC related to this matter. Under the settlement, we paid $3.0 million to the FTC and agreed to continue to comply with the FCRA. The settlement does not require any changes to our current business practices.

At December 31, 2018 and 2017, we had accrued amounts for estimated settlement losses related to legal matters. We do not believe there is a reasonable possibility that a material loss exceeding amounts already recognized may have been incurred as of the date of the balance sheets presented herein.

We are involved in other legal proceedings and claims, including purported class action lawsuits, not described above that are not likely to be material either individually or in the aggregate based on information available at this time. Our view of these matters may change as the litigation and events related thereto unfold.

11. Net Income per Share

Basic net income per share is computed by dividing the net income by the weighted average number of common shares outstanding during the period. Diluted net income per share is computed by using the weighted average number of common shares outstanding, after giving effect to all potential dilutive common shares outstanding during the period. Included within net income per share is the dilutive effect of outstanding stock options and restricted stock using the treasury stock method. Weighted average shares from common share equivalents in the amount of 286,449, 193,274, and 220,473 were excluded from the dilutive shares outstanding because their effect was anti-dilutive for the years ended December 31, 2018, 2017, and 2016, respectively.

For purposes of considering the Convertible Notes in determining diluted net income per share, it is our current intent to settle conversions of the Convertible Notes through combination settlement, which involves repayment of the principal portion in cash and any excess of the conversion value over the principal amount (the "conversion premium") in shares of our common stock. Therefore, only the impact of the conversion premium is included in total dilutive weighted average shares outstanding using the treasury stock method. The dilutive effect of the conversion premium is shown in the table below.

The Warrants sold in connection with the issuance of the Convertible Notes are considered to be dilutive when the average price of our common stock during the period exceeds the Warrants' strike price of $57.58 per share. The effect of the additional shares that may be issued upon exercise of the Warrants is included in total dilutive weighted average shares outstanding using the treasury stock method and is shown in the table below. The Note Hedges purchased in connection with the issuance of the Convertible Notes are considered to be anti-dilutive and therefore do not impact our calculation of diluted net income per share. Refer to Note 8 for further discussion regarding the Convertible Notes.

We exclude common shares subject to a holdback pursuant to business combinations from the calculation of basic weighted average shares outstanding where the release of such shares is contingent upon an event not solely subject to the passage of time. As of December 31, 2018, there were approximately 196,000 contingently returnable shares related to our acquisitions of ClickPay and BluTrend, which were excluded from the computation of basic net income per share as these shares are subject to sellers' indemnification obligations and are subject to a holdback. There were no contingently returnable shares as of December 31, 2017, and 2016. Dilutive common shares outstanding include the weighted average contingently issuable shares discussed above that are subject to a holdback, as well as the weighted average contingently issuable shares to be issued subject to a holdback on the first anniversary dates of the ClickPay and BluTrend acquisitions. These shares are subject to release to the sellers on the first and second anniversary dates of the acquisitions but are contingent on the sellers' indemnification obligations. Refer to Note 3 for further discussion regarding the ClickPay and BluTrend acquisitions.

The following table presents the calculation of basic and diluted net income per share attributable to common stockholders:

	Year Ended December 31,		
	2018	2017	2016
	(in thousands, except per share amounts)		
Numerator:			
Net income	$ 34,725	$ 377	$ 16,650
Denominator:			
Basic:			
Weighted average shares used in computing basic net income per share:	87,290	79,433	76,854
Diluted:			
Add weighted average effect of dilutive securities:			
Stock options and restricted stock	2,032	2,884	989
Convertible Notes and Warrants	1,948	81	—
Contingently issuable shares in connection with our acquisitions	261	—	—
Weighted average shares used in computing diluted net income per share:	91,531	82,398	77,843
Net income per share:			
Basic	$ 0.40	$ 0.00	$ 0.22
Diluted	$ 0.38	$ 0.00	$ 0.21

12. Income Taxes

The domestic and foreign components of income before income taxes were as follows:

	Year Ended December 31,		
	2018	2017	2016
	(in thousands)		
Domestic	$ 32,190	$ 12,424	$ 23,817
Foreign	2,110	2,817	3,669
Total	$ 34,300	$ 15,241	$ 27,486

Our income tax expense consisted of the following components:

	Year Ended December 31,		
	2018	2017	2016
	(in thousands)		
Current:			
Federal	$ 666	$ 36	$ 401
State	295	578	756
Foreign	738	313	449
Total current income tax expense	1,699	927	1,606
Deferred:			
Federal	(1,543)	14,620	9,055
State	(255)	(900)	235
Foreign	(326)	217	(60)
Total deferred income tax (benefit) expense	(2,124)	13,937	9,230
Total income tax expense	$ (425)	$ 14,864	$ 10,836

The reconciliation of our income tax expense computed at the U.S. federal statutory tax rate to the actual income tax expense is as follows:

	Year Ended December 31,		
	2018	2017	2016
	(in thousands)		
Expense derived by applying the Federal income tax rate to income before income taxes	$ 7,203	$ 5,335	$ 9,620
State income tax, net of federal benefit	(204)	135	735
Foreign income tax	26	(631)	(922)
Change in valuation allowance	734	—	—
Nondeductible expenses	2,187	1,606	545
Fair value adjustment on stock acquisition	33	(17)	150
Stock-based expense	(11,788)	(19,080)	285
Reduction in available Federal NOL	—	—	255
Federal income tax rate reduction	—	25,070	—
Deemed repatriation of foreign earnings	—	2,211	—
Base erosion and anti-abuse tax	1,117	—	—
Other	267	235	168
Total income tax expense	$ (425)	$ 14,864	$ 10,836

Deferred income taxes reflect the net tax effect of temporary differences between the carrying amounts of our assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. Significant components of our deferred tax assets and liabilities are as follows:

	December 31,	
	2018	2017
	(in thousands)	
Deferred tax assets:		
Reserves, deferred revenue and accrued liabilities	$ 17,120	$ 16,443
Stock-based expense	8,408	8,912
Net operating loss carryforwards and tax credits	56,210	42,119
Deferred tax assets before valuation allowance	81,738	67,474
Valuation allowance	(1,251)	(517)
Total deferred tax assets, net of valuation allowance	80,487	66,957
Deferred tax liabilities:		
Property, equipment, and software	(16,810)	(15,378)
Intangible assets	(13,580)	(3,940)
Other	(7,495)	(2,752)
Total deferred tax liabilities	(37,885)	(22,070)
Net deferred tax assets	$ 42,602	$ 44,887

In connection with our adoption of ASU 2014-09, as amended, in January 2018, we recognized additional net deferred tax liabilities of $0.8 million.

The acquisition of the stock of ClickPay Services, Inc. in April 2018 resulted in an additional net deferred tax liability of approximately $4.9 million comprising additional deferred tax assets from federal NOLs of $0.9 million and deferred tax liabilities from intangible assets of $5.8 million.

The acquisition of the stock of Rentlytics, Inc. in October 2018 resulted in an additional net deferred tax asset of approximately $1.0 million comprising additional deferred tax assets from federal NOLs of $3.7 million and deferred tax liabilities from intangible assets of $2.7 million.

The acquisition of the stock of PEX Software Ltd and its subsidiary PEX Australia Ltd in October 2017 resulted in an additional net deferred tax liability of approximately $0.1 million.

The acquisition of the stock of an On-Site subsidiary, in connection with the acquisition of certain discrete assets of On-Site Manager, Inc. in September 2017, resulted in additional deferred tax liabilities of $1.2 million, primarily related to intangible assets.

On December 22, 2017, the Tax Reform Act was signed into law making significant changes to the Internal Revenue Code. Changes included, but were not limited to, a federal corporate tax rate decrease from 35% to 21% effective for tax years beginning after December 31, 2017, the transition of U.S international taxation from a worldwide tax system to a territorial system, and a one-time transition tax on the mandatory deemed repatriation of cumulative foreign earnings as of December 31, 2017. As a result of the Tax Reform Act, we recorded $25.1 million of additional income tax expense in the fourth quarter of 2017, the period in which the legislation was enacted, to reduce the carrying value of our net deferred tax assets to reflect the lower U.S. federal corporate tax rate. We also recognized tax expense of $2.2 million as a result of the deemed repatriation of foreign earnings.

Also on December 22, 2017, the SEC issued Staff Accounting Bulletin No. 118 ("SAB 118") to address the application of US GAAP in situations where a registrant did not have the necessary information available, prepared, or analyzed (including computations) in reasonable detail to complete the accounting for certain income tax effects of the Tax Reform Act. In accordance with SAB 118, we determined in 2017 that the $25.1 million of deferred tax expense recorded in connection with the remeasurement of our net deferred tax assets and the $2.2 million of tax expense recorded in connection with the transition tax on the mandatory deemed repatriation of foreign earnings were provisional amounts and were reasonable estimates at December 31, 2017. In 2018, we completed our assessment of the effects of the adoption of the Tax Reform Act. There were no material changes to our original estimates.

Because of the deemed repatriation discussed above, all of our estimated foreign earnings have been subjected to U.S. federal income tax. Foreign earnings generated after December 31, 2017, that are distributed to RealPage, Inc. as a dividend will receive a 100% dividends received deduction for federal income tax purposes, subject to certain limitations under Subpart

F income and new global intangible low-taxed income ("GILTI") regulations. We provide for the tax expense related to GILTI in the year the tax is incurred as a period expense. We received no dividends from our foreign subsidiaries during 2018.

We periodically evaluate the realizability of our deferred tax assets. If we determine that it is more likely than not that all or a portion of such assets are not realizable, we provide a valuation allowance against the assets. The determination of the level of valuation allowance, if any, required at any time is based on a forecast of future taxable income that includes many judgments and assumptions. Accordingly, it is at least reasonably possible that future changes in one or more assumptions may lead to a change in judgment regarding the level of valuation allowance required in future periods. In 2017, we recognized a $0.3 million valuation allowance against our state NOLs in connection with the adoption of ASU 2016-09, as discussed above, and recorded an additional valuation allowance of $0.2 million against the NOLs of one of our foreign subsidiaries. In 2018, we recorded an additional valuation allowance of $0.8 million against certain deferred tax assets associated with a portion of our stock compensation expense. We believe the realization of such assets in the future may be constrained by Internal Revenue Code Section 162(m) limitations on the deductibility of executive compensation when the underlying restricted shares vest.

As of December 31, 2018, our tax-effected federal, state, and international NOL carryforwards of $49.9 million, $5.0 million, and $0.1 million, respectively, and our combined federal, state and international tax credits of $1.2 million comprise a major component of our deferred tax assets. If not used, the underlying gross federal NOLs totaling $237.6 million will begin to expire in 2024 and the underlying state NOLs totaling $81.2 million will begin to expire in 2019, with approximately $2.1 million expiring in the next five years. Approximately $0.1 million of our credits expire in 2026, and the balance has no expiration date. Approximately $0.7 million of our tax credits will be fully realizable by 2021.

Net operating losses that we have generated are not currently subject to the Section 382 limitation; however, $52.7 million of net operating losses generated by our subsidiaries prior to our acquisition of them are subject to the Section 382 limitation. The limitation on these pre-acquisition net operating loss carryforwards will fully expire in 2037. A cumulative change in ownership among material shareholders, as defined in Section 382 of the Internal Revenue Code, during a three year period also may limit utilization of the federal net operating loss carryforwards.

As a result of our adoption of ASU 2016-09, we began to account for all excess tax benefits and deficits arising from current period stock transactions as part of our income tax provision effective January 1, 2017. During the years ended December 31, 2018 and 2017, our tax provision was reduced by approximately $11.8 million and $19.1 million, respectively, as a result of excess stock compensation deductions from the vesting of restricted stock and the exercise of stock options during the year. Prior to the adoption of ASU 2016-09, we used the "with-and-without" method, as described in ASC 740, for purposes of determining when excess tax benefits had been realized. In 2016, we recognized excess stock compensation benefits from NOLs of $3.1 million, and these benefits were recognized as additions to paid-in capital and, thus, did not benefit our tax provision for those years.

Our subsidiary in Hyderabad, India benefited from a tax holiday granted under the Software Technology Parks of India program that began upon commencement of business operations in 2008 and continued through March 31, 2011. During this holiday period, we were required to pay a minimum alternative tax which was available to reduce our post-holiday tax liability. Effective July 8, 2013, this subsidiary began to benefit from a tax holiday under the Special Economic Zone program. This benefit was initially granted for a five years period and applies to a portion of our operations in this location. The benefit was reduced from a 100% tax holiday to a 50% tax holiday in April 2018. As a result of this tax holiday, the Company realized tax savings of $0.1 million, $0.4 million, and $0.2 million for the years ended December 31, 2018, 2017, and 2016, respectively.

Our subsidiary in Manila, Philippines has benefited from Philippines income tax holiday incentives pursuant to registration with the Philippine Economic Zone Authority ("PEZA"). At various times, we have had up to four PEZA projects that qualified for tax holiday status. As of September 30, 2018, the tax holidays on all but one project have expired. Tax savings realized under the Philippine tax holiday incentives were $0.3 million, $0.2 million, and $0.4 million for the years ended December 31, 2018, 2017, and 2016, respectively.

Uncertain Tax Positions

At December 31, 2018 and 2017, we had no unrecognized tax benefits. Our policy is to include interest and penalties related to unrecognized income tax benefits in income tax expense, and as of December 31, 2018 and 2017, there were no accrued interest and penalties.

We file consolidated and separate tax returns in the U.S. federal jurisdiction and six foreign jurisdictions. We are no longer subject to U.S. federal income tax examinations for years before 2015 and are no longer subject to state and local income tax examinations by tax authorities for years before 2014; however, net operating losses from all years continue to be subject to examinations and adjustments for at least three years following the year in which the attributes are used.

Our subsidiary, RealPage India Private Limited ("RealPage India"), is currently undergoing an income tax examination for the fiscal years beginning April 1, 2011, April 1, 2012, and April 1, 2013. The India income tax authorities have assessed

RealPage India additional tax and interest of $0.9 million as a result of these examinations. We believe the assessments are incorrect and have appealed the decisions to the India Commissioner of Income Tax.

13. Fair Value Measurements

Assets and liabilities measured at fair value on a recurring basis:

Interest rate swap agreements: The fair value of our interest rate derivatives are determined using widely accepted valuation techniques including discounted cash flow analysis on the expected cash flows of the derivatives. This analysis reflects the contractual terms of the derivatives, including the period to maturity, and uses observable market-based inputs, including interest rate curves. We incorporate credit valuation adjustments to appropriately reflect both our own nonperformance risk and the respective counterparty's nonperformance risk in the fair value measurements.

Although the credit valuation adjustments associated with our derivatives utilize Level 3 inputs, such as estimates of current credit spreads, we have determined that the majority of the inputs used to value our derivatives fall within Level 2 of the fair value hierarchy. We have assessed the significance of the impact of the credit valuation adjustments on the overall valuation of our derivative positions and determined that the credit valuation adjustments are not significant to the overall valuation of our interest rate swaps. As a result, we determined that our interest rate swap valuation in its entirety is classified in Level 2 of the fair value hierarchy.

Contingent consideration obligations: The fair value of the contingent consideration obligations include inputs not observable in the market and thus represent a Level 3 measurement. Contingent consideration obligations consist of potential obligations related to our acquisition activity. The amount to be paid under these obligations is contingent upon the achievement of stipulated operational or financial targets by the business subsequent to acquisition. The fair value for certain of our contingent consideration obligations is estimated using a probability weighted discount model which considers the achievement of the conditions upon which the respective contingent obligation is dependent. The probability of achieving the specified conditions is generally assessed by applying a Monte Carlo weighted-average model. Inputs into the valuation model include a discount rate specific to the acquired entity, a measure of the estimated volatility, and the risk free rate of return, which for the period ended December 31, 2017 was 16.3%, 24.0% and 1.6%, respectively. We also estimate the fair value of our contingent obligations based on management's assessment of the probability of achievement of operational or financial targets. The fair value estimates consider the projected future operating or financial results for the factor upon which the respective contingent obligation is dependent. The fair value estimates are generally sensitive to changes in these projections. We develop the projected future operating results based on an analysis of historical results, market conditions, and the expected impact of anticipated changes in our overall business and/or product strategies.

The following tables disclose the assets and liabilities measured at fair value on a recurring basis as of December 31, 2018 and 2017, by the fair value hierarchy levels as described above:

	Fair Value at December 31, 2018			
	Total	Level 1	Level 2	Level 3
	(in thousands)			
Assets:				
Interest rate swap agreements	$ 923	$ —	$ 923	$ —
Liabilities:				
Interest rate swap agreements	413	—	413	—
Contingent consideration related to the acquisition of:				
LeaseLabs	6,000	—	—	6,000
Total liabilities measured at fair value	$ 6,413	$ —	$ 413	$ 6,000

	Fair Value at December 31, 2017			
	Total	Level 1	Level 2	Level 3
	(in thousands)			
Assets:				
Interest rate swap agreements	$ 1,329	$ —	$ 1,329	$ —
Liabilities:				
Contingent consideration related to the acquisition of:				
AssetEye	247	—	—	247
Axiometrics	167	—	—	167
Total liabilities measured at fair value	$ 414	$ —	$ —	$ 414

There were no transfers between Level 1 and Level 2, or between Level 2 and Level 3 measurements during the years ended December 31, 2018 and 2017.

Changes in the fair value of Level 3 measurements for the reporting periods were as follows during the years ended December 31, 2018 and 2017, in thousands:

Balance at January 1, 2017	$ 541
Initial contingent consideration	812
Net gain on change in fair value	(939)
Balance at December 31, 2017	414
Initial contingent consideration	7,000
Settlements through cash payments	(247)
Net gain on change in fair value	(1,167)
Balance at December 31, 2018	$ 6,000

Gains and losses resulting from changes in the fair value of the above liabilities are included in “General and administrative” expense in the accompanying Consolidated Statements of Operations.

Assets and liabilities measured at fair value on a non-recurring basis:

Refer to Note 7 for further information about assets measured at fair value on a non-recurring basis at December 31, 2018. There were no assets measured at fair value on non-recurring basis at December 31, 2017. There were no liabilities measured at fair value on a non-recurring basis at December 31, 2018 and 2017.

14. Stockholders’ Equity

Shelf Registration and Public Offering

On May 21, 2018, we filed a shelf registration statement on Form S-3 (File No. 333-225074) with the Securities and Exchange Commission (the “SEC”), which became effective upon filing. The shelf registration allows us to sell, from time to time, an unspecified number of shares of common stock; shares of preferred stock; debt securities; warrants to purchase shares of common stock, preferred stock, or other securities; purchase contracts; and units representing two or more of the foregoing securities.

On May 29, 2018, we consummated an underwritten public offering of 8.05 million shares of our common stock, which included 1.05 million shares sold pursuant to the underwriters’ full exercise of their option to purchase additional shares. The offering was priced at $57.00 per share for total gross proceeds of $458.9 million. The aggregate net proceeds to us were $441.9 million, after deducting underwriting discounts and offering expenses in the aggregate amount of $16.9 million.

Increase in Authorized Shares

On June 5, 2018, our stockholders approved an amendment to our Certificate of Incorporation to increase the authorized number of shares of our Common Stock from 125,000,000 to 250,000,000 shares. Our board of directors had previously approved the amendment in 2018.

Stock Repurchase Program

In May 2014, our board of directors approved a share repurchase program authorizing the repurchase of up to $50.0 million of our outstanding common stock for a period of up to one year after the approval date. Shares repurchased under the plan are retired. Our board of directors approved a one year extension of this program in 2015, 2016, and 2017. This program expired in May 2018.

In October 2018, our board of directors approved a new share repurchase program authorizing the repurchase of up to $100.0 million of our outstanding common stock. The share repurchase program is effective through October 25, 2019. Shares repurchased under the plan are retired. The excess of the purchase price over the common stock's par value is allocated between additional paid in capital and retained earnings. The amount allocated to additional paid in capital is calculated as the current value of additional paid in capital per share of outstanding common stock and is applied to the number of shares repurchased. Any remaining amount is allocated to retained earnings.

Repurchase activity during the years ended December 31, 2018, 2017 and 2016 was as follows:

	Year Ended December 31,		
	2018	2017	2016
Number of shares repurchased	599,664	—	1,012,823
Weighted-average cost per share	$ 46.83	$ —	$ 20.98
Total cost of shares repurchased, in thousands	$ 28,082	$ —	$ 21,244

15. Derivative Financial Instruments

On March 31, 2016, we entered into two interest rate swap agreements (collectively the "2016 Swap Agreements"), which are designed to mitigate our exposure to interest rate risk associated with a portion of our variable rate debt. The 2016 Swap Agreements cover an aggregate notional amount of $75.0 million from March 2016 to September 2019 by replacing the obligation's variable rate with a blended fixed rate of 0.89%.

On December 24, 2018, we entered into two interest rate swap agreements (collectively the "2018 Swap Agreements"), which also are designed to mitigate our exposure to interest rate risk associated with a portion of our variable rate debt. The 2018 Swap Agreements cover an aggregate notional amount of $100.0 million from December 2018 to February 2022 by replacing the obligation's variable rate with a blended fixed rate of 2.57%. We designated both the 2016 and 2018 Swap Agreements (collectively the "Swap Agreements") as cash flow hedges of interest rate risk.

The effective portion of changes in the fair value of the Swap Agreements is recorded in accumulated other comprehensive income and is subsequently reclassified into earnings in the period that the hedged forecasted transaction affects earnings. The ineffective portion of the change in the fair value of the Swap Agreements is recognized directly in earnings. Amounts reported in accumulated other comprehensive income related to the Swap Agreements will be reclassified to interest expense as interest payments are made on our variable rate debt. We estimate that during the next twelve months, an additional $0.9 million will be reclassified to earnings as a decrease to interest expense.

As of December 31, 2018, the Swap Agreements were still outstanding. The table below presents the notional and fair values of the Swap Agreements as well as their classification on the Consolidated Balance Sheets as of December 31, 2018 and 2017:

	Balance Sheet Location	Notional	Fair Value
		(in thousands)	
Derivatives designated as cash flow hedging instruments:			
Swap agreements as of December 31, 2018	Other assets	$ 75,000	$ 923
Swap agreements as of December 31, 2018	Other long-term liabilities	$ 100,000	$ 413
Swap agreements as of December 31, 2017	Other assets	$ 75,000	$ 1,329

As of December 31, 2018, we have not posted any collateral related to the Swap Agreements. If we had breached any of the Swap Agreement's default provisions at December 31, 2018, we could have been required to settle our obligations under the Swap Agreements at their termination value of $0.5 million.

The table below presents the amount of gains and/or losses related to the effective and ineffective portions of the Swap Agreements and their location on the Consolidated Statements of Operations for the fiscal years ended December 31, 2018, 2017 and 2016:

	Effective Portion			Ineffective Portion	
Derivatives Designated as Cash Flow Hedges	Gain (Loss) Recognized in OCI	Location of Gain (Loss) Recognized in Income	Gain (Loss) Recognized in Income	Location of Gain (Loss) Recognized in Income	Gain (Loss) Recognized in Income
			(in thousands)		
Year ended December 31, 2018:					
Swap agreements, net of tax	$ 61	Interest expense and other	$ 613	Interest expense and other	$ (73)
Year ended December 31, 2017:					
Swap agreements, net of tax	$ 318	Interest expense and other	$ 77	Interest expense and other	$ (54)
Year ended December 31, 2016:					
Swap agreements, net of tax	$ 400	Interest expense and other	$ (136)	Interest expense and other	$ 152

Gains and losses on the effective portion of our cash flow hedges are net of income tax expense (benefit) of $0.2 million, $(0.1) million, and $(0.4) million during the years ended December 31, 2018, 2017, and 2016, respectively.

16. Customer Deposits Held in Restricted Accounts

In connection with our payment processing services, we collect tenant funds and subsequently remit these tenant funds to our clients after varying holding periods. These funds are settled through our Originating Depository Financial Institution ("ODFI") custodial accounts at major banks. The ODFI custodial account balance was $132.2 million and $74.8 million, and the related client deposit liability was $132.2 million and $74.9 million at December 31, 2018 and 2017, respectively. The ODFI custodial account balances are included in our Consolidated Balance Sheets as restricted cash. The corresponding liability for these custodial balances is reflected as client deposits. In connection with the timing of our payment processing services, we are exposed to credit risk in the event of nonperformance by other parties, such as returned checks. We utilize credit analysis and other controls to manage the credit risk exposure. We have not experienced any material credit losses to date. Any expected losses are included in our allowance for doubtful accounts. The ODFI custodial accounts are in the name of RealPage wholly-owned subsidiaries. The obligations under the ODFI custodial account agreements are guaranteed by us.

We offer invoice processing services to our clients as part of our overall utility management solution. This service includes the collection of invoice payments from our clients and the remittance of payments to the utility company. We had $15.1 million and $14.6 million in restricted cash and $15.1 million and $14.6 million in client deposits related to these services at December 31, 2018 and 2017, respectively.

In connection with our renter insurance products, we collect premiums from policy holders and subsequently remit the premium, net of our commission, to the underwriter. We maintain separate accounts for these transactions. We had $7.3 million and $6.6 million in restricted cash related to these renter insurance products at December 31, 2018 and 2017, respectively. Related to these renter insurance products, we had $7.3 million and $6.6 million in client deposits at December 31, 2018 and 2017, respectively.

17. Investments

Compstak

In August 2016, we acquired a minority interest in Compstak, Inc. ("Compstak"), which is an unrelated company that specializes in the aggregation of commercial lease data. The shares we acquired represent an ownership interest of less than 20%. We evaluated our relationship with Compstak and determined we do not have significant influence over its operations nor is it economically dependent upon us. The carrying value of this investment at both December 31, 2018 and 2017, was $3.0 million and is included in "Other assets" in the accompanying Consolidated Balance Sheets.

WayBlazer

In January 2018, we paid $2.0 million in cash in return for a convertible promissory note ("Note") from WayBlazer, Inc. ("WayBlazer"), which was an unrelated company that specialized in an artificial intelligence platform for the travel industry. The Note bears interest at 8% per annum and matures in December 2020. On July 31, 2018, WayBlazer voluntarily filed Chapter 7 bankruptcy and ceased all operations. We have begun foreclosure proceedings and will attempt to recover the value of our investment through our first priority security interest in WayBlazer's intellectual property. During the third quarter of

2018, we were unable to determine the fair value of a recovery, if any, and therefore determined our investment in WayBlazer to be fully impaired, resulting in a non-operating loss of $2.0 million recognized in "Interest expense and other, net" in the accompanying Consolidated Statements of Operations.

18. Selected Quarterly Financial Data (unaudited)

The following is unaudited quarterly financial information for the years ended December 31, 2018 and 2017 (in thousands, except per share amounts).

	Three Months Ended							
	December 31, 2018	September 30, 2018	June 30, 2018	March 31, 2018	December 31, 2017	September 30, 2017	June 30, 2017	March 31, 2017
Revenue:								
On demand	$ 218,051	$ 215,413	$ 206,945	$ 193,300	$ 180,104	$ 161,578	$ 154,727	$ 146,213
Professional and other	8,923	9,540	9,307	8,001	7,576	7,480	6,579	6,706
Total revenue	226,974	224,953	216,252	201,301	187,680	169,058	161,306	152,919
Gross profit	129,482	130,467	125,183	120,169	111,132	97,767	92,700	89,066
Net income (loss)	6,272	9,073	8,479	10,901	(20,865)	6,834	6,213	8,195
Net income (loss) per share attributable to common stockholders:								
Basic	$ 0.07	$ 0.10	$ 0.10	$ 0.13	$ (0.26)	$ 0.09	$ 0.08	$ 0.10
Diluted	0.07	0.09	0.09	0.13	(0.26)	0.08	0.08	0.10

The above quarterly financial information should be read in conjunction with the Consolidated Financial Statements and notes thereto included herein.

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

None.

Item 9A. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

Pursuant to Rule 13a-15(b) and Rule 15d-15(b) under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), we carried out an evaluation, with the participation of our management, and under the supervision of our Chief Executive Officer and Chief Financial Officer, of the effectiveness of our disclosure controls and procedures (as defined under Rule 13a-15(e) and 15d-15(e) under the Exchange Act) as of the end of the period covered by this Annual Report on Form 10-K. Based upon that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures are effective in ensuring that information required to be disclosed in the reports that we file or submit under the Exchange Act, is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure. Management's assessment of the effectiveness of our disclosure controls and procedures is expressed at the level of reasonable assurance because management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives.

Management's Report on Internal Control over Financial Reporting and Attestation Report of the Independent Registered Public Accounting Firm

Our internal controls over financial reporting are 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 in the United States. Management is responsible for establishing and maintaining adequate internal control over financial reporting. 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 or compliance with the policies or procedures may deteriorate.

Under supervision and with participation of management, including the Chief Executive Officer and Chief Financial Officer, we conducted an evaluation of the effectiveness of internal control over financial reporting as of December 31, 2018.

In conducting this evaluation, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") in Internal Control — Integrated Framework (2013 framework). Management's assessment of and conclusion on the effectiveness of internal control over financial reporting did not include the internal controls of certain businesses which we acquired during 2018 (i.e. ClickPay, LeaseLabs and Rentlytics), which businesses are included in our 2018 Consolidated Financial Statements.

- ClickPay constituted approximately 11% of our consolidated total assets as of December 31, 2018, and 3% of our consolidated total revenues for the year then ended.
- LeaseLabs constituted approximately 6% of our consolidated total assets as of December 31, 2018, and 1% of our consolidated total revenues for the year then ended.
- Rentlytics constituted approximately 3% of our consolidated total assets as of December 31, 2018, and less than 1% of our consolidated total revenues for the year then ended.

Based on our evaluation using criteria set by COSO, management concluded internal control over financial reporting was effective as of December 31, 2018.

The effectiveness of internal control over financial reporting as of December 31, 2018 has been audited by Ernst & Young LLP, our independent registered public accounting firm, which is stated in their report included in Part II Item 8 of this Annual Report on Form 10-K.

Changes in Internal Controls

There were no significant changes in our internal control over financial reporting during the three months ended December 31, 2018 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Inherent Limitations of Internal Controls

Our management, including our Chief Executive Officer and Chief Financial Officer, does not expect that our disclosure controls and procedures or our internal controls will prevent all error and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within the company have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of a simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the control. The design of any system of controls also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Over time, controls may become inadequate because of changes in conditions, or the degree of compliance with the policies or procedures may deteriorate. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

Item 9B. Other Information.

Effective March 1, 2019, Andrew Blount, Executive Vice President, Chief Innovation Officer and a named executive officer of the Company, will serve in a new role with different responsibilities and will no longer be an "executive officer" of the Company within the meaning of Rule 3b-7 of the Securities Exchange Act of 1934, as amended. Commencing March 1, 2019, Mr. Blount will serve as the Company's Senior Vice President, Incubation.

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

The information required by this item is incorporated by reference to RealPage's Proxy Statement for its 2019 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year ended December 31, 2018.

Item 11. Executive Compensation.

The information required by this item is incorporated by reference to RealPage's Proxy Statement for its 2019 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year ended December 31, 2018.

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

The information required by this item is incorporated by reference to RealPage's Proxy Statement for its 2019 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year ended December 31, 2018.

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

The information required by this item is incorporated by reference to RealPage's Proxy Statement for its 2019 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year ended December 31, 2018.

Item 14. Principal Accounting Fees and Services.

The information required by this item is incorporated by reference to RealPage's Proxy Statement for its 2019 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year ended December 31, 2018.

PART IV

Item 15. Exhibits and Financial Statement Schedules.

(a) Financial Statements

(1) The financial statements filed as part of this Annual Report on Form 10-K are listed on the index to financial statements.

(2) Any financial statement schedules required to be filed as part of this Annual Report on Form 10-K are set forth in section (c) below.

(b) Exhibits

See Exhibit Index at the end of this Annual Report on Form 10-K, which is incorporated by reference.

(c) Financial Statement Schedules

The following schedule is filed as part of this Annual Report on Form 10-K:

All other schedules have been omitted because the information required to be presented in them is not applicable or is shown in the financial statements or related notes.

SCHEDULE II — VALUATION AND QUALIFYING ACCOUNTS

REALPAGE, INC.

December 31, 2018

(in thousands)

Accounts receivable allowances

	Balance at Beginning of Year	Adoption of ASC 606	Additions Charged to Income [2]	Deductions [3]	Balance at End of Year
Year ended December 31:					
2016	$ 2,318	$ —	$ 4,786	$ (4,636)	$ 2,468
2017	2,468	—	4,458	(2,975)	3,951
2018 [1]	3,951	4,702	17,180	(16,983)	8,850

Accounts receivable allowances represent a reserve for credits and an estimate for uncollectible accounts.

[1] In 2018, we adopted ASU 2014-09, under the modified retrospective method. Under the new standard, we accrue for credit accommodations in our reserve during the month of billing, and credits reduce this reserve when issued. Comparative information from prior year periods has not been restated and continues to be reported under the accounting standards in effect for those periods.

[2] Allowance for doubtful accounts are charged to expense. Credit accommodations are charged to revenue.

[3] Applied credits and uncollectible accounts written off, net of recoveries.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this Annual Report on Form 10-K to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Richardson, State of Texas, on this 27th day of February, 2019.

REALPAGE, INC.

By: /s/ Stephen T. Winn
Stephen T. Winn
Chairman of the Board of Directors, Chief Executive Officer, President and Director

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

Signature	Title	Date
/s/ Stephen T. Winn Stephen T. Winn	Chairman of the Board of Directors, Chief Executive Officer, President and Director (Principal Executive Officer)	2/27/2019
/s/ Thomas C. Ernst, Jr. Thomas C. Ernst, Jr.	Executive Vice President, Chief Financial Officer and Treasurer (Principal Financial Officer)	2/27/2019
/s/ Kandis L. Tate Thompson Kandis L. Tate Thompson	Senior Vice President, Chief Accounting Officer (Principal Accounting Officer)	2/27/2019
/s/ Alfred R. Berkeley Alfred R. Berkeley	Director	2/27/2019
/s/ Peter Gyenes Peter Gyenes	Director	2/27/2019
/s/ Scott S. Ingraham Scott S. Ingraham	Director	2/27/2019
/s/ Charles F. Kane Charles F. Kane	Director	2/27/2019
/s/ Jeffrey T. Leeds Jeffrey T. Leeds	Director	2/27/2019
/s/ Jason A. Wright Jason A. Wright	Director	2/27/2019

EXHIBIT INDEX

Exhibit Number	Exhibit Description	Incorporated by Reference			Included Herewith
		Form	Date	Number	
2.1	Acquisition Agreement dated April 19, 2018 by and among Registrant and each of the holders of outstanding membership units of NovelPay LLC, a Delaware limited liability company, other than those owned by ClickPay Services, Inc., a Delaware corporation, and NP Representative, LLC, a Delaware limited liability company, solely in its capacity as the Sellers' Representative**	10-Q	5/10/2018	2.1	
2.2	Agreement and Plan of Merger by and among Registrant, RP Newco XXIII Inc., a Delaware corporation and wholly-owned subsidiary of Registrant, RP Newco XXIV Inc., a Delaware corporation and wholly-owned subsidiary of Registrant, ClickPayServices, Inc., a Delaware corporation and NP Representative, LLC, a Delaware limited liability company, solely in its capacity as the Sellers' Representative**	10-Q	5/10/2018	2.2	
2.3	Agreement and Plan of Merger dated October 11, 2018 between Registrant and RP Newco XXVI Inc., a Delaware corporation and wholly-owned subsidiary of Registrant, Rentlytics, Inc., a Delaware corporation, each of the equityholders of Rentlytics who executed the Agreement and Plan of Merger and Fortis Advisors LLC, a Delaware limited liability company, solely in its capacity as the Equityholders' Representative**				X
3.1	Amended and Restated Certificate of Incorporation of the Registrant, as amended	10-Q	8/6/2018	3.1	
3.2	Amended and Restated Bylaws of the Registrant	S-1/A	7/26/2010	3.4	
4.1	Form of Common Stock certificate of the Registrant	S-1/A	7/26/2010	4.1	
4.2	Shareholders' Agreement among the Registrant and certain stockholders, dated December 1, 1998, as amended July 16, 1999 and November 3, 2000	S-1	4/29/2010	4.2	
4.3	Second Amended and Restated Registration Rights Agreement among the Registrant and certain stockholders, dated February 22, 2008	S-1	4/29/2010	4.3	
4.4	Indenture between the Registrant and Wells Fargo Bank, National Association, dated May 23, 2017	10-Q	8/4/2017	4.4	
4.5	Form of Global Note to represent the 1.50% Convertible Senior Notes due 2022, of the Registrant	10-Q	8/4/2017	4.5	
4.6	Form of Warrant Confirmation in connection with 1.50% Convertible Senior Notes due 2022, of the Registrant	10-Q	8/4/2017	4.6	
4.7	Form of Call Option Confirmation in connection with 1.50% Convertible Senior Notes due 2022, of the Registrant	10-Q	8/4/2017	4.7	
10.1	Form of Indemnification Agreement entered into between the Registrant and each of its directors and officers	S-1	4/29/2010	10.1	
10.2	Amended and Restated 1998 Stock Incentive Plan (June 2010)+	S-1	6/7/2010	10.2G	
10.3	Forms of Stock Option Agreements and Restricted Share Agreements approved for use under the 1998 Stock Incentive Plan+	S-1	4/29/2010	10.2A, 10.2B, 10.2C, 10.2D	
10.4	Forms of Stock Option Agreements and Restricted Share Agreements approved for use under the 1998 Stock Incentive Plan+	S-1	6/7/2010	10.2E, 10.2F, 10.2H	
10.5	Form of Director's Nonqualified Stock Option Agreement+	S-1	4/29/2010	10.3	

Exhibit Number	Exhibit Description	Incorporated by Reference			Included Herewith
		Form	Date	Number	
10.6	Form of Notice of Grant of Restricted Shares (Outside Directors)+	S-1	6/7/2010	10.49	
10.7	2010 Equity Incentive Plan, as Amended and Restated June 4, 2014+	DEF-14A	4/17/2014	Appendix A	
10.8	First Amendment to the Amended and Restated 2010 Equity Incentive Plan+	8-K	1/21/2015	10.1	
10.9	Second Amendment to the Amended and Restated 2010 Equity Incentive Plan+	8-K	4/7/2015	10.1	
10.10	Third Amendment to the Amended and Restated 2010 Equity Incentive Plan+	10-Q	5/6/2016	10.1	
10.11	Fourth Amendment to the RealPage, Inc. 2010 Equity Incentive Plan, as amended and restated, dated February 16, 2017+	10-Q	5/8/2017	10.5	
10.12	Forms of Stock Option Award Agreements and Restricted Stock Award Agreements approved for use under the 2010 Equity Incentive Plan+	S-8	8/17/2010	4.6, 4.7, 4.8, 4.9	
10.13	Stand-Alone Stock Option Agreement between the Registrant and Peter Gyenes, dated February 25, 2010+	S-1	4/29/2010	10.7	
10.14	Form of Stock Option Award Agreement between the Registrant and Stephen T. Winn approved for use under the 2010 Equity Incentive Plan, as amended and restated June 4, 2014, as amended+	8-K	3/5/2015	10.1	
10.15	Form of Stock Option Award Agreement between the Registrant and certain executive officers approved for use under the 2010 Equity Incentive Plan, as amended and restated June 4, 2014, as amended+	8-K	3/5/2015	10.2	
10.16	Form of Restricted Stock Award Agreement for time-based awards between the Registrant and Stephen T. Winn approved for use under the 2010 Equity Incentive Plan, as amended and restated June 4, 2014, as amended+	8-K	3/5/2015	10.3	
10.17	Form of Restricted Stock Award Agreement for time-based awards between the Registrant and certain executive officers approved for use under the 2010 Equity Incentive Plan, as amended and restated June 4, 2014, as amended+	8-K	3/5/2015	10.4	
10.18	Form of Restricted Stock Award Agreement for time-based awards between the Registrant and certain executive officers approved for use under the 2010 Equity Incentive Plan, as amended and restated June 4, 2014, as amended+	10-Q	5/6/2016	10.4	
10.19	Form of Restricted Stock Award Agreement for market-based awards between the Registrant and certain executive officers approved for use under the 2010 Equity Incentive Plan, as amended and restated June 4, 2014, as amended+	10-Q	5/6/2016	10.5	
10.20	Form of Restricted Stock Award Agreement for market-based awards between the Registrant and Stephen T. Winn approved for use under the 2010 Equity Incentive Plan, as amended and restated June 4, 2014, as amended+	10-Q	5/6/2016	10.6	
10.21	Form of 2017 Management Incentive Plan+	10-Q	5/8/2017	10.4	
10.22	RealPage, Inc. Management Incentive Plan+	DEF-14A	4/17/2014	Appendix B	
10.23	Amended and Restated Employment Agreement between the Registrant and Stephen T. Winn dated as of October 26, 2016+	8-K	10/31/2016	10.1	
10.24	Amended and Restated Employment Agreement between the Registrant and W. Bryan Hill dated as of March 1, 2015+	8-K	3/5/2015	10.12	
10.25	Consulting Agreement between the Registrant and W. Bryan Hill, dated January 7, 2019+				X

Exhibit Number	Exhibit Description	Incorporated by Reference			Included Herewith
		Form	Date	Number	
10.26	Amended and Restated Employment Agreement between the Registrant and William Chaney dated as of March 1, 2015+	8-K	3/5/2015	10.1	
10.27	Employment Agreement between the Registrant and David Monk, dated May 1, 2015+	10-Q	8/7/2015	10.18	
10.28	Employment Agreement between the Registrant and Ashley Glover, dated August 3, 2016+	10-Q	11/8/2016	10.2	
10.29	Exhibit I to the Employment Agreement between the Registrant and Ashley Glover referenced herein as Exhibit 10.28+	10-Q	5/6/2016	10.4	
10.30	Exhibit II to the Employment Agreement between the Registrant and Ashley Glover referenced herein as Exhibit 10.28+	10-Q	5/6/2016	10.5	
10.31	Employment Agreement between Registrant and Andrew Blount, dated December 11, 2015+	10-Q	5/8/2017	10.6	
10.32	Amendment to Employment Agreement between Registrant and Andrew Blount, dated January 4, 2016+	10-Q	5/8/2017	10.7	
10.33	Employment Agreement between Registrant and Thomas C. Ernst, Jr., dated January 7, 2019+				X
10.34	Exhibit I to the Employment Agreement between the Registrant and Thomas C. Ernst, Jr. referenced herein as Exhibit 10.33+	10-Q	5/6/2016	10.4	
10.35	Exhibit II to the Employment Agreement between the Registrant and Thomas C. Ernst Jr. referenced herein as Exhibit 10.33+	10-Q	5/6/2016	10.5	
10.36	Employment Agreement between Registrant and Kandis Thompson, dated January 7, 2019+				X
10.37	Lease Agreement dated June 2, 2015 by and between the Registrant and Lakeside Campus Partners, LP	8-K	6/4/2015	10.1	
10.38	First Amendment to the Lease Agreement dated July 27, 2015 by and between the Registrant and Lakeside Campus Partners, LP	10-Q	8/7/2015	10.20	
10.39	Second Amendment to the Lease Agreement dated July 8, 2016 by and between the Registrant and Lakeside Campus Partners, LP	10-Q	11/8/2016	10.1	
10.40	Credit Agreement by and among the Registrant, the lenders from time to time party thereto and Wells Fargo Bank, National Association, as administrative agent, dated September 30, 2014	10-Q	11/10/2014	10.1	
10.41	First Amendment to Credit Agreement and Incremental Amendment among the Registrant, certain subsidiaries of the Registrant party thereto, the lenders party thereto, and Wells Fargo Bank, National Association, as administrative agent, dated February 26, 2016	10-Q	5/6/2016	10.2	
10.42	Second Amendment to Credit Agreement among the Registrant, certain subsidiaries of the Registrant party thereto, the lenders party thereto, and Wells Fargo Bank, National Association, as administrative agent, dated February 15, 2017	10-Q	5/8/2017	10.1	
10.43	Third Amendment to Credit Agreement among the Registrant, certain subsidiaries of the Registrant party thereto, the lenders party thereto, and Wells Fargo Bank, National Association, as administrative agent, dated February 27, 2017	10-Q	5/8/2017	10.2	

Exhibit Number	Exhibit Description	Incorporated by Reference			Included Herewith
		Form	Date	Number	
10.44	Fourth Amendment to Credit Agreement among the Registrant, certain subsidiaries of the Registrant party thereto, the lenders party thereto, and Wells Fargo Bank, National Association, as administrative agent, dated April 3, 2017	10-Q	5/8/2017	10.3	
10.45	Fifth Amendment to Credit Agreement among the Registrant, certain subsidiaries of the Registrant party thereto, the lenders party thereto, and Wells Fargo Bank, National Association, as administrative agent, dated May 11, 2017	10-Q	8/4/2017	10.2	
10.46	Sixth Amendment to Credit Agreement among the Registrant, certain subsidiaries of the Registrant party thereto, the lenders party thereto, and Wells Fargo Bank, National Association, as administrative agent, dated August 14, 2017	10-Q	11/7/2017	10.1	
10.47	Seventh Amendment to Credit Agreement, Incremental Amendment and Amendment to Collateral Agreement among the Registrant, certain subsidiaries of the Registrant party thereto, the lenders party thereto, and Wells Fargo Bank, National Association, as administrative agent, dated March 12, 2018	10-Q	5/10/2018	10.1	
10.48	Collateral Agreement by and among the Registrant, certain of its subsidiaries from time to time party thereto, and Wells Fargo Bank, National Association, as administrative agent, dated as of September 30, 2014	10-Q	11/10/2014	10.2	
10.49	Guaranty Agreement made by certain domestic subsidiaries of Registrant in favor of Wells Fargo Bank, National Association, as administrative agent, dated as of September 30, 2014	10-Q	11/10/2014	10.3	
21.1	Subsidiaries of the Registrant				X
23.1	Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm				X
31.1	Certification of Chief Executive Officer pursuant to Exchange Act Rules 13a-14(a) or 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002				X
31.2	Certification of Chief Financial Officer pursuant to Exchange Act Rules 13a-14(a) or 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002				X
32.1	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002*				X
32.2	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002*				X
101.INS	Instance				X
101.SCH	Taxonomy Extension Schema				X
101.CAL	Taxonomy Extension Calculation				X
101.LAB	Taxonomy Extension Labels				X
101.PRE	Taxonomy Extension Presentation				X
101.DEF	Taxonomy Extension Definition				X

+ Indicates management contract or compensatory plan or arrangement.

* Furnished herewith.

** Exhibits and schedules have been omitted pursuant to Item 601(b)(2) of Regulation S-K and will be furnished to the Securities and Exchange Commission upon request.

Exhibit 2.3

AGREEMENT AND PLAN OF MERGER

by and among

RENTLYTICS, INC.,

REALPAGE, INC.,

RP NEWCO XXVI INC.,

FORTIS ADVISORS LLC,
in its capacity as Representative,

and

THE EQUITYHOLDERS party hereto

Dated as of October 11, 2018

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EXHIBITS and SCHEDULES

AGREEMENT AND PLAN OF MERGER

This AGREEMENT AND PLAN OF MERGER (this "***Agreement***"), dated as of October 11, 2018, is made by and among Rentlytics, Inc., a Delaware corporation (the "***Company***"), RealPage, Inc., a Delaware corporation ("***Parent***"), RP Newco XXVI Inc., a Delaware corporation and wholly owned subsidiary of Parent ("***Merger Subsidiary***"), Fortis Advisors LLC, a Delaware limited liability company, in its capacity as Representative (as hereinafter defined), and each of the Equityholders who have executed this Agreement (whether on the date hereof or by execution of a Joinder to this Agreement pursuant to a Letter of Transmittal or Acknowledgement and Release).

RECITALS

WHEREAS, the Company has engaged and currently engages in the business of providing real estate managers, investors, lenders, developers, operators, owners and fund managers business intelligence and data analytics software and services, including data aggregation, reporting, collaboration and renovation management software (collectively, the "***Business***");

WHEREAS, the Stockholders collectively are the record and beneficial owners of issued and outstanding capital stock of the Company;

WHEREAS, the Boards of Directors of the Company, Parent and Merger Subsidiary deem it advisable and in the best interest of their respective stockholders to consummate the transactions contemplated in this Agreement on the terms and subject to the conditions provided for herein;

WHEREAS, in furtherance thereof it is proposed that the acquisition be accomplished by the merger of Merger Subsidiary with and into the Company, with the Company being the surviving corporation, in accordance with the General Corporation Law of the State of Delaware (the "***DGCL***");

WHEREAS, the Boards of Directors of the Company, Parent and Merger Subsidiary have each approved and declared the advisability of this Agreement, the Merger (as hereinafter defined) and the other transactions contemplated herein;

WHEREAS, it is a condition to the obligations of Parent and Merger Subsidiary to close the Merger and other transactions contemplated herein that the holders of no less than 95% of the shares of Common Stock and Preferred Stock of the Company outstanding on the date of this Agreement adopt this Agreement, the Merger and the other transactions contemplated herein (the "***Requisite Stockholder Approval***");

WHEREAS, concurrent with the execution and delivery of this Agreement, and as a material inducement to Parent and Merger Subsidiary to enter into this Agreement, (i) each Significant Owner (as hereinafter defined) has executed and delivered to Parent a Significant Owner Agreement in the form of **Exhibit B** hereto (the "***Significant Owner Agreement***") to be effective upon the Closing and (ii) each of Justin Alanis, Roger Muckenfuss, Remington Blaize Wallace and Stephen Drydahl (collectively, the " ***Key Employees***"), has executed and delivered to Parent the Employment Documentation applicable to such Key Employee in the form of **Exhibit G** hereto (the "***Employment Documentation***"); and

WHEREAS, the Company, Parent and Merger Subsidiary desire to make certain representations, warranties, covenants and agreements in connection with the Merger and also to prescribe various conditions to the Merger.

AGREEMENTS

NOW, THEREFORE, for and in consideration of the promises and the representations, warranties, covenants and agreements set forth herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and upon the terms and subject to the conditions hereinafter set forth, the parties hereto, intending to be legally bound hereby, agree as follows:

Article I
DEFINED TERMS

1.1 **Definitions**. Unless otherwise specified, all capitalized terms used in this Agreement have the meanings set forth on **Exhibit A**.

ARTICLE II
THE MERGER

2.1 **Merger**. Upon the terms and subject to the conditions set forth in this Agreement, at the Effective Time, Merger Subsidiary shall be merged with and into the Company (the "***Merger***") in accordance with the terms of, and subject to the conditions set forth in, this Agreement and the DGCL. Following the Merger, the Company shall continue as the surviving corporation in the Merger (sometimes hereinafter referred to as the "***Surviving Corporation***") and the separate corporate existence of Merger Subsidiary shall cease.

2.2 **Effective Time**. Upon the terms and subject to the conditions set forth in this Agreement, the Company, Parent and Merger Subsidiary shall cause a Certificate of Merger meeting the requirements of Sections 103 and 251 of the DGCL in substantially the form of **Exhibit H** (the "***Certificate of Merger***") to be duly executed and filed with the Secretary of State of the State of Delaware in accordance with the terms and conditions of the DGCL on the Closing Date. The Merger shall be deemed effective at the time the Certificate of Merger is duly filed with the Secretary of State of the State of Delaware (the "***Effective Time***").

2.3 **Effects of the Merger**. At and after the Effective Time, the Merger shall have the effects set forth in the DGCL. Without limiting the generality of the foregoing and subject thereto, at the Effective Time, the separate existence of Merger Subsidiary will cease and, without other transfer, all of the property, rights, privileges, immunities, powers and franchises of the Company and Merger Subsidiary shall vest in the Surviving Corporation, and all debts, liabilities, obligations and duties of the Company and Merger Subsidiary shall become the debts, liabilities, obligations and duties of the Surviving Corporation as if the Surviving Corporation had itself incurred them.

2.4 **Certificate of Incorporation and Bylaws**. The certificate of incorporation and bylaws of the Surviving Corporation shall be amended and restated in their entirety as of the Effective Time to be identical to the forms attached hereto as **Exhibits C** and **D**, respectively, until thereafter duly amended in accordance with Applicable Laws and as provided in such amended and restated certificate of incorporation and bylaws, respectively.

2.5 **Directors and Officers**. The directors and officers of Merger Subsidiary immediately prior to the Effective Time shall be the initial directors and officers of the Surviving Corporation as of the Effective Time, each to hold office in accordance with the amended and restated certificate of incorporation and bylaws of the Surviving Corporation, respectively, until their resignation, removal or replacement.

2.6 **Authorization to Act on behalf of Merger Subsidiary and the Company**. If, at any time after the Effective Time, the Surviving Corporation shall consider or be advised that any deeds, bills of sale, assignments, assurances or any other actions or things are reasonably necessary or desirable to vest, perfect or confirm of record or otherwise in the Surviving Corporation its right, title or interest in, to or under any of the rights or assets of either Merger Subsidiary or the Company acquired or to be acquired by the Surviving Corporation as a result of, or in connection with, the Merger or otherwise to carry out this Agreement, the officers of the Surviving Corporation shall be authorized to execute and deliver, in the name and on behalf of each of Merger Subsidiary and the Company or otherwise, all such deeds, bills of sale, assignments and assurances and to take and do, in such names and on such behalves or otherwise, all such other actions and things as may be reasonably necessary or desirable to vest, perfect or confirm any and all right, title and interest in, to and under such rights or assets in the Surviving Corporation or otherwise to carry out the purposes of this Agreement.

2.7 **Conversion of Outstanding Shares**. At the Effective Time, by virtue of the Merger and without any action on the part of any party:

(a) Each share of common stock, par value $0.0001 per share, of Merger Subsidiary issued and outstanding immediately prior to the Effective Time shall be converted into and exchanged for one share of common stock, par value $0.0001 per share, of the Surviving Corporation, so that, after the Effective Time, Parent shall be the holder of all of the issued and outstanding shares of the Surviving Corporation's common stock.

(b) Each share of Preferred Stock outstanding immediately prior to the Effective Time (each, an "***Outstanding Preferred Share***" and collectively, the "***Outstanding Preferred Shares***") (i) shall automatically be converted into the right to receive payments in the amount(s) and in the manner set forth in this Article II and Section 10.5(b), if any, and (ii) shall otherwise cease to be outstanding, shall be canceled and retired and cease to exist; *provided*, that Dissenting Shares shall not be so converted or represent the right to receive the foregoing consideration, but the holders of such Dissenting Shares shall be entitled to only such rights as are set forth in Section 2.9.

(c) Each share of Common Stock outstanding immediately prior to the Effective Time (each, an "***Outstanding Common Share***" and collectively, the "***Outstanding Common Shares***") (i) shall be converted into the right to receive payments in the amount(s) and in the manner set forth in this Article II and Section 10.5(b), if any, and (ii) shall otherwise cease to be outstanding, shall be canceled and retired and cease to exist; *provided*, that Dissenting Shares shall not be so converted or represent the right to receive the foregoing consideration, but the holders of such Dissenting Shares shall be entitled to only such rights as are set forth in Section 2.9.

(d) Each share of Common Stock and Preferred Stock held in the treasury of the Company, if any, immediately prior to the Effective Time shall be canceled and retired without any conversion thereof, and no payment or distribution shall be made with respect thereto.

2.8 **Treatment of Company Options**. At the Effective Time, in accordance with the terms of the Company Stock Plan (including Section 8(b) of the Company Stock Plan) and this Agreement, and without any action on the part of any Vested Option Holder or holder of Unvested Options, (x) each Vested Option shall (a) be canceled and retired and cease to exist and (b) thereafter represent only the right to receive payments in the amount(s) and in the manner set forth in this Article II and Section 10.5(b), if any, and (y) each Unvested Option shall be terminated, canceled and retired and cease to exist without any payment therefor.

2.9 **Dissenters' Rights**.

(a) Promptly following the receipt by the Company of written consents of Stockholders constituting the Requisite Stockholder Approval, the Company shall provide each record holder of Common Stock who shall not have voted in favor of the Merger or consented thereto in writing, with notice (such notice to be subject to Parent's review and consent) of such holder's appraisal rights pursuant to Section 262 of the DGCL and Chapter 13 of the CCC (if and to the extent applicable). The Company shall give Parent prompt notice of any demands for appraisal pursuant to Section 262 of the DGCL or Chapter 13 of the CCC received by the Company from any Stockholders, withdrawals of such demands and any other instruments served pursuant to the DGCL or CCC and received by the Company in connection therewith. No later than 10 days following the date on which the Effective Time occurs, the Surviving Corporation shall provide notice of the Effective Time to each holder of Dissenting Shares (as hereinafter defined).

(b) Notwithstanding any provision of this Agreement to the contrary, no Outstanding Shares that are held immediately prior to the Effective Time by holders who have neither voted in favor of the Merger nor consented thereto in writing and who have demanded and perfected the right, if any, for

appraisal of such Outstanding Shares in accordance with the applicable provisions of the DGCL or the CCC (if and to the extent applicable) and have not withdrawn or lost such right to appraisal (collectively, the "***Dissenting Shares***") shall be converted into or represent a right to receive the consideration for such shares set forth in this Agreement, but the holder of such Dissenting Shares shall only be entitled to such appraisal rights as are granted by the DGCL or the CCC (if and to the extent applicable). If a holder of Outstanding Shares who demands appraisal of such Outstanding Shares under the DGCL or CCC shall thereafter effectively withdraw or lose (through failure to perfect or otherwise) the right to appraisal with respect to such Outstanding Shares, then, as of the occurrence of such withdrawal or loss, each such Outstanding Share shall be deemed to have been converted into and represent only the right to receive, in accordance with Section 2.7 (Conversion of Outstanding Shares) and 2.11 (Payments), the consideration for such shares set forth in this Article II and Section 10.5(b) (Distributions), if any. The Company shall promptly provide notice to Parent of any demands received by the Company for appraisal of any Outstanding Shares, and Parent shall have the right to participate in all negotiations and proceedings with respect to such demands. Prior to the Effective Time, the Company will not voluntarily make any payment with respect to any demands made under Section 262 of the DGCL or Chapter 13 of the CCC, and will not, except with Parent's prior written consent, settle or offer to settle any such demands; it being agreed that following the Effective Time the Surviving Corporation will have the exclusive right to make any payments with respect to any such demands, and to settle or offer to settle any such demands.

2.10 **Closing of Transfer Books**. From and after the Effective Time, the stock transfer books of the Company shall be closed and no transfer of Common Stock or Preferred Stock shall thereafter be made. From and after the Effective Time, the holders of Certificates evidencing ownership of Outstanding Shares immediately prior to the Effective Time shall cease to have any rights with respect to such Outstanding Shares, except as otherwise provided for in this Agreement or by Applicable Law.

2.11 **Payments**.

(a) Payment Spreadsheet. At least three Business Days prior to the Closing, the Company shall deliver to Parent a spreadsheet in substantially the form of Schedule 2.11 attached hereto (the "***Payment Spreadsheet***"), duly certified by the Chief Executive Officer or Chief Operating Officer of the Company, setting forth the following information, in a form reasonably satisfactory to Parent (and consistent with the Closing Date Balance Sheet):

(i) the Company's good faith calculation of the Estimated Merger Consideration and each component of the Estimated Merger Consideration;

(ii) the information with respect to the Estimated Company Transaction Costs required by Section 5.4;

(iii) the information with respect to the Estimated Indebtedness as required by Section 5.5; and

(iv) with respect to each Equityholder and Promised Option Holder as of the Closing Date: (A) the name, address and (to the extent available) email address of such Equityholder and Promised Option Holder, (B) the number and class of all Outstanding Shares and Vested Options held by such Equityholder, (C) the aggregate Per Share Closing Consideration allocable to each Stockholder in respect of such Stockholder's Outstanding Shares, (D) the amount of Vested Option Payments allocable to each Vested Option Holder in respect of such Vested Option Holder's Vested Options, (E) the amount of the Management Carveout Payment allocable to each Management Carveout Participant, (F) the amount of the Promised Option Payment allocable to each Promised Option Holder, (G) each Equityholder's Applicable Holdback Percentage, (H) each Equityholder's Applicable Percentage, (I) whether there is any required withholding on account of Taxes with respect to such Equityholder's portion of the Net Closing Merger Consideration or such Promised Option Holder's Promised Option Payment, and, with respect to each Stockholder, the amount of any such withholding with respect to payment for such Stockholder's Outstanding Shares, and (J) the wire

transfer instructions of such Equityholder and Promised Option Holder with respect to the payments to be made by Parent pursuant to Section 2.11(b).

Parent and, following the Closing, the Company, may rely on the instructions of the Representative for distributions of cash and shall have no responsibility or liability with respect thereto. Parent shall make distributions of cash after the Closing to the Equityholders in the same form and in accordance with the same wiring instructions or delivery addresses, as applicable, as such distributions were made to each such Equityholder in connection with the Closing (as set forth in the Payment Spreadsheet), except as otherwise indicated in any update delivered to Parent by the Representative to reflect any assignments or other changes in factual information. Upon Parent making each aggregate payment required of it under this Agreement to the Equityholders in accordance with the final Payment Spreadsheet delivered by the Company prior to the Closing as provided herein, Parent shall have fulfilled its obligations with respect to such payments. Parent shall have no liability (whether directly or indirectly through the Company following the Closing) whatsoever with respect to the allocation of the distribution of the payments of the Merger Consideration among the Equityholders. No party to this Agreement shall take any tax or other position that is contrary to the allocations set forth in the Payment Spreadsheet unless otherwise required by Applicable Law.

(b) Closing Payments. On the terms and subject to the conditions of this Agreement, at the Closing:

(i) Parent shall pay or cause to be paid, by wire transfer of immediately available funds, at the direction and for the benefit of the Company and the Equityholders, the Estimated Indebtedness to each creditor set forth on Schedule 5.5, to an account designated by such creditor in such creditor's duly executed and delivered Pay-Off Letter, in the amount of Indebtedness specified in such creditor's Pay-Off Letter and the Payment Spreadsheet;

(ii) Subject to Section 12.7 (Expenses and Obligations), Parent shall pay or cause to be paid, by wire transfer of immediately available funds, at the direction and for the benefit of the Company and the Equityholders, all Estimated Company Transaction Costs specified in the Payment Spreadsheet, and such payments shall be made to such account or accounts as are designated by the Company in accordance with Section 5.4 (Company Transaction Costs) and the Payment Spreadsheet;

(iii) Subject to Sections 2.7 (Conversion of Outstanding Shares), 2.9 (Dissenters' Rights), 2.11(d) (Withholding), Parent shall pay or cause to be paid, by wire transfer of immediately available funds, to each Stockholder that delivers a completed and duly executed letter of transmittal in the form attached hereto as **Exhibit E** (each, a "***Letter of Transmittal***") and a Certificate for cancellation (or an affidavit of lost Certificate as contemplated in the Letter of Transmittal) to Parent or its designee on or prior to the Closing Date, such Stockholder's Applicable Percentage of the Net Closing Merger Consideration attributable to the Outstanding Shares represented by such Certificate(s) (or affidavit(s), as applicable), delivered by such Stockholder as set forth on the Payment Spreadsheet;

(iv) Parent shall retain from the Net Closing Merger Consideration, at the direction and for the benefit of the Equityholders, an amount equal to the Vested Option Payment Amount, and pay or cause to be paid, pursuant to a special payroll (or, with respect to a Vested Option Holder that is not a current or former employee of the Company, by wire transfer of immediately available funds to the account designated in the Payment Spreadsheet) on or promptly following the Closing Date (subject to Section 2.11(d) (Withholding)), to each Vested Option Holder that delivers a completed and duly executed Acknowledgement, Release and Joinder in the form attached hereto as **Exhibit I-1** to Parent or its designee at least two Business Days prior to the Closing Date, in respect of each Vested Option held by such Vested Option Holder, an amount equal to the product of (A) the Per Share Closing Consideration minus the per share exercise price applicable to such Vested Option and (B) the number of shares subject to such Vested Option, (subject to Section 2.11(d) (Withholding)), as set forth on the Payment Spreadsheet (each such amount, a "***Vested Option Payment***");

(v) Parent shall retain from the Net Closing Merger Consideration, at the direction and for the benefit of the Equityholders, an amount equal to the Management Carveout Payment Amount, and pay or cause to be paid, pursuant to a special payroll on or promptly following the Closing Date (subject to Section 2.11(d) (Withholding)), to each Management Carveout Participant that delivers a completed and duly executed Acknowledgement, Release and Joinder in the form attached hereto as **Exhibit I-2** to Parent or its designee at least two Business Days prior to the Closing Date, the amount of such Management Carveout Participant's Management Carveout Payment (subject to Section 2.11(d) (Withholding)), as set forth on the Payment Spreadsheet;

(vi) Subject to Section 2.11(d) (Withholding), Parent shall retain from the Merger Consideration, at the direction and for the benefit of the Company and the Equityholders, an amount equal to the Promised Option Payments Amount, and pay or cause to be paid, pursuant to scheduled special payroll on or promptly following the Closing Date (subject to Section 2.11(d) (Withholding)), to each Promised Option Holder that delivers a completed and duly executed Acknowledgement and Release in the form attached hereto as **Exhibit I-3** to Parent or its designee at least two Business Days prior to the Closing Date, the amount of such Promised Option Holder's Promised Option Payment (subject to Section 2.11(d) (Withholding)), as set forth on the Payment Spreadsheet; and

(vii) Parent shall pay or cause to be paid, by wire transfer in immediately available funds, at the direction and for the benefit of the Equityholders, an amount equal to $500,000 (the "***Expense Fund Amount***") into an expense account designated in writing by the Representative no later than three Business Days prior to the Closing, which account that shall be used to pay expenses incurred by the Representative and will be managed by the Representative (the "***Expense Fund Account***").

(c) Post-Closing Parent Payments. From and after the Closing, Parent shall (and in any event within 10 Business Days after receipt shall) pay or cause to be paid, subject to Section 2.7 (Conversion of Outstanding Shares), 2.9 (Dissenters Rights), 2.11(d) (Withholding), to each Stockholder that delivers a completed and duly executed Letter of Transmittal and all applicable Certificates for cancellation (or an affidavit of lost Certificate as contemplated in the Letter of Transmittal) to Parent or its designee at any time after the Closing Date, the amount (without interest) that would have been payable to such Stockholder pursuant to Section 2.11(b)(iii) (as set forth in the Payment Spreadsheet) if such Stockholder had delivered such documents on or prior to the Closing Date. From and after the Closing, Parent shall pay or cause to be paid, pursuant to Parent's next special payroll cycle in accordance with Parent's standard payroll practices (including funding of the payroll processor) (or, with respect to a Vested Option Holder that is not a current or former employee of the Company, by wire transfer of immediately available funds to the account designated in the Payment Spreadsheet), subject to Section 2.11(d) (Withholding), to each Vested Option Holder, Management Carveout Participant and Promised Option Holder that delivers a completed and duly executed Acknowledgement and Release to Parent or its designee at any time after two Business Days prior to the Closing Date and at least two Business Days prior to the applicable payroll processing date, the amount (without interest) that would have been payable to such Vested Option Holder pursuant to Section 2.11(b)(iv), to such Management Carveout Participant pursuant to Section 2.11(b)(v) or to such Promised Option Holder pursuant to Section 2.11(b)(vi) (in each case, as set forth in the Payment Spreadsheet) if such Vested Option Holder, Management Carveout Participant or Promised Option Holder, as applicable, had delivered such documents two Business Days prior to the Closing Date. Any other payments (including disbursements of the Holdback Cash Consideration), if any, to be made to the Equityholders following the Closing shall be made to the Representative (or a paying agent engaged by the Representative (the "***Paying Agent***")) for the benefit of such Equityholders, and shall be paid by the Representative or such Paying Agent to the Equityholders in accordance with their Applicable Holdback Percentages.

(d) Withholding. Each of the Surviving Corporation and Parent shall be entitled to deduct and withhold from the consideration otherwise payable to any Equityholder or Promised Option Holder pursuant to this Article II and Section 10.5(b), amounts that the Surviving Corporation or Parent, as the case may be, is required to deduct and withhold with respect to payment under any provision of federal, state or local income Tax law. To the extent such amounts were so deducted or withheld, such amounts

shall be (i) treated for all purposes under this Agreement as having been paid to the Person to whom such amounts would otherwise have been paid and (ii) timely remitted by each payor to the applicable Governmental Entity. In the case of any amounts withheld, the withholding party shall promptly provide to the Equityholder(s) or the Promised Option Holder(s) from whom such amounts were withheld written confirmation of the amount so withheld and, upon payment of such withheld amounts to the applicable Governmental Entity, of such payment. No interest shall accrue or be paid on the cash payable upon the delivery of Certificates. Parent and the Stockholders acknowledge that the payments made to the Stockholders in respect of Outstanding Shares pursuant to Section 2.11 are intended to constitute consideration for the Stockholders' shares of capital stock of the Company and not compensation for any services rendered or to be rendered at any time by any Stockholder. Parent and the Equityholders acknowledge that the Company's portion of any withholding required to be paid in connection with the payments to Vested Option Holders, Promised Option Holders and Management Carveout Participants under this Agreement shall be treated as Company Transaction Costs incurred immediately prior to the Closing (which amount shall be reflected as an accrued liability in the Estimated Working Capital and Final Working Capital).

(e) Dissenting Share Payments. Any amounts to be paid to a Stockholder that are attributable to a Dissenting Share shall be available to pay the fair value of such Dissenting Share for which appraisal rights are perfected pursuant to Section 262 of the DGCL or Chapter 13 of the CCC.

(f) Aggregate Payments. Notwithstanding anything to the contrary, the aggregate cash payments to the Equityholders pursuant to this Article II shall not exceed the Net Closing Merger Consideration.

2.12 **Holdback Cash Consideration**. Parent shall retain the Holdback Cash Consideration, which will constitute partial security for the satisfaction of the indemnity and other obligations under this Agreement. Parent shall be entitled but not obligated to retain and subtract from the Holdback Cash Consideration (a) the amount, if any, to which Parent is entitled pursuant to Section 2.14(c) and (b) any Indemnified Losses for which an Indemnified Party is entitled to indemnification pursuant to Article X. The parties hereby acknowledge and agree that they intend that no portion of the Holdback Cash Consideration payable to an Equityholder shall be treated as constructively received by such Equityholder for tax reporting purposes at the Effective Time. The Holdback Cash Consideration shall be constructively received by the Equityholders if and when paid pursuant to Section 10.5(b). The parties shall execute and file all U.S. federal, state, local or foreign income Tax Returns in a manner consistent with the preceding sentence unless otherwise required by a change in applicable Law following the Effective Time.

2.13 **Closing Adjustment Amount** . The Merger Consideration shall be subject to adjustment at and after the Closing as specified in this Section 2.13 and as specified in Section 2.14. No less than ten days prior to the Closing Date, the Company shall provide a written certificate to Parent (the "***Pre-Closing Statement***"), which sets forth (a) an estimated balance sheet of the Company as of the Closing Date (the "***Closing Date Balance Sheet***"), prepared in accordance with GAAP consistently applied with the Company's past accounting practices and in good faith, (b) the Company's good faith estimate of (i) the Working Capital of the Business as of the Closing Date (the "***Estimated Working Capital***"), determined in accordance with GAAP consistently applied with the Company's past accounting practices, which past practices are reflected in Schedule 2.13, (ii) the Indebtedness of the Company as of the Closing Date (the " ***Estimated Indebtedness***"), (iii) the Closing Cash (the "***Estimated Closing Cash***"), and (iv) the amount of the Company Transaction Costs as of the Closing Date (the "***Estimated Company Transaction Costs***") and (c) a calculation of the Estimated Merger Consideration. The target Working Capital at Closing shall be $156,590 ("***Target Working Capital***"). If the Target Working Capital exceeds the Estimated Working Capital, then the amount of the Estimated Merger Consideration shall be reduced by the amount of such excess (the "***Closing Adjustment Amount***"). Parent and its representatives, including Parent's independent accountants, will be entitled to review all work papers of the Company and its representatives, including its independent accountants, relating to the Closing Date Balance Sheet and the Pre-Closing Statement. If Parent disputes the Closing Date Balance Sheet or the Pre-Closing Statement (or any portion thereof) prior to the Closing Date, then Parent and the Company will negotiate in good faith to resolve any such dispute at or prior to the Closing Date.

2.14 **Final Working Capital**.

(a) Not later than 120 days after the Closing Date, Parent or the Surviving Corporation shall deliver to the Representative (i) a statement (the "***Closing Statement***") setting forth Parent's determination of (A) the Working Capital of the Company as of the Closing Date determined in accordance with the methodology described in Schedule 2.13 ("***Final Working Capital***"), (B) the Indebtedness of the Company as of the Closing Date (the "***Final Indebtedness***"), (C) the Closing Cash (the "***Final Closing Cash***"), (D) the amount of the Company Transaction Costs as of the Closing Date (the "***Final Company Transaction Costs***") and (E) a calculation of the Working Capital Shortfall, if any, and (F) a calculation of the Adjusted Merger Consideration and (ii) such work papers and other documents and information as are reasonably necessary to demonstrate the manner in which the foregoing were calculated (the "***Support Documentation***").

(b) The Representative shall, within 30 days following Parent's or the Surviving Corporation's delivery of the Closing Statement to the Representative, accept or reject the Final Working Capital, Final Indebtedness, Final Closing Cash, Final Company Transaction Costs, Working Capital Shortfall and Adjusted Merger Consideration calculations submitted by Parent or the Surviving Corporation. If the Representative has not delivered to Parent written notice (the "***Objection Notice***") of its objections to the calculation of the Final Working Capital, Final Indebtedness, Final Closing Cash, Final Company Transaction Costs, Working Capital Shortfall or Adjusted Merger Consideration (such Objection Notice must contain a statement describing in reasonable detail the nature of the objections and the bases therefor), then the Closing Statement and calculation of the Working Capital Shortfall and the Adjustment Merger Consideration shall be deemed final, binding and conclusive for all purposes hereunder. If the Representative delivers the Objection Notice within such 30-day period, then Parent and the Representative shall endeavor in good faith to resolve the objections, for a period not to exceed 15 days from the date of receipt by Parent of the Objection Notice, and if the parties so resolve all disputes, the Closing Statement and calculation of the Working Capital Shortfall and Adjusted Merger Consideration, as amended to the extent necessary to reflect the resolution of the dispute, shall be final, conclusive and binding on Parent, the Equityholders and the Representative for all purposes hereunder. For the avoidance of doubt, the Objection Notice may include revisions to the estimated amounts contained in the Pre-Closing Statement; *provided, however*, that even if the Arbitrator agrees with the amounts contained in the Objection Notice, in no event shall the Adjusted Merger Consideration exceed the Estimated Merger Consideration. If at the end of the 15-day period there are any objections that remain in dispute, then the remaining objections in dispute shall be submitted for resolution to an independent accounting firm of recognized national standing that is mutually agreeable to Parent and the Representative (the "***Arbitrator***"). The Arbitrator shall determine any unresolved items within 30 days after the objections that remain in dispute are submitted to it. If any remaining objections are submitted to the Arbitrator for resolution, (i) each party shall furnish to the Arbitrator such work papers and other documents and information relating to such objections as the Arbitrator may request and are available to that party (or its independent public accountants) and will be afforded the opportunity to present to the Arbitrator any material relating to the determination of the matters in dispute and to discuss such determination with the Arbitrator, (ii) to the extent that a value has been assigned to any objection that remains in dispute, the Arbitrator shall not assign a value to such objection that is greater than the greatest value for such objection claimed by either party or less than the smallest value for such objection claimed by either party, (iii) the determination by the Arbitrator as set forth in a written notice delivered to both parties by the Arbitrator, shall be made in accordance with this Agreement and shall be binding and conclusive on the parties and shall constitute an arbitral award that is final, binding and unappealable and upon which a judgment may be entered by a court having jurisdiction thereof, and (iv) the fees and expenses of the Arbitrator shall be paid by Parent, on the one hand, and the Equityholders, on the other hand, based on the inverse of the percentage that the Arbitrator's determination bears to the aggregate claimed value of each party's respective position in relation to the aggregate value for such matters in dispute. All proceedings conducted by the Arbitrator shall take place in Denver, Colorado. Notwithstanding anything to the contrary, the parties agree that the scope of the Arbitrator's review shall be limited to the items in dispute that are submitted to it in connection with the calculations of the Working Capital Shortfall and the Adjusted Merger

Consideration (and the components thereof). This provision for arbitration shall be specifically enforceable by Parent or the Representative and the decision of the Arbitrator in accordance with the provisions hereof shall be final and binding with respect to the matters so arbitrated and there shall be no right of appeal therefrom. Except as provided in the last sentence of Section 2.14(c), nothing in this Section 2.14 shall limit the Indemnified Parties' rights to indemnification under this Agreement or any other rights or remedies available to such parties.

(c) If (i) the Final Working Capital (as finally determined in accordance with Section 2.14(b)) is less than the Estimated Working Capital and the Estimated Working Capital is equal to or less than the Target Working Capital, then the Adjusted Merger Consideration shall be reduced by an amount equal to the difference between the Estimated Working Capital and the Final Working Capital, or (ii) the Final Working Capital (as finally determined in accordance with Section 2.14(b)) is less than the Estimated Working Capital and the Estimated Working Capital is greater than the Target Working Capital, then the Adjusted Merger Consideration shall be reduced by the amount by which the Target Working Capital exceeds the Final Working Capital (such difference, as the case may be, is referred to herein as the "***Working Capital Shortfall***"). If the Adjusted Merger Consideration is less than the Estimated Merger Consideration (the "***Adjustment Amount***"), then Parent may seek recovery from the Holdback Cash Consideration of the Adjustment Amount. Parent's right to recover the Adjustment Amount from the Holdback Cash Consideration shall be without reference to or meeting any Threshold requirement, notwithstanding the provisions of Section 10.6(a). To the extent permitted under Applicable Law, the parties will treat (and will cause each of their respective Affiliates to treat) any amounts payable with respect to any Adjustment Amount as an adjustment to the Merger Consideration. For clarity, the process set forth in Section 2.13 and Section 2.14 shall be the exclusive method of Parent, the Equityholders and the Representative for resolving disputes related to the Working Capital, the Pre-Closing Statement, the Closing Statement and any amounts set forth therein.

ARTICLE III
REPRESENTATIONS AND WARRANTIES OF THE COMPANY

Except as set forth in the Disclosure Schedule, the Company represents and warrants to Parent and Merger Subsidiary and to and for the benefit of the Indemnified Parties, as of the date hereof and as of the Effective Time, as follows (with the understanding and acknowledgement that Parent and Merger Subsidiary would not have entered into this Agreement without being provided with the representations and warranties set forth herein, and that these representations and warranties constitute an essential and determining element of this Agreement):

3.1 **Organizational Matters**.

(a) Organization, Standing and Power to Conduct Business. The Company is a corporation duly organized, validly existing and in good standing under the laws of the State of Delaware and has the requisite power and authority to own, lease and operate its properties and to carry on its business as now being conducted. The Company is duly qualified and in good standing to do business (with respect to jurisdictions that recognize that concept) in each of the jurisdictions set forth in Section 3.1(a) of the Disclosure Schedule, and such jurisdictions represent each jurisdiction in which the nature of the Company's business or the ownership or leasing of its properties makes such qualification necessary, except where the failure to be so qualified or in good standing would not materially impair the ability of the Company to conduct its business operations. The Company has no operations in jurisdictions outside the United States.

(b) Charter Documents. The Company has delivered to Parent true and complete copies of the certificate of incorporation and bylaws of the Company, in each case as amended to date and currently in effect (such instruments and documents, the "***Company Charter Documents***"). The Company is not in violation of any of the provisions of the Company Charter Documents.

(c) Subsidiaries. The Company does not have any subsidiaries and does not own, hold or have any interest in or right to acquire capital stock or other Equity Interests or ownership interests in any entity.

(d) Powers of Attorney. Except as set forth on Section 3.1(d) of the Disclosure Schedule, there are no outstanding powers of attorney executed by or on behalf of the Company.

3.2 **Capital Structure**.

(a) Capital Stock.

(i) The authorized capital stock of the Company consists only of 14,495,284 shares of Preferred Stock, par value $0.0001 per share, of which 6,530,672 shares of Preferred Stock are designated as "Series Seed Preferred Stock (the "***Series Seed Preferred Stock***"), 1,835,131 shares of Preferred Stock are designated as "Series A-1 Preferred Stock" (the "***Series A-1 Preferred Stock***") and 6,129,481 shares of Preferred Stock are designated as "Series A Preferred Stock" (the "***Series A Preferred Stock***") and 30,500,000 shares of Common Stock, par value $0.0001 per share.

(ii) At the date hereof, (A) there are (1) 6,530,672 shares of Series Seed Preferred Stock, (2) 1,835,131 shares of Series A-1 Preferred Stock, (3) 5,963,819 shares of Series A Preferred Stock, and (4) 10,895,084 shares of Common Stock, in each case issued and outstanding; and (B) the Company has no other issued or outstanding shares of capital stock. All of the issued and outstanding shares of capital stock of the Company have been duly authorized and validly issued and are fully paid, non-assessable and not subject to any preemptive rights.

(iii) No shares of Common Stock, Preferred Stock or other capital stock of the Company are held as treasury stock or are owned by the Company.

(iv) Section 3.2(a)(iv) of the Disclosure Schedule sets forth a true and complete list of the holders of all the issued and outstanding shares of Common Stock and Preferred Stock and, as of the date of this Agreement, all issued and outstanding Vested Options and Unvested Options, showing the number of shares of Common Stock and Preferred Stock and Vested Options and Unvested Options held by each such holder.

(b) Other Securities. Except as set forth in Section 3.2(b) of the Disclosure Schedule, there are no shares of capital stock or other Equity Interests or securities, options, warrants, calls, rights, commitments, agreements, arrangements or undertakings of any kind to which the Company is a party or by which it is bound obligating the Company to (A) issue, convert, deliver or sell, or cause to be issued, delivered or sold, shares of capital stock, Equity Interests or other securities of the Company, (B) issue, grant, extend or enter into any such security, option, warrant, call, right, commitment, agreement, arrangement or undertaking or (C) issue or distribute to holders of any shares of capital stock of the Company any evidences of indebtedness or assets of the Company. The Company is not under any obligation to purchase, redeem or otherwise acquire any shares of its capital stock or any interest therein or to pay any dividend or make any other distribution with respect thereto. The Company has furnished to Parent complete and accurate copies of the Company Stock Plan and forms of agreements used thereunder. All options set forth in Section 3.2(b) of the Disclosure Schedule have been granted pursuant to, and in accordance with the terms of, the Company Stock Plan, and the vesting schedule applicable to such options is set forth in Section 3.2(b) of the Disclosure Schedule. Except as set forth in Section 3.2(b) of the Disclosure Schedule, the Company has not promised or otherwise indicated an intention (whether orally or in writing) to grant to any employee, consultant or contractor of the Company or any other Person any options or other Equity Interests (including rights to participate in the Management Carveout Plan or any other similar interests) in the Company.

(c) No Agreements. Other than as listed in Section 3.2(c) of the Disclosure Schedule and this Agreement, there are no agreements, written or oral, to which the Company is a party, relating to

the issuance, acquisition (including rights of first refusal or preemptive rights), disposition, registration under the Securities Act of 1933, as amended (the "***Securities Act***"), or voting of the capital stock or other securities of the Company.

(d) Compliance with Laws. All shares of Common Stock, Preferred Stock, and other rights to acquire capital stock or other securities of the Company have been issued in compliance with all applicable securities laws and all other Applicable Laws. The Board of Directors of the Company has not violated any fiduciary duties owed to the Company or to any holders of securities of the Company, whether in connection with the transactions contemplated in this Agreement or any other Transaction Document or otherwise.

(e) Merger Consideration. No Person will be entitled to receive or have any claim to a portion of the Net Closing Merger Consideration, or any other payment or consideration as a result of the transactions contemplated in this Agreement or any other Transaction Document, other than the Equityholders as shown on Sections 3.2(a)(iv) and 3.2(b) of the Disclosure Schedule.

3.3 **Authority and Due Execution**.

(a) Authority. The Company has all requisite corporate power and authority to execute and deliver this Agreement and the other Transaction Documents to which it is a party and to perform its obligations hereunder and thereunder and to consummate the transactions contemplated herein or therein. The execution, delivery and performance of this Agreement and the other Transaction Documents by the Company, and the consummation of the transactions contemplated herein or therein, have been duly and validly authorized by all necessary corporate action on the part of the Company, and no other corporate proceedings on the part of the Company are necessary to authorize the execution, delivery and performance of this Agreement and the other Transaction Documents by the Company or to consummate the transactions contemplated herein or therein. Prior to the execution of this Agreement, the board of directors of the Company, in its capacity as the administrator of the Company Stock Plan, has adopted resolutions approving the treatment of the options issued pursuant to the Company Stock Plan as provided in Section 2.8.

(b) Due Execution. This Agreement and each other Transaction Document to which the Company is a party has been duly executed and delivered by the Company and, assuming due authorization, execution and delivery by Parent, Merger Subsidiary and other parties hereto and thereto, constitutes the valid and binding obligation of the Company, enforceable against the Company in accordance with its terms, subject to bankruptcy, insolvency, reorganization, moratorium and similar laws of general application relating to or affecting creditors' rights and to general equity principles (the "***Remedies Exceptions***").

3.4 **Non-Contravention and Consents**. Except as set forth in Section 3.4 of the Disclosure Schedule:

(a) Non-Contravention. The execution and delivery of this Agreement and each other Transaction Document and the consummation of the transactions contemplated herein and therein by the Company do not, and the performance of this Agreement and each other Transaction Document by the Company will not, (i) conflict with or violate any provision of the Company Charter Documents, (ii) conflict with or violate any Applicable Laws, or (iii) except as set forth on Section 3.4(a)(iii) of the Disclosure Schedule, conflict with, result in any breach or acceleration of, or constitute a default (or an event that with notice or lapse of time or both would become a default) under, or impair the rights of the Company, require redemption or repurchase or otherwise require the purchase or sale of any securities, or alter the rights or obligations of any third party under, or give to others any rights of termination, amendment, acceleration or cancellation pursuant to any Contract, or result in the creation of a Lien on any of the properties or assets of the Company (including the Company's capital stock).

(b) Contractual Consents. Except as set forth in Section 3.4(b) of the Disclosure Schedule, no Consent under any Material Contract is required to be obtained in connection with the execution, delivery or performance of this Agreement or any other Transaction Document by the Company or the consummation of the transactions contemplated herein or therein.

(c) Governmental Consents. No Consent of any national, state, municipal, provincial, county, local or foreign government, any instrumentality, subdivision, department, ministry, board, legislative body, court, administrative or regulatory agency, bureau or commission, or other governmental entity or instrumentality or political subdivision thereof, or any quasi-governmental or private body exercising any executive, legislative, judicial, administrative, regulatory, taxing, importing or other functions of or pertaining to a government (a "***Governmental Entity***") is required to be obtained or made by the Company in connection with the execution, delivery and performance of this Agreement or any other Transaction Document by the Company or the consummation of the transactions contemplated herein or therein, except for the filing of the Certificate of Merger with the Secretary of State of the State of Delaware and any required filing with the Secretary of State of the State of Delaware.

3.5 **Financial Statements**.

(a) Financial Statements. Section 3.5(a) of the Disclosure Schedule sets forth the unaudited financial statements (consisting of a balance sheet, statement of operations and statement of cash flows) prepared by the Company for the years ended December 31, 2015, 2016 and 2017 and for the seven-month period ended July 31, 2018 (the "***Most Recent Financial Statements***") (collectively, the "***Financial Statements***"). The Financial Statements were prepared in accordance with the Company's historic past practice throughout the periods involved, are true and correct in all material respects, and, except as set forth in Section 3.5(a) of the Disclosure Schedule, fairly and accurately present in all material respects the financial position, results of operations and cash flows of the Company as of the dates, and for the periods, indicated therein.

(b) Absence of Liabilities. The Company has no liabilities, whether known or unknown, accrued, absolute, contingent, matured, unmatured, or otherwise and whether or not required to be reflected in financial statements prepared in accordance with GAAP, other than (i) as set forth in the Most Recent Financial Statements, (ii) liabilities incurred in the ordinary course of the bona fide performance of the business subsequent to the date of the Most Recent Financial Statements and (iii) obligations under contracts and commitments incurred in the ordinary course of the bona fide performance of the business described on Section 3.5(b) of the Disclosure Schedule that are not required under GAAP to be reflected in the Financial Statements or the Estimated Working Capital.

3.6 **Indebtedness**. The Company does not have any Indebtedness of any type (whether accrued, absolute, contingent, matured or unmatured), except for: (i) Indebtedness set forth on the Most Recent Financial Statements, or (ii) Indebtedness described in reasonable detail in Section 3.6 of the Disclosure Schedule. The Company has made available to Parent and Merger Subsidiary a true, correct, and complete copy of each of the instruments and documents related to the items of Indebtedness required to be listed in Section 3.6 of the Disclosure Schedule. With respect to each item of Indebtedness, the Company is not in default and no payments are past due, and no circumstance exists that, with notice, the passage of time or both, could constitute a default by the Company under any item of Indebtedness. The Company has not received any notice of a default, alleged failure to perform or any offset or counterclaim with respect to any item of Indebtedness that has not been fully remedied and withdrawn. Other than as set forth in Section 3.6 of the Disclosure Schedule, the consummation of the transactions contemplated in this Agreement or any other Transaction Document to which the Company is a party will not cause a default, breach or an acceleration, automatic or otherwise, of any conditions, covenants or any other terms of any item of Indebtedness. The Company is not a guarantor or otherwise liable for any liability or obligation (including Indebtedness) of any other Person.

3.7 **Litigation**. Except as disclosed on Section 3.7 of the Disclosure Schedule, there have not been in the last five years, and there currently are no claims, charges, complaints, actions, suits, settlements, hearings,

investigations or proceedings, or governmental or regulatory inquiries (each, a "***Legal Proceeding***"), pending or, to the Knowledge of the Company, threatened against the Company or the Business. There have not been in the last five years, and currently are no Legal Proceedings initiated by the Company pending, or that the Company intends to initiate, against any other Person related to the Company, the Business or any Company Intellectual Property. The Company has not received any notice of a Legal Proceeding, nor, to the Knowledge of the Company, is any Legal Proceeding threatened, including with respect to a violation of securities laws, breach of fiduciary duty or similar violation by any of the respective directors, officers or employees of the Company (in their capacities as such). There is no injunction, judgment, decree or order binding upon or against the Company.

3.8 **Taxes**.

(a) (i) All Tax Returns required to be filed by or with respect to the Company have been duly and timely filed; (ii) all items of income, gain, loss, deduction and credit or other items ("***Tax Items***") required to be included in each such Tax Return have been so included and all such Tax Items and any other information provided in each such Tax Return are true, correct and complete in all respects; (iii) all Taxes owed by the Company or for which the Company may be liable that are or have become due have been timely paid in full; (iv) no penalty, interest or other charge is or will become due with respect to the late filing of any such Tax Return or late payment of any such Tax; (v) all Tax withholding and deposit requirements imposed on or with respect to the Company have been satisfied in full in all respects; (vi) there are no Liens (other than Permitted Encumbrances) on any of the assets of the Company that arose in connection with any failure (or alleged failure) to pay any Tax; and (vii) the Company is not liable in any respect for any Tax as a transferee or successor.

(b) Section 3.8(b) of the Disclosure Schedule lists all federal, state, local and foreign income Tax Returns filed with respect to the Company for the six taxable years ending prior to the Closing Date, indicates those Tax Returns that have been audited, indicates those Tax Returns that are currently the subject of audit and indicates those Tax Returns whose audits have been closed. The Company has made available to Parent true and complete copies of all Tax Returns filed by the Company during the past six years and all correspondence to the Company from, or from the Company to, a Taxing Authority relating thereto.

(c) There is no claim against the Company for any Taxes, and no assessment, deficiency or adjustment has been asserted, proposed or threatened with respect to any Tax Return of or with respect to the Company, and there is no reasonable factual or legal basis for the assessment of any deficiency or adjustment with respect to any Tax Return of or with respect to the Company, other than those disclosed (and to which are attached true and complete copies of all audit or similar reports) on Section 3.8(c) of the Disclosure Schedule. No Tax audits or administrative or judicial proceedings are being conducted, pending or threatened with respect to the Company, other than those disclosed (and to which are attached true and complete copies of all correspondence to or from the relevant Taxing Authority pertaining thereto) on Section 3.8(c) of the Disclosure Schedule. No claim has ever been made by a Taxing Authority in a jurisdiction where the Company does not file Tax Returns that it is or may be subject to taxation in that jurisdiction. There are no matters under discussion between the Company and any Tax Authority with respect to matters that could result in an additional amount of Tax.

(d) Except as set forth in Section 3.8(d) of the Disclosure Schedule, there is not in force any extension of time with respect to the due date for the filing of any Tax Return of or with respect to the Company or any waiver or agreement for any extension of time for the assessment or payment of any Tax of or with respect to the Company.

(e) The Company is not a party to or bound by any Tax allocation, sharing or indemnity agreements or arrangements (other than customary indemnification provisions contained in agreements with customers entered into in the ordinary course of business of the Company that do not primarily relate to Taxes).

(f) Except as set forth in Section 3.8(f) of the Disclosure Schedule, none of the property of the Company is held in an arrangement that is or reasonably could be classified as a partnership for Tax purposes, and the Company does not own any interest in any controlled foreign corporation (as defined in Section 957 of the Code), passive foreign investment company (as defined in Section 1297 of the Code) or other entity the income of which is or could be required to be included in the income of the Company.

(g) No property of the Company is "*tax-exempt use property*" (within the meaning of Section 168(h) of the Code) or "*tax exempt bond financed property*" (within the meaning of Section 168(g)(5) of the Code).

(h) The Company will not be required to include any item of income in, or exclude any item of deduction from, taxable income for any taxable period (or portion thereof) ending after the Closing Date as a result of any: (i) change in method of accounting for a taxable period ending on or prior to the Closing Date; (ii) "*closing agreement*" as described in Code Section 7121 (or any corresponding or similar provision of state, local or foreign income Tax law) executed on or prior to the Closing Date; (iii) intercompany transactions or any excess loss account described in Treasury Regulations under Code Section 1502 (or any corresponding or similar provision of state, local or foreign income Tax law); (iv) installment sale or open transaction disposition made on or prior to the Closing Date; (v) prepaid amount received on or prior to the Closing Date; or (vi) election under Code Section 108(i) (or any corresponding or similar provision of state, local or foreign income Tax law).

(i) The Company does not have any liability for the Taxes of any Person under Treasury Regulations Section 1.1502-6 (or any corresponding or similar provisions of state, local or foreign Tax law), or as a transferee or successor, or by contract or otherwise. The Company is not and has never been a member of an affiliated, consolidated, combined or unitary group filing for federal or state income tax purposes.

(j) The Company has not entered into any agreement or arrangement with any Taxing Authority that requires the Company to take any action or to refrain from taking any action. The Company is not a party to any agreement with any Taxing Authority that would be terminated or adversely affected as a result of the transactions contemplated in this Agreement.

(k) The Company has not participated, within the meaning of Treasury Regulations Section 1.6011-4(c), in any "*reportable transaction*" within the meaning of Section 6011 of the Code and the Treasury Regulations thereunder. The Company has disclosed on its Tax Returns all positions taken therein that could give rise to a substantial understatement of Tax within the meaning of Section 6662 of the Code (or any similar provision of state, local or foreign law).

(l) There is no material property or obligation of the Company, including uncashed checks to vendors, customers, or employees, non-refunded overpayments or unclaimed subscription balances or unapplied cash balances, that is escheatable to any state or municipality under any applicable escheatment laws, as of the date hereof or that may at any time after the date hereof become escheatable to any state or municipality under an applicable escheatment laws.

(m) All payments by or to the Company comply with all applicable transfer pricing requirements imposed by any Taxing Authority, and the Company has made available to Parent accurate and complete copies of all transfer pricing documentation prepared pursuant to Treasury Regulation Section 1.6662-6 (or any similar foreign statutory, regulatory, or administrative provision) by or with respect to the Company during the past five years.

(n) The Company is in full compliance with all terms and conditions of any Tax exemption, Tax holiday or other Tax reduction agreement or order of a Taxing Authority, and the

consummation of the transactions contemplated in this Agreement will not have any adverse effect on the continued validity and effectiveness of any such Tax exemption, Tax holiday or other Tax reduction agreement or order.

(o) The Company has not made any payments, is not obligated to make any payments, and is not a party to any plan or agreement that under certain circumstances could obligate it to make any payments that would not be deductible under Sections 280G (determined without regard to the exceptions contained in Sections 280G(b)(4) and 280G(b)(6)) or 404 of the Code.

(p) The provision for Taxes set forth on the balance sheets included in the Financial Statements are sufficient for all accrued and unpaid Taxes, whether asserted or unasserted, contingent or otherwise, as of the dates thereof. The Company has not incurred any liabilities for Taxes since such dates (i) arising from extraordinary gains or losses, as that term is used in GAAP, (ii) outside the ordinary course of business, or (iii) inconsistent with past custom or practice.

(q) The Company has not constituted either a "distributing corporation" or a "controlled corporation" in a distribution of stock intended to qualify for tax-free treatment under Section 355 of the Code (i) in the two years prior to the date of this Agreement or (ii) in a distribution which could otherwise constitute part of a "plan" or "series of related transactions" (within the meaning of Section 355(e) of the Code) in conjunction with the transactions contemplated in this Agreement.

(r) No power of attorney that is currently in force has been granted with respect to any matter relating to Taxes that could affect the Company (other than authorizations to contact Tax Return preparers that were included in Tax Returns filed by the Company).

(s) All of the Company's property that is subject to property Tax has been properly listed and described on the property tax rolls of the appropriate Taxing Authority for all periods prior to Closing and no portion of the Company's property constitutes omitted property for property tax purposes.

(t) The Company has not incurred (nor been allocated) an "overall foreign loss" as defined in Section 904(f)(2) of the Code that has not been previously recaptured in full as provided in Sections 904(f)(1) and/or 904(f)(3) of the Code.

(u) The Company is not a party to a gain recognition agreement under Section 367 of the Code and the Treasury Regulations thereunder.

(v) Section 3.8(v) of the Disclosure Schedule sets forth, for each Equityholder that acquired on or after January 1, 2015 shares of Company capital stock or any other security that would be deemed a "covered security" under Treasury Regulations §1.6045-1(a)(15), the name of such Person and, with respect to such shares or securities, the certificate numbers (if any), the adjusted basis and the original acquisition date.

(w) Section 3.8(w) of the Disclosure Schedule sets forth the following information with respect to the Company: (a) the basis of the Company in its assets; (b) the amount of any net operating loss, net capital loss, unused investment, foreign, or other Tax credit and the amount of any limitation upon any of the foregoing; and (c) the amount of any deferred gain or loss allocable to the Company arising out of any deferred intercompany transaction as defined in Treas. Reg. § 1.1502-13 or any similar provision of applicable Law.

3.9 **Property and Assets**.

(a) Personal Property. The Company has and has had at all times in the past good and marketable title to, or valid leasehold interests in, all Personal Property used or held for use in its business

or reflected in the Financial Statements. Such Personal Property constitutes all Personal Property used, necessary or useful to conduct the business of the Company as it is presently conducted. Except as set forth in Section 3.9(a) of the Disclosure Schedule, none of such Personal Property is owned by any other Person, including an Equityholder or an Affiliate of an Equityholder, without a valid and enforceable right of the Company to use and possess such Personal Property. Except as set forth in Section 3.9(a) of the Disclosure Schedule, such Personal Property (i) is in good operating condition and repair (ordinary wear and tear excepted); (ii) is available for immediate use in the business and operation of the Company as currently conducted; and (iii) permits the Company to operate in accordance with Applicable Laws.

(b) Liens. Except as set forth in Section 3.9(a) of the Disclosure Schedule, none of the Personal Property or assets of the Business is subject to any Lien of any nature whatsoever, other than Permitted Encumbrances. There are no breaches or defaults under, and no events or circumstances have occurred which, with or without notice or lapse of time or both, would constitute or would have constituted a breach of or a default under, any instrument, agreement or other document that creates, evidences or constitutes any Lien or that evidences, secures or governs the terms of any indebtedness or obligation secured by any Lien (any such instrument, agreement or other document is referred to herein as a "***Lien Instrument***"). The transaction contemplated herein will not: (i) constitute a breach or a default under any Lien Instrument; (ii) permit (with or without notice, lapse of time or both), cause or result in (A) the acceleration of any indebtedness or other obligation evidenced, secured or governed by a Lien Instrument, or (B) the foreclosure or other enforcement of any Lien; (iii) permit or cause the terms of any Lien Instrument to be renegotiated; or (iv) require the consent of any party to or holder of a Lien Instrument or of any third party.

(c) Customer Information. The Company has ownership, free and clear of any Liens, or the valid right to use (subject to any restrictions imposed by Applicable Law), unrestricted by Contract, all of the Company's customer lists, customer contact information, customer correspondence and customer licensing and purchasing histories relating to current and former customers of the Company, as necessary to perform its obligations to customers or exercise its rights pursuant to the agreements between the Company and the customers when conducting the Business as it is presently conducted.

(d) Leased Real Property. The Company does not own any real property, nor has the Company ever owned any real property. Section 3.9(d) of the Disclosure Schedule contains a true, correct and complete description of all real property and interests in real property currently leased, subleased, licensed or otherwise used or occupied by the Company for the operation of its business (the "***Leased Real Property***"), including for each discrete piece of real property, any deposit, additional rent (e.g., utility allocation, common area allocation or other allocation to the leaseholder based on the ratable percentage of the entire property allocated to the leaseholder), and any allocated but unused tenant finish allowance for such piece of real property. The Leased Real Property (i) is in good operating condition and repair, free from structural, physical and mechanical defects; (ii) is maintained in a manner consistent with standards generally followed with respect to similar properties and also as required under the Real Property Leases (as hereinafter defined); (iii) is available for use in and sufficient for the purposes and current demands of the Business and operation of the Company as currently conducted; (iv) is supplied with utilities and other services necessary for the operation of the Business as currently conducted; and (v) is structurally sufficient and otherwise suitable for the conduct of the Business as currently conducted.

Except as set forth in Section 3.9(d) of the Disclosure Schedule, no consent is required from the lessor, sublessor, licensor or any other Person under any lease, sublease, license or other agreement (or, in each instance, any amendment, modification, renewal, exhibit and/or schedule thereto) related to the Leased Real Property (including all amendments, modifications, renewals, exhibits and schedules thereto, collectively, the "***Real Property Leases***") to consummate the transactions contemplated in this Agreement and the Transaction Documents. Except as set forth in Section 3.9(d) of the Disclosure Schedule, (i) the Company has not sublet, or granted to any other person any right of use, operation or occupancy of, any of the Leased Real Property, nor has the Company agreed to do so, orally or in writing; (ii) the Company has not sold, transferred or assigned, or granted any Lien on or otherwise encumbered, all or any portion of its interest

under any Real Property Lease or in any Leased Real Property, nor has agreed to do so, orally or in writing; and (iii) no person or entity has a superior or any sub-leasehold interest in, and no person or entity (other than the Company) has any right to use, operate or occupy, any Leased Real Property. The Company has made available to Parent true, correct and complete copies of (A) all of the Real Property Leases; and (B) all Lien Instruments with respect to or affecting any of the Leased Real Property or any Real Property Lease. Each of the Real Property Leases is valid, binding and enforceable in accordance with its terms (subject to the Remedies Exceptions) and is in full force and effect, free and clear of Liens, and, to the Knowledge of the Company, there are no offsets or defenses by either landlord or tenant thereunder. There are no existing breaches of or defaults under, and no events or circumstances have occurred which, with or without notice or lapse of time or both, would constitute a breach of or a default under, any of the Real Property Leases by the Company or, to the Knowledge of the Company, any other Person. No party to the Real Property Leases has repudiated any provision thereof. There are no disputes, oral agreements or forbearance programs in effect, as to any of the Real Property Leases. The plants, buildings, structures, fixtures, furnishings, and equipment on the Leased Real Property are in good operating condition and in a state of good maintenance and repair, ordinary wear and tear excepted, are adequate and suitable for the purposes for which they are currently being used and currently contemplated to be used. No material improvements constituting a part of the current Leased Real Property encroach on real property not leased by the Company to the extent that removal of such encroachment would materially impair the manner and extent of the current use, occupancy and operation of such improvements. There are neither any actual, nor, to the Knowledge of the Company, any threatened or contemplated, condemnation or eminent domain proceedings that affect the Leased Real Property or any part thereof, and the Company has not received any notice from any Governmental Entity with respect thereto. The past and current use or occupancy of the Leased Real Property and the conduct of the Business as currently conducted do not violate: (i) any law, regulation, or ordinance applicable to the Leased Real Property; or (ii) any easement, covenant, condition, restriction or similar provision in any instrument of record or other unrecorded agreement affecting such Leased Real Property. No security deposit or portion thereof deposited with respect to the Real Property Leases for the Leased Real Property has been applied in respect of a breach or default under such Real Property Leases which has not been re-deposited in full.

3.10 **Intellectual Property and Related Matters**.

(a) As used in this Agreement, the following terms shall have the following respective meanings:

(i) "***Company Intellectual Property***" means any and all Technology and any and all Intellectual Property Rights, including Company Registered Intellectual Property, owned (in whole or in part) or purported to be owned (in whole or in part) by, licensed to or otherwise controlled by, or purported to be licensed to or otherwise controlled by, the Company.

(ii) "***Company Owned Intellectual Property***" means all of the Company Intellectual Property owned or purported to be owned by the Company.

(iii) "***Company Registered Intellectual Property***" means all of the Registered Intellectual Property owned by, filed in the name of, or applied for by or on behalf of, the Company.

(iv) "***Intellectual Property Right(s)***" means any or all of the following rights in, arising out of, or associated therewith: (A) all United States and foreign patents and utility models, including utility patents, design patents, plant patents and plant variety protection certificates, and all registrations and applications therefor and all reissues, divisionals, re-examinations, corrections, renewals, extensions, provisionals, continuations and continuations in-part thereof, and other derivatives and certificates associated therewith, and equivalent or similar rights anywhere in the world in inventions and discoveries, including invention disclosures ("***Patents***"); (B) all trade secrets and other rights in know-how that are confidential and proprietary information (including ideas, research and development, inventions, formulas, compositions, manufacturing and production processes and techniques, technical

data, designs, discoveries, drawings, specifications, customer and supplier lists, pricing and cost information, and business and marketing plans, proposals and methods) throughout the world ("***Trade Secrets***"); (C) all copyrights, copyright registrations and applications therefor and all other rights corresponding thereto throughout the world ("***Copyrights***"); (D) all mask works, mask work registrations and applications therefor, and any equivalent or similar rights ("***Mask Works***"); (E) all industrial designs and any registrations and applications therefor throughout the world; (F) all rights in domain names and applications and registrations therefor ("***Domain Names***"); (G) all trade names, trade dress, logos or other corporate designations, common law trademarks and service marks, trademark and service mark registrations and applications therefor and all goodwill associated therewith throughout the world ("***Trademarks***"); (H) to the extent not covered by subsections (A) through (G) above, works of authorship, computer programs, source code and executable code, whether embodied in software, firmware or otherwise; and (I) any similar, corresponding or equivalent rights to any of the foregoing anywhere in the world, including, publicity rights and moral rights (including any right to claim authorship to or to object to any distortion, mutilation, other modification or derogatory action in relation to a copyrightable work, whether or not such would be prejudicial to the author's reputation, and any similar right, existing under common or statutory law of any country in the world or under any treaty, regardless of whether or not such right is denominated or generally referred to as a moral right).

(v) "***Registered Intellectual Property***" means any and all United States, foreign, national and international: (A) Patents; (B) registered Trademarks, applications to register Trademarks, including intent to use applications, or other registrations or applications related to Trademarks; (C) Copyrights registrations and applications to register Copyrights; (D) Mask Work registrations and applications to register Mask Works; (E) Domain Name registrations; and (F) any other Intellectual Property Rights related thereto that are the subject of an application, certificate, filing, registration or other document issued by, filed with, or recorded by, any state, government or other public or private legal authority at any time.

(vi) "***Technology***" means any or all of the following: (A) products or services of the Company and any works of authorship, including computer programs, source code and executable code, whether embodied in software, firmware or otherwise, documentation, designs, files, net lists, formulas, records, data and mask works; (B) inventions (whether or not patentable), ideas, improvements, discoveries, developments, designs and techniques, information regarding plans for research, and technology; (C) proprietary and confidential information, including technical data and customer and supplier lists and information related thereto, financial analyses, marketing and selling plans, business plans, budgets and unpublished financial statements, licenses, prices and costs, general intangibles, trade secrets and know-how; (D) databases, data compilations and collections and technical data; (E) logos, trade names, trade dress, trademarks and service marks; (F) domain names and websites; (G) tools, services, methods and processes; and (H) all instances of the foregoing in any form and embodied in any media.

(b) Section 3.10(b) of the Disclosure Schedule sets forth a complete and accurate list of (i) all Company Registered Intellectual Property, (ii) all unregistered Copyrights in Company Owned Intellectual Property included in the Company Products, and (iii) all unregistered Trademarks included within the Company Owned Intellectual Property. For each of the foregoing, the listing shall include (w) the respective application or serial number (if applicable), (x) the date of any such application and registration, the jurisdiction(s) in which each such right either exists or, for registrations and applications thereto, has been registered or applied for, (y) an identification of whether the right is solely owned by, jointly owned by, or exclusively licensed by the Company, and (z) a brief summary of any proceedings or actions before any court, tribunal (including the United States Patent and Trademark Office (the "***PTO***") or equivalent authority anywhere in the world) related thereto.

(c) All necessary fees, including all registration, maintenance, issuance and renewal fees, in connection with the Company Registered Intellectual Property have been paid and all necessary documents and certificates in connection with the Company Registered Intellectual Property have been filed with the relevant patent, copyright, trademark or other authorities in the United States or foreign jurisdictions, as the case may be, for the purposes of maintaining such Company Registered Intellectual Property. Except as set forth in Section 3.10(c) of the Disclosure Schedule, there are no actions that must be taken by any of the Company or the Parent within 120 days of the Closing Date, including the payment of any registration,

maintenance or renewal fees or the filing of any responses to office actions, documents, applications or certificates for the purposes of obtaining, maintaining, perfecting or preserving or renewing any Company Registered Intellectual Property. Without limiting the foregoing, the Company has not taken any action or allowed any event to occur, and the Company is not aware of any event or circumstances, which would set a United States patent bar date within 120 days of the Closing Date. A United States patent bar date includes any date by which the Company must file a patent application in order to preserve the right and ability to seek patent protection for an invention in the United States. To the Knowledge of the Company, no third party is in breach of any non-disclosure agreement signed with the Company or of any confidentiality terms of any agreement signed with the Company. In each case in which the Company has acquired or purports to own or have acquired any Technology or Intellectual Property Right from any Person, the Company has obtained a valid and enforceable written assignment sufficient to irrevocably transfer such Technology and, to the extent permitted by Applicable Law, all rights in such Technology including all associated Intellectual Property Rights (including the right to seek past and future damages with respect thereto) to the Company. To the maximum extent allowed for by, and in accordance with, Applicable Laws, the Company has recorded each such assignment of Registered Intellectual Property assigned to the Company with the relevant Governmental Entity, including the PTO, the U.S. Copyright Office, or their respective equivalents in any relevant foreign jurisdiction, as the case may be. The Company has not claimed a particular status, including "Small Business Status," in the application for any Intellectual Property Rights, which claim of status was at the time made, or which has since become, inaccurate or false or that will no longer be true and accurate as a result of the Closing.

(d) Each item of Company Owned Intellectual Property is valid, subsisting and enforceable and there has not been any act or omission by the Company that has had an adverse effect, or could have an adverse effect, on the validity or enforceability of any such Company Intellectual Property. The Company does not have any knowledge of any information, materials, facts or circumstances, including any information or fact that would constitute prior art, that would render any Company Intellectual Property invalid or unenforceable, or would adversely affect any pending application for any Company Registered Intellectual Property, and the Company has not misrepresented, or failed to disclose, any fact or circumstances in any application for any Company Registered Intellectual Property that would constitute fraud (with knowledge of, or reckless disregard as to, falsity) or a misrepresentation with respect to such application or that would otherwise affect the validity or enforceability of any Company Registered Intellectual Property.

(e) Except as disclosed in Section 3.10(e) of the Disclosure Schedule, (i) there have been and currently are no outstanding options, licenses, agreements, claims, Liens, encumbrances or shared ownership of interests of any kind relating to any Company Intellectual Property, and (ii) the Company is not bound by or a party to any options, licenses or Contracts of any kind with respect to the Intellectual Property Rights of any other Person.

(f) Except as disclosed in Section 3.10(f) of the Disclosure Schedule, upon and after the Closing, all Company Owned Intellectual Property and all licenses and Contracts to which the Company is a party with respect to any Intellectual Property Rights, will be fully transferable, alienable or licensable by Parent without restriction and without payment of any kind to any third party.

(g) The Company Intellectual Property includes all of the Intellectual Property Rights used in or necessary for the operation of the Business as it currently is conducted, including but not limited to the design, development, use, disclosure, import, branding, advertising, promotion, marketing, license, manufacture, sale, license and distribution or other provision of the products, services or other Technology of the Company or Company Intellectual Property (including such Company Intellectual Property currently under development). Except as set forth in Section 3.10(g) of the Disclosure Schedule, to the extent that any Company Owned Intellectual Property has been developed or created by any third party, the Company has a written agreement with all such third parties with respect thereto and the Company either (i) has obtained ownership of, and is the exclusive owner of, or (ii) with respect to such third parties, has obtained a license (sufficient for the conduct of its Business as currently conducted) to all such third

party's Intellectual Property Rights in such Company Intellectual Property or other Technology by operation of law or by valid assignment or license, to the fullest extent it is legally possible to do so, with rights to freely assign all such third party Intellectual Property Rights and without the requirement of payment of any royalty or other fee.

(h) Except as set forth in Section 3.10(h) of the Disclosure Schedule, all Company Owned Intellectual Property used in or necessary to the conduct of the Business as presently conducted, was written and created solely by either (i) employees of the Company acting within the scope of their employment or (ii) third parties who have validly, irrevocably and exclusively assigned (to the maximum extent permitted by Applicable Law) all of their rights to such Technology, including Intellectual Property Rights therein, to the Company, and no third party owns or has any rights to any of such Technology.

(i) Except as set forth in Section 3.10(i)(A) of the Disclosure Schedule, each employee, officer, contractor, agent and consultant who contributed to the creation or development of the Company Intellectual Property has executed a proprietary information and inventions agreement sufficient to transfer all right, title and interest in and to such Company Intellectual Property, in the form attached to Section 3.10(i)(B) of the Disclosure Schedule. No employees, officers, contractors, agents or consultants are in violation thereof, and the Company has no reason to believe otherwise. No such employee, officer, contractor, agent or consultant included a list of prior inventions that relate in any way to the Business, claimed or retained any property interest in such development related in any way to the Business or otherwise modified such agreement in a manner adverse to the Company. No current or former director, officer, employee, consultant, agent or contractor of the Company will, after giving effect to each of the transactions contemplated herein, own or retain any rights in or to, or have the right to receive any royalty or other payment with respect to, any of the Company Intellectual Property Rights used or owned by the Company.

(j) No employees of the Company are obligated under any Contract (including licenses, covenants or commitments of any nature) or other agreement, or subject to any Order of any Governmental Entity, that would interfere with any employee using his or her best efforts to promote the interests of the Company or that would conflict with the Business as conducted in the past by the Company or as presently conducted by the Company.

(k) The Company has taken the commercially reasonable steps required to protect the Company's rights in confidential information and Trade Secrets of the Company and in any other confidential information and Trade Secrets provided by any other Person to the Company. The Company has not provided any confidential information related to the Company Intellectual Property to a third party except pursuant to non-disclosure or other confidentiality agreements in a form sufficient to protect the Intellectual Property Rights embodied in such confidential information. The Company is not under any contractual or other obligation to disclose to any third party any Company Intellectual Property.

(l) Except as set forth in Section 3.10(l) of the Disclosure Schedule, no Person who has licensed Technology or Intellectual Property Rights to the Company has ownership rights or license rights to improvements or derivative works made by the Company in such Technology or Intellectual Property Rights.

(m) The Company has not transferred ownership of, or granted any exclusive license of or exclusive right to use, or authorized the retention of any exclusive rights to use or joint ownership of, any Technology or Intellectual Property Right that is or was Company Intellectual Property, to any other Person.

(n) Other than any outbound "shrink wrap" licenses in the form set forth in Section 3.10(n) of the Disclosure Schedule and inbound "shrink wrap" and similar publicly available commercial binary code end user licenses, Section 3.10(n) of the Disclosure Schedule lists all Contracts to which the Company is a party with respect to any Technology or Intellectual Property Rights. The Company is not

in material breach of, nor has the Company failed to perform under in any material respect, any of the foregoing Contracts and, to the Knowledge of the Company, no other party to any such Contract is in material breach thereof or has failed to perform thereunder. None of the foregoing Contracts requires the Consent of any Person to be obtained by the Company in connection with the transactions contemplated in this Agreement.

(o) Section 3.10(o) of the Disclosure Schedule lists all Contracts between the Company, on the one hand, and any other Person, on the other hand, wherein or whereby the Company has agreed to, or assumed, any obligation or duty to warrant, indemnify, reimburse, hold harmless, guaranty or otherwise assume or incur any obligation or liability or provide a right of rescission with respect to the infringement or misappropriation of the Intellectual Property Rights of any Person.

(p) Except as set forth in Section 3.10(p) of the Disclosure Schedule, to the Knowledge of the Company, there are no licenses or other Contracts between the Company, on the one hand, and any other Person, on the other hand, with respect to the Company Intellectual Property under which there is any dispute regarding the scope of such agreement, or performance under such agreement, including with respect to any payments to be made or received by the Company thereunder.

(q) The operation of the Business as it currently is conducted, including but not limited to the design, development, use, disclosure, import, branding, advertising, promotion, marketing, license, manufacture, sale, license and distribution or other provision of the products, services or other Technology of the Company or Company Intellectual Property (including such Technology or Company Intellectual Property currently under development) does not infringe or misappropriate any Intellectual Property Right of any Person, violate any right of any Person (including any right to privacy or publicity, or any contract right arising under terms of service, terms of use, privacy policy or otherwise) or constitute unfair competition or trade practices under the laws of any jurisdiction, and, except as set forth in Section 3.10(q) of the Disclosure Schedule, the Company has not received notice from any Person claiming that such operation or any act, product, or service or other Technology of the Company or Company Intellectual Property (including such Technology or Company Intellectual Property currently under development) infringes or misappropriates any Intellectual Property Right of any Person or constitutes unfair competition or trade practices under the laws of any jurisdiction.

(r) There is no pending or, to the Knowledge of the Company, threatened action, arbitration, audit, hearing, investigation, litigation, or suit (whether civil, criminal, administrative or investigative) involving the Company commenced, brought, conducted, or heard by or before, or otherwise involving, any Governmental Entity to which the Company is a party claiming that the Company has violated, misappropriated or infringed any Intellectual Property Rights of any Person, and the Company has not received any communications alleging that it has violated, misappropriated or infringed or, by conducting the Business as currently conducted, would violate, misappropriate or infringe any Intellectual Property Rights of any other Person, and the Company is not aware of any basis for such an allegation or of any reason to believe that such an allegation may be forthcoming. No Person has infringed or misappropriated, or is infringing or misappropriating, or is making any unauthorized use of, any Company Owned Intellectual Property. The Company has not brought any action, suit or proceeding for infringement of any Company Intellectual Property or breach of any license or other Contract involving any Company Intellectual Property and the Company currently does not have any plans to do so.

(s) Except as set forth in Section 3.10(s) of the Disclosure Schedule, no Company Owned Intellectual Property or, to the Knowledge of the Company, any other Company Intellectual Property, is subject to any proceeding or outstanding decree, Order, judgment or settlement agreement or stipulation that restricts in any manner the use, transfer or licensing thereof by the Company or may affect the validity, use or enforceability of such Company Intellectual Property or Technology as owned or used by Parent or the Surviving Corporation after the Closing, or that will restrict the rights of Parent or the Surviving Corporation, upon or after the Closing, to use, transfer, license or enforce any of the Company Intellectual

Property or such Technology or restrict the conduct of the Business or limit any right of any of Parent or the Surviving Corporation to compete in any line of business or to compete with or solicit any Person, in each of the foregoing cases, with respect to the Parent or the Surviving Corporation, when conducting the Business in the same or substantially similar manner as conducted by the Company prior to the Closing.

(t) Except as set forth in Section 3.10(t) of the Disclosure Schedule, no (i) product, technology, service or publication of the Company, (ii) material displayed, published or distributed by the Company or (iii) conduct or statement of the Company constitutes obscene material, a defamatory statement or material, false advertising or otherwise violates in any material respect any Applicable Law.

(u) Except as set forth in Section 3.10(u) of the Disclosure Schedule, the Company Intellectual Property constitutes all the Technology and Intellectual Property Rights used in or necessary for the conduct of the Business as it currently is conducted, including the design, development, manufacture, use, disclosure, import, branding, advertising, promotion, marketing, sale, license and distribution of products or other Technology of the Company, including performance of services (including such Technology currently under development by the Company.

(v) The Company has not conducted the Business, or used or enforced (or failed to use or enforce) the Company Intellectual Property, in a manner that would result in the abandonment, cancellation, unenforceability or material diminishment of any item of the Company Intellectual Property or any registrations related thereto, and the Company has not taken (or failed to take) any action that would result in the forfeiture, relinquishment or material diminishment of any of the Company Intellectual Property Rights or of any registrations related thereto.

(w) Except as disclosed in Section 3.10(w) of the Disclosure Schedule, none of the execution, delivery and performance of this Agreement, the performance by the Company of its obligations hereunder, or the consummation of the transactions contemplated in this Agreement, will result in (i) any third party being granted rights or access to, or the placement in or release from escrow, of any Company Intellectual Property, (ii) the granting to any third party of any right, title or interest to or with respect to any Intellectual Property Rights owned by, or licensed to, the Company pursuant to any agreement to which the Company is a party or by which it is bound, (iii) the Parent or the Surviving Corporation being bound by, or subject to, any non-compete or other restriction on the operation or scope of their respective businesses, including on the operation or scope of the Business by the Parent or the Surviving Corporation following the Closing, (iv) any restriction on the ability of the Parent or the Surviving Corporation to share information relating to their ongoing business or operations, (v) the Parent or the Surviving Corporation being obligated to pay any royalties, fees, honoraria or other amounts to any third party in excess of those payable by the Company prior to the Closing Date pursuant to Contracts to which the Company is a party or by which it is bound; (vi) a breach of or default under any instrument, license or other Contract governing any Intellectual Property Rights owned by or licensed to the Company; (vii) the forfeiture or termination of, or give rise to a right of forfeiture or termination of, any Intellectual Property Rights owned by or licensed to the Company; or (viii) the impairment of the Parent's or the Surviving Corporation's right, before or after the Closing, to use, develop, make, have made, offer for sale, sell, import, copy, modify, create derivative works of, distribute, license, or dispose of any Intellectual Property Rights owned by or licensed to the Company or portion thereof, in the same or substantially similar manner as conducted by the Company prior to the Closing.

(x) Section 3.10(x)(1) of the Disclosure Schedule contains a true and complete list of all products, services and technology offerings (including software) made commercially available, marketed, distributed, sold or licensed out by or on behalf of the Company ("***Company Products***"). Section 3.10(x)(2) of the Disclosure Schedule contains a true and complete list of all of the software programs included in or developed for inclusion in the Company's products by the Company or any third party on behalf of the Company (including all software programs embedded or incorporated in the Company's products) (the "***Incorporated Software***"), including (i) for each item, an indication of whether the

Incorporated Software is Public Software; (ii) for each item of Incorporated Software that is not Public Software, a reference to the Contract pursuant to which the Incorporated Software has been licensed to the Company; and (iii) for each item of Incorporated Software that is Public Software, (a) the name of the Public Software library or other program, (b) the license name or license type (including version number) pursuant to which the Company or such third party has received a license to the Public Software, (c) the URL for the download site from which the Company or such third party obtained the Public Software (d) for Public Software that is Copyleft Public Software, indication of whether the Public Software has been hosted, distributed or modified by or for the Company or such third party and (e) a summary of any current or future royalty, support fee or other payment that after the Closing will be owed by or due from Parent or the Surviving Corporation to any third party as a result of the inclusion of Incorporated Software programs in any Company Product. The Company Intellectual Property includes all software, Technology and Intellectual Property Rights previously developed, used or provided by or on behalf of the Company in connection with the operation of the Business. Except as listed in Section 3.10(x)(2) of the Disclosure Schedule, the Company Products do not contain any Incorporated Software or Public Software. "***Public Software***" means any software that contains, includes, incorporates, or has instantiated therein, or is derived in any manner (in whole or in part) from, any software that is distributed as free software, open source software (*e.g.*, Linux) or similar licensing or distribution models, including software licensed or distributed under any of the following licenses or distribution models, or licenses or distribution models similar to any of the following: (1) GNU's General Public License (GPL) or Lesser/Library GPL (LGPL); (2) the Artistic License (*e.g.*, PERL); (3) the Mozilla Public License; (4) the Netscape Public License; (5) the Sun Community Source License (SCSL); (6) the Sun Industry Standards License (SISL); (7) the BSD License; (8) the Apache License; and (9) the Affero General Public License. "***Copyleft Public Software***" means Public Software subject to a license that requires, as a condition of use, hosting, modification or distribution, that such Public Software, or modifications or derivative works thereof, be made available or distributed in source code form or be licensed for the purpose of preparing derivative works or distribution at no fee. Copyleft Public Software includes Public Software subject to (v) the GNU's General Public License (GPL) or Lesser/Library GPL (LGPL); (w) the Mozilla Public License; (x) the Sun Industry Standards License (SISL); (y) the Affero General Public License; and (z) to the extent applied to software, all Creative Commons "sharealike" licenses.

(y) Section 3.10(y) of the Disclosure Schedule contains a list of all Contracts in which the Company has agreed to place source code owned by the Company into escrow and, upon the occurrence of certain events specified in such Contracts to release such source code to a third party. Except for the source code escrow obligations described in the immediately preceding sentence, the Company has not licensed, distributed or disclosed, is not obligated to license, distribute or disclose, and has no Knowledge of any distribution or disclosure by any third party of, the source code owned by the Company. No event has occurred, and no circumstance or condition exists, that (with or without notice or lapse of time, or both) will, or could reasonably be expected to, nor will the consummation of the transactions contemplated herein, result in the disclosure or release of such Company-owned source code by the Company or escrow agent(s) or any other Person to any third party.

(z) The Company employs commercially reasonable measures to ensure that the Company Products and the Company Owned Intellectual Property do not contain any Viruses or other unpatched security vulnerabilities. The Company Products and the Company Owned Intellectual Property and the Computer Systems that are necessary for the operation of the Business do not contain any Viruses. For purposes of this Agreement, "***Virus***" means any computer code intentionally designed to disrupt, disable, or harm in any manner the operation of any software or hardware or to allow a third party to have access to the user's computer or network without such user's authority.

(aa) The Company's databases and the source code for the Company Products, the Company Intellectual Property and any Technology of the Company constitute Trade Secrets of the Company and the Company currently uses and has used in the past commercially reasonable efforts, at least in conformance with general industry standards, to maintain the confidentiality of the databases and Company

Products, the Company Intellectual Property and any Technology of the Company source code and to restrict access to the databases and Company Product, the Company Intellectual Property and any Technology of the Company source code except to those Persons that have a legitimate business reason for accessing the databases and Company Product, the Company Intellectual Property and any Technology of the Company source code and that have executed a confidentiality agreement prohibiting the disclosure of the databases and Company Product, the Company Intellectual Property and any Technology of the Company source code without the express written authorization of the Company.

(bb) All Personal Information that has been collected, stored, maintained or otherwise used by the Company have been collected, stored, maintained and used in accordance with all Applicable Laws and, to the Knowledge of the Company, industry standards. The Company has not received any notice of any currently uncured noncompliance with Applicable Laws or industry standards regarding data protection. The Company has been and is in compliance in all material respects with all privacy policies and guidelines relating to Personal Information. True and complete copies of all applicable privacy and security policies and guidelines of the Company have been made available to Parent. The Company has made all notices and disclosures to customers required by Applicable Laws. The Company's practices are, and have always been, in compliance in all material respects with (i) its then-current privacy policy, including the privacy policy posted on the Company's websites, (ii) its customers' privacy policies, to the extent applicable, and (iii) third party website terms, when required to do so by contract or use. The Company has implemented and maintained appropriate and reasonable measures to protect and maintain the confidential nature of any Personal Information. The Company has taken steps reasonably necessary (including, without limitation, implementing and monitoring compliance with respect to technical, administrative and physical safeguards) to protect Personal Information and systems from which Personal Information can be created, viewed, displayed, accessed, retrieved, stored or transmitted, against loss or destruction, and against unauthorized access, use, transfer, modification, or disclosure or other misuse and to otherwise comply with Applicable Laws. The Company has adequate technological and procedural measures in place to protect Personal Information collected by the Company against loss, theft and unauthorized access or disclosure. The Company has the full power and authority to transfer any and all rights in any individual's Personal Information in the Company's possession or control pursuant to the transactions contemplated in this Agreement. Except as set forth in Section 3.10(bb) of the Disclosure Schedule, the Company is not subject to any obligation that would prevent Parent or the Surviving Corporation from using the Personal Information in the same or substantially similar manner as conducted by the Company prior to Closing and consistent with any Applicable Law or industry standard regarding the collection, retention, use, or disclosure of such information. The Company is not subject to any obligation that would prevent the Company from using the Personal Information in the operation of the Business as has been conducted in the past by the Company or as is currently conducted by the Company. Without limiting the foregoing, the Company is in compliance in all material respects with all Contracts, posted policies, and terms and conditions of use of any online social media services, such as Facebook, directly or indirectly applicable to the Business as currently conducted by the Company, including the (i) collection or provision of data, (ii) purchase, promotion, sale, license, or other distribution of the Company's products or other Technology, (iii) provision or consumption of services to or by the Company's customers or potential customers, or (iv) any other aspect of the operation of the Business; and the transactions contemplated in this Agreement shall not cause the Company to be in violation or breach of any such Contract, posted policies or terms and conditions of use. There has been no unauthorized disclosure, access to or transfer of or other misuse of Personal Information required to be reported to any customer of the Company, affected individual or Governmental Entity, and the Company has not been required to provide any breach notification or report any security incidents to any customer of the Company, affected individual or Governmental Entity as required under any Applicable Law.

(cc) No government funding, facilities or resources of a university, college, other educational institution or research center or funding from third parties were used in the development of the Company Owned Intellectual Property and no Governmental Entity, university, college, other educational institution or research center has any claim or right in or to the Company Owned Intellectual Property.

(dd) Section 3.10(dd) of the Disclosure Schedule sets forth a list of all Computer Systems owned, leased or licensed by the Company. The Company owns, leases or licenses all Computer Systems that are necessary for the operation of the Business as currently conducted by the Company. In the past 12 months, there has been no failure or other substandard performance of any Computer Systems that has caused any disruption to the Business. The Company has taken commercially reasonable steps to provide for the back-up and recovery of data and information and has commercially reasonable disaster recovery plans, procedures and facilities and, as applicable, has taken commercially reasonable steps to implement such plans and procedures. The Company has taken reasonable actions to protect the integrity and security of its Computer Systems and the software information stored thereon from unauthorized use, access, or modification by third parties.

3.11 **Accounts Receivable and Payable**. All of the accounts receivable and trade accounts of the Company (the "***Receivables***") are bona fide, legal, valid and binding obligations, arose in the ordinary course of business, are carried on the records of the Company at values consistently determined in accordance with GAAP and the Company's past practice, are correct in all respects, and are subject to the reserve for bad debts set forth in the Most Recent Financial Statements. Except as set forth in Section 3.11 of the Disclosure Schedule, no Person has any Lien (other than a Permitted Encumbrance) on any of such accounts receivable, and no request or agreement for any deduction or discount has been made with respect to any of such accounts receivable except as fully and adequately reflected in reserves for doubtful accounts set forth in the Most Recent Financial Statements. Except as set forth in Section 3.11 of the Disclosure Schedule, all Receivables represent products delivered or services actually performed by the Company in the conduct of the Business in the ordinary course. Deferred revenues are presented on the Financial Statements, in accordance with GAAP and the Company's past practice, with respect to the Company's (a) billed but unearned Receivables; (b) previously billed and collected Receivables still unearned; and (c) unearned customer deposits. At the Closing Date, except as set forth in Section 3.11 of the Disclosure Schedule, all accounts payable will have been incurred in exchange for goods or services delivered or rendered to the Company in the ordinary course of business, and the Company has not guaranteed or agreed to guarantee any debt, liability or other obligation of any Person.

3.12 **Compliance**.

(a) The Company is not in violation, in any material respect, of any law, statute, rule, regulation, ordinance, order or licensing requirements of any federal, state, local or foreign agency or authority (collectively, "***Rules***") applicable to the Business or the Company or by which any of their properties are bound, and the Company has not been notified in writing by any Governmental Entity of any violation, or any review or investigation with respect to the violation of any such Rule, including Rules enforced by the United States Health and Human Services ("***HHS***"), and any comparable Governmental Entity (collectively, "***Health Law***"). The Company has not failed to comply in any material respect with and is not in conflict with, or in default or in violation of, any Applicable Law. To the Company's Knowledge, there are not any pending legislative or regulatory initiatives or developments that could reasonably be expected to affect the Company, the assets of the Company or the operation of the business of the Company. No investigation or review by any Governmental Entity is pending or, to the Knowledge of the Company, has been threatened, against the Company or the Business.

(b) The Company is and has been in compliance in all material respects with all applicable Rules and Orders, and no proceeding has been filed or commenced or, to the Knowledge of the Company, threatened alleging any failure so to comply, whether or not corrected. The Company has not received any notice or communication from any Governmental Entity alleging any non-compliance of the foregoing.

(c) The Company has established and implemented such policies, programs, procedures, contracts and systems as are reasonably necessary and legally required of the Company to be in compliance with all Rules, including privacy, electronic transactions and security standards for Personal Information.

(d) The Company has not been notified in writing of any failure (or any investigation with respect thereto) by the Company or any licensor, licensee, partner or distributor to comply with, or maintain systems and programs to ensure compliance with any Health Law with respect to any Technology, products or services of the Business.

3.13 **Permits; Export and Import Laws; Export Proceedings; No Foreign Operations**.

(a) Permits. The Company holds, to the extent required by Applicable Law and applicable Rules, all franchises, permits, certificates, licenses, consents, filings, sanctions, registrations, variances, exemptions, orders, authorizations and approvals from, and has made all declarations and filings with, all Governmental Entities ("***Permits***") for the operation of the business of the Company as conducted in the past or as presently conducted including the sale, transport, export, import or shipment of any items or materials (whether in tangible form or otherwise) to any jurisdiction. No suspension or cancellation of any such Permit is pending or threatened. Each such Permit is valid and in full force and effect, and the Company is in compliance in all respects with the terms of such Permits. Section 3.13(a) of the Disclosure Schedule provides a complete list of all Permits held by the Company.

(b) Export and Import Laws. The Company has not violated any applicable U.S. Export and Import Laws, nor made a voluntary disclosure with respect to any violation of such laws. The Company has been and is in compliance with all applicable Foreign Export and Import Laws. The Company has prepared and timely applied for all import and export licenses required in accordance with U.S. Export and Import Laws and Foreign Export and Import Laws for the conduct of the Company's business. The Company has at all times been in compliance with all Applicable Laws relating to trade embargoes and sanctions, and no product, service or financing provided by the Company has been, directly or indirectly, provided to, sold to or performed for or on behalf of Cuba, Iran, Libya, North Korea, Sudan, Syria, or any other country or Person against whom the U.S. maintains economic sanctions or an arms embargo.

(c) Export Proceedings. There is no export or import related proceeding, investigation or inquiry pending or threatened against the Company or any officer or director (in their capacity as an officer or director of the Company) by or before (or, in the case of a threatened matter, that would come before) any Governmental Entity.

(d) No Foreign Operations. Except as set forth in Section 3.13(d) of the Disclosure Schedule, neither the Company nor any of its subsidiaries (i) conducts or has conducted operations of any kind outside of the United States, (ii) has any revenue from any source outside of the United States, or (iii) has executed or performed any Contract outside of the United States.

3.14 **Brokers' and Finders' Fees**. Except as set forth in Section 3.14 of the Disclosure Schedule, the Company has not incurred, nor will it incur, directly or indirectly, any liability for brokerage or finders' fees or agents' commissions or any similar charges in connection with this Agreement or any other Transaction Document to which the Company is a party or any transaction contemplated herein or therein. Except as set forth in Section 3.14 of the Disclosure Schedule, no finder, broker, investment banker, agent or other intermediary has acted for or on behalf of the Company in connection with the transactions contemplated in this Agreement and the Transaction Documents.

3.15 **Restrictions on Business Activities**. Except as listed in Section 3.15 of the Disclosure Schedule, no Contract to which the Company is a party or by which the Company is bound imposes any non-solicitation obligation on the Company. Other than as listed in Section 3.15 of the Disclosure Schedule, the Company is not a party to or bound by any Contract under which the Company is, or Parent or any of its Affiliates (including the Company) after the Closing (when conducting the Business in the same or substantially similar manner as conducted by the Company prior to the Closing) will be, restricted from selling, licensing or otherwise distributing any of its technology or products or from providing services to customers or potential customers or any class of customers, in any geographic area, during any period of time or in any segment of any market. No Contract contains any "most favored nations" or similar obligation to offer terms included in or based on another Contract.

3.16 **Employment Matters**.

(a) No Termination. Except as set forth in Section 3.16(a) of the Disclosure Schedule, to the Knowledge of the Company, no executive, Key Employee, or other employee or group of employees has any plan or intention to terminate his, her or their employment with the Company.

(b) Employees. (i) No present or former employee of the Company or applicant for employment has claimed that the Company is in violation of any term of any employment Contract or compensation agreement, plan or arrangement or is in violation of any Applicable Law relating to the employment relationship; (ii) no third party has claimed that any present or former employee of the Company has breached his or her duties under any patent disclosure agreement, confidentiality agreement, non-solicitation agreement, noncompetition agreement or any other restrictive covenant running in favor of such third party; (iii) no third party has claimed that any present or former employee of the Company has disclosed or utilized any Trade Secret or proprietary information or documentation of such third party; (iv) no third party has claimed that any present or former employee of the Company has interfered in the relationship between such third party and any of its present or former employees or contractors; and (v) to the Knowledge of the Company, no present or former employee of the Company has disclosed any Trade Secret, information or documentation proprietary to any current or former employer or other third party, or violated any confidential relationship with any such third party in connection with the development, manufacture or sale of any product, or the development or sale of any service, of the Company. Section 3.16(b) of the Disclosure Schedule sets forth (i) a complete list of the Company's present employees, with each employee's full legal name, (ii) current job titles and first date of employment with the Company, (iii) the current compensation for each such employee, including base salary or hourly rate, expected and maximum potential target bonuses, any other bonuses, commissions, or other incentive compensation, severance arrangements, and fringe or other benefits, whether payable in cash or in kind, (iv) wage and hour classification for each employee, (v) any payments or benefits required or anticipated to be made or provided by the Company to any such employee in connection with the transactions contemplated in this Agreement or any other change of control transaction, including, without limitation, cash payments, forgiveness of indebtedness, assumption of tax liability, severance benefits or vesting acceleration, and any agreement or understanding between the Company and any such employee relating to any such payment or benefit, (vi) each employee's visa status, or confirmation that such employee is a U.S. citizen, and (vii) whether such individual is currently employed, on leave relating to work-related injuries and/or receiving disability benefits under any Employee Benefit Plan, to the extent the Company is not prohibited by applicable laws from providing the information described in this clause (vii). Except as set forth in Section 3.16(b) of the Disclosure Schedule, the Company has not made any agreements to pay any employee wages, incentive compensation in the form of cash, equity or any other property, or other benefits and there are no severance payments or other payments that are or could become payable to any employee under the terms of any oral or written agreement or commitment or any Rule, custom, trade or practice as a result of the transactions contemplated in this Agreement or the Transaction Documents. The Company has no employees located outside of the United States.

(c) Labor Unions. None of the employees of the Company is represented by a labor union, and the Company is not subject to, or negotiating, any collective bargaining or similar agreement with respect to any of its employees. There is no labor dispute, strike, work slowdown, work stoppage or other labor trouble (including any organizational drive) against the Company pending or threatened. The Company has not agreed to recognize any labor union or other collective bargaining representative, nor has any labor union or other collective bargaining representative been certified as the exclusive bargaining representative of any employees of the Company. There is no question concerning representation as to any labor union or other collective bargaining representative with respect to any employees of the Company, and no labor union or other collective bargaining representative claims to or is seeking to represent any employees of the Company. No union organizational campaign or representation petition is currently pending or threatened or reasonably anticipated with respect to any employees of the Company. There is no unfair labor practice charge or proceeding pending against the Company before the National Labor Relations Board.

(d) Legal Compliance. Neither the Company, nor any employee or representative of the Company, has committed or engaged in any unfair labor or illegal employment practice in connection with the conduct of the business of the Company, and there is no action, suit, claim, charge or complaint against the Company or any Company employee or representative pending or threatened or reasonably anticipated relating to any employment, labor, safety, whistleblower, or discrimination matters, including charges or complaints of unfair labor practices, discrimination, retaliation, or wrongful discharge. The Company is in compliance in all material respects with all Applicable Laws relating to employment, including laws relating to employment discrimination, retaliation, wrongful discharge, labor relations, fair employment practices, payment of wages and overtime, leaves of absence, disability accommodation, immigration, employee benefits, and affirmative action. All employees of the Company are legally authorized to work in the United States and the Company and its employees have properly completed, updated and retained I-9 forms. No federal, state, or local agency responsible for the enforcement of labor and employment laws is conducting or, to the Knowledge of the Company, intends to conduct an investigation with respect to or relating to the Company.

(e) WARN Act. The Company has not had any plant closings, mass layoffs or other terminations of employees of the Company which would create any obligations upon or liabilities for the Company under the federal Worker Adjustment and Retraining Notification Act or any equivalent state or local laws. The Company is not a party to any agreements or arrangements or subject to any requirement that in any manner restricts the Company from relocating, consolidating, merging or closing, in whole or in part, any portion of the business of the Company, subject to Applicable Law.

(f) Employment Agreements. Except as set forth in Section 3.16(f) of the Disclosure Schedule, the Company is not bound by any written employment agreements or commitments to any employees, other than on an at-will basis.

3.17 **Employee Benefit Plans**.

(a) Section 3.17(a) of the Disclosure Schedule lists each Employee Benefit Plan that the Company or any ERISA Affiliate maintains or to which the Company or any ERISA Affiliate contributes or is a participating employer and in or under which any employee of the Company, former employee of the Company, service provider to the Company or former service provider to the Company participates or is owed benefits (collectively, the "***Company Benefit Plans***"). With respect to each Company Benefit Plan, the Company has delivered to Parent true and complete copies of all plan documents and, if available, summary plan descriptions, the most recent determination letter (or opinion letter) received from the Internal Revenue Service, all Form 5500 Annual Reports, and all related trust agreements associated with such Company Benefit Plan.

(b) With respect to each Company Benefit Plan (and each related trust, insurance contract or fund), neither the Company nor any ERISA Affiliate would be subject to any liability under ERISA, the Code or any other Applicable Law in any material respect by reason of any event which has occurred or any set of circumstances which exists.

(c) Each Company Benefit Plan (and each related trust, insurance contract or fund) has been administered and operated in all material respects in accordance with the terms of the applicable controlling documents and with the applicable provisions of ERISA, the Code and all other Applicable Laws. Each Company Benefit Plan (including any amendments thereto) that requires by law approval by, or registration for or qualification for special tax status with, the appropriate taxation, social security or supervisory authorities in the relevant jurisdiction, has received such approval, registration or qualification or there remains a period of time in which to obtain such approval, registration or qualification retroactive to the date of any amendment that has not previously received such approval, registration or qualification.

(d) All reports, descriptions and disclosures required by law with respect to each Company Benefit Plan have been filed or distributed appropriately and in accordance with Applicable Law. Where required by Applicable Law, the requirements of Part 6 of Subtitle B of Title I of ERISA and of Section 4980B of the Code have been met with respect to each Company Benefit Plan that is a group health plan.

(e) All contributions (including all employer contributions and employee salary reduction contributions) that are due and owing have been timely paid to each Company Benefit Plan (or related trust or held in the general assets of the Company and accrued, as appropriate), and all required contributions for any period ending on or before the Closing Date that are not yet due have been paid to each Company Benefit Plan (or related trust) or accurately accrued in accordance with GAAP in the Financial Statements. All premiums or other payments for all periods ending on or before the Closing Date have been timely paid with respect to each Company Benefit Plan that is an Employee Welfare Benefit Plan.

(f) Each Company Benefit Plan that is an Employee Pension Benefit Plan and that is intended to meet the requirements of a "*qualified plan*" under Section 401(a) of the Code meets such requirements and has either received or applied for (or has time remaining to apply for) a favorable determination letter (or, in the case of a prototype plan, an opinion letter) from the Internal Revenue Service within the applicable remedial amendment periods, and no such determination letter or advisory letter has been revoked nor has revocation been threatened.

(g) No Employee Benefit Plan maintained or contributed to during the six year period preceding the Closing Date by the Company or any ERISA Affiliate is subject to the minimum funding requirements of Section 412 of the Code or subject to Title IV of ERISA.

(h) The Company does not maintain or contribute to, nor has the Company ever maintained or contributed to, any Employee Welfare Benefit Plan providing medical, health or life insurance or other welfare type benefits for current or future retired or terminated employees, their spouses or their dependents (other than in accordance with Section 4980B of the Code) that cannot be unilaterally terminated by the Company or an ERISA Affiliate.

(i) Neither the Company nor any ERISA Affiliate, nor any employee or representative of the Company or any ERISA Affiliate, has made any oral or written representation or commitment with respect to any aspect of any Company Benefit Plan that is not in accordance with the written or otherwise preexisting terms and provisions of such Company Benefit Plan. Neither the Company nor any ERISA Affiliate has entered into any Contract with any trade union, works council or other employee representative body or any number or category of its employees that would prevent, restrict or impede the implementation of any lay off, redundancy, severance or similar program within its or their respective workforces (or any part of them).

(j) There are no unresolved claims or disputes under the terms of, or in connection with, any Company Benefit Plan (other than routine undisputed claims for benefits), and no legal action has been commenced with respect to any such claim or dispute.

(k) With respect to each Company Benefit Plan that the Company or an ERISA Affiliate maintains or ever has maintained or to which any of them contributes or has ever contributed:

(i) There have been no Prohibited Transactions with respect to any such Company Benefit Plan that would subject the Company to a tax or penalty imposed pursuant to Section 4975 of the Code or Section 502(c)(i) or (l) of ERISA.

(ii) The Company (by way of indemnification, directly or otherwise) does not have and no fiduciary has any liability for breach of fiduciary duty or any failure to act or comply in connection with the administration or investment of the assets of any Company Benefit Plan.

(iii) The Company has not received notice that any action, suit, proceeding, hearing or investigation with respect to the administration or the investment of the assets of any Company Benefit Plan (other than routine claims for benefits) is pending or, to the Knowledge of the Company, threatened, and there is no basis for any such action, suit, proceeding, hearing or investigation.

(l) Under the Company Benefit Plans, other than as described in this Agreement or any Transaction Document, neither the execution and delivery of this Agreement or any other Transaction Document to which the Company is a party nor the consummation of the transactions contemplated herein or therein will (i) except as set forth in Section 3.17(l)(i) of the Disclosure Schedule, result in any payment (including severance, unemployment compensation, golden parachute, bonus or otherwise) becoming due to any officer, director or employee of the Company; (ii) increase any benefits otherwise payable by the Company; or (iii) except as set forth in Section 3.17(l)(iii) of the Disclosure Schedule, result in the acceleration of the time of payment or vesting of any such benefits.

(m) No Company Benefit Plan is funded with or allows for payments, investments or distributions in any employer security of the Company, including, but not limited to, employer securities as defined in Section 407(d)(1) of ERISA, or employer real property as defined in Section 407(d)(2) of ERISA.

(n) Neither the Company nor any ERISA Affiliate contributes to, or has any obligation to contribute to, or has any liability (including withdrawal liability as defined in Section 4201 of ERISA) under or with respect to any (i) Employee Benefit Plan that is a "*defined benefit plan*" as defined in Section 3(35) of ERISA or (ii) any Multiemployer Plan.

(o) No asset of the Company is subject to any Lien under ERISA or the Code.

(p) Except as set forth in Section 3.17(p) of the Disclosure Schedule, no Company Benefit Plan constitutes a "non-qualified deferred compensation plan" within the meaning of Section 409A of the Code; and such Company Benefit Plan which is subject to Section 409A of the Code has been operated in compliance with Section 409A of the Code. Each option to purchase shares of the Company's capital stock has been granted with an exercise price that as of the date of grant (or, if applicable, the amendment of such option) was no lower than the "fair market value" of the underlying stock determined in good faith and in a manner consistent with the requirements under Section 409A of the Code.

(q) Except as set forth in Section 3.17(q) of the Disclosure Schedule, the Company does not maintain any Company Benefit Plan intended to include group severance pay or benefits or any Code Section 401(k) arrangement.

(r) The Company has complied in all material respects with the Patient Protection and Affordable Care Act, Pub. L. No. 111-148 ("***PPACA***"), the Health Care and Education Reconciliation Act of 2010, Pub. L. No. 111-152 ("***HCERA***"), and all regulations and guidance issued thereunder (collectively, with PPACA and HCERA, the " ***Healthcare Reform Laws***"), and no event has occurred, and no condition or circumstance exists, that could be expected to subject the Company to any penalties or excise taxes under Section 4980D and 4980H of the Code or any other provision of the Healthcare Reform Laws.

3.18 **Environmental Matters**.

(a) The Company is and has at all times been in compliance in all material respects with all applicable Rules relating to public health and safety, worker health and safety and pollution and

protection of the environment, including all Environmental Laws, and no action, suit, proceeding, hearing, investigation, charge, complaint, claim, demand or notice has been made, given, filed or commenced or, to the Knowledge of the Company, threatened by any Person against the Company alleging any failure to comply with any Environmental Law or seeking contribution towards, or participation in, any remediation of any contamination of any property or thing with Hazardous Materials. In each case, the Company has obtained, and is and has at all times been in compliance with all of the terms and conditions of, all Permits that are required under any Environmental Law and has at all times complied with all other limitations, restrictions, conditions, standards, prohibitions, requirements, obligations, schedules and timetables that are contained in any applicable Environmental Law.

(b) There are no circumstances that would or would reasonably be expected to result in future non-compliance or liability under applicable Rules relating to public health and safety, worker health and safety and pollution and protection of the environment, including the Environmental Laws. No physical condition exists on or under any property that may have been caused by or impacted by the operations or activities of the Company that would reasonably be expected to give rise to any investigative, remedial or other obligation under any Environmental Law or that would reasonably be expected to result in any kind of liability to any third party claiming damage to Person or property as a result of such physical condition.

(c) All properties and equipment used in the business of the Company are and have been free of Hazardous Materials except for any Hazardous Materials in small quantities found in products used by the Company for office or janitorial purposes stored, used and disposed of in compliance with Environmental Law.

(d) The Company has provided to Parent true and complete copies of all internal and external environmental audits and studies in its possession or control relating to the Company and its operations and all correspondence on substantial environmental matters relating to the Company and its operations.

3.19 **Material Contracts**.

(a) Section 3.19(a) of the Disclosure Schedule sets forth a list of all Material Contracts including the name of the parties thereto, the date of each such Material Contract and each amendment thereto. All Material Contracts are in full force and effect in all material respects (subject to the Remedies Exceptions). Other than as described on Section 3.19(a) of the Disclosure Schedule, all Material Contracts are valid and enforceable in all material respects (subject to the Remedies Exceptions), and not in default, no payments or other obligations are past due and no circumstance exists that, with notice, the passage of time or both, could constitute a default under any Material Contract by the Company or, to the Knowledge of the Company, by any other party thereto. The Company has not received any notice of a default, alleged failure to perform or any offset or counterclaim with respect to any Material Contract that has not been fully remedied by the Company and withdrawn by the counterparty. The consummation of the transactions contemplated in this Agreement or any other Transaction Document to which the Company is a party will not constitute a default under, or affect the enforceability against any Person of, any such Material Contract. The Company has provided Parent with true and complete copies of all Material Contracts including all amendments, terminations and modifications thereof.

(b) Section 3.19(b) of the Disclosure Schedule sets forth the form of standard Contract (the "***Standard Customer Contract***") that the Company has used in selling or offering goods and services in the operation of the Business. Except to the extent disclosed in Section 3.19(b) of the Disclosure Schedule, no Major Customer has executed or otherwise undertaken legally binding obligations that deviate in any material respect (in a manner adverse to the Company) from the terms and conditions set out in the Standard Customer Contract.

3.20 **Insurance**.

(a) The Company has been covered since its formation by insurance in scope and amount customary and reasonable for the business in which it has been engaged during such period.

(b) Section 3.20(b) of the Disclosure Schedule sets forth the following information with respect to each insurance policy (including policies providing property, casualty, directors and officers liability, professional liability insurance, errors and omissions insurance, or workers' compensation coverage and bond and surety arrangements) to which the Company is a party, a named insured or otherwise the beneficiary of coverage at any time since its formation: (i) the name of the insurer, the name of the policyholder and the name of each covered insured; (ii) the policy number and the period of coverage; and (iii) the scope and amount of coverage (including an indication of whether the coverage was on a claims made, occurrence or other basis and a description of how deductibles and ceilings are calculated and operate). The Company has provided Parent with true and complete copies of each such policy, each submission and each broker or consultant Contract. Except as set forth in Section 3.20(b) of the Disclosure Schedule, there are no claims pending or, to the Knowledge of the Company, threatened under any of such policies and there are no disputes between the Company and any of the underwriters of said policies. Each of such insurance policies is legal, valid, binding, enforceable and in full force and effect (subject to the Remedies Exceptions) and will not be altered or changed following consummation of the transactions contemplated in this Agreement, and will continue to be legal, valid, binding, enforceable and in full force and effect (subject to the Remedies Exceptions) on identical terms following consummation of the transactions contemplated in this Agreement and any other Transaction Document. Neither the Company, nor, to the Knowledge of the Company, any other Person, is in breach or default under any such insurance policy (including with respect to the payment of premiums or the giving of notices), and no event has occurred that, with notice or the lapse of time or both, would constitute such a breach or default, or permit termination, modification or acceleration, under any such insurance policy. No party to any such insurance policy has repudiated any provision thereof. Except for amounts deductible under policies of insurance and as described in Section 3.20(b) of the Disclosure Schedule, the Company has not been and is not subject to liability as a self-insurer.

3.21 **Transactions with Related Parties**. Except as set forth in Section 3.21 of the Disclosure Schedule, no employee, officer, director or Equityholder of the Company, nor any member of his or her immediate family, (i) is indebted to the Company, nor is the Company indebted (or committed to make loans or extend or guarantee credit) to any of them or (ii) has any direct or indirect ownership interest in any property or asset used or developed by or for the Company in the conduct of the Business except through such Person's ownership of capital stock or any other Equity Interests of the Company. Other than as listed in Section 3.21 of the Disclosure Schedule, none of such Persons has any direct or indirect Equity Interest or other ownership interest in (a) any Person with which the Company is Affiliated or with which the Company has a business relationship or (b) any Person that competes with the Company (other than the ownership of less than 5% of the outstanding class of publicly traded stock in publicly traded companies that may compete with the Company). Except as set forth in Section 3.21 of the Disclosure Schedule, no officer, director or Equityholder, nor any member of his or her immediate family, is, directly or indirectly, a party to or interested in any Contract with the Company or its Affiliates. For clarity, no disclosure is required under this Section 3.21 with respect to any portfolio company of any venture capital or private equity investor in the Company.

3.22 **Books and Records**. The minute books of the Company contain complete and accurate records of all meetings and other corporate actions of the stockholders and board of directors of the Company. The stock ledger of the Company is complete and reflects all issuances, transfers, repurchases and cancellations of shares of capital stock, equity interests, options, and any other securities of the Company. True and complete copies of the minute books and the stock ledger of the Company have been made available to Parent and the original minute books and stock ledger will be delivered to Parent at the Closing.

3.23 **Absence of Changes**. Since December 31, 2017, there has not occurred any Material Adverse Effect. Except as set forth in the applicable subsection of Section 3.23 of the Disclosure Schedule, from such date, the Company

has conducted its business only in the ordinary course of business consistent with past practices, and the Company has not:

(a) failed to use commercially reasonable efforts to preserve intact the Company's present business organization and to keep available the services of its present officers, managerial personnel and key employees or independent contractors and preserve its relationships with customers;

(b) failed to use commercially reasonable efforts to maintain its assets in their current condition, except, with respect to Personal Property, for ordinary wear and tear, or failed to repair, maintain, or replace any of its equipment in accordance with the normal standards of maintenance applicable in the industry;

(c) amended, accelerated, terminated, canceled or failed to use commercially reasonable efforts to renew any Material Contract, or received any written notice or other notification that any other Person has or intends to take any such actions;

(d) entered into any Contract (i) that is a Material Contract and (ii) outside the ordinary course of business;

(e) entered into or modified any standstill or non-compete contracts under which the Company is the obligor, or modified or waived any of its rights under any existing standstill or non-compete contract under which the Company is the beneficiary;

(f) transferred, granted any license or sublicense of any rights under or with respect to any Company Intellectual Property other than in the ordinary course of business consistent with past practice;

(g) made or pledged to make any charitable or other capital contribution;

(h) adopted, amended, modified or terminated any Employee Benefit Plan (other than as required by Applicable Law), made any contribution to any Employee Benefit Plan (other than regularly scheduled contributions) or materially increased in any manner the compensation or benefits of any officer, director, employee or independent contractor or granted any equity or equity based awards;

(i) made any oral or written representation or commitment with respect to any aspect of any Employee Benefit Plan that is not in accordance with the existing written terms and provision of such Employee Benefit Plan;

(j) terminated any employee other than in the ordinary course of business consistent with past practice;

(k) hired or appointed any new officers, directors or exempt employees except (i) to replace existing employees at similar compensation levels or (ii) for any new employees hired in the ordinary course of business;

(l) entered into any new intercompany transaction, agreement, arrangement, or understanding with, directly or indirectly, any officer or director or Affiliate, or made any payment or distribution to any of the foregoing other than salaries, expense reimbursements or advances to directors, officers and employees of the Company in the ordinary course of business and consistent with past practices of the Company;

(m) acquired (including by merger, consolidation, or the acquisition of any equity interest or assets) or sold (whether by merger, consolidation, or the sale of an equity interest or assets), leased, assigned, licensed, loaned, pledged, transferred, or disposed of any Person or any material assets or rights except for fair consideration in the ordinary course of business and consistent with past practice;

(n) mortgaged, pledged, or subjected to any Lien (other than Permitted Encumbrances) any of its assets;

(o) made any loans, advances or capital contributions to, or investment in, any other Person;

(p) entered into any joint ventures, strategic partnerships or alliances;

(q) (i) hired or changed its independent public accountants, if any, (ii) changed its depreciation or amortization policies or rates, (iii) changed its standard invoicing or billing practices and procedures or, (iv) except as required by GAAP, Applicable Law or circumstances which did not exist as of such date, changed any of the accounting principles or practices used by it;

(r) changed its practices and procedures with respect to the collection of accounts receivable or offered to discount the amount of any account receivable or extended any other incentive (whether to the account debtor or any employee or third party responsible for the collection of receivables) with respect thereto;

(s) made, declared, paid or set aside assets for any dividend or otherwise declared or made any other distribution with respect to its capital stock, or directly or indirectly purchased, redeemed or otherwise acquired any shares of capital stock or other securities of the Company;

(t) incurred or guaranteed any Indebtedness, issued any debt securities or rights to acquire debt securities, or entered into any arrangement having the economic effect of any of the foregoing;

(u) failed to pay any Indebtedness or any other accounts payable as it became due, or changed its existing practices and procedures for the payment of Indebtedness or other accounts payable;

(v) (i) paid, discharged or satisfied any claim, liability or obligation (absolute, accrued, asserted, unasserted, contingent or otherwise), other than claims, liabilities or obligations arising in the ordinary course of business, (ii) prepaid or cancelled any amount of Indebtedness for borrowed money, (iii) paid or agreed to pay any amount in settlement, or cancelled, compromised, waived or released any right or claim, including rights under or pursuant to, any matter involving actual or threatened claims against the Company, other than immaterial rights or claims in the ordinary course of business;

(w) incurred or committed to incur any capital expenditures, capital additions or capital improvements in excess of $10,000 for any individual commitment or $50,000 in the aggregate;

(x) made any payment or agreement relating to the surrender, cancellation, amendment or agreement not to exercise any stock option, warrant, or other right to acquire equity or equity linked securities issued by the Company;

(y) experienced any damage, destruction or loss to or of any of the assets or properties owned or leased by the Company;

(z) made or changed any Tax election, changed any annual accounting period, adopted or changed any accounting method with respect to Taxes, filed any amended Tax Return, entered

into any closing agreement, settle or compromise any proceeding with respect to any Tax claim or assessment, surrendered any right to claim a refund of Taxes, consent to any extension or waiver of the limitation period applicable to any Tax claim or assessment relating to the Company, or taken any other similar action relating to the filing of any Tax Return or the payment of any Tax; or

(aa) authorized, approved, agreed to or made any commitment, orally or in writing, to take any of the foregoing actions or to take any actions prohibited by this Agreement.

3.24 **Product and Service Warranties**. Since December 31, 2016, the Company has not received any written notice, or to the Knowledge of the Company, any oral notice from users or purchasers of the Company Products, who are current customers of the Company as of the date of this Agreement, alleging that any Company Product or any other product or service sold, licensed, distributed, delivered or offered by the Company is not in conformity in any material respect with all applicable contractual commitments and all express warranties (if any) made by the Company , and the Company is not aware of any specific basis for any present or future action, suit, proceeding, hearing, investigation, charge, complaint, claim, or demand against the Company giving rise to any liability for violations thereof or other damages in connection therewith, subject only to the reserve set forth in the Financial Statements. Except as set forth in Section 3.24 of the Disclosure Schedule, no product sold, licensed, distributed or delivered by the Company is subject to any guaranty, warranty, or other indemnity beyond those set forth in the Standard Customer Contracts, except for such guarantees, warranties and indemnities that are implied under Applicable Law and not disclaimable.

3.25 **Major Customers and Suppliers**

. Section 3.25 of the Disclosure Schedule sets forth a list of the top 40 customers of the Company by gross revenue for the year ended December 31, 2017, and the six-month period ended June 30, 2018 (the "***Major Customers***"), together, in each case, with the gross revenue for such Major Customers during such periods. Each Major Customer has executed a written Contract governing its relationship with the Company. Except as set forth in Section 3.25 of the Disclosure Schedule, no Major Customer has canceled, terminated or otherwise modified, or threatened (to the Knowledge of the Company) or requested to cancel, terminate or otherwise modify, its relationship with the Company during the 12 months immediately preceding the Closing Date or has during such 12-month period decreased, or threatened (to the Knowledge of the Company) or requested to decrease or limit, its business with the Company, in each case, other than as a result of a decrease in the number of properties owned, managed, operated or otherwise monitored by such Major Customer. The Company is not engaged in any dispute with any Major Customer and, to the Knowledge of the Company, no Major Customer intends to terminate, limit or reduce its business relations with the Company other than as a result of a decrease in the number of properties owned, managed, operated or otherwise monitored by such Major Customer. Section 3.25 of the Disclosure Schedule sets forth a list of the 25 largest suppliers or vendors (each a "***Major Supplier***") of the Business for the six-month period ended June 30, 2018, based on and listing the gross purchases from such Major Suppliers. The Company is not engaged in any dispute with any Major Supplier and except as set forth in Section 3.25 of the Disclosure Schedule no Major Supplier has canceled, terminated or otherwise decreased, or threatened (to the Knowledge of the Company) or requested to decrease or limit, its business with the Company during the 12 months immediately preceding the Closing Date. The Company has no reason to believe that the consummation of the transactions contemplated in this Agreement is reasonably likely to have an adverse effect on the business relationship of the Company with any Major Customer or Major Supplier.

3.26 **Absence of Certain Business Practices**. Neither the Company nor any employee, officer, director or Affiliate of the Company, or any other Person acting on behalf of any of them, has, with respect to, on behalf of or to otherwise further the interests of the Company, (a) used funds for unlawful contributions, gifts, entertainment or other unlawful expenses relating to political activity, (b) made any direct or indirect unlawful payments to foreign or domestic government officials or employees, (c) established or maintained any unlawful or unrecorded funds or other assets or to foreign or domestic political parties or campaigns or violated any provision of the Foreign Corrupt Practices Act of 1977, as amended, or the OECD Convention on Combating Bribery of Foreign Public Officials in Business Transactions; (d) made any bribe, kickback or other unlawful payment or (e) made any favor or gift which is not, in good faith, believed by such Person to be fully deductible for any income tax purposes and which was, in fact, so deducted.

3.27 **Bank Accounts, Powers of Attorney**.

(a) Section 3.27(a) of the Disclosure Schedule sets forth the names and locations of all banks, trust companies, savings and loan associations, mutual fund or stock brokerage firm and other financial institutions at which the Company maintains safe deposit boxes or accounts of any nature, the account numbers of all such accounts and the names of all persons authorized to draw thereon or make withdrawals therefrom.

(b) The Company has no obligation to act under any outstanding power of attorney or any obligation or liability, either accrued, accruing or contingent, as guarantor, surety, consignor, endorser (other than for purposes of collection in the ordinary course of business of the Company), co-maker or indemnitor in respect of the obligation of any Person.

(c) There are no credit cards issued to any present or past officer, employee or agent of the Company under which the Company has any current or potential future liability except as listed in Section 3.27(c) of the Disclosure Schedule.

3.28 **No Competitor Technology; No Violation of Agreements with Certain Competitors**.

(a) Except as set forth in Section 3.28(a) of the Disclosure Schedule, without limiting the generality of any other representations or warranties contained in this Agreement, the Company's software platform does not contain, and the Company is not in possession of, in any electronic or hard copy form, any Technology, data or other confidential or proprietary information or property owned by or originating from any Person set forth on Schedule 3.28(a) (each, a "***Specified Competitor***," any such Technology, data or other confidential or proprietary information or property owned by or originating from a Specified Competitor is referred to as "***Competitor Technology***"). The Company has not breached any contract between the Company, on the one hand, and any Specified Competitor, on the other hand.

(b) Except as set forth in Section 3.28(b) of the Disclosure Schedule, no Competitor Technology is required to operate the Business as currently conducted by the Company.

(c) Except as set forth in Section 3.28(c) of the Disclosure Schedule, in the operation of its Business as currently conducted by the Company, the Company's products and services interface with Specified Competitor software applications and databases only through standard interfaces, generally made available by such Specified Competitors to their customers, and not through a custom-built interface.

(d) Except as set forth in Section 3.28(d) of the Disclosure Schedule, since January 1, 2011, the Company has not, directly or through any subcontractor or other third party, provided any consulting or similar services with respect to or utilizing Competitor Technology, or otherwise operated as a member of any consultant network of any Specified Competitor.

3.29 **Preferences; Solvency**. Each of the following statements is, and, after giving effect to the transactions contemplated in this Agreement and the other Transaction Documents, true and correct:

(a) The Company is not insolvent as such term is used in Sections 547 and 548 of the United States Bankruptcy Code and all other applicable preference, fraudulent transfer or fraudulent conveyance laws, statutes, rules or regulations applicable to the Company or the Equityholders.

(b) The consideration received by the Equityholders hereunder constitutes reasonably equivalent value with respect to the Equity Interests of the Company held by such Equityholders.

3.30 **Disclosures**. None of this Agreement (including any Exhibit or Schedule hereto) or any other Transaction Document to which the Company is a party, nor any certificate or instrument furnished to Parent or Merger Subsidiary in connection with the transactions contemplated in this Agreement or any other Transaction Document to which the Company is a party, contains any untrue statement of a material fact or omits to state a material fact necessary in order to make the statements contained herein or therein, not misleading.

ARTICLE IIIA
REPRESENTATIONS AND WARRANTIES OF THE EQUITYHOLDERS

Except as set forth in the Disclosure Schedule, each Equityholder represents and warrants to Parent and Merger Subsidiary and to and for the benefit of the Indemnified Parties, severally and not jointly, as of the date hereof and as of the Effective Time, as follows (with the understanding and acknowledgement that Parent and Merger Subsidiary would not have entered into this Agreement without being provided with the representations and warranties set forth herein, and that these representations and warranties constitute an essential and determining element of this Agreement):

3A.1. **Authority**. Such Equityholder has all requisite power and authority (including any entity power and authority if such Equityholder is an entity and all authority under Applicable Laws relating to community property, if such Equityholder is an individual), and has taken all action necessary, to execute and deliver this Agreement and each other Transaction Document to which such Equityholder is a party and to perform its obligations hereunder and thereunder and to consummate the transactions contemplated herein or therein.

3A.2. **Due Execution**. This Agreement has been, and each other Transaction Document to which such Equityholder is a party will be prior to the Closing, duly authorized, executed and delivered by such Equityholder, and (assuming the due authorization, execution and delivery by Parent and Merger Subsidiary) this Agreement constitutes, and each other Transaction Document to which such Equityholder is a party when so executed and delivered will constitute, the legal, valid and binding obligations of such Equityholder, enforceable against such Equityholder in accordance with their terms, subject to the Remedies Exceptions.

3A.3 **Non-Contravention**. The execution and delivery of this Agreement and each other Transaction Document to which such Equityholder is a party and the consummation of the transactions contemplated herein and therein by such Equityholder do not, and the performance of this Agreement and each such Transaction Document by the Equityholder will not, (i) conflict with or violate any provision of the organizational documents of such Equityholder, if such Equityholder is an entity, (ii) conflict with or violate any Applicable Laws, or (iii) conflict with, result in any breach or acceleration of, or constitute a default (or an event that with notice or lapse of time or both would become a default) under, any Contract to which such Equityholder is a party or by which the Equity Interests of the Company held by such Equityholder is bound, or (iv) result in the creation of a Lien on any of the Equity Interests of the Company held by such Equityholder.

3A.4 **Ownership Interests**. Such Equityholder (a) holds of record and beneficially the Equity Interests in the Company set forth opposite its name on Section 3A.4 of the Disclosure Schedule, free and clear of any and all Liens, (b) has not sold, transferred, conveyed or gifted to any other Person, or otherwise disposed of, any Equity Interests in the Company, (c) except as disclosed on Section 3A.4 of the Disclosure Schedule, is not a party to any Contract relating to or affecting the Equity Interests in the Company and (d) other than as set forth on Section 3A.4 of the Disclosure Schedule, owns no other, and has no preemptive or other rights to purchase, any Equity Interests in the Company.

3A.5 **Litigation**. There have not been in the last five years, and there currently are no Legal Proceedings pending or, to the knowledge of the Equityholder, threatened against the Equityholder where such Legal Proceedings are related to the Company, the Business or the Equity Interests in the Company held by such Equityholder. There have not been in the last five years, and currently are no Legal Proceedings initiated by the Equityholder pending, or that the Equityholder intends to initiate, against any other Person related to the Company, the Business or the Equity Interests in the Company held by such Equityholder. There is no injunction, judgment, decree or order binding upon or against the Equityholder that affects the Equity Interests in the Company held by such Equityholder or that could

prevent, materially delay or materially impair the ability of the Equityholder to consummate the transactions contemplated in this Agreement or the Transaction Documents to which such Equityholder is a party.

3A.6 **Consideration**. Such Equityholder acknowledges that the amount it will receive with respect to each Outstanding Preferred Share, Outstanding Common Share, Vested Option and interests in the Management Carveout Plan will be allocated as set forth in this Agreement, which amount is subject to reductions, adjustments, holdback and indemnification in accordance with the terms of this Agreement.

3A.7 **Brokers' and Finders' Fees**. Such Equityholder has not incurred, nor will it incur, directly or indirectly, any liability for brokerage or finders' fees or agents' commissions or any similar charges in connection with this Agreement or any other Transaction Document to which the Equityholder is a party or any transaction contemplated herein or therein. No finder, broker, investment banker, agent or other intermediary has acted for or on behalf of such Equityholder in connection with the transactions contemplated in this Agreement or the Transaction Documents.

ARTICLE IV
REPRESENTATIONS AND WARRANTIES OF PARENT AND MERGER SUBSIDIARY

Parent and Merger Subsidiary represent and warrant to the Company and the Equityholders as follows (with the understanding and acknowledgement that the Company and the Equityholders would not have entered into this Agreement without being provided with the representations and warranties set forth herein, and that these representations and warranties constitute an essential and determining element of this Agreement):

4.1 **Organizational Matters**.

(a) Organization, Standing and Power to Conduct Business. Each of Parent and Merger Subsidiary is a corporation duly organized, validly existing and in good standing under the laws of the State of Delaware; has the requisite power and authority to own, lease and operate its properties and to carry on its business as now being conducted; and is duly qualified and in good standing (with respect to jurisdictions that recognize such concept) to do business in each jurisdiction in which the nature of its business or the ownership or leasing of its properties makes such qualification necessary, except where the failure to do so would not have a material adverse effect on Parent.

(b) Charter Documents. Parent has delivered or made available to the Company true, correct and complete copies of the certificate of incorporation and bylaws of Parent, as amended to date and currently in effect (such instruments and documents, the "***Parent Charter Documents***"). Parent is not in violation of any of the provisions of the Parent Charter Documents.

4.2 **Authority and Due Execution**.

(a) Authority. Each of Parent and Merger Subsidiary have all requisite corporate power and authority to enter into this Agreement and any other Transaction Documents to which they are a party and to consummate the transactions contemplated herein or therein. The execution and delivery of this Agreement and the other Transaction Documents to which Parent or Merger Subsidiary is a party and the consummation by Parent or Merger Subsidiary of the transactions contemplated herein or therein have been duly authorized by all necessary corporate action on the part of Parent and Merger Subsidiary and no other corporate proceedings on the part of Parent or Merger Subsidiary are necessary to authorize the execution, delivery and performance of this Agreement and the other Transaction Documents by Parent or Merger Subsidiary or to consummate the transactions contemplated herein or therein.

(b) Due Execution. This Agreement and each other Transaction Document to which either Parent or Merger Subsidiary is a party has been, or upon execution and delivery will be, duly executed and delivered by Parent and Merger Subsidiary and constitutes, or upon execution and delivery will constitute (assuming the due authorization, execution and delivery by the other parties hereto and thereto), the valid

and binding obligations of Parent and Merger Subsidiary enforceable against them in accordance with their respective terms, subject to the Remedies Exceptions.

4.3 **Non-Contravention and Consents**.

(a) Non-Contravention. The execution and delivery of this Agreement and each other Transaction Document by Parent and Merger Subsidiary does not, and the performance of this Agreement and each other Transaction Document by Parent and Merger Subsidiary will not, (i) conflict with or violate any provision of Parent's or Merger Subsidiary's Certificate of Incorporation or Bylaws, in each case as amended to date and currently in effect; (ii) conflict with or violate any Applicable Laws; or (iii) result in any breach of or constitute a default (or an event that with notice or lapse of time or both would become a default) under, or impair the rights of Parent or Merger Subsidiary or alter the rights or obligations of any third party under, or give to others any rights of termination, amendment, acceleration or cancellation of, pursuant to any Contract, or result in the creation of a Lien on any of Parent's or Merger Subsidiary's assets or properties pursuant to, any obligation to which Parent or Merger Subsidiary is a party or by which Parent or Merger Subsidiary may be bound.

(b) Contractual Consents. No Consent under any agreement to which Parent or Merger Subsidiary is a party is required to be obtained in connection with the execution, delivery or performance of this Agreement or any other Transaction Document by Parent or Merger Subsidiary or the consummation of the transactions contemplated herein or therein.

(c) Governmental Consents. No Consent of any Governmental Entity is required to be obtained or made by Parent or Merger Subsidiary in connection with the execution, delivery and performance of this Agreement or any other Transaction Document by Parent or Merger Subsidiary or the consummation of the transactions contemplated herein or therein, except for the filing of the Certificate of Merger and any other required filing with the Secretary of State of the State of Delaware.

4.4 **Brokers' and Finders' Fees**. Parent has not incurred, nor will it incur, directly or indirectly, any liability for brokerage or finders' fees or agents' commissions or any similar charges in connection with this Agreement or any other Transaction Document to which the Company is a party or any transaction contemplated herein or therein.

ARTICLE V
ADDITIONAL AGREEMENTS AND COVENANTS OF THE COMPANY AND THE EQUITYHOLDERS

5.1 **Conduct of Business**. Except as contemplated in this Agreement or to the extent that Parent otherwise consents in writing after the date of this Agreement, from the date of this Agreement until the earlier of the termination of this Agreement or the Closing, the Company covenants and agrees that the Company will not, except as otherwise expressly contemplated in this Agreement or required by Applicable Law:

(a) fail to act in the ordinary course of business and consistent with past practices of the Company;

(b) take any action, or fail to take any action, that would be required to be listed in Section 3.23 of the Disclosure Schedule if such action or failure to act had occurred after December 31, 2017 and prior to the date hereof;

(c) (i) merge or consolidate with or into any other Person; (ii) dissolve or liquidate; (iii) sell, lease or exclusively license all or substantially all of its assets; (iv) mortgage or pledge any of its assets or subject any of its assets to any Lien (other than Permitted Encumbrances); or (v) permit the sale or transfer of any shares of capital stock or interests therein (other than pursuant to the exercise of options outstanding as of the date of this Agreement);

(d) issue, sell, pledge, dispose of, encumber or deliver (whether through the issuance or granting of any options, warrants, commitments, subscriptions, rights to purchase or otherwise) any shares of capital stock or other securities of any class (except for the issuance of shares of Common Stock pursuant to the exercise of options) or any options, warrants, calls, rights, commitments, agreements, arrangements or undertakings to issue, deliver or sell, or cause to be issued, delivered or sold, shares of capital stock or other securities of any class;

(e) change, amend, modify or repeal any provision of the Company Charter Documents;

(f) guarantee, endorse or otherwise become liable or responsible for the obligations of any other Person (other than endorsements of checks in the ordinary course) or make any loans, advances or capital contributions to, or investments in, any Person, other than between the Company and a wholly owned subsidiary or between wholly owned subsidiaries;

(g) make any settlement of or compromise any Tax liability, or except as required by Applicable Law, change any Tax election or Tax method of accounting or make any new Tax election or adopt any new Tax method of accounting; surrender any right to claim a refund of Taxes; consent to any extension or waiver of the limitation period applicable to any Tax claim or assessment; file any material Tax Return or any amended Tax Return or take any other action that would have the effect of increasing the Tax liability of the Company for any period after the Closing Date or decreasing any Tax attribute of the Company existing on the Closing Date;

(h) except as required by GAAP, Applicable Law or circumstances which did not exist as of such date, change any of the accounting principles or practices used by it;

(i) commence a lawsuit, administrative proceeding, mediation, arbitration or other similar proceeding other than relating to or arising out of this Agreement or the agreements and transactions contemplated herein;

(j) make any claim under or reduce the amount of any insurance coverage provided by existing insurance policies;

(k) make any loan to, or enter into any transaction directly or indirectly with, any of its Equityholders, directors, officers or employees, including any member of his or her immediate family or Affiliates, as applicable, other than transactions contemplated in this Agreement, pursuant to the exercise of options or the repurchase of shares upon termination of service or the exercise of rights of first refusal, or compensatory transactions (e.g., payment of salaries) in the ordinary course of business and consistent with past practices of the Company;

(l) enter into any collective bargaining agreement;

(m) make, declare, pay or set aside assets for any dividend or otherwise or declare or make any other distribution with respect to its capital stock, or, directly or indirectly, purchase, redeem or otherwise acquire any shares of capital stock or other securities except as contemplated in this Agreement or pursuant to the exercise of options or the repurchase of shares upon termination of service or the exercise of rights of first refusal;

(n) hire any new management-level employee, or grant any bonus;

(o) fail to maintain the books, records and accounts of the Company in the ordinary course;

(p) fail to comply with any Applicable Law in any material respect;

(q) introduce any material change with respect to the operation of the Company, including any material change in the types, nature, composition or quality of its products or services;

(r) take any action that would adversely affect the ability of the parties to consummate the transactions contemplated in this Agreement and the other Transaction Documents;

(s) enter into any Contract, understanding or commitment that restrains, restricts, limits or impedes the ability of the Company to compete with or conduct any business or line of business in any geographic area or solicit the employment of any persons; or

(t) approve, propose, authorize any of, or commit or agree to take any of, the foregoing actions.

5.2 **Access and Information**. Subject to Applicable Law, until the earlier of the termination of this Agreement or the Closing, the Company will afford to Parent, Merger Subsidiary and their representatives (including accountants and counsel) reasonable access to all properties, books, contracts, commitments, financial information (including working papers and data in the possession of the Company or its independent public accountants), records, Tax Returns and facilities of the Company and all other information with respect to their business, together with the opportunity to make copies of such books, records and other documents and to discuss the business of the Company with such directors, officers and counsel for the Company as Parent or Merger Subsidiary may reasonably request for the purposes of familiarizing itself with the Company. Notwithstanding the foregoing provisions of this Section 5.2, the Company will not be required to grant access or furnish information to Parent, Merger Subsidiary or any of their representatives to the extent that such information (a) is subject to an attorney/client or attorney work product privilege unless Parent or Merger Subsidiary, as applicable, agrees to enter into a common interest privilege agreement to protect such privilege or (b) consists of personnel records of the Company relating to medical histories or other information that in the Company's good faith opinion is sensitive or the disclosure of which could subject the Company to risk of liability. All information provided pursuant to this Agreement will remain subject in all respects to the Confidentiality Agreement.

5.3 **Third Party Consents; Modifications and Termination of Contracts**. After the date of this Agreement and until the earlier of the termination of this Agreement or the Closing, the Company will use commercially reasonable efforts to obtain each Consent required to be obtained under any Contract in connection with the execution, delivery or performance of this Agreement or any other Transaction Document by the Company or the consummation of the transactions contemplated herein or therein, including the consents set forth on Schedule 5.3(a). After the date of this Agreement and until the earlier of the termination of this Agreement or the Closing, the Company will use commercially reasonable efforts to obtain the terminations, modifications and amendments set forth on Schedule 5.3(b) of each Contract set forth on such schedule. After the date of this Agreement and until the earlier of the termination of this Agreement or the Closing, the Company will also deliver the notices set forth on Schedule 5.3(c) with respect to each Contract set forth on such schedule. All such consents, waivers, approvals, terminations, modifications, amendments and notices shall be in writing and in form and substance reasonably satisfactory to Parent, and executed counterparts of such consents, waivers and approvals shall be delivered to Parent promptly after receipt thereof, and copies of such notices shall be delivered to Parent promptly after the making thereof. The Company shall be required to make any commercially reasonable expenditures necessary to obtain such consents, waivers, approvals, terminations, modifications, amendments and notices. Notwithstanding anything to the contrary in this Agreement, neither Parent nor any of its Affiliates shall be required to pay any amounts in connection with obtaining any consents, waivers, approvals, terminations, modifications, amendments and notices.

5.4 **Company Transaction Costs**. No later than three Business Days prior to the Closing Date, the Company shall provide Parent and Merger Subsidiary, pursuant to the Payment Spreadsheet, the maximum amount, in the aggregate, of all Company Transaction Costs. The Payment Spreadsheet shall set forth (a) the identity of each

Person that is to be paid any Company Transaction Costs; (b) the amount owed or to be owed to each such Person; and (c) the bank account and wire transfer information for each such Person.

5.5 **Pay-Off Letters**. The Company shall prepare and deliver to Parent executed Pay-Off Letters evidencing the satisfaction and termination of the Loan Agreements or other Indebtedness set forth on Schedule 5.5 hereto no later than three Business Days prior to the Closing Date, including (a) the amounts required to pay off in full at the Closing the Indebtedness owing to such creditor (including, but not limited to, the outstanding principal, accrued and unpaid interest and prepayment and other penalties); (b) upon payment of such amounts, a complete release of the Company, Parent, Merger Subsidiary and the Surviving Corporation, in form and substance reasonably satisfactory to Parent; and (c) the commitment of such creditor to release all Liens, if any, which they may hold on any of the assets of the Company within a designated time period after the Closing Date, which Pay-Off Letters will be updated, as necessary, on the Closing Date.

5.6 **Acquisition Proposals**.

(a) No Solicitation. From the date hereof through the earlier of the termination of this Agreement or the Closing, the Company and the Equityholders shall not, and shall not permit or authorize any of the employees, officers, directors, agents, stockholders, or representatives of the Company to, directly or indirectly (i) solicit, initiate, encourage, knowingly facilitate or induce any inquiry with respect to, or the making, submission or announcement of, any Acquisition Proposal with respect to the Company; (ii) participate in any discussions or negotiations regarding, or furnish to any Person any nonpublic information with respect to, or take any other action to facilitate any inquiries or the making of any proposal that constitutes or may reasonably be expected to lead to, any Acquisition Proposal with respect to the Company; (iii) engage in discussions with any Person with respect to any Acquisition Proposal with respect to the Company, except as to the existence of these provisions; (iv) approve, endorse, recommend or submit to a vote of its stockholders any Acquisition Proposal with respect to the Company; or (v) enter into any letter of intent or similar document or any Contract contemplating or otherwise relating to any Acquisition Proposal or transaction contemplated therein with respect to the Company (including any nondisclosure or confidentiality agreement). The Company represents and warrants to Parent and Merger Subsidiary that the Company has ceased any and all activities, discussions or negotiations with any third parties conducted on or prior to the date hereof with respect to any Acquisition Proposal with respect to the Company or its assets or businesses.

(b) Notification of Unsolicited Acquisition Proposals. From the date hereof until the earlier of the termination of this Agreement or the Closing, immediately after receipt of any Acquisition Proposal or any request for nonpublic information or inquiry that it reasonably believes could lead to an Acquisition Proposal, the Company will promptly (and in any event within one Business Day after receipt) provide Parent with written notice of the material terms and conditions of such Acquisition Proposal, request or inquiry, and the identity of the Person or group making any such Acquisition Proposal, request or inquiry and a true and complete copy of all written materials provided in connection with such Acquisition Proposal, request or inquiry.

5.7 **Stockholder Approval**. Promptly following execution of this Agreement, the Company shall, in accordance with the Company Charter Documents and the applicable requirements of the DGCL and the CCC, if and to the extent applicable, obtain the Requisite Stockholder Approval. Any information statement, proxy statement or similar document the Company delivers to its stockholders in connection with such solicitation shall be subject to the approval of Parent (not to be unreasonably withheld, delayed or conditioned).

5.8 **Reserved**.

5.9 **Resignations of Directors and Officers**. The Company will cause all of its directors and officers to deliver their written resignations to Parent, which resignations will be effective on or before the Closing and will be in form and substance reasonably satisfactory to Parent. Each such resignation will state that the Company is not in

any way indebted or obligated to the resigning party for termination pay, loans, advances, or otherwise and that the Company is fully released from any and all indemnification obligations under the Company Charter Documents or any Contract (except to the extent covered by the D&O Tail Policy).

5.10 **Employment Matters**.

(a) Effective as of immediately prior to the Closing, the Company shall cause the Company Stock Plan to be terminated. Prior to the Closing, the Company's board of directors shall take such actions as are required to (i) terminate and cancel all outstanding options granted under the Company Stock Plan in accordance with Section 2.8 and (ii) cause the Company Stock Plan to be terminated as of immediately prior to the Effective Time. Prior to the Closing, the Company shall deliver to the Parent executed copies of the resolutions adopted by the Company's board of directors effecting the termination of the Company Stock Plan.

(b) The Company shall take such actions as may be necessary to prepare disclosures necessary to submit to a vote of the stockholders of the Company for their approval the payment of any amount or the provision of any benefit that, separately or in the aggregate, would not be deductible by reason of Section 280G of the Code. The Company shall complete the preparation and submission contemplated pursuant to the preceding sentence in a manner that satisfies all applicable requirements of Section 280G(b)(5)(B) of the Code and the Treasury Regulations thereunder, including Q&A-7 of Section 1.280G-1 of such Treasury Regulations. The Company shall use its best efforts to cause the Disqualified Individuals to enter into the Parachute Payment Waivers.

5.11 **Related-Party Transactions**. On or prior to the Closing Date, the Company shall (a) pay or otherwise satisfy all obligations of the Company to any Equityholder or any of their respective Affiliates (other than (i) obligations of the Company to its employees for accrued salary for the current payroll period reflected in the Closing Date Balance Sheet, (ii) Management Carveout Payments, Vested Option Payments, Promised Option Payments, Company Transaction Costs and Indebtedness set forth on the Payment Spreadsheet and (iii) obligations of the Company to its employees under health and welfare benefit programs and business expense reimbursement policies), (b) terminate all Contracts with the Equityholders or their respective Affiliates (other than (i) those Contracts set forth on Schedule 5.11 and (ii) Contracts between the Company and its employees the continuation of which Parent has approved in writing) and (c) deliver releases executed by such Affiliates with whom the Company has terminated such Contracts pursuant to this Section 5.11 providing that no further payments are due, or may become due, under or in respect of any such terminated Contracts.

5.12 **Financial Statements**.

(a) From the date hereof until the earlier of the termination of this Agreement or the Closing, the Company shall deliver to Parent, (i) as soon as practicable after the end of each quarterly accounting period of the Company following the date hereof, and in any event within 45 days after the end of each such quarterly period, unaudited consolidated financial statements (consisting of a balance sheet, statement of operations and statement of cash flows) as of the end of each such quarterly period and (ii) as soon as practicable after the end of each monthly accounting period (that is not also the end of a quarterly accounting period of the Company), and in any event within 30 days after the end of each such calendar month, unaudited consolidated financial statements (consisting of a balance sheet, statement of operations and statement of cash flows) as of the end of each such monthly accounting period, in each case prepared in accordance with GAAP, certified by the principal financial or accounting officer of the Company, subject to changes resulting from normal year end audit adjustments, which will not be material individually or in the aggregate, and except that such financial statements need not contain the notes required by GAAP.

(b) The Company and the Equityholders shall cooperate with Parent in the preparation of, any document or materials required to satisfy any public filing requirements of Parent arising out of or otherwise relating to the consummation of the transactions contemplated in this Agreement.

ARTICLE VI
ADDITIONAL COVENANTS

6.1 **Governmental Consents**. Promptly following the execution of this Agreement, the parties will proceed to prepare and file with the appropriate Governmental Entities such Consents that are necessary in order to consummate the transactions contemplated in this Agreement and will diligently and expeditiously prosecute, and will cooperate fully with each other in the prosecution of, such matters.

6.2 **Tax Covenants**.

(a) Filing of Tax Returns; Payment of Taxes . Parent shall prepare or cause to be prepared all Tax Returns of the Company required to be filed after the Closing Date for all Pre-Closing Tax Periods and all Straddle Periods. Such Tax Returns shall be prepared on a basis consistent with past practice except to the extent otherwise required by Applicable Laws. Not later than 30 days prior to the due date for filing any such Tax Return, Parent shall deliver or cause to be delivered a copy of such Tax Return, together with all supporting documentation and work papers, to the Representative for its review and reasonable comment and will consider in good faith the reasonable comments of the Representative. Parent will cause such Tax Return (as revised to incorporate the Representative's comments accepted by Parent) to be timely filed and will provide a copy to the Representative. Not later than five days prior to the due date for payment of Taxes with respect to any Tax Return for a Pre-Closing Tax Period or Straddle Period, the Equityholders shall pay to Parent the amount of any Indemnified Tax Losses with respect to such Tax Return (other than any amounts with respect to Taxes adjusted for pursuant to Working Capital).

(b) Proration of Straddle Period Taxes . In the case of Taxes that are payable with respect to any Straddle Period, the portion of any such Taxes that is attributable to the portion of the period ending on the Closing Date shall be:

(i) in the case of Taxes that are either (A) based upon or related to income or receipts, or (B) imposed in connection with any sale or other transfer or assignment of property (real or personal, tangible or intangible), deemed equal to the amount that would be payable if the Tax period of the Company (and each partnership in which the Company is a partner) ended with (and included) the Closing Date; *provided*, that exemptions, allowances or deductions that are calculated on an annual basis (including depreciation and amortization deductions) shall be allocated between the period ending on and including the Closing Date and the period beginning after the Closing Date in proportion to the number of days in each period; and

(ii) in the case of Taxes that are imposed on a periodic basis with respect to the assets or capital of the Company, deemed to be the amount of such Taxes for the entire Straddle Period (or, in the case of such Taxes determined on an arrears basis, the amount of such Taxes for the immediately preceding period), multiplied by a fraction the numerator of which is the number of calendar days in the portion of the period ending on and including the Closing Date and the denominator of which is the number of calendar days in the entire period.

(c) Cooperation on Tax Returns and Tax Proceedings . Parent, the Company, and the Representative shall cooperate fully as and to the extent reasonably requested by the other party, in connection with the filing of Tax Returns and any audit, examination, litigation or other judicial or administrative proceeding with respect to Taxes imposed on or with respect to the assets, operations or activities of the Company (each a "***Tax Proceeding***"). Such cooperation shall include the retention and (upon the other party's reasonable request) the provision of records and information which are reasonably relevant to any such Tax Return or Tax Proceeding and making employees available on a mutually convenient basis to provide additional information and explanation of any material provided hereunder. Parent, the Company, and the Representative agree (i) to retain all books and records with respect to Tax matters pertinent to the Company relating to any taxable period beginning before the Closing Date until expiration of the

statute of limitations (and, to the extent notified by Parent or the Company, any extensions thereof) of the respective taxable periods, and to abide by all record retention agreements entered into with any taxing authority, and (ii) to give the other party reasonable written notice prior to transferring, destroying or discarding any such books and records and, if the other party so requests, the Company or Parent, as the case may be, shall allow the other party to take possession of such books and records. The Representative and the Company further agree, upon request, to use commercially reasonable efforts to obtain any certificate or other document from any Governmental Entity or any other Person as may be necessary to mitigate, reduce or eliminate any Tax that could be imposed on Parent or the Company (including with respect to the transactions contemplated herein). Notwithstanding the above, the control and conduct of any Tax Proceeding that is a Third Party Action shall be governed by Section 10.2.

(d) Transfer Taxes. The Equityholders will be responsible for the payment of all state and local transfer, sales, use, stamp, registration or other similar Taxes resulting from the transactions contemplated in this Agreement or any other Transaction Document ("***Transfer Taxes***").

(e) Sales Taxes. Parent or the Surviving Corporation may file any Tax Return with respect to Sales Taxes or amended Tax Return with respect to Sales Taxes (including any voluntary disclosure agreement or similar agreement), apply for or participate in any voluntary disclosure program or remit any sales and use or other gross receipts Tax (collectively, "***Sales Tax***") related to the Company or the Business; provided that, if such filing relates to a Pre-Closing Tax Period, Parent shall provide reasonable notice to the Representative of its intent to make such filing prior to making any such filing and provide the Representative at least 15 days to review and comment on such filing. In the event that Parent or the Surviving Company receives any notice from any Tax Authority relating to Sales Tax with respect to the Company or the Business for any Pre-Closing Tax Period, Parent shall remit such notice to the Representative. Notwithstanding anything to the contrary in this Agreement, Parent may assume such claim in such manner as Parent determines in its sole discretion. The Equityholders hereby agree to indemnify Parent for any losses relating to Sales Taxes with respect to any Pre-Closing Tax Period pursuant to Article X hereof.

6.3 **Efforts to Consummate**. Subject to the terms and conditions of this Agreement, each party to this Agreement shall act in good faith and use commercially reasonable efforts to take or cause to be taken all actions, and do or cause to be done all things, required under Applicable Law in order to consummate the transactions contemplated herein as expeditiously as reasonably practicable, including (a) obtaining all authorizations, consents and approvals of any Person which are required for or in connection with the consummation of the transactions contemplated herein and by the other Transaction Documents; (b) taking any and all reasonable actions necessary to satisfy the conditions to the other parties' obligations hereunder as set forth in Article VII; and (c) executing and delivering all agreements and documents required by the terms hereof to be executed and delivered by such party on or prior to the Closing. Each party hereto shall refrain from taking any action to frustrate, hinder or delay the satisfaction of closing conditions for the Closing of the transactions contemplated in this Agreement.

6.4 **Confidentiality**.

(a) The terms of the Confidentiality Agreement are hereby incorporated by reference and shall continue in full force and effect until the Closing, at which time such Confidentiality Agreement and the obligations of Parent and the Company under the Confidentiality Agreement shall terminate; *provided*, that the Confidentiality Agreement shall not apply to disclosures by the Company to (a) its directors, officers, employees, stockholders, agents, financing sources or advisors (including attorneys, accountants and financial advisors) who need to know such information to consummate the transactions contemplated in this Agreement and who are bound by confidentiality obligations, or (b) third parties in connection with giving notices or seeking consents, amendments, modifications or terminations contemplated by this Agreement, in each case to the extent the Company has a valid confidentiality agreement in place with such Person and makes such Person aware of the confidential nature of any such disclosure. If this Agreement is, for any reason, terminated prior to the Closing, the Confidentiality Agreement shall continue in full force and effect in respect of any confidential information in accordance with its terms.

(b) From and after the Effective Time, (i) each Equityholder shall, and shall cause its Affiliates to, hold in confidence all information relating to the Company and the Business and the transactions contemplated by, and the terms of, this Agreement and the Transaction Documents (the "***Company Confidential Information***") and (ii) no Equityholder shall, and each Equityholder shall cause its Affiliates not to, disclose or use any Company Confidential Information except as expressly authorized in writing by Parent. Each Equityholder shall, and shall cause its Affiliates to, take the same degree of care to protect the Company Confidential Information as such Equityholder uses to protect his, her or its own confidential information, which shall in no event be less that a reasonable degree of care. Notwithstanding the foregoing, nothing in this Section 6.4(b) will prevent any of the following Equityholder disclosures at any time: (1) disclosing any information to the extent required under Applicable Law or under the rules and regulations of any national securities exchange (to the extent such Equityholder or any of its Affiliates has any of its securities traded or listed thereon); (2) communicating to its direct or indirect shareholders, members or partners (as applicable) in accordance with its customary investor communications practices; (3) making a statement or disclosure (A) as required as part of its or any of its Affiliate's financial statements or Tax Returns, (B) to the extent reasonably necessary to enforce or comply with this Agreement or (C) in response to any request for information or documents made by a Governmental Entity investigating the transactions described herein; (4) making a statement or disclosure to its (or any of its Affiliate's) legal, accounting, tax and financial advisers to the extent reasonably necessary for any such adviser to perform its legal, accounting, tax and financial services, respectively; or (5) disclosures in connection with dispute resolution proceedings relating to this Agreement and the transactions contemplated hereby to the courts and arbitrators involved in such proceedings and other persons (e.g., attorneys, witnesses) involved in such proceedings. For clarity, the term "Company Confidential Information" does not include information which (x) is or becomes generally available to the public, (y) was available on a non-confidential basis prior to its disclosure to the Equityholder or (z) becomes available to the Equityholder from a third-party not known to the Equityholder to be under any duty of confidentiality.

(c) No party shall, and each will cause its Affiliates not to, disclose to any Person, either directly or indirectly, this Agreement, the Transaction Documents, the transactions to be consummated in connection with this Agreement or the Transaction Documents, and the terms and conditions of each of the foregoing, unless otherwise required by Applicable Laws (in which case the disclosing party will provide reasonable advance written notice of such disclosure to allow the other party reasonable time to seek temporary, interim or permanent injunctions to such disclosure with the appropriate Governmental Entities), without the prior written consent of the other party. Notwithstanding the foregoing, (a) the parties hereto may disclose such information to its directors, officers, employees, stockholders, agents, financing sources or advisors (including attorneys, accountants and financial advisors) who need to know such information to consummate the transactions contemplated in this Agreement and who are bound by confidentiality obligations, provided that the Company makes such Person aware of the confidential nature of any such disclosure, (b) Parent may provide information concerning this Agreement and the transactions contemplated herein, including delivery of copies of this Agreement or the Transaction Documents to underwriters and others in connection with the registration of its securities under the Securities Act, and any applicable state blue sky laws, as it may deem necessary or appropriate in connection with a proposed public offering of its securities, and in connection with compliance with its periodic reporting obligations under the Exchange Act, (c) prior to the Closing, the Company may disclose information to third parties in connection with giving notices or seeking consents, amendments, modifications or terminations contemplated in this Agreement, in each case to the extent the Company has a valid confidentiality agreement in place with such Person and makes such Person aware of the confidential nature of any such disclosure, and (d) the parties may disclose information in connection with dispute resolution proceedings to the courts and arbitrators involved in such proceedings and other persons, such as attorneys and witnesses, involved in such proceedings. After the Closing, Parent may provide information with respect to this Agreement and the transactions contemplated herein, including the delivery of copies of this Agreement or the Transaction Documents as may be required under any Applicable Law or considered appropriate in connection with any proposed financing, transaction or other business matter undertaken by Parent.

6.5 **Company Insurance**.

(a) Prior to the Closing Date, as a condition to Closing, on or before the Effective Time, the Company shall obtain for the Company and pay for those policies of insurance described on Schedule 6.5, with the applicable insurer, limits and endorsements set forth on such schedule, for the applicable policy period noted for each particular policy on such schedule (the "***Post-Closing Insurance Coverage***"), including three-year "tail" coverage for Errors & Omissions (the "***E&O Tail Policy***").

(b) In addition, the Company shall obtain and pay for, at or prior to the Effective Time, prepaid (or "tail") directors' and officers' liability insurance policies in respect of acts or omissions occurring at or prior to the Effective Time (including for acts or omissions occurring in connection with the approval of this Agreement and the consummation of the transactions contemplated herein) for the period beginning upon the Effective Time and ending three years after the Effective Time, covering each D&O Indemnified Party and containing terms (including with respect to coverage and amounts) and conditions (including with respect to deductibles and exclusions) that are, individually and in the aggregate, no less favorable to any D&O Indemnified Party than those of the Company's directors' and officers' liability insurance policies in effect on the date of this Agreement (the "***D&O Tail Policy***"). If such D&O Tail Policies have been obtained by the Company, Parent shall cause such D&O Tail Policies to be maintained in full force and effect, for their full term, and cause all obligations thereunder to be honored by the Surviving Corporation.

6.6 **General Release of All Claims**. EFFECTIVE AFTER THE EFFECTIVE TIME, EACH EQUITYHOLDER FOR HIMSELF, HERSELF, OR ITSELF AND IF APPLICABLE ALL OF HIS, HER OR ITS CONSTITUENT STOCKHOLDERS, MEMBERS OR PARTNERS, OFFICERS, EMPLOYEES, AGENTS, HEIRS AND ASSIGNS, AND ALL PERSONS CLAIMING THROUGH HIM, HER OR IT OR ANY OF THEM (COLLECTIVELY, THE "***RELEASORS***") (FOR CLARITY, THE TERM "RELEASORS" SHALL NOT INCLUDE ANY PORTFOLIO COMPANY OF (1) ANY VENTURE CAPITAL INVESTOR OR (2) PRIVATE EQUITY INVESTOR IN THE COMPANY), TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, HEREBY RELEASES, ACQUITS AND DISCHARGES FOREVER ANY AND ALL CLAIMS, DEMANDS, PROCEEDINGS, CAUSES OF ACTION, ORDERS, JUDGMENTS, OBLIGATIONS, PREEMPTIVE RIGHTS, EQUITYHOLDER RIGHTS, CONTRACTS, AGREEMENTS, DEBTS AND LIABILITIES OF WHATEVER KIND OR NATURE, WHETHER AT LAW OR EQUITY, MATURED OR UNMATURED, KNOWN OR UNKNOWN, CONTINGENT OR LIQUIDATED OR OTHERWISE (COLLECTIVELY, "***RELEASED CLAIMS***") ARISING OUT OF OR RELATING TO THE EQUITYHOLDER'S STATUS AS AN EQUITYHOLDER OR SERVICE PROVIDER TO THE COMPANY OR ANY MATTER, CAUSE, CIRCUMSTANCE OR EVENT ARISING OUT OF OR RELATING TO THE CONDUCT, MANAGEMENT OR OPERATION OF THE BUSINESS AND AFFAIRS OF THE COMPANY PRIOR TO THE EFFECTIVE TIME (OTHER THAN PAYMENT FOR ACCRUED SALARY FOR THE CURRENT PAYROLL PERIOD REFLECTED IN THE CLOSING DATE BALANCE SHEET), INCLUDING ANY BREACH OF FIDUCIARY DUTY IN CONNECTION WITH THE APPROVAL OF THIS AGREEMENT, THAT SUCH EQUITYHOLDER MAY HAVE AGAINST THE COMPANY OR ITS PAST AND PRESENT SUBSIDIARIES AND THEIR RESPECTIVE MANAGERS, DIRECTORS, OFFICERS, EQUITYHOLDERS AND MEMBERS (INDIVIDUALLY, A "***RELEASEE***" AND COLLECTIVELY, THE "***RELEASEES***"); *PROVIDED*, *HOWEVER*, THAT SUCH RELEASE AND DISCHARGE SHALL NOT EXTEND TO (A) ANY CLAIMS ENFORCING THE RIGHTS OF THE RELEASORS UNDER THIS AGREEMENT OR ANY OTHER TRANSACTION DOCUMENT OR THE TRANSACTIONS CONTEMPLATED THEREIN, (B) ANY RIGHTS TO INDEMNIFICATION, EXCULPATION OR EXPENSE ADVANCEMENT TO THE EXTENT PROVIDED UNDER THE D&O TAIL POLICY, (C) RIGHTS TO EXPENSE REIMBURSEMENTS FOR REASONABLE AND NECESSARY BUSINESS EXPENSES INCURRED AND DOCUMENTED PRIOR TO THE CLOSING, (D) UNREIMBURSED CLAIMS UNDER EMPLOYEE HEALTH AND WELFARE PLANS, CONSISTENT WITH TERMS OF COVERAGE, AND (E) THE ENTITLEMENT TO CONTINUATION COVERAGE BENEFITS OR ANY OTHER SIMILAR BENEFITS REQUIRED BY APPLICABLE LAW TO BE PROVIDED. IN MAKING THIS RELEASE, THE RELEASORS EXPRESSLY WAIVE ANY AND ALL RIGHTS OR BENEFITS THEY MAY NOW HAVE, OR IN THE FUTURE MAY HAVE, UNDER ANY LAW RELATING TO THE RELEASE OF CLAIMS WHICH ARE UNKNOWN AT THE TIME OF THE EXECUTION OF THIS AGREEMENT.

The parties to this Agreement acknowledge that each has been made aware of and understands Section 1542 of the California Civil Code, which states:

"A GENERAL RELEASE DOES NOT EXTEND TO CLAIMS WHICH THE CREDITOR DOES NOT KNOW OR SUSPECT TO EXIST IN HIS OR HER FAVOR AT THE TIME OF EXECUTING THE RELEASE, WHICH IF KNOWN BY HIM OR HER MUST HAVE MATERIALLY AFFECTED HIS OR HER SETTLEMENT WITH THE DEBTOR."

Notwithstanding Section 1542, the parties understand and agree that this Agreement shall act as a release of all future claims that may arise from any matters that existed between the parties up to the Effective Time, whether such claims are currently known or unknown, and that each party intentionally waives any rights such party may have under the provisions of Section 1542, as well as under any other statutes or common law principles of similar effect in the State of California or in any other state.

6.7 **Notification of Certain Matters**. From the date of this Agreement and until the earlier of the termination of this Agreement or the Closing, the Company will give prompt notice to Parent of (a) the discovery of any event, condition, fact or circumstance that causes, caused, constitutes or constituted a breach in any material respect of any representation or warranty of the Company contained in this Agreement and (b) the failure of the Company to comply with or satisfy in any material respect any covenant to be complied with by it hereunder. No such notification will affect the representations or warranties of the parties, the conditions to their respective obligations hereunder or the indemnification obligations of the parties hereunder.

ARTICLE VII
CONDITIONS PRECEDENT

7.1 **Conditions to Each Party's Obligations**. The respective obligations of the Company, Parent and Merger Subsidiary to effect the transactions contemplated in this Agreement are subject to the satisfaction of the following conditions on or prior to the Closing Date unless waived, in whole or in part, by the parties hereto; *provided*, *however*, that the Representative may waive such conditions on behalf of all of the Equityholders (to the extent permitted by Applicable Law):

(a) Consents and Approvals. The Company, Parent and Merger Subsidiary shall have obtained from each Governmental Entity all approvals, waivers and Consents, if any, necessary to consummate the transactions contemplated in this Agreement and the other Transaction Documents.

(b) No Injunctions or Restraints. No temporary restraining order, preliminary or permanent injunction or other order issued by any court of competent jurisdiction or other legal restraint or prohibition preventing the consummation of the transactions contemplated in this Agreement or any other Transaction Document shall be in effect, and there shall be no litigation, proceeding or investigation pending or threatened that seeks to prevent or otherwise adversely affect the Merger.

(c) Conduct of Business. No action will have been taken, nor any statute, rule, regulation, executive order, decree, injunction or other order (whether temporary, preliminary or permanent) will have been enacted, by any Governmental Entity that has the effect of materially limiting or restricting Parent's, Merger Subsidiary's, any of their Affiliates or the Company's conduct or operation of its business following the Closing, nor will any proceeding seeking any of the foregoing be pending or threatened.

(d) No Action. No action shall have been taken, nor shall any statute, rule or regulation have been enacted, by any Governmental Entity that makes the consummation of the transactions contemplated in this Agreement or any other Transaction Document illegal.

7.2 **Conditions to Obligations of Parent and Merger Subsidiary**. The obligations of Parent and Merger Subsidiary to effect the transactions contemplated in this Agreement are subject to the satisfaction of the following conditions on or prior to the Closing Date unless waived, in whole or in part, by Parent (to the extent permitted by Applicable Law):

(a) Representations and Warranties. Each of the representations and warranties of the Company set forth in Article III shall be true and correct in all material respects (other than representations and warranties qualified by materiality or Material Adverse Effect, which shall be true and correct in all respects) as of the date of this Agreement and (except to the extent such representations and warranties expressly speak as of an earlier date, in which case they shall be true and correct in all material respects (or true and correct in all respects, with respect to representations and warranties qualified by materiality or Material Adverse Effect) as of such earlier date) as of the Effective Time as though made on and as of the Effective Time. Parent shall have received a certificate signed on behalf of the Company by the Chief Executive Officer or the Chief Operating Officer of the Company to such effect.

(b) Compliance with Covenants of the Company. The Company shall in all material respects have performed and complied with all terms, agreements, covenants and conditions of this Agreement to be performed or complied with by the Company on or prior to the Effective Time, and Parent shall have received a certificate signed on behalf of the Company by the Chief Executive Officer or the Chief Operating Officer of the Company to such effect.

(c) Material Adverse Effect. No effect, event, change, occurrence, fact, circumstance or development shall have occurred since June 30, 2018 and prior to the Closing Date or be reasonably likely to occur on or after the Closing Date which, individually or in the aggregate with any other effects, events, changes, occurrences, facts, circumstances or developments, has had a Material Adverse Effect (regardless of whether or not such effects, events, changes, occurrences, facts, circumstances or developments are inconsistent with the representations and warranties of the Company contained herein), and Parent shall have received a certificate signed on behalf of the Company by the Chief Executive Officer or the Chief Operating Officer of the Company to such effect.

(d) Required Consents. Parent shall have received the executed consents and evidences of notice to third parties regarding the transactions contemplated herein with respect to each of the Contracts set forth on Schedule 7.2(d), in form and substance reasonably satisfactory to Parent (the "***Required Consents***").

(e) Required Modifications. The Company and each party to a Contract set forth on Schedule 7.2(e) shall have executed and delivered terminations, amendments or modifications to each such Contract as described on Schedule 7.2(e) in form and substance reasonably satisfactory to Parent.

(f) Stockholder Approval. The Requisite Stockholder Approval shall have been received, and the Stockholders shall have approved and adopted this Agreement, the Merger and the other transactions contemplated herein, and no such approval and adoption shall have been withdrawn, rescinded or otherwise revoked. No more than five percent (5%) of the Company's Outstanding Shares shall have become Dissenting Shares.

(g) Legal Opinion. Parent shall have received from Gunderson Dettmer Stough Villeneuve Franklin & Hachigian, LLP, counsel to the Company, an opinion dated as of the Closing Date, in substantially the form attached hereto as **Exhibit F**.

(h) Resignation of Directors and Officers. The directors and officers of the Company shall have delivered the resignations described in Section 5.9, and each such resignation shall be effective.

(i) Significant Owner Agreements. Parent shall have received from each Significant Owner a Significant Owner Agreement, and none of such agreements shall have been terminated, rescinded or otherwise revoked.

(j) Employment Documentation. Parent shall have received countersigned Employment Documentation in the form of **Exhibit G** attached hereto from each Key Employee, and as of

the Closing Date, no Key Employee shall have given to Parent or the Company notice of such Key Employee's intent to (A) terminate such employee's employment with Parent or the Company, as applicable, or (B) revoke all or any portion of such employee's Employment Documentation.

(k) Letters of Transmittal and Acknowledgements and Releases. Parent shall have received completed and duly executed (i) Letters of Transmittal from the holders of no less than 95% of the Outstanding Shares, (ii) Acknowledgements and Releases from the holders of no less than 95% of the Vested Options, and (iii) an Acknowledgement and Release from each Management Carveout Participant and each Promised Option Holder.

(l) Pay-Off Letters. Parent shall have received from each Person set forth on Schedule 5.5, a Pay-Off Letter, in the form and substance described in Section 5.5 and reasonably satisfactory to Parent, addressed to Parent and the Company and signed by such creditor.

(m) Certificates of Good Standing. The Company shall have provided Parent with a certificate from the Secretary of State of the State of Delaware and from each other jurisdiction in which the Company is organized or qualified to do business, as to the Company's good standing and payment of all Taxes required to be paid for the Company to remain in good standing or qualified to do business in such jurisdiction, as applicable.

(n) Terminations Pursuant to Section 5.10(b). Parent shall have received evidence of the termination of the Company Stock Plan, in form and substance reasonably satisfactory to Parent in its sole discretion.

(o) Terminations Pursuant to Section 5.11(b). Parent shall have received evidence of the terminations contemplated in Section 5.11(b), in form and substance reasonably satisfactory to Parent in its sole discretion.

(p) Payment Spreadsheet; Pre-Closing Statement. Parent shall have received the Payment Spreadsheet in accordance with Section 2.11(a) and the Pre-Closing Statement in accordance with Section 2.13, in each case duly certified and executed by the Chief Executive Officer or Chief Operating Officer of the Company.

(q) Insurance. Parent shall have received evidence that the Company has obtained the E&O Tail Policy and the D&O Tail Policy and the other policies of insurance described on Schedule 6.5 in accordance with Section 6.5.

(r) Section 280G Stockholder Approval. If applicable, each Disqualified Individual shall have entered into a Parachute Payment Waiver. Any agreements, contracts or arrangements that may result, separately or in the aggregate, in the payment of any amount or the provision of any benefit that would not be deductible by reason of Section 280G of the Code shall have been submitted for approval by such number of stockholders of the Company as is required by the terms of Section 280G in order for such payments and benefits not to be deemed parachute payments under Section 280G of the Code and either such approval shall have been obtained in a manner which satisfies all applicable requirements of Section 280G(b)(5)(B) of the Code and the Treasury Regulations thereunder, including Q&A-7 of Section 1.280G-1 of such Treasury Regulations, or, in the absence of such stockholder approval, none of those payments or benefits shall be paid or provided, pursuant to the Parachute Payment Waivers.

(s) Closing Deliveries. All documents, instruments, certificates or other items required to be delivered at the Closing by the Company and any other Persons (other than Parent or the Merger Subsidiary) pursuant to Section 8.2(b) of this Agreement shall have been delivered.

7.3 **Conditions to Obligations of the Company and the Equityholders**. The obligations of the Company and the Equityholders to effect the transactions contemplated in this Agreement are subject to the satisfaction of the following conditions unless waived, in whole or in part, by the Company or, with respect to the Equityholders, by the Representative, as applicable:

(a) Representations and Warranties. Each of the representations and warranties of Parent and Merger Subsidiary set forth in this Agreement shall be true and correct in all material respects (other than representations and warranties qualified by materiality or material adverse effect, which shall be true and correct in all respects) as of the date of this Agreement and (except to the extent such representations and warranties expressly speak as of an earlier date, in which case they shall be true and correct in all material respects (or true and correct in all respects, with respect to representations and warranties qualified by materiality or material adverse effect) as of such earlier date) as of the Effective Time as though made on and as of the Effective Time. The Company shall have received a certificate signed on behalf of Parent and Merger Subsidiary by an authorized representative of each such entity to such effect.

(b) Performance of Obligations of Parent and Merger Subsidiary. Each of Parent and Merger Subsidiary shall in all material respects have performed and complied with all terms, agreements, covenants and conditions of this Agreement to be performed or complied with by them on or prior to the Effective Time. The Company shall have received a certificate signed on behalf of Parent and Merger Subsidiary by an authorized representative of each such entity to such effect.

(c) Certificates of Good Standing. Parent will have provided the Company with a certificate from the Secretary of State of the State of Delaware as to Parent's and Merger Subsidiary's good standing.

(d) Closing Deliveries. All documents, instruments, certificates or other items required to be delivered at Closing by Parent and Merger Subsidiary pursuant to Section 8.2(a) of this Agreement shall have been delivered.

ARTICLE VIII
CLOSING

8.1 **Closing**. Unless this Agreement shall have been terminated and the transactions herein contemplated shall have been abandoned pursuant to Article IX, the closing of the Merger (the "***Closing***") shall take place remotely by electronic exchange of signatures on the date that is two Business Days after the date that the conditions set forth in Article VII have been satisfied or waived (other than those conditions that are to be satisfied at the Closing pursuant to Section 8.2(a) or 8.2(b), as applicable), but subject to the satisfaction or waiver of such conditions), unless another date, time or place is mutually agreed to in writing by Parent and the Company.

8.2 **Actions to Occur at Closing**.

(a) At the Closing, Parent and Merger Subsidiary shall deliver or pay, as the case may be, the following in accordance with the applicable provisions of this Agreement:

(i) Closing Payments. To the Equityholders and the other payees identified in Section 2.11, by wire transfers of immediately available funds, the payments required to be made by Parent at the Closing in accordance with Section 2.11; and

(ii) Certificates. The certificates described in Section 7.3(a) and 7.3(b).

(b) At the Closing, the Company shall deliver to Parent the following:

(i) Certificates. The certificates described in Sections 7.2(a), 7.2(b), 7.2(c); 8.2(b)(ii) and 8.2(b)(iii);

(ii) Certificate of Non-Foreign Status. To Parent, either (A) a certificate of non-foreign status of each Stockholder that meets the requirements of Treasury Regulation Section 1.1445-2(b)(2) or (B) a certificate by the Company that meets the requirements of Treasury Regulation Section 1.1445-2(c)(3); and

(iii) Secretary's Certificate. To Parent, a certificate, dated the Closing Date and signed by an authorized officer of the Company, (i) certifying and attaching true and complete copies of the organizational documents of the Company, (ii) certifying and attaching all resolutions (or minutes of meetings) of the Company evidencing the approval of this Agreement and the transactions contemplated herein (including the resolutions required by Section 2.8 and Section 5.10(b)) and (iii) certifying the incumbency of each individual executing this Agreement or any Transaction Document on behalf of the Company.

(c) Filing of Certificate of Merger. Pursuant to Section 2.2, the Company and Parent shall cause the Certificate of Merger to be properly executed and filed with the Secretary of State of the State of Delaware and any other required filing to be made with the Secretary of State of the State of Delaware.

(d) Frustration of Closing Conditions. None of the Equityholders, the Company or Parent may rely on the failure of any condition set forth in this Article VIII to be satisfied if such failure was caused by such party's or its Affiliates' failure to act in good faith or to use its commercially reasonable efforts to cause the Closing to occur, as required by this Agreement.

ARTICLE IX
TERMINATION, AMENDMENT AND WAIVER

9.1 **Termination**. Anything contained in this Agreement to the contrary notwithstanding, this Agreement may be terminated at any time prior to the Closing:

(a) By the mutual written consent of Parent and the Company;

(b) By Parent in the event of a material breach or material failure to perform by the Company or the Equityholders of any representation, warranty, covenant or other agreement contained herein, or if a representation or warranty of the Company or the Equityholders shall have become materially untrue, which situation in either case, (i) would result in a failure of a condition set forth in Section 7.2, and (ii) cannot be cured by the Termination Date;

(c) By the Company (on behalf of itself and the Equityholders) in the event of a material breach or material failure to perform by Parent or Merger Subsidiary of any representation, warranty, covenant or other agreement contained herein, or if a representation or warranty of Parent or Merger Subsidiary shall have become materially untrue, which situation in either case, (i) would result in a failure of a condition set forth in Section 7.3, and (ii) cannot be cured by the Termination Date.

(d) By Parent or the Company if any court of competent jurisdiction in the United States or other Governmental Entity shall have issued a final and non-appealable order, decree or ruling permanently restraining, rejoining or otherwise prohibiting the consummation of any material transaction contemplated herein;

(e) By Parent if any Material Adverse Effect has occurred (regardless of whether or not such effects, events, changes, occurrences, facts, circumstances or developments are inconsistent with the representations and warranties of the Company contained herein);

(f) By Parent if the approval of the adoption of this Agreement, the Merger and the other transactions contemplated herein has not been obtained from the holders of (i) more than 50% of the shares of Common Stock and Preferred Stock of the Company outstanding on the date of this Agreement (voting together as a single class, on an as-converted to basis) and (ii) at least 60% of the Preferred Stock of the Company outstanding on the date of this Agreement (voting together as a single class and not as a separate series, on an as-converted basis), and not has not been received within 24 hours following the execution hereof; or

(g) Automatically, without any action by any party to this Agreement, at 5:00 p.m. on October 31, 2018 (the "***Termination Date***") if any condition to Closing has not then been satisfied or waived, unless such date is extended by the written agreement of Parent and the Company.

9.2 **Notice of Termination**. Any party to this Agreement desiring to terminate this Agreement pursuant to Section 9.1 will give written notice of such termination to the other parties to this Agreement, setting forth therein the basis for such termination.

9.3 **Effect of Termination**. If this Agreement is terminated pursuant to Section 9.1, this Agreement shall become void and of no further force and effect, except for the provisions of Section 6.4, this Section 9.3, and Article XII, and all further obligations of the parties under this Agreement will be terminated without further liability of any party to the other; *provided*, that nothing herein will relieve any party from liability for its breach of this Agreement prior to such termination.

ARTICLE X
INDEMNIFICATION

10.1 **Indemnification**. Subject to the provisions of this Article X, from and after the Closing, each of the Indemnifying Parties, severally and not jointly, based on their respective Applicable Percentages (*provided*, *however*, that the indemnification obligations of the Indemnifying Parties shall be joint and several, and not subject to limitation or apportionment, to the extent satisfied out of the Holdback Cash Consideration (meaning the Holdback Cash Consideration is an undifferentiated pool of money to be used to satisfy such indemnification obligations)), shall indemnify, defend and hold harmless the Indemnified Parties from and against any and all Indemnified Losses.

10.2 **Defense of Third Party Claims**.

(a) If any third party notifies any Indemnified Party with respect to any matter (a "***Third Party Action***") that may give rise to a claim for indemnification against any Indemnifying Party under this Article X, then the Indemnified Party shall promptly notify the Representative thereof in writing (the "***Third Party Claim Notice***"), *provided* that with respect to any claim for indemnification made within the time limits specified in Section 12.1, no failure or delay on the part of the Indemnified Party to so notify the Representative shall limit any of the obligations of the Indemnifying Parties under this Article X, except to the extent that the Indemnifying Parties have been materially prejudiced thereby. The Indemnified Party shall control the defense of any Third Party Action and all fees and expenses of the Indemnified Party's counsel shall be borne by the Indemnifying Parties; *provided*, *however*, that any settlement of any such Third Party Action shall be effected with the prior written consent of the Representative (such consent not to be unreasonably withheld, conditioned or delayed). The Representative shall have the right to employ its own counsel in any such action and to participate in (but not control) the defense of such action, and the fees and expenses of such counsel and participation shall be at the Indemnifying Parties' expense.

(b) All the parties to this Agreement shall cooperate in the defense or prosecution of such Third Party Action and shall furnish such records, information and testimony and shall attend such conferences, discovery proceedings and trials as may be reasonably requested in connection with such Third Party Action. Each party shall act in good faith and in a commercially reasonable manner in addressing any adverse consequences that may result in the basis for an indemnifiable claim.

(c) If, within 30 days after a Third Party Claim Notice is delivered to the Representative, the Representative does not notify the Indemnified Party that the Representative disputes such claim, the amount of such claim shall be conclusively deemed a liability of the Indemnifying Parties hereunder.

10.3 **Direct Claims**. In any case in which an Indemnified Party seeks indemnification hereunder which is not subject to Section 10.4, the Indemnified Party will notify the Representative in writing of any Indemnified Losses which such Indemnified Party claims are subject to indemnification under the terms hereof. Subject to the limitations set forth in this Article X and in Section 12.1, if the Representative does not notify the Indemnified Party in writing within 30 days that the Representative disputes such claim, the amount of such claim shall be conclusively deemed a liability of the Indemnifying Parties hereunder. In case an objection is made in writing, the Indemnified Party shall have 30 days to respond in a written statement to the objection. If the Indemnified Party so responds, or the time to respond has expired, and there remains a dispute as to any claim, the Indemnified Party and the Representative shall attempt in good faith for 30 days to agree upon the rights of the respective parties with respect to each such claim. If the Indemnified Party and the Representative should so agree, a memorandum setting forth such agreement and the agreed upon dollar amount of liability for such claim of the Indemnifying Parties against whom the claim is made shall be prepared and signed by (or on behalf of) the parties. If the parties do not agree, each of the Indemnified Party and the Representative may take such actions and assert such rights, remedies and defenses as may then be available to it under the terms of this Agreement.

10.4 **No Circular Recovery; No Contribution**. Representative hereby agrees that it will not, and no Indemnifying Party will, make any claim for indemnification or advancement of expenses against Parent or the Surviving Corporation by reason of the fact that the Indemnifying Party was a controlling person, director, officer, stockholder, employee, agent or representative of the Company or was serving as such for another Person at the request of the Company (whether such claim is pursuant to any statute, Company Charter Document, contractual obligation or otherwise) with respect to any amounts for which an Indemnifying Party is obligated to indemnify an Indemnified Party in accordance with this Agreement. Effective as of the Closing, the Representative, on behalf of itself and each Indemnifying Party, expressly waives and releases any and all right of subrogation, contribution, advancement, indemnification or other claim against Parent or the Surviving Corporation other than such rights as are expressly provided in this Agreement.

10.5 **Procedures for Claims; Payment of Holdback Cash Consideration**.

(a) Claims. With respect to any claim for Indemnified Representation Losses (other than (i) Fundamental Claims or (ii) claims in connection with, based upon, resulting from, attributable to, related to, or arising out of fraud (with knowledge of, or reckless disregard as to, falsity), intentional misrepresentation or willful breach), Parent shall first reduce the Holdback Cash Consideration by the amount necessary to satisfy and pay the amount of any claim with respect to which an Indemnified Party is entitled to indemnification pursuant to this Article X.

(b) Distributions.

(i) Within 30 days after the 12-month anniversary of the Closing Date (the "***First Anniversary***"), Parent will distribute to the Representative or a Paying Agent designated by the Representative (for the benefit of the Equityholders in accordance with each Equityholder's Applicable Holdback Percentage) an amount equal to (A) 50% of the Holdback Cash Consideration, minus (B) the amount, if any, subtracted by Parent from the Holdback Cash Consideration pursuant to Section 2.14(c), minus (C) the amount of all Indemnified Losses that have been

subtracted by Parent from the Holdback Cash Consideration pursuant to this Article X as of such date, minus (D) any amounts described in Section 10.5(b)(iii) below.

(ii) Within 30 days after the 24-month anniversary of the Closing Date (the "***Second Anniversary***"), Parent will distribute to the Representative or a Paying Agent designated by the Representative (for the benefit of the Equityholders in accordance with each Equityholder's Applicable Holdback Percentage) an amount equal to (A) 50% of the Holdback Cash Consideration, minus (B) the amount of all Indemnified Losses that have been subtracted by Parent from the Holdback Cash Consideration pursuant to this Article X as of such date, to the extent that such Indemnified Losses (i) were not taken into account when calculating the distribution of Holdback Cash Consideration pursuant to Section 10.5(b)(i) or (ii) were taken into account when calculating the distribution of Holdback Cash Consideration pursuant to Section 10.5(b)(i) and would have caused such distribution to be less than zero, minus (C) any amounts described in Section 10.5(b)(iii) below.

(iii) To the extent that at the First Anniversary or the Second Anniversary there are claims by the Indemnified Parties for indemnification against the Indemnifying Parties pursuant to this Article X pending, Parent shall retain from the payment of the Holdback Cash Consideration a reasonable amount to cover potential costs, expenses or damages to be incurred by the Indemnified Parties with respect to claims timely made prior to the First Anniversary or Second Anniversary, as applicable, as determined by Parent in the reasonable exercise of its discretion, until such time as such claims have been dismissed, adjudicated or settled, and/or such breaches have been cured or compensated, as applicable. Any portion of the Holdback Cash Consideration not required to be paid and released as of the distribution date specified in Section 10.5(b)(i) or Section 10.5(b)(ii) above, or upon the final settlement of all claims or breaches known as of such distribution date, shall be forfeited by the Equityholders and retained by Parent.

10.6 **Limits on Liability**.

(a) The Indemnified Parties shall not be entitled to be indemnified for any Indemnified Representation Losses unless and until the aggregate amount of all Indemnified Representation Losses exceeds $150,000 (the "***Threshold***"); *provided, however*, that Indemnified Representation Losses with respect to any single claim (or series of related claims or claims arising from similar facts and circumstances), that do not exceed $5,000 ("***De Minimis Claims***") shall not be taken into account in determining whether the Threshold has been reached or exceeded; *provided further*, *however*, that after the aggregate amount of all Indemnified Representation Losses exceeds the Threshold, the Indemnified Parties shall be entitled to be indemnified against the entire amount of any Indemnified Representation Losses, including the Threshold and any De Minimis Claims, subject to the limitations on recovery set forth in Section 10.6(b); and *provided further*, *however*, that this Section 10.6(a) shall not apply to (i) Fundamental Claims or (ii) claims in connection with, based upon, resulting from, attributable to, related to, or arising out of fraud (with knowledge of, or reckless disregard as to, falsity), intentional misrepresentation or willful breach.

(b) Subject to Section 10.6(d), the Indemnifying Parties' liability for Indemnified Representation Losses (other than Fundamental Claims) shall be limited to the Holdback Cash Consideration; *provided, however*, that this Section 10.6(b) shall not apply to claims in connection with, based upon, resulting from, attributable to, related to, or arising out of fraud (with knowledge of, or reckless disregard as to, falsity), intentional misrepresentation or willful breach.

(c) Subject to Section 10.6(d), the Indemnifying Parties' aggregate liability for:

(i) all Indemnified Representation Losses (including Fundamental Claims) (other than as described in Section 10.6(d));

(ii) all Indemnified Tax Losses;

(iii) claims described in clause (c)(i) of the definition of Indemnified Losses (other than as described in Section 10.6(d));

(iv) claims described in clause (c)(ii) of the definition of Indemnified Losses;

(v) claims described in clause (c)(iii) of the definition of Indemnified Losses; and

(vi) Indemnified Losses described in Section 10.6(e);

shall be limited to an amount equal to the Adjusted Merger Consideration.

(d) Notwithstanding Section 10.6(b) or Section 10.6(c), (i) each Equityholder's liability for such Equityholder's own fraud (with knowledge of, or reckless disregard as to, falsity), intentional misrepresentation or willful breach, (ii) each Equityholder's liability for any breach by such Equityholder of any covenant in this Agreement or any Transaction Document to which such Equityholder is a party (excluding, for the avoidance of doubt, covenants made by the Company under this Agreement), and (iii) each Significant Owner's liability for any breach by such Significant Owner of the covenants made in such Significant Owner's Significant Owner Agreement shall not be limited by the provisions of this Agreement; *provided*, *however*, that each Equityholder's obligations pursuant to Section 10.1 shall otherwise be subject to the limitations in this Section 10.6.

(e) Notwithstanding Section 10.1 or any provision of this Section 10.6 to the contrary, each Significant Owner shall be jointly and severally liable for breaches of another Significant Owner's covenants of non-competition or non-solicitation made in such other Significant Owner's Significant Owner Agreement. Other than as set forth in Section 10.1 and this Section 10.6(e), no Equityholder will be liable for a breach of any representation, warranty or covenant of any other Equityholder under this Agreement or any other Transaction Document (*provided, however*, that the indemnification obligations of the Indemnifying Parties shall be joint and several, and not subject to limitation or apportionment, to the extent satisfied out of the Holdback Cash Consideration).

(f) Notwithstanding any provision of this Agreement to the contrary, all references in this Agreement and the Exhibits and Schedules hereto to "material," "material respects" and "Material Adverse Effect" (and similar materiality qualifications) shall be disregarded for purposes of determining (i) whether there has been a breach or failure of a representation, warranty, covenant or agreement for which an Indemnified Party is entitled to indemnification under this Agreement and (ii) the amount of any Indemnified Loss that is the subject of indemnification hereunder.

(g) The amount of any Indemnified Losses recoverable by any Indemnified Party under this Article X shall be calculated net of any insurance proceeds actually received under the E&O Tail Policy or the D&O Tail Policy by such Indemnified Party in respect of such Indemnified Losses. If an Indemnified Party receives any amounts under such insurance policies subsequent to its receipt of an indemnification payment by the Indemnifying Parties, then such Indemnified Party will, without duplication, promptly reimburse the Indemnifying Parties for any payment made by such Indemnifying Parties up to the amount received by the Indemnified Party. For the avoidance of doubt, the provisions of this Section 10.6(g) shall only apply with respect to amounts received under the E&O Tail Policy and the D&O Tail Policy, and not any other insurance maintained by Parent or the Company.

(h) Any liability for indemnification under this Article X shall be determined without duplication of recovery by reason of the state of facts giving rise to such liability constituting a breach or other violation of more than one representation, warranty, covenant, agreement, certificate or certification. In addition, if and solely to the extent that an amount of Indemnifiable Losses in connection with an indemnifiable matter was already taken into account in connection with calculation of the Adjusted Merger Consideration, the same amount of such Indemnifiable Losses may not be recovered under this Article X.

(i) The Parent acknowledges and agrees that no attorney-client privileged communications between the Company and outside legal counsel to the Company may be used as the sole basis for an indemnification claim under this Article X.

10.7 **Exclusive Remedy**. Each party acknowledges and agrees that, should the Closing occur, subject to Section 10.6(d), the indemnification provisions of this Article X shall be the sole and exclusive remedies of the Indemnified Parties for monetary damages with respect to any breach or inaccuracy, or alleged breach or inaccuracy, of any representation, warranty, covenant or other obligation of the Company, the Representative or the Equityholders under this Agreement, except for (i) claims in connection with, based upon, resulting from, attributable to, related to, or arising out of (A) fraud (with knowledge of, or reckless disregard as to, falsity), intentional misrepresentation or willful breach by an Equityholder, or (B) the failure to perform obligations under a covenant made in this Agreement or any Transaction Document by an Equityholder, a Significant Owner or the Representative, and (ii) injunctive relief or specific performance and other equitable remedies.

10.8 **Offset**. The parties acknowledge and agree that any Indemnified Party may deal directly with the Representative with respect to an indemnification claim and the Indemnifying Parties will be bound by any action or agreement of the Representative made on their behalf. Parent shall have the right to offset any unpaid amounts to any Equityholder under this Agreement against any Indemnified Losses which exceed the Holdback Cash Consideration, subject to the limitations in Section 10.6. Notwithstanding the foregoing, the exercise of such right of set-off will not constitute an election of remedies or limit Parent in any manner in the enforcement of any other remedies that may be available to it.

ARTICLE XI
THE REPRESENTATIVE

11.1 **Authorization of the Representative**.

(a) The Representative hereby is appointed, authorized and empowered to act as the sole and exclusive representative, agent, proxy and attorney-in-fact of the Equityholders in connection with, and to facilitate the consummation of, the transactions contemplated in this Agreement and the other Transaction Documents, and in connection with the activities to be performed on behalf of the Equityholders under this Agreement. Without limiting the foregoing, the Representative is hereby appointed, authorized and empowered to act as the sole and exclusive representative, agent, proxy and attorney-in-fact of the Equityholders with the full power and authority:

(i) to take such actions and to execute and deliver such amendments, modifications, waivers and consents in connection with this Agreement, the Representative Engagement Agreement and the other Transaction Documents and the consummation of the transactions contemplated herein and thereby as the Representative, in its reasonable discretion, may deem necessary or desirable to give effect to the intentions of this Agreement and the other Transaction Documents;

(ii) as the Representative of the Equityholders, to enforce and protect the rights and interests of the Equityholders and to enforce and protect the rights and interests of the Representative arising out of or under or in any manner relating to this Agreement and each other Transaction Document and, in connection therewith, to (A) resolve all questions, disputes, conflicts and controversies concerning (x) the determination of any amounts pursuant to Article II and (y) indemnification claims pursuant to Article X; (B) employ such agents, consultants and professionals, to delegate authority to its agents, to take such actions and to execute such documents on behalf of the Equityholders in connection with Article II and Article X and the Transaction Documents as the Representative, in its reasonable discretion, deems to be in the best interest of the Equityholders; (C) assert or institute any claim, action, proceeding or investigation; (D) investigate, defend, contest or litigate any claim, action, proceeding or investigation initiated by Parent, any Indemnified Party, or any other Person, against the Representative and/or the Equityholders, and receive process on behalf of any or all Equityholders in any such claim, action, proceeding or investigation and compromise or settle on such terms as the Representative shall determine to be appropriate, give receipts, releases and

discharges on behalf of all of Equityholders with respect to any such claim, action, proceeding or investigation; (E) file any proofs, debts, claims and petitions as the Representative may deem advisable or necessary; (F) settle or compromise any claims asserted under Article II or Article X; (G) assume, on behalf of all of Equityholders, the defense of any claim that is the basis of any claim asserted under Article II or Article X; and (H) file and prosecute appeals from any decision, judgment or award rendered in any of the foregoing claims, actions, proceedings or investigations, it being understood that the Representative shall not have any obligation to take any such actions, and shall not have liability for any failure to take such any action;

(iii) to enforce payment of any amounts payable to Equityholders, in each case on behalf of Equityholders, in the name of the Representative;

(iv) to authorize, if required, the reduction and offset against the Holdback Cash Consideration the full amount of any Indemnified Loss in favor of any Indemnified Party pursuant to Article X and also any other amounts to be paid to Parent pursuant to this Agreement;

(v) to receive and cause to be paid to Equityholders in accordance with Article II any distributions received by the Representative;

(vi) to waive or refrain from enforcing any right of any Equityholder and/or of the Representative arising out of or under or in any manner relating to this Agreement or any other Transaction Document; and

(vii) to make, execute, acknowledge and deliver all such other agreements, guarantees, orders, receipts, endorsements, notices, requests, instructions, certificates, stock powers, letters and other writings, and, in general, to do any and all things and to take any and all action that the Representative, in its sole and absolute direction, may consider necessary or proper or convenient in connection with or to carry out the activities described in paragraphs (i) through (vi) above and the transactions contemplated in this Agreement and the other Transaction Documents.

Notwithstanding the foregoing, the Representative shall have no obligation to act on behalf of the Equityholders, except as expressly provided herein and in the Representative Engagement Agreement, and for purposes of clarity, there are no obligations of the Representative in any ancillary agreement, schedule, exhibit or the Disclosure Schedule. The Representative shall be entitled to: (i) rely upon the Payment Spreadsheet, (ii) rely upon any signature believed by it to be genuine, and (iii) reasonably assume that a signatory has proper authorization to sign on behalf of the applicable Equityholder or other party. All actions taken by the Representative under this Agreement or the Representative Engagement Agreement shall be binding upon each Equityholder and such Equityholder's successors as if expressly confirmed and ratified in writing by such Equityholder, and all defenses which may be available to any Equityholder to contest, negate or disaffirm the action of the Representative taken in good faith under this Agreement or the Representative Engagement Agreement are waived.

(b) Parent, the Indemnified Parties, the Company and each of their Affiliates will be entitled to rely exclusively upon the communications of the Representative relating to the foregoing as the communications of the Equityholders. None of such Persons (a) need be concerned with the authority of the Representative to act on behalf of all Equityholders hereunder, or (b) will be held liable or accountable in any manner for any act or omission of the Representative in such capacity. Any notices delivered to the Representative in connection with Article X hereof shall constitute notice to all Equityholders.

(c) The grant of authority provided for in this Section 11.1 and the powers, immunities and rights to indemnification granted to the Representative Group hereunder (a) are coupled with an interest and are being granted, in part, as an inducement to the Company and Parent to enter into this Agreement and will be irrevocable and survive the death, incompetency, bankruptcy or liquidation of any Equityholder and will be binding on any successor thereto, and (b) will survive any distribution from the Holdback Cash Consideration.

(d) In the event that the authorized Representative hereunder shall resign, become unable to fulfill its responsibilities pursuant to this Agreement, or otherwise fail to act on behalf of the Company or the Equityholders for any reason, the Equityholders whose Applicable Holdback Percentages immediately prior to the Effective Time constituted no less than fifty-one percent (51%) of the aggregate Applicable Holdback Percentages of all Equityholders shall promptly appoint a new Representative and notify Parent of the identity of and contact information for such successor.

11.2 **Compensation; Exculpation; Indemnity**.

(a) The Representative will hold the Expense Fund Amount separate from its corporate funds and will not voluntarily make it available to its creditors in the event of bankruptcy. The Equityholders acknowledge that the Representative is not providing any investment supervision, recommendations or advice and shall have no responsibility or liability for any loss of principal of the Expense Fund Amount other than as a result of its gross negligence or willful breach. The Representative is not acting as a withholding agent or in any similar capacity in connection with the Expense Fund Account, and has no tax reporting or income distribution obligations hereunder. Subject to Advisory Group approval, the Representative may contribute funds to the Expense Fund Amount from any consideration otherwise distributable to the Equityholders. Upon final payment of the expenses incurred by the Representative, the Representative shall distribute the remaining Expense Fund Amount (if any) to the Paying Agent for further distribution to the Equityholders in proportion to their respective Applicable Holdback Percentages. For Tax purposes, the Expense Fund Amount will be treated as having been received and voluntarily set aside by the Equityholders at the time of Closing.

(b) Certain Equityholders have entered into an engagement agreement (the "***Representative Engagement Agreement***") with the Representative to provide direction to the Representative in connection with its services under this Agreement and the Representative Engagement Agreement (such Equityholders, including their individual representatives, collectively hereinafter referred to as the "***Advisory Group***"). In dealing with this Agreement and any instruments, agreements or documents relating thereto, and in exercising or failing to exercise all or any of the powers conferred upon the Representative hereunder or thereunder, as between the Representative and the Equityholders, (i) neither the Representative nor its members, managers, directors, officers, contractors, agents and employees nor any member of the Advisory Group (collectively, the "***Representative Group***") will assume or incur any responsibility whatsoever to any Equityholders by reason of any error in judgment or other act or omission performed or omitted hereunder, under the Representative Engagement Agreement or in connection with this Agreement, the Representative Engagement Agreement or any other Transaction Document, unless by the Representative's gross negligence or willful breach, and (ii) the Representative will be entitled to rely on the advice of counsel, public accountants or other independent experts experienced in the matter at issue, and any error in judgment or other act or omission of the Representative pursuant to such advice will in no event subject the Representative Group to liability to any Equityholder unless by the Representative's gross negligence or willful breach.

(c) Each Equityholder, severally, shall indemnify, defend and hold harmless the Representative Group up to, but not exceeding, an amount equal to the aggregate portion of the cash amounts received by such Person under Article II of this Agreement, which indemnification shall be paid by such Equityholders pro rata in accordance with the Equityholder's respective Applicable Holdback Percentage, against all damages, liabilities, claims, obligations, costs, losses, fees, fine, judgments, amounts paid in settlement and expenses, including reasonable attorneys', accountants' and other experts' fees and the amount of any judgment against it and in connection with seeking recovery from insurers, of any nature whatsoever, arising out of or in connection with any claim or in connection with any appeal thereof, relating to the acts or omissions of the Representative hereunder, under a Transaction Document or otherwise (collectively, the "***Representative Expenses***"), except for such Representative Expenses that arise from the Representative's gross negligence or willful misconduct, including the willful breach of this Agreement or a Transaction Document. The foregoing indemnification shall not be deemed exclusive of any other right to which the

Representative may be entitled with respect to an Equityholder apart from the provisions hereof. In the event of any indemnification under this Section 11.2(c) and/or any Representative Expenses, each Equityholder shall promptly deliver to the Representative full payment of his, her or its ratable share of such indemnification claim or Representative Expenses if not first recovered from the Expense Fund Amount or from any distribution of the Holdback Cash Consideration otherwise distributable to the Equityholders at the time of distribution. The Equityholders acknowledge that the Representative shall not be required to expend or risk its own funds or otherwise incur any financial liability in the exercise or performance of any of its powers, rights, duties or privileges or pursuant to this Agreement, the Representative Engagement Agreement or the transactions contemplated hereby or thereby. Furthermore, the Representative shall not be required to take any action unless the Representative has been provided with funds, security or indemnities which, in its determination, are sufficient to protect the Representative against the costs, expenses and liabilities which may be incurred by the Representative in performing such actions.

(d) All of the indemnities, immunities and powers granted to the Representative under this Agreement will survive the resignation or removal of the Representative and the Closing and/or any termination of this Agreement.

ARTICLE XII
GENERAL PROVISIONS

12.1 **Survival of Representations, Warranties, and Covenants**. Regardless of any investigation at any time made by or on behalf of any party hereto or of any information any party may have in respect thereof, each of the representations and warranties made in this Agreement or any other Transaction Document will survive the Closing as provided below, and any claim for indemnification with respect thereto must be brought within the applicable limitations period listed below:

(a) Subject to Section 12.1(c), the Fundamental Representations shall survive the Closing and terminate at the conclusion of the statutory period of limitations applicable to the underlying subject matter of such Fundamental Representations;

(b) Subject to Section 12.1(c), all other representations and warranties set forth in this Agreement shall terminate on the Second Anniversary;

(c) any claim for indemnification in connection with, based upon, resulting from, attributable to, related to, or arising out of fraud (with knowledge of, or reckless disregard as to, falsity), intentional misrepresentation or willful breach, may be made at any time prior to the conclusion of the statutory period of limitations applicable to claims for fraud, intentional misrepresentation or willful breach;

(d) any claim for indemnification in connection with, based upon, resulting from, attributable to, related to, or arising out of Fundamental Claims may be made at any time following the Closing Date until the conclusion of the statutory period of limitations applicable to the underlying claim (after giving effect to any waiver, mitigation or extension thereof); and

(e) all other claims for Indemnified Representation Losses must be brought on or before the Second Anniversary.

If the Merger is consummated, all covenants and agreements of the parties to be performed prior to the Closing shall terminate and be of no further force or effect as of the Closing; *provided* that no such termination will affect any claim for a breach of any covenant or agreement required to be performed prior to the Closing asserted pursuant to Article X prior to the Second Anniversary. Following the date of termination of a representation or warranty, no claim for indemnification may be made for breach or inaccuracy of such representation or warranty, but no such termination will affect any claim for a breach of a representation or warranty that was asserted pursuant to Article X before the date of the termination of such representation or warranty.

12.2 **Reasonable Efforts; Further Assurances**. At and after the Effective Time, the officers and directors of the Surviving Corporation shall be authorized to execute and deliver, in the name and on behalf of the Company or Merger Subsidiary, deeds, bills of sale, assignment or assurances and to take and do, in the name and on behalf of the Company or Merger Subsidiary, any other actions and things to vest, perfect or confirm or record or otherwise in the Surviving Corporation any and all right, title and interest in, to and under any of the rights, properties or assets of the Company acquired or to be acquired by the Surviving Corporation as a result of, or in connection with, the Merger. Subject to the terms and conditions of this Agreement, each party to this Agreement after the Effective Time shall act in good faith and use commercially reasonable efforts to take or cause to be taken all actions, and do or cause to be done all things, required under Applicable Laws in order to give effect to the transactions contemplated herein as expeditiously as reasonably practicable.

12.3 **No Waiver Relating to Certain Claims**. The liability of any party under Article X will be in addition to, and not exclusive of, any other liability that such party may have at law or in equity based on fraud (with knowledge of, or reckless disregard as to, falsity), intentional misrepresentation or willful breach by such party. None of the provisions set forth in this Agreement, including the provisions set forth in Article X, will be deemed a waiver by any party of any right or remedy which such party may have against another party at law or equity based on fraud (with knowledge of, or reckless disregard as to, falsity), intentional misrepresentation or willful breach by such party.

12.4 **Amendment and Modification**. This Agreement may be amended or modified by the parties hereto in writing signed by Parent, the Company and the Representative, *provided*, that no amendment shall be made which by Applicable Law requires further approval by a party's stockholders without such further approval.

12.5 **Waiver of Compliance**. Any failure of Parent or Merger Subsidiary, on the one hand, or the Company (prior to Closing) or the Representative, on the other hand, to comply with any obligation, covenant, agreement or condition contained herein may be waived only if set forth in an instrument in writing signed by the party or parties to be bound by such waiver (including, if such waiver is after the Closing, the third-party beneficiaries set forth in Section 12.8), but such waiver or failure to insist upon strict compliance with such obligation, covenant, agreement or condition shall not operate as a waiver of, or estoppel with respect to, any other failure.

12.6 **Severability**. If any term or other provision of this Agreement is invalid, illegal, incapable of being enforced or prohibited by any Applicable Law or public policy, all other terms and provisions of this Agreement shall nevertheless remain in full force and effect so long as the economic or legal substance of the transactions contemplated herein is not affected in any manner materially adverse to any party. Upon such determination that any term or other provision is invalid, illegal or incapable of being enforced, the Governmental Entity making such determination is authorized and instructed to modify this Agreement so as to effect the original intent of the parties as closely as possible in order that the transactions contemplated herein are consummated as originally contemplated to the fullest extent possible.

12.7 **Expenses and Obligations**. Except as otherwise provided in this Agreement, each party to this Agreement will bear all fees and expenses incurred by such party in connection with, relating to or arising out of the negotiation, preparation, execution, delivery and performance of this Agreement and the consummation of the transactions contemplated herein, including financial advisors', attorneys', accountants' and other professional fees and expenses, whether or not the Closing shall have occurred; *provided*, *however*, that the Equityholders shall be responsible for the fees and expenses of the Company and the Representative.

12.8 **Parties in Interest**. This Agreement will be binding upon and inure solely to the benefit of each party hereto and their successors and assigns, and nothing in this Agreement, express or implied, is intended to confer upon any other Person any rights or remedies of any nature whatsoever under or by reason of this Agreement; *provided*, that the Indemnified Parties will be third party beneficiaries of the indemnification rights set forth in Article X, entitled to enforce such rights as if they were a party hereto.

12.9 **Notices**. All notices, requests, demands and other communications required or permitted to be given hereunder shall be in writing and shall be deemed given if delivered by hand, mailed by registered or certified mail

(return receipt requested), sent by facsimile, sent by Federal Express or other recognized overnight courier to the parties at the following addresses (or at such other address for a party as shall be specified by like notice); provided, that with respect to notices delivered to the Representative, such notices must be delivered solely via facsimile or via email:

(a) If to Parent or the Surviving Corporation, to:

RealPage, Inc.
2201 Lakeside Boulevard
Richardson, TX 75082
Attention: Chief Executive Officer
Facsimile: #
Email: #

with copies (which shall not constitute notice) to:

RealPage, Inc.
2201 Lakeside Boulevard
Richardson, TX 75082
Attention: Chief Legal Officer
Facsimile: #
Email: #

and

Courtney S. York
Akin Gump Strauss Hauer & Feld LLP
1700 Pacific Avenue, Suite 4000
Dallas, TX 75201
Email: #
Facsimile: #

(b) If to the Company (prior to the Closing), to:

Justin Alanis
Rentlytics, Inc.
537 Stevenson Street, Suite 200
San Francisco, CA 94103
Email: #

with a copy (which shall not constitute notice) to:

Christi C. Niehans
Gunderson Dettmer Stough Villeneuve Franklin & Hachigian, LLP
550 Allerton Street
Redwood City, CA 94063
Facsimile: #
Email: #

(c) If to the Representative, to:

Fortis Advisors LLC
Attention: Notice Department
Facsimile: #

Email: #

Any of the above addresses may be changed at any time by notice given as provided above; *provided*, that any such notice of change of address shall be effective only upon receipt. All notices, requests or instructions given in accordance herewith shall be deemed received on the date of delivery, if hand delivered, on the date of receipt, if transmitted by facsimile, three Business Days after the date of mailing, if mailed by registered or certified mail, return receipt requested and one Business Day after the date of sending, if sent by Federal Express or other recognized overnight courier.

12.10 **Counterparts**. This Agreement may be executed and delivered (including by facsimile transmission) in one or more counterparts, all of which shall be considered one and the same agreement and shall become effective when one or more counterparts have been signed by each of the parties and delivered to the other parties, it being understood that all parties need not sign the same counterpart.

12.11 **Reserved** .

12.12 **Entire Agreement**. This Agreement (which term shall be deemed to include the exhibits and schedules hereto and the other certificates, documents and instruments delivered hereunder), the other Transaction Documents and the Confidentiality Agreement constitute the entire agreement of the parties hereto and supersede all prior agreements, letters of intent, term sheets and understandings, both written and oral, among the parties with respect to the subject matter of this Agreement, the other Transaction Documents and the Confidentiality Agreement

12.13 **Public Announcements**. None of the Company (prior to the Closing), the Equityholders or the Representative will issue any press release or otherwise make any public statements with respect to this Agreement or the transactions contemplated herein without the express prior written approval of Parent.

12.14 **Attorneys' Fees**. Except as otherwise provided in Section 2.14(b), in any action or proceeding instituted by a party arising in whole or in part under, related to, based on, or in connection with, this Agreement or the subject matter hereof, the successful or prevailing party shall be entitled to receive from the losing party reasonable attorney's fees, costs and expenses incurred in connection therewith, including any appeals therefrom, in addition to any other relief to which it may be entitled.

12.15 **Binding Effect; Assignment**. This Agreement and each other Transaction Document shall be binding upon and inure to the benefit of the parties and their respective permitted successors and permitted assigns. Neither this Agreement nor any of the rights, interests or obligations hereunder shall be assigned by any of the parties hereto, whether by operation of law or otherwise. Any assignment in violation of the foregoing shall be null and void; *provided*, that upon notice to the Company (or, following the Closing, to the Representative), Parent or Merger Subsidiary may assign or delegate any or all of their rights or obligations under this Agreement to any Affiliate thereof; *provided*, *however*, that Parent and Merger Subsidiary may assign their rights under this Agreement to their lenders as collateral security for their obligations under any of their secured debt financing arrangements.

12.16 **Governing Law**. THIS AGREEMENT AND EACH OTHER TRANSACTION DOCUMENT, AND ANY MATTER OR DISPUTE ARISING HEREUNDER OR IN CONNECTION WITH THIS AGREEMENT, WILL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF DELAWARE WITHOUT GIVING EFFECT TO THE LAWS OR RULES OF THE STATE OF DELAWARE RELATING TO CONFLICT OF LAWS.

12.17 **Resolution of Disputes**.

(a) No party to this Agreement shall institute a proceeding in any court or administrative agency to resolve a dispute between the parties arising out of or related to this Agreement before that party has sought to resolve the dispute through direct negotiation with the other party.

(b) If the dispute is not resolved within three (3) weeks after a demand for direct negotiation, the parties shall attempt to resolve the dispute through mediation in Dallas, Texas, administered by the American Arbitration Association under its commercial mediation rules and procedures then in effect.

(c) If the mediator is unable to facilitate a settlement of the dispute within a reasonable period of time, as determined by the mediator, the mediator shall issue a written statement to the parties to that effect and the aggrieved party may then seek relief in the state or federal courts located in Dallas, Texas.

(d) Each party consents to the exclusive personal and subject matter jurisdiction of the mediation and arbitration proceedings as provided in this Section 12.17, the state and federal courts located in Dallas, Texas, and waives any defense based upon *forum non conveniens* or lack of personal or subject matter jurisdiction.

(e) Notwithstanding any other provision of this Agreement, including this Section 12.17, each party shall have the right to at any time apply to any court of competent jurisdiction for preliminary injunctive relief.

12.18 **Specific Performance**. Notwithstanding anything in this Agreement to the contrary, the parties agree that a breach of this Agreement would cause irreparable damage to the other parties, for which such parties will not have an adequate remedy at law. Therefore, the obligations of the Company, the Indemnifying Parties, Parent and Merger Subsidiary under this Agreement, including the obligation to consummate the Merger, shall be enforceable by a decree of specific performance issued by any court of competent jurisdiction, and appropriate injunctive relief may be applied for and granted in connection therewith. Such remedies shall, however, be cumulative and not exclusive and shall be in addition to any other remedies which any party may have under this Agreement or otherwise, this being in addition to any other remedy to which the parties is entitled at law or in equity.

12.19 **Rules of Construction**.

(a) Each of the parties acknowledges that it is sophisticated and has been represented by independent counsel of its choice throughout all negotiations that have preceded the execution of this Agreement and that it has executed the same with consent and upon the advice of said independent counsel. Each party and its counsel cooperated in the drafting and preparation of this Agreement and the documents referred to herein, and any and all drafts relating thereto shall be deemed the work product of the parties and may not be construed against any party by reason of its preparation. Accordingly, any rule of law or any legal decision that would require interpretation of any ambiguities in this Agreement against any party that draft it is of no application and is hereby expressly waived.

(b) All references in this Agreement to Exhibits, Schedules, Articles, Sections, subsections and other subdivisions refer to the corresponding Exhibits, Schedules, Articles, Sections, subsections and other subdivisions of this Agreement unless expressly provided otherwise. Titles appearing at the beginning of any Articles, Sections, subsections or other subdivisions of this Agreement are for convenience only, do not constitute any part of such Articles, Sections, subsections or other subdivisions, and shall be disregarded in construing the language contained therein. The words "*this Agreement*," "*herein*," "*hereby*," "*hereunder*" and "*hereof*" and words of similar import, refer to this Agreement as a whole and not to any particular subdivision unless expressly so limited. The words "*this Section*," "*this subsection*" and words of similar import, refer only to the Sections or subsections hereof in which such words occur. The word "*including*" (in its various forms) means "*including, without limitation*." Pronouns in masculine, feminine or neuter genders shall be construed to state and include any other gender and words, terms and titles (including terms defined herein) in the singular form shall be construed to include the plural and vice versa, unless the context otherwise expressly requires. Unless the context otherwise requires, all defined terms contained herein shall include the singular and plural and the conjunctive and disjunctive forms of such defined terms. Unless the context otherwise requires, all references to a specific time shall refer to

Dallas, Texas time. References to the "Company" in Article III and Article X shall refer, wherever not inappropriate by reference to the context, to the Company and each of its subsidiaries.

(c) Notwithstanding anything contained in this Agreement to the contrary, except as otherwise expressly provided in this Agreement, the parties hereto covenant and agree that no amount shall be (or is intended to be) included, in whole or in part (either as an increase or a reduction), more than once in the calculation of (including any component of) the Merger consideration or any component thereof or calculation relating thereto, or any other calculated amount pursuant to this Agreement if the effect of such additional inclusion (either as an increase or a reduction) would be to cause such amount to be over- or under-counted for purposes of the transactions contemplated in this Agreement. The parties hereto further covenant and agree that if any provision of this Agreement requires an amount or calculation to be "*determined in accordance with this Agreement and GAAP*" (or words of similar import), then to the extent that the terms of this Agreement conflict with, or are inconsistent with, GAAP in connection with such determination, the terms of this Agreement shall control.

(d) All references in this Agreement to "$" or "*dollar*" means United States dollars.

[*Signature Page Follows*]

IN WITNESS WHEREOF, the undersigned have caused this Agreement to be signed, all as of the date first written above.

COMPANY:

RENTLYTICS INC.

By: /s/ Justin R. Alanis

Name: Justin Alanis

Title: President

PARENT:

REALPAGE, INC.

By: /s/ W. Bryan Hill

Name: W. Bryan Hill

Title: Executive Vice President, Chief Financial Officer and Treasurer

MERGER SUBSIDIARY:

RP NEWCO XXVI INC.

By: /s/ W. Bryan Hill

Name: W. Bryan Hill

Title: Executive Vice President, Chief Financial Officer and Treasurer

IN WITNESS WHEREOF, the undersigned has caused this Agreement to be signed as of the date first written above.

REPRESENTATIVE:

FORTIS ADVISORS LLC

By: /s/ Ryan Simkin

Name: Ryan Simkin

Title: Managing Director

EXHIBIT A

DEFINED TERMS

"***Acknowledgement and Release***" means an Acknowledgment and Release, in the form attached hereto as **Exhibit I-1**, **Exhibit I-2** or **Exhibit I-3**, as applicable, to be delivered by a Vested Option Holder, Management Carveout Participant or Promised Option Holder, as applicable.

"***Acquisition Proposal***" means any offer or proposal relating to any transaction or series of related transactions other than the transactions contemplated in this Agreement involving (a) any acquisition or purchase by any Person of any interest in the voting securities or other capital stock of the Company (other than exercises or conversions of convertible securities that are outstanding on the date hereof) or any tender offer or exchange offer that if consummated would result in any Person or group (other than the Stockholders) beneficially owning voting securities or other capital stock of the Company, or any merger, consolidation, business combination or similar transaction involving the Company; (b) any sale, lease (other than in the ordinary course of business), exchange, transfer, license (other than in the ordinary course of business), acquisition or disposition of more than 10% of the assets of the Company; or (c) any liquidation or dissolution of the Company.

"***Adjusted Merger Consideration***" means an amount (not less than zero) equal to (a) the Merger Consideration, minus (b) the Closing Adjustment Amount, if any, minus (c) the Working Capital Shortfall, if any, minus (d) the Final Indebtedness, minus (e) the Final Company Transaction Costs, plus (f) the Final Closing Cash (in the case of (c) – (f), as finally determined in accordance with Section 2.14).

"***Adjustment Amount***" has the meaning set forth in Section 2.14(c).

"***Advisory Group***" has the meaning set forth in Section 11.2(b).

"***Affiliate***" means, with respect to any Person, any other Person controlling, controlled by or under common control with such Person. For purposes of this definition and this Agreement, the term "control" (and correlative terms) means the power, whether by contract, equity ownership or otherwise, to direct the policies or management of a Person.

"***Agreement***" has the meaning set forth in the Preamble.

"***Applicable Laws***" means all domestic or foreign, federal state or local statutes, laws (including common laws), constitutions, treaties, directives, rules, regulations, resolutions, codes, ordinances, requirements, judgments, orders, administrative interpretations, decrees, injunctions, and writs of any Governmental Entity which has, or the Company believes is reasonably likely to have, jurisdiction over the Company or the businesses, operations or assets of the Company, as they may be in effect on or prior to the Closing.

"***Applicable Holdback Percentage***" means, with respect to each Equityholder, the percentage of any distribution from the Holdback Cash Consideration to which such Equityholder is entitled as set forth next to such Equityholder's name in the Payment Spreadsheet.

"***Applicable Percentage***" means, with respect to each Equityholder, a percentage (as set forth next to such Equityholder's name in the Payment Spreadsheet) equal to (a) the aggregate Per Share Closing Consideration allocable to such Equityholder in its capacity as a Stockholder, if any, plus the amount of Vested Option Payments allocable to such Equityholder in its capacity as a Vested Option Holder, if any, plus the amount of Management Carveout Payments allocable to such Equityholder in its capacity as a Management Carveout Participant, if any divided by (b) the aggregate Per Share Closing Consideration, Vested Option Payments and Management Carveout Payments allocable to all Equityholders.

"***Arbitrator***" has the meaning set forth in Section 2.14(b).

"***Business***" has the meaning set forth in the Recitals.

"***Business Day***" means any day other than (a) a Saturday, Sunday or federal holiday or (b) a day on which commercial banks in Dallas, Texas or New York, New York are authorized or required to be closed.

"***CCC***" means the California Corporations Code.

"***Certificate***" means a certificate representing any Outstanding Shares.

"***Certificate of Merger***" has the meaning set forth in Section 2.2.

"***Closing***" has the meaning set forth in Section 8.1.

"***Closing Adjustment Amount***" has the meaning set forth in Section 2.13.

"***Closing Cash***" means cash and cash equivalents of the Company as of the Closing, calculated in accordance with GAAP and, if not inconsistent therewith, the Company's prior practice.

"***Closing Date***" means the date on which the Closing occurs.

"***Closing Date Balance Sheet***" has the meaning set forth in Section 2.13.

"***Closing Statement***" has the meaning set forth in Section 2.14(a).

"***Code***" means the United States Internal Revenue Code of 1986, as amended. All references to the Code, U.S. Treasury regulations or other governmental pronouncements shall be deemed to include references to any applicable successor regulations or amending pronouncement.

"***Common Stock***" means the common stock of the Company, par value $0.0001 per share.

"***Company***" has the meaning set forth in the Preamble.

"***Company Benefit Plans***" has the meaning set forth in Section 3.17(a).

"***Company Charter Documents***" has the meaning set forth in Section 3.1(b).

"***Company Confidential Information***" has the meaning set forth in Section 6.4(b).

"***Company Intellectual Property***" has the meaning set forth in Section 3.10(a)(i).

"***Company Owned Intellectual Property***" has the meaning set forth in Section 3.10(a)(ii).

"***Company Products***" has the meaning set forth in Section 3.10(x).

"***Company Registered Intellectual Property***" has the meaning set forth in Section 3.10(a)(iii).

"***Company Stock Plan***" means the Rentlytics, Inc. 2013 Stock Plan, adopted on May 23, 2013, as amended to date.

"***Company Transaction Costs***" means (i) all fees, costs and expenses of any brokers, financial advisors, accountants, consultants, attorneys or other professionals, (ii) the Company's portion of any withholding required to be paid in connection with the payments to Vested Option Holders, Promised Option Holders and Management Carveout Participants under this Agreement and (iii) all other out-of-pocket cost or expenses (including, without limitation, filing fees, termination or breakage fees, costs of obtaining Consents, costs of obtaining the E&O Tail Policy and the D&O Tail Policy, transaction bonuses or similar items, but excluding Management Carveout Payments, Vested Option Payments and Promised Option Payments (other than the Company's portion of any withholding required to be paid in connection with such payments), in each case to the extent included on the Payment Spreadsheet), in each case payable by the Company in connection with the structuring, negotiation or consummation of the transactions contemplated in this Agreement and the other Transaction Documents, or for which the Company may have any liability, including expenses to the extent allocated to the Company under this Agreement and the other Transaction Documents.

"***Competitor Technology***" has the meaning set forth in Section 3.28(a).

"***Computer Systems***" means all servers, computer hardware, networks, software, databases, telecommunications systems, interfaces and related systems.

"***Confidentiality Agreement***" means the Mutual Confidentiality Agreement, dated as of June 15, 2018, by and between the Company and Parent.

"***Consents***" means all consents, approvals, orders or authorizations of, or registration, qualification, designation, declaration or filing with, any Governmental Entity, and all consents, waivers and approvals of third Persons.

"***Contract***" means any written, oral or other agreement, contract, subcontract, settlement agreement, lease, binding understanding, instrument, note, option, warranty, purchase order, guaranty, indenture, license, sublicense, insurance policy, benefit plan sales or purchase

order or legally binding commitment or undertaking of any nature to which the reference Person is a party or by which such Person, or any of its properties or assets, is bound or affected.

"***Copyleft Public Software***" has the meaning set forth in Section 3.10(x).

"***Copyrights***" has the meaning set forth in Section 3.10(a)(iii).

"***De Minimis Claims***" has the meaning set forth in Section 10.6(a).

"***DGCL***" has the meaning set forth in the Recitals.

"***Disclosure Schedule***" means the schedule delivered by the Company and each of the Equityholders to Parent and Merger Subsidiary concurrently with the execution and delivery of this Agreement, setting forth certain disclosure information to the Company's representations and warranties contained in Article III and the Equityholder's representations and warranties contained in Article IIIA (which Disclosure Schedule shall be arranged according to specific sections in this Article III and shall provide exceptions to, or otherwise qualify in reasonable detail, only the corresponding section in Article III or Article IIIA and any other section hereof where it is clear, upon a reading of such disclosure without any independent knowledge on the part of the reader regarding the matter disclosed, that the disclosure is intended to apply to such other section).

"***Disqualified Individual***" means the individuals with respect to the Company described in Section 280G(c) of the Code and determined pursuant to the Treasury Regulations promulgated pursuant thereto.

"***Dissenting Shares***" has the meaning set forth in Section 2.9(b).

"***Domain Names***" has the meaning set forth in Section 3.10(a)(iii).

"***D&O Indemnified Party***" means each officer and director of the Company whose actions or omissions are covered by the D&O Tail Policy.

"***D&O Tail Policy***" has the meaning set forth in Section 6.5(b).

"***E&O Tail Policy***" has the meaning set forth in Section 6.5(a).

"***Effective Time***" has the meaning set forth in Section 2.2.

"***Employee Benefit Plan***" means the following, whether written or oral and regardless of whether voluntarily sponsored or mandatorily sponsored pursuant to the Applicable Laws of any Governmental Entity: (a) any nonqualified deferred compensation or retirement plan or arrangement that is an Employee Pension Benefit Plan; (b) any qualified defined contribution retirement plan or arrangement that is an Employee Pension Benefit Plan; (c) any qualified defined benefit retirement plan or arrangement that is an Employee Pension Benefit Plan; (d) any Employee Welfare Benefit Plan or fringe benefit plan or program; (e) any profit sharing, bonus, stock option, stock purchase, consulting, employment, severance or incentive plan, agreement or arrangement; (f) any plan, agreement or arrangement providing benefits related to clubs, vacation, childcare, parenting, sabbatical or sick leave; and (g) each other employee benefit plan, agreement, arrangement, program, practice or understanding that is not described previously in this definition.

"***Employee Pension Benefit Plan***" has the meaning set forth in Section 3(2) of ERISA and specifically includes, but is not limited to, any plan operated pursuant to the laws of any Governmental Entity other than the United States.

"***Employee Welfare Benefit Plan***" has the meaning set forth in Section 3(1) of ERISA and specifically includes, but is not limited to, any plan operated pursuant to the laws of any Governmental Entity other than the United States.

"***Employment Documentation***" has the meaning set forth in the Recitals.

"***Environmental Law***" means any Applicable Law relating or pertaining to the public health and safety (including workplace health and safety) or the environment or otherwise governing the generation, use, handling, collection, treatment, storage, transportation, recovery, recycling, removal, discharge or disposal of Hazardous Materials, or the health and safety of persons (including employees) or property relating to exposure to Hazardous Materials, including, (a) the Solid Waste Disposal Act, 42 U.S.C. § 6901 *et seq*., as amended; (b) the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. § 9601 *et seq*., as amended; (c) the Clean Water Act, 33 U.S.C. § 1251 *et seq*., as amended; (d) the Clean Air Act, 42 U.S.C. § 7401 *et seq*., as amended; (e) the Toxic Substances Control Act, 15 U.S.C. § 2601 *et seq*., as amended; (f) the Emergency Planning and Community Right To Know Act, 42 U.S.C. § 11001 *et seq*., as amended; (g) the Occupational Safety and Health Act, 29 U.S.C. § 651 *et seq*., as amended; and (h) analogous laws and regulations implemented in the European Union, its member states, and any other country in which the Company conducts business.

"***Equityholder***" means each holder of Outstanding Shares as of immediately prior to the Effective Time, each Vested Option Holder and each Management Carveout Participant.

"***Equity Interests***" means (a) any partnership interests, (b) any membership interests or units, (c) any shares of capital stock, (d) any other interest or participation that confers on a Person the right to receive a share of the profits and losses of, or distribution of assets of, the issuing entity (including, in the case of the Company, the Management Carveout Plan and interests or participations therein), (e) any subscriptions, calls, warrants, options, or commitments of any kind or character relating to, or entitling any Person or entity to purchase or otherwise acquire membership interests or units, capital stock, or any other equity securities (including, in the case of the Company, any Promised Options), (f) any securities convertible into or exercisable or exchangeable for partnership interests, membership interests or units, capital stock, or any other equity securities, or (g) any other interest classified pursuant to Applicable Law as an equity security of a Person.

"***ERISA***" means the Employee Retirement Income Security Act of 1974, as amended.

"***ERISA Affiliate***" means any subsidiary or other entity that would be considered a single employer with the Company or a subsidiary within the meaning of Section 414 of the Code.

"***Estimated Closing Cash***" has the meaning set forth in Section 2.13.

"***Estimated Company Transaction Costs***" has the meaning set forth in Section 2.13.

"***Estimated Merger Consideration***" means an amount (not less than zero) equal to (i) the Merger Consideration, minus (b) the Closing Adjustment Amount, if any, minus (c) the Estimated Indebtedness, minus (d) the Estimated Company Transaction Costs, plus (e) the Estimated Closing Cash.

"***Estimated Indebtedness***" has the meaning set forth in Section 2.13.

"***Estimated Working Capital***" has the meaning set forth in Section 2.13.

"***Exchange Act***" means the Securities Exchange Act of 1934, as amended.

"***Expense Fund Account***" has the meaning set forth in Section 2.11(b)(vii).

"***Expense Fund Amount***" has the meaning set forth in Section 2.11(b)(vii).

"***Final Closing Cash***" has the meaning set forth in Section 2,14(a).

"***Final Company Transaction Costs***" has the meaning set forth in Section 2.14(a).

"***Final Indebtedness***" has the meaning set forth in Section 2.14(a).

"***Final Working Capital***" has the meaning set forth in Section 2.14(a).

"***Financial Statements***" has the meaning set forth in Section 3.5(a).

"***First Anniversary***" has the meaning set forth in Section 10.5(b)(i).

"***Foreign Export and Import Laws***" means the laws and regulations of a foreign government regulating exports, imports or re-exports to or from the foreign country, including the export or re-export of any goods, services or technical data.

"***Fundamental Claims***" means claims for breaches or inaccuracies of any Fundamental Representations.

"***Fundamental Representations***" means the representations and warranties in Section 3.1(a), (b) and (c) (Organizational Matters), Section 3.2 (Capital Structure), Section 3.3 (Authority and Due Execution), Section 3.4(a)(i) (Non-Contravention and Consents), Section 3.6 (Indebtedness), Section 3.8 (Taxes), Section 3.14 (Brokers' and Finders' Fees), Section 3A.1 (Authority), Section 3A.2 (Due Execution), Section 3A.3 (Non-Contravention), Section 3A.4 (Ownership) and Section 3A.7 (Brokers' and Finders' Fees).

"***GAAP***" means generally accepted accounting principles in the United States, consistently applied.

"***Governmental Entity***" has the meaning set forth in Section 3.4(c).

"***Hazardous Material***" means (a) any hazardous waste, hazardous substance, toxic pollutant, hazardous air pollutant or hazardous chemical (as any of such terms may be defined under, or for the purpose of, any Environmental Law); (b) asbestos; (c) polychlorinated biphenyls; (d) petroleum or petroleum products; (e) underground storage tanks, whether empty, filled or partially filled with any substance; (f) any substance the presence of which on the property in question is prohibited under any Environmental Law; (g) any material regulated, listed, referred to, limited or prohibited as a danger to health or the environment or under any Environmental Law; or (h) any other substance that under any Environmental Law requires special handling or notification of or reporting to any federal, state or local governmental entity in its generation, use, handling, collection, treatment, storage, recycling, treatment, transportation, recovery, removal, discharge or disposal.

"***HCERA***" has the meaning set forth in Section 3.17(r).

"***Healthcare Reform Law***" has the meaning set forth in Section 3.17(r).

"***Health Law***" shall have the meaning set forth in Section 3.12(a).

"***HHS***" shall have the meaning set forth in Section 3.12(a).

"***HIPAA***" shall mean the Health Insurance Portability and Accountability Act of 1996, as amended, including any regulations and other official government guidance promulgated thereunder.

"***HITECH Act***" shall mean the Health Information Technology for Economic and Clinical Health Act, as amended, including any regulations and other official government guidance promulgated thereunder.

"***Holdback Cash Consideration***" shall mean cash in the amount of $8,000,000.

"***Incorporated Software***" has the meaning set forth in Section 3.10(x).

"***Indebtedness***" without duplication, means (a) all indebtedness (including the principal amount thereof or, if applicable, the accreted amount thereof and the amount of accrued and unpaid interest thereon) of the Company, whether or not represented by bonds, debentures, notes or other securities, for the repayment of money borrowed, whether owing to banks, financial institutions, on equipment leases or otherwise; (b) all deferred indebtedness of the Company for the payment of the purchase price of property or assets purchased (excluding trade payables); (c) all obligations of the Company to pay rent or other payment amounts under a lease of real or Personal Property which is required to be classified as a capital lease or a liability on the face of a balance sheet prepared in accordance with GAAP; (d) any outstanding reimbursement obligation of the Company with respect to letters of credit, bankers' acceptances or similar facilities issued for the account of the Company; (e) any payment obligation of the Company under any interest rate swap agreement, forward rate agreement, interest rate cap or collar agreement or other financial agreement or arrangement entered into for the purpose of limiting or managing interest rate risks; (f) all indebtedness for borrowed money secured by any Lien existing on property owned by the Company, whether or not indebtedness secured thereby will have been assumed; (g) all guaranties, endorsements, assumptions and other contingent obligations of the Company in respect of, or to purchase or to otherwise acquire, indebtedness for borrowed money of others; (h) all premiums, penalties and change of control payments required to be paid or offered in respect of any of the foregoing as a result of the consummation of the transactions contemplated in this Agreement regardless if any of such are actually paid; and (i) all obligations of the Company, whether interest bearing or otherwise, owed to any Stockholder and or any Stockholder's Affiliates (other than obligations incurred in the ordinary course of business or that are accrued in the Final Working Capital with respect to Stockholders who are employees of the Company).

"***Indemnified Losses***" means (a) all Indemnified Representation Losses; (b) all Indemnified Tax Losses; (c) all damages, losses, claims, liabilities, obligations, demands, Taxes, charges, suits, judgments, penalties, fines, awards, settlements, fees, costs, and expenses (including court costs, reasonable attorneys' fees and costs and other expenses incurred, sustained, suffered, paid or properly accrued (in accordance with GAAP consistently applied) in investigating, defending against, prosecuting and preparing for, or otherwise in connection with, any litigation, claim, demand or proceeding or threatened litigation, claim, demand or proceeding) in connection with, based upon, resulting from, attributable to, related to, or arising out of (i) any violation, breach or default by the Representative, the Company, or any of the Equityholders, under this Agreement or any other Transaction Document, or failure by any of them to comply with, perform or observe, or to have complied with, performed or observed, any covenant, agreement, obligation or condition to be complied with, performed or observed by any of them pursuant to, this Agreement or any Transaction Document; (ii) any amounts paid to holders of Dissenting Shares in excess of the consideration that such holders would otherwise have been entitled to receive pursuant to Article II if such shares were not Dissenting Shares; (iii) errors in calculation or allocation of the Estimated Merger Consideration, the Net Closing Merger Consideration, the Adjusted Merger Consideration or any distributions of the Holdback Cash Consideration, (iv) any Indebtedness of the Company or Company Transaction Costs as of the Closing Date that are not paid or satisfied as of the Closing Date; (v) the ownership by the Specified Persons of any Intellectual Property Rights or other assets, or the infringement, misappropriation or other violation by the Company of any Intellectual Property Rights owned or purportedly owned by the Specified Persons, in each case used or held for use by the Company in connection with the Business, or (vi) any obligations or liabilities under the Contract set forth on Schedule 10(vi) that survive the termination of such Contract.

"***Indemnified Party***" and "***Indemnified Parties***" means each of Parent and the Surviving Corporation, each officer, director, employee, consultant, stockholder, and Affiliate of Parent and the Surviving Corporation, and each member of an ERISA Group in which Parent or the Surviving Corporation is a member, and all of the foregoing collectively.

"***Indemnified Representation Losses***" means any and all damages, losses, claims, liabilities, demands, Taxes, charges, suits, judgments, penalties, fines, fees, costs, and expenses (including court costs, reasonable attorneys' fees and costs and other expenses incurred, sustained, suffered, paid or properly accrued (in accordance with GAAP consistently applied) in investigating, defending against, prosecuting and preparing for, or otherwise in connection with, any litigation, claim, demand or proceeding or threatened litigation, claim, demand or proceeding) in connection with, based upon, resulting from, attributable to, related to, or arising out of any breach or inaccuracy by the Company, the Representative or any Equityholder of any of its, his or her representations or warranties under this Agreement, the Disclosure Schedule, or any of the certificates described in Sections 7.2(a), 7.2(b), 7.2(c), 8.2(b)(ii) or 8.2(b)(iii).

"***Indemnified Tax Losses***" means any and all Taxes, together with any costs, expenses or damages (including court and administrative costs and reasonable legal fees and expenses incurred in investigating and preparing for or participating in any Tax Proceeding) resulting from the determination, assessment or collection of such Taxes, (a) imposed on the Company, or for which the Company may otherwise be liable, for any Pre-Closing Tax Period and for the portion of any Straddle Period ending on the Closing Date (determined in accordance with Section 6.2(b)), (b) resulting from the breach of any of the representations and warranties set forth in Section 3.8 or covenants set forth in Section 6.2, (c) of any member of an affiliated, consolidated, combined or unitary group of which the Company (or any predecessor of the Company) was a member on or prior to the Closing Date by reason of Treasury Regulation Section 1.1502-6(a) or any analogous or similar foreign, state or local law, (d) of any other Person for which the Company is liable as a transferee or successor, by contract or otherwise, (e) that are social security, Medicare, unemployment or other employment or withholding Taxes owed as a result of any compensatory payments made in connection with this Agreement, including the cancellation and payment for any options or warrants, (f) that are Transfer Taxes as provided in Section 6.2(d) or (g) that are Sales Taxes relating to any Pre-Closing Tax Period as provided in Section 6.2(e) or (h) any increase in the Tax liability of the Company (including the inability to take a deduction) resulting from any failure to obtain the approval of the requisite stockholders necessary to approve payment of any amount, or the provision of any benefit that, separately or in the aggregate, would not otherwise be deductible by reason of Section 280G of the Code in a manner which satisfies all applicable requirements of Section 280G(b)(5)(B) of the Code and the Treasury Regulations thereunder; provided, however, that any Taxes that are taken into account as a liability in the calculation of Final Working Capital shall not be deemed to be Indemnified Tax Losses.

"***Indemnifying Party***" and "***Indemnifying Parties***" means each of the Equityholders.

"***Intellectual Property Right(s)***" has the meaning set forth in Section 3.10(a)(iv).

"***Key Employee***" has the meaning set forth in the Recitals.

"***Knowledge***" means the actual knowledge of each of Justin Alanis, Philip Plante, Danaus Chang, Roger Muckenfuss, Remington Blaize Wallace, Stephen Drydahl and Spencer Holt and knowledge of such facts or matters such Persons have after conducting a reasonable inquiry of his or her direct reports with operational responsibility for the fact or matter in question.

"***Leased Real Property***" has the meaning set forth in Section 3.9(d).

"***Legal Proceeding***" has the meaning set forth in Section 3.7.

"***Letter of Transmittal***" has the meaning set forth in Section 2.11(b)(iii).

"***Lien Instrument***" has the meaning set forth in Section 3.9(b).

"***Liens***" means liens, pledges, voting agreements, voting trusts, proxy agreements, security interests, mortgages, and other possessory interests, conditional sale or other title retention agreements, assessments, easements, rights-of-way, covenants, restrictions, rights of first refusal, encroachments, and other burdens, options or encumbrances of any kind.

"***Loan Agreements***" means, collectively, the Indebtedness documents set forth on Schedule 5.5 hereto.

"***Major Customers***" has the meaning set forth in Section 3.25.

"***Major Supplier***" has the meaning set forth in Section 3.25.

"***Management Carveout Participant***" means each individual who will receive a Management Carveout Payment, as set forth on the Payment Spreadsheet.

"***Management Carveout Payment***" means amounts payable in connection with the Merger pursuant to the terms of the Company's Management Carveout Plan.

"***Management Carveout Payment Amount***" means the aggregate amount of all Management Carveout Payments to be the made in respect of the Management Carveout Plan to Management Carveout Participants, as set forth on the Payment Spreadsheet (excluding, for the avoidance of doubt, the Company's portion of any withholding with respect to such Management Carveout Payments).

"***Management Carveout Plan***" means the Management Carveout Plan of the Company, approved by the Company's Board of Directors on August 4, 2018.

"***Mask Works***" has the meaning set forth in Section 3.10(a)(iii).

"***Material Adverse Effect***" when used with respect to the Company means any effect, event, change, occurrence, fact, circumstance or development (whether or not foreseeable or known as of the date of the Closing or covered by insurance) that, individually or in the aggregate with any such other effects, events, changes, occurrences, facts, circumstances or developments, is or could reasonably be expected to be materially adverse to (a) the business, operations, assets, financial condition, results of operations, prospects or capitalization of the Company or (b) the ability of the Company or an Equityholder to consummate any transaction contemplated in this Agreement or any Transaction Documents; provided, however, that with respect to the preceding clause (a), none of the following shall be deemed to constitute, and none of the following shall be taken into account in determining whether there has been a Material Adverse Effect: (i) changes in general economic conditions; or (ii) changes in GAAP or Applicable Law or the interpretation thereof, (iii) the announcement or pendency of any of the transactions contemplated by this Agreement, (iv) the taking of any action reasonably required to cause compliance with this Agreement or the failure to take any action prohibited by this Agreement or any action taken or failure to take action which Parent has consented to or requested, (v) acts of war, sabotage or terrorism or military actions or any escalation or material worsening thereof, (vi) natural disasters or other similar force majeure events, or (vii) the taking of any action by Parent or any of its Affiliates, provided that the matters described in clauses (i) and (ii) shall be taken into account if an only to the extent that such changes disproportionately affect the Company, taken as a whole, as compared to other companies that operate in the industry in which the Company operates.

"***Material Contract***" means the Contracts listed in Sections 3.10(n), 3.10(o), 3.10(w), or 3.10(x) of the Disclosure Schedule and any of the following Contracts to which the Company is a party:

a) any Contract with a Major Customer, a Major Supplier or that requires future expenditures by the Company in excess of $25,000 per annum or that would likely result in payments to the Company in excess of $75,000 per annum (other than offer letters and employment agreements for the employment of the Company's employees);

b) any Contract to which the Company is a party or by which the Company or any of its properties or assets is bound that is not terminable without penalty on notice of 90 days or less;

c) each lease, lease guaranty, sublease or other Contract for the leasing, use or occupancy of the Leased Real Property and each Contract or other right pursuant to which the Company uses or possesses any Personal Property (other than Personal Property owned by the Company);

d) any Contract with or otherwise for the benefit of any stockholder, director, officer or employee of the Company, or any member of his or her immediate family or, to the Knowledge of the Company, any Affiliate of any of such Persons, including any Contract providing for the furnishing of services by, rental of real or Personal Property from or

otherwise requiring payments to or for the benefit of any such Person;

e) any Contract containing any covenant (i) limiting the right of the Company to engage in any line of business, make use of any Intellectual Property Rights or compete with any Person in any line of business; (ii) granting any exclusive distribution or supply rights; or (iii) otherwise having a Material Adverse Effect on the right of the Company to sell, license, distribute or manufacture any of the Company's Products or services or to purchase or otherwise obtain any software, components, parts or subassemblies;

f) any Contract between the Company and any current or former employee, consultant or director of the Company pursuant to which benefits would vest or amounts would become payable or the terms of which would otherwise be altered by virtue of the consummation of the transactions contemplated in this Agreement or any other Transaction Document to which the Company is a party (whether alone or upon the occurrence of any additional or subsequent events);

g) any Contract that requires a Consent in connection with the Merger and/or the transactions contemplated in this Agreement;

h) any Contract the Company considers material to its Business; or

i) any other Contract, the termination or breach of which would have, or would be reasonably expected to have, a Material Adverse Effect on the Company.

"***Merger***" has the meaning set forth in Section 2.1.

"***Merger Consideration***" means an amount equal to $57,000,000.

"***Merger Subsidiary***" has the meaning set forth in the Preamble.

"***Most Recent Financial Statements***" has the meaning set forth in Section 3.5(a).

"***Multiemployer Plan***" has the meaning set forth in Section 4001(a)(3) of ERISA.

"***Net Closing Merger Consideration***" means an amount equal to (i) the Estimated Merger Consideration, minus (ii) the Holdback Cash Consideration, minus (iii) the Expense Fund Amount minus (iv) the Promised Option Payments Amount.

"***Objection Notice***" has the meaning set forth in Section 2.14(b).

"***Order***" means any award, writ, injunction, judgment, order or decree entered, issued, made, or rendered by, or settlement under the jurisdiction of, any Governmental Entity.

"***Outstanding Common Share***" or "***Outstanding Common Shares***" has the meaning set forth in Section 2.7(c).

"***Outstanding Preferred Share***" or "***Outstanding Preferred Shares***" has the meaning set forth in Section 2.7(b).

"***Outstanding Share***" means an Outstanding Preferred Share or Outstanding Common Share.

"***Parachute Payment Waivers***" means the waivers prepared by the Company with respect to each Disqualified Individual pursuant to which such Disqualified Individual waives the right to receive the payment of any amount or the provision of any benefit that would not be deductible by reason of Section 280G of the Code.

"***Parent***" has the meaning set forth in the Preamble.

"***Parent Charter Documents****"* has the meaning set forth in Section 4.1(b).

"***Patents***" has the meaning set forth in Section 3.10(a)(iii).

"***Paying Agent***" has the meaning set forth in Section 2.11(c).

"***Payment Spreadsheet***" has the meaning set forth in Section 2.11(a).

"***Pay-Off Letters***" means the letters, and any updates thereto, to be sent by each of the Company's creditors pursuant to Section 5.5 under the Loan Agreements to Parent prior to Closing, which letters shall, among other things, specify the aggregate amount of Indebtedness that will be outstanding and satisfied prior to the Effective Time under each Loan Agreement and wire transfer information for each such lender to be paid at the Closing.

"***Per Share Closing Consideration***" means the amount of Net Closing Merger Consideration payable in respect of each Outstanding Share, as set forth in the Payment Spreadsheet, before taking into account any amounts withheld for taxes.

"***Permits***" has the meaning set forth in Section 3.13(a).

"***Permitted Encumbrances***" means (a) statutory liens for current Taxes, assessments or other governmental charges not yet delinquent or the amount or validity of which is being contested in good faith by appropriate proceedings and for which adequate reserves have been established, (b) mechanics', carriers', workers', repairers' and similar liens arising or incurred in the ordinary course of business that are not material to the business, operations and financial condition of the property so encumbered and that do not result from a breach,

default or violation by the Company with respect to any Contract or legal requirement, (c) the rights of the lessors of any real or personal property leased to the Company and (d) charges, restrictions and encumbrances that do not detract from the value of or interfere with the present use of any property subject thereto or affected thereby.

"***Person***" means an individual, corporation, partnership, limited liability company, association, trust, unincorporated organization or other entity.

"***Personal Information***" shall mean (i) any information that alone or in combination with other information held by the Company in proximity to such information can be used to specifically identify a natural person; (ii) information (other than name separated from any other information) from credit or debit cards of any Person; (iii) any protected health information as that term is defined under HIPAA or (iv) any protected health information as that term is defined under the HITECH Act.

"***Personal Property***" means all of the machinery, equipment, equipment structures, machinery, fixtures, hardware, systems, infrastructure, tools, motor vehicles, furniture, furnishings, leasehold improvements, office equipment, inventory, supplies, plant, spare parts, and other tangible personal property which are owned or leased by the Company and which are used or held for use in its business or operations, excluding any Technology or Intellectual Property Rights.

"***Post-Closing Insurance Coverage***" has the meaning set forth in Section 6.5.

"***PPACA***" has the meaning set forth in Section 3.17(r).

"***Pre-Closing Statement***" has the meaning set forth in Section 2.13.

"***Pre-Closing Tax Period***" means any Tax period ending on or before the Closing Date.

"***Preferred Stock***" means the Series Seed Preferred Stock, the Series A-1 Preferred Stock and the Series A Preferred Stock.

"***Prohibited Transaction***" has the meaning set forth in Section 406 of ERISA and Section 4975 of the Code.

"***Promised Option Holder***" means each current or former service provider to the Company who was promised options to purchase shares of Common Stock, which options were never granted.

"***Promised Option Payment***" means each cash bonus, as set forth on the Payment Spreadsheet, payable to a Promised Option Holder in connection with the Merger in lieu of any Merger Consideration that might otherwise have been payable to such Promised Option Holder in respect of options to purchase shares of Common Stock, which options were promised to such Promised Option Holder but never granted.

"***Promised Option Payments Amount***" means the aggregate amount of all Promised Option Payments to be made to Promised Option Holders, as set forth on the Payment Spreadsheet (excluding, for the avoidance of doubt, the Company's portion of any withholding with respect to such Promised Option Payments).

"***PTO***" has the meaning set forth in Section 3.10(b).

"***Public Software***" has the meaning set forth in Section 3.10(x).

"***Real Property Leases***" has the meaning set forth in Section 3.9(d).

"***Receivables***" has the meaning set forth in Section 3.11.

"***Registered Intellectual Property***" has the meaning set forth in Section 3.10(a)(v).

"***Released Claims***" has the meaning set forth in Section 6.6.

"***Releasee***" and "***Releasees***" have the meanings set forth in Section 6.6

"***Releasors***" has the meaning set forth in Section 6.6.

"***Remedies Exceptions***" has the meaning set forth in Section 3.3(b).

"***Representative***" means Fortis Advisors LLC, and any successor representative appointed in accordance herewith.

"***Representative Engagement Agreement***" has the meaning set forth in Section 11.2(b).

"***Representative Expenses***" has the meaning set forth in Section 11.2(c).

"***Representative Group***" has the meaning set forth in Section 11.2(b).

"***Required Consents***" has the meaning set forth in Section 7.2(d).

"***Requisite Stockholder Approval***" has the meaning set forth in the Recitals.

"***Rules***" shall have the meaning set forth in Section 3.12(a)

"***Sales Taxes***" has the meaning set forth in Section 6.2(e).

"***Second Anniversary***" has the meaning set forth in Section 10.5(b)(ii).

"***Securities Act***" has the meaning set forth in Section 3.2(c).

"***Series A Preferred Stock***" shall have the meaning set forth in Section 3.2(a).

"***Series A-1 Preferred Stock***" shall have the meaning set forth in Section 3.2(a).

"***Series Seed Preferred Stock***" shall have the meaning set forth in Section 3.2(a).

"***Significant Owner***" shall mean each of Justin Alanis and Philip Plante.

"***Significant Owner Agreement***" has the meaning set forth in the Recitals.

"***Special Damages***" means consequential damages that depend on future developments that are not reasonably foreseeable.

"***Specified Competitor***" has the meaning set forth in Section 3.28(a).

"***Specified Persons***" shall mean each Person set forth on Schedule 10(v).

"***Standard Customer Contract***" has the meaning set forth in Section 3.19(b).

"***Stockholder***" means each holder of Outstanding Shares of the Company.

"***Straddle Period***" means any Tax period beginning on or before and ending after the Closing Date. Notwithstanding anything to the contrary herein, any franchise Tax shall be allocated to the period during which the income, operations, assets or capital comprising the base of such Tax is measured, regardless of whether the right to do business for another period is obtained by the payment of such franchise Tax.

"***Support Documentation***" has the meaning set forth in Section 2.14(a).

"***Surviving Corporation***" has the meaning set forth in Section 2.1.

"***Target Working Capital***" has the meaning set forth in Section 2.13.

"***Tax***" or "***Taxes***" means (a) any taxes, assessments, fees and other governmental charges imposed by any Governmental Entity, including income, profits, gross receipts, net proceeds, alternative or add on minimum, ad valorem, value added, turnover, sales, use, property, personal property (tangible and intangible), escheat, environmental, stamp, leasing, lease, user, excise, duty, franchise, capital stock, transfer, registration, license, withholding, social security (or similar), unemployment, disability, payroll, employment, social contributions, fuel, excess profits, occupational, premium, windfall profit, severance, estimated, or other charge in the nature of or in lieu of a tax, including any interest, penalty, or addition thereto, whether disputed or not; (b) any liability for the payment of any amounts of the type described in clause (a) as a result of being a member of an affiliated, consolidated, combined or unitary group for any period; and (c) any liability for the payment of any amounts of the type described in clause (a) or (b) as a result of the operation of law (including by successor or transferee liability) or any express or implied obligation to indemnify any other Person.

"***Tax Items***" has the meaning set forth in Section 3.8(a).

"***Tax Proceeding***" has the meaning set forth in Section 6.2(c).

"***Tax Return***" means any return, declaration, report, claim for refund, or information return or statement relating to Taxes, including any schedule or attachment thereto, and including any amendment thereof that is filed or required to be filed with any Taxing Authority.

"***Taxing Authority***" means, with respect to any Tax, the Governmental Entity or political subdivision thereof that imposes such Tax, and the agency (if any) charged with the collection of such Tax for such entity or subdivision, including any Governmental Entity that imposes, or is charged with collecting, social security or similar charges or premiums.

"***Technology***" has the meaning set forth in Section 3.10(a)(vi).

"***Termination Date***" has the meaning set forth in Section 9.1(g).

"***Third Party Action***" has the meaning set forth in Section 10.2(a).

"***Third Party Claim Notice***" has the meaning set forth in Section 10.2(a).

"***Threshold***" has the meaning set forth in Section 10.6(a).

"***Trade Secrets***" has the meaning set forth in Section 3.10(a)(iii).

"***Trademarks***" has the meaning set forth in Section 3.10(a)(iii).

"***Transaction Documents***" means, collectively, this Agreement, the Disclosure Schedule, each Letter of Transmittal (and all documents delivered pursuant thereto), each Acknowledgement and Release, each Significant Owner Agreement, the Employment Documentation and the resignations described in Section 5.9, and the certificates described in Sections 7.2(a), 7.2(b), 7.2(c), 7.3(a), 7.3(b), 8.2(b)(ii) and 8.2(b)(iii) and each other agreement, document and instrument required to be executed in accordance herewith.

"***Transfer Taxes***" has the meaning set forth in Section 6.2(d).

"***Unvested Option***" means that portion of any option to purchase shares of the Company's Common Stock that is outstanding, unexercised and unvested as of immediately prior to the Effective Time (excluding any portion that will become vested in connection with the Closing pursuant to the terms of such option).

"***U.S. Export and Import Laws***" means the Arms Export Control Act (22 U.S.C. 2778), the International Traffic in Arms Regulations (ITAR) (22 CFR 120-130), the Export Administration Act of 1979, as amended (50 U.S.C. 2401-2420), the Export Administration Regulations (EAR) (15 CFR 730-774), the Foreign Assets Control Regulations (31 CFR Parts 500-598), the laws and regulations administered by Customs and Border Protection (19 CFR Parts 1-199) and all other U.S. laws and regulations regulating exports, imports or re-exports to or from the United States, including the export or re-export of goods, services or technical data from the United States of America.

"***Vested Option***" means that portion of any option to purchase shares of the Company's Common Stock that is outstanding, unexercised and vested as of immediately prior to the Effective Time (including any portion that will become vested in connection with the Closing pursuant to the terms of such option).

"***Vested Option Holder***" means each holder of Vested Options as of immediately prior to the Effective Time.

"***Vested Option Payment***" has the meaning set forth in Section 2.11(b)(iv).

"***Vested Option Payment Amount***" means the aggregate amount of all Vested Option Payments to be made in respect of Vested Options to Vested Option Holders, as set forth on the Payment Spreadsheet (excluding, for the avoidance of doubt, the Company's portion of any withholding with respect to such Vested Option Payments).

"***Virus***" has the meaning set forth in Section 3.10(z).

"***Working Capital***" means the current assets of the Company (including accounts receivable, prepaid expenses, prepaid commissions and other receivables that are current in nature), minus the current liabilities of the Company (including accounts payable, credit card payables, accrued payroll liabilities, accrued commissions, accrued bonuses, accrued 401(k) liabilities, accrued taxes, deferred revenue and other accrued liabilities) not repaid and settled from the Merger Consideration on the Closing, as shown on the Company's balance sheet for the applicable measurement date, as determined consistent with the methodology used to prepare Schedule 2.13 (being in accordance with GAAP and consistently applied with the Company's past accounting practices).

"***Working Capital Shortfall***" has the meaning set forth in Section 2.14(c).

Exhibit 10.25

CONSULTING AGREEMENT

This Consulting Agreement ("Agreement"), dated as of January 7, 2019 (the "Effective Date"), is made and entered into by and between W. Bryan Hill, a resident of the State of Texas ("Employee"), and RealPage, Inc., a Delaware corporation ("Company").

RECITALS

A. As of the date hereof, Employee serves as Executive Vice President, Chief Financial Officer and Treasurer, of Company pursuant to the Amended and Restated Employment Agreement dated as of March 1, 2015 (the "Employment Agreement") between Employee and Company.

B. Employee has expressed the intention to resign from his position as Executive Vice President, Chief Financial Officer and Treasurer of Company and from any position he holds with any subsidiaries or other affiliates of Company.

C. In order to assist with the transition of Employee's duties and responsibilities by reason of his resignation, Company and Employee have agreed that Employee will resign his position as Executive Vice President, Chief Financial Officer and Treasurer of Company and from any position he holds with any subsidiaries or other affiliates of Company effective as of January 7, 2019 (the "Resignation Date"), and continue as an employee of Company through February 28, 2019 (the "Employment Separation Date") and thereafter provide certain consulting services, as requested and mutually agreed pursuant to the terms and conditions of this Agreement, through April 2, 2019 (the "Termination Date").

D. From and after the Termination Date, Company and Employee desire to have no further obligations to each other, except as specifically provided herein or in the Employment Agreement.

NOW, THEREFORE, in consideration of the promises, covenants and undertakings set forth herein, Company and Employee agree as follows:

1. Resignation as Executive Vice President, Chief Financial Officer and Treasurer . Employee acknowledges and agrees that, as of the Resignation Date, Employee will cease to perform services for Company in the capacity as its Executive Vice President, Chief Financial Officer and Treasurer, but shall continue to perform transition and other services for Company in the capacity as an employee through February 28, 2019. Employee further acknowledges and agrees that effective as of the Employment Separation Date, Employee's resignation will constitute a termination of Employee's employment pursuant to Section 7(e) of the Employment Agreement.

2. Consulting Services.

(a) The provisions of this Paragraph 2, together with the other provisions of this Agreement relating to the performance of the Consulting Services (as defined below) and the payment of compensation therefor (including the relevant portions of Paragraph 3(b)), shall be binding and effective during the period beginning on the Employment Separation Date and ending on the Termination Date (the "Consulting Period").

(b) From time to time during the Consulting Period, Company may request that Employee perform certain discrete or project-based services as needed with respect to the transition of responsibilities of the office of Executive Vice President, Chief Financial Officer and Treasurer. As a consultant, Employee shall consider any such requests and, if mutually agreed, will perform such services during the Consulting Period pursuant to this Agreement. The services may include transition of Employee's responsibilities and assistance with any matters that relate to Employee's areas of responsibility on behalf of Company prior to the Employment Separation Date (the "Consulting Services"). During the Consulting Period, the Consulting Services will be performed by Employee under the oversight and supervision of Company's Chief Executive Officer.

(c) All Consulting Services shall be performed in accordance with such guidelines and instructions, consistent with the terms of this Agreement, as may be provided from time to time by or on behalf of Company's Chief Executive Officer. The Consulting Services shall be performed at Employee's home or at such other locations as the Chief Executive Officer of Company and Employee may mutually agree. During the Consulting Period, Company shall permit Employee to continue the use of the Company email account and address that was assigned to Employee during his employment; provided, however, that emails sent, forwarded or replied to by Employee from the Company email account after the Employment Separation Date shall include a statement approved by Company (including as to font and location) that indicates that Employee is a consultant of Company.

(d) If Company reasonably determines that Employee has breached this Agreement or any of the continuing obligations described in Paragraphs 7 or 8, whether due to Employee's refusal to perform any mutually agreed Consulting Services or otherwise, Company may require that Employee cease providing Consulting Services hereunder until such breach has been cured or until further notice from the Company; provided, that such cessation of Consulting Services will not have the effect of accelerating the Termination Date or shortening the Consulting Period hereunder. In performing Consulting Services pursuant to this Agreement, Employee will have no authority to assume or create any obligation or liability in the name of or on behalf of Company or subject Company to any obligation or liability, unless expressly requested by Company in writing.

(e) It is the intent and purpose of this Agreement to create a legal relationship of independent contractor, and not employment, between Employee and Company during the Consulting Period. Following the Employment Separation Date, except as otherwise required by law, Employee will not be treated as an employee of Company for purposes of the Federal Insurance Contribution Act, the Social Security Act, the Federal Unemployment Tax Act, income tax withholding at source, or workers compensation laws, and will not be eligible for any employee benefits whatsoever, other than those set forth herein. Employee shall be responsible for the payment of self-employment taxes (including without limitation Medicare taxes, Social Security taxes and unemployment taxes related thereto) and federal income taxes due on the payments made pursuant to Paragraph 3 of this Agreement.

3. Consulting Fees.

(a) In consideration of Employee's agreement to serve as a consultant on mutually agreed Consulting Services projects under the terms of this Agreement, Company agrees that (i) Employee's status as a "Service Provider" pursuant to the Stock Plans (as defined in Paragraph 6 below) will continue uninterrupted from the Resignation Date through the end of the Consulting Period and that as a result Employee's equity awards under the Stock Plans which are outstanding as of the Resignation Date and due to vest on April 1 2019 will vest on April 1, 2019 in accordance with the terms of the applicable restricted stock and stock option agreements, as more fully set forth in Paragraph 6 and **Schedule A** of this Agreement; and (ii) Employee shall be eligible to receive payment of an annual bonus for 2018 under the terms of the RealPage 2018 Management Incentive Plan (the "2018 MIP") on the same date in 2019 that Company makes final payment under the 2018 MIP to Company executives, generally, and in the same amount that Employee would have been entitled to receive as though he had remained continuously employed by Company from the Resignation Date through the date of such final payment under the 2018 MIP to other Company executives, generally.

(b) During the Consulting Period, except as expressly provided herein, Employee shall not be eligible to participate or be covered by any employee benefit plan, program or arrangement of Company or any of its affiliates (collectively, the "Benefit Plans"), including, but not limited to, group health insurance, disability insurance, and life insurance. Employee also will not participate in Company's vacation or paid time off programs during the Consulting Period. Notwithstanding the foregoing, after the Employment Separation Date, Employee shall continue to have such rights in respect of vested benefits under Benefit Plans as are provided for in accordance with the terms and conditions of such Benefit Plans.

4. Exclusivity of Consideration. Effective upon the Employment Separation Date and except as provided in (a) if applicable, the Stock Plan (as defined below in Paragraph 6), the Option Agreement(s) (as defined below in Paragraph 6), the Restricted Stock Agreement(s) (as defined below in Paragraph 6), and (b) Paragraphs 1, 2, 6 and 9 of this Agreement, neither Company nor any of the other Released Parties (as defined below in Paragraph 5) shall have any further obligation to provide Employee with compensation or benefits under any plan, policy, agreement or arrangement of Company by reason of Employee's termination of employment or in consideration of this Agreement.

5. Release. Employee agrees, upon and as a condition to the April 1, 2019 vesting of equity awards as described in Paragraph 6, to execute a final release of claims on behalf of Employee and his spouse, heirs, descendants, administrators, representatives and assigns, by which each of them releases, waives, forever discharges and covenants not to sue Company, its past, present and future parents, subsidiaries, divisions and affiliates ("Affiliates"), and each of its and their respective predecessors, successors and assigns, and each of their respective past, present and future employees, officers, directors, agents, insurers, members, partners, joint venturers, employee welfare benefit plans, employee pension benefit plans and deferred compensation plans, and their trustees, administrators and other fiduciaries, and all persons acting by, through, under or in concert with them, or any of them (the "Released Parties") from all claims against the Released Parties, pursuant to release agreement substantially in the form attached as Exhibit A to the Employment Agreement, except that consideration for such release will be the compensation as described herein.

6. Equity Rights. Employee has outstanding equity awards under Company's 2010 Equity Incentive Plan, as amended, and/or Company's 1998 Stock Incentive Plan, as amended (each, a "Stock Plan"). A list of outstanding awards made to Employee under the Stock Plans is attached to this Agreement as **Schedule A**. Company and Employee intend that Employee's status as a "Service Provider" (as defined in the Stock Plans) will continue uninterrupted after the Employment Separation Date and through the Termination Date such that vesting under outstanding awards will continue in accordance with their terms through the Termination Date. Subject

to Paragraph 3(a) of this Agreement, Employee specifically acknowledges and agrees that each of the stock options and restricted shares outstanding as of the close of business on the Employment Separation Date (as set forth in **Schedule A**) shall be governed by the terms and conditions of the applicable Stock Plan and the applicable Option Award Agreements and Restricted Stock Award Agreements between Employee and Company governing such equity awards, including with respect to termination and forfeiture; and Employee acknowledges and agrees that, except as specifically set forth in **Schedule A**, Employee does not own, and has no other contractual right to receive or acquire, any security, derivative security, stock option or other form of equity in Company or any of its affiliated entities.

7. Confidentiality.

(a) **Definition**. For purposes of this Agreement, "Confidential Information" includes, in whatever form or format, all non-public information, including without limitation, trade secrets, disclosed to or known to Employee as a direct or indirect consequence of or through Employee's employment with Company, about Company, its parents or subsidiaries, its technology, finances, business methods, plans, operations, services, products and processes (whether existing or contemplated), or any of its directors, employees, clients, prospective clients, agents or suppliers, including all information relating to software programs, source codes or object codes; computer systems; computer systems analyses, testing results; flow charts and designs; product specifications and documentation; user documentation; sales plans; sales records; sales literature; customer lists, prospect list and files; research and development projects or plans; marketing and merchandising plans and strategies; pricing strategies; price lists; sales or licensing terms and conditions; consulting sources; supply and service sources; procedure or policy manuals; legal matters; financial statements; financing methods; financial projections; and the terms and conditions of business arrangements with its parent, clients, suppliers, banks, or other financial institutions. Company Confidential Information shall not include information that is in Employee's possession legally and without restriction as of the Effective Date of this Agreement.

(b) **Obligation to Company**. Except as permitted or directed by Company, Employee shall not divulge, furnish or make accessible to anyone or use directly or indirectly to the detriment of Company in any way any Confidential Information of Company that Employee has acquired or become acquainted with during the term of Employee's employment by Company or any time thereafter, whether developed by Employee or by others, whether or not patented or patentable, directly or indirectly useful in any aspect of the business of Company. Employee acknowledges that the Confidential Information above-described is knowledge or information that constitutes a unique and valuable asset of Company and represents a substantial investment of time and expense by Company, and that any disclosure or other use of such Confidential Information contrary to the provisions of this Paragraph 7 would be wrongful and would cause irreparable harm to Company. The foregoing obligations of confidentiality shall not apply to any Confidential Information which is lawfully published in any manner, which is currently or subsequently becomes generally publicly known other than as a direct or indirect result of the breach of this Agreement by Employee.

(c) **Obligations to Third Parties**. Company respects the right of every employer to protect its confidential and proprietary information. Company specifically wishes to prevent Employee from disclosing to Company at any time after Employee's Termination Date any confidential or proprietary information belonging to any other employer. Employee represents to Company that Employee will not use or otherwise exploit any confidential or proprietary information of Company's clients, vendors or other third parties to whom Company owes an obligation of confidentiality after the Termination Date.

8. Continuing Obligations Contained in Other Documents and Return of Company Property.

(a) **Continuing Obligations**. Employee hereby represents, warrants and agrees that Employee has complied with, and at all times hereafter will comply with, Employee's obligations under any agreements and documents that Employee executed for Company's benefit at the commencement of or during Employee's employment, including, without limitation, Sections 11 and 22 of the Employment Agreement (Confidentiality, Non-Compete, and Non-Solicitation, Non-Interference, Non-Disparagement, etc., and Applicable Law, Venue, Jurisdiction and Arbitration), the Confidential Information, Invention Assignment and Arbitration Agreement, and any other confidentiality, non-disclosure, or proprietary information agreements, and the agreements and plans referenced in Paragraph 6 of this Agreement.

(b) **Return of Company Property**. Employee shall return to Company all Company property, including without limitation, all Confidential Information, in Employee's possession, custody or control on or before the Termination Date. Employee further agrees to search for and then, after providing Company with a copy, delete all of Company's business information, whether or not privileged or Confidential Information, from all of Employee's personal devices, including phones, tablets, computers, and electronic storage devices, other than information that Employee may need for personal finances and tax filings, or agreements between Employee and Company or any of its affiliates. Employee agrees to represent in writing to Company on the Termination Date that Employee has complied with the foregoing provisions of this Paragraph 8(b).

9. Cooperation Covenant. Employee agrees to cooperate fully, truthfully and in good faith upon the reasonable request of Company, in assisting Company with (a) investigating, prosecuting or defending any claim that arises out of or relates in any manner to Employee's employment with Company; (b) responding to or preparing for any government audit, investigation or inquiry that arises out of or relates in any manner to Employee's employment with Company; and (c) assisting in the preparation or audit of Company's financial statements for any period of time when Employee was employed by Company. Employee understands that such full, truthful and good faith cooperation includes being physically present and available to work with Company and its attorneys and auditors to investigate and prepare for claims and to testify truthfully. Company will reimburse Employee for any reasonable out-of-pocket expenses that Employee may incur in connection with such cooperation.

10. Waiver of Breach. A waiver by Employee or Company of a breach of any provision of this Agreement shall not operate or be construed as a waiver of any subsequent breach by either party.

11. Notices. Any notice or other communication required or permitted by this Agreement to be given to a party shall be in writing and shall be deemed given if delivered personally or by commercial messenger or courier service, or mailed by U.S. registered or certified mail (return receipt requested), to the party at the party's address set forth below or at such other address as the party may have previously specified by like notice. If by mail, delivery shall be deemed effective three (3) business days after mailing in accordance with this Paragraph.

(a) If to Company, to:

Attn: Chief Executive Officer
RealPage, Inc.
2201 Lakeside Boulevard
Richardson, TX 75082

With a copy to:

Attn: Chief Legal Officer
RealPage, Inc.
2201 Lakeside Boulevard
Richardson, TX 75082

(b) If to Employee, to the address for notice on the signature page to this Agreement or, if no such address is provided, to the last address of Employee provided by Employee to Company.

12. Applicable Law, Venue, Jurisdiction, and Arbitration. This Agreement shall be governed, construed, and enforced in accordance with the laws of the State of Texas (without regard to the principles of conflicts of law). This Agreement has been entered into in Dallas County, Texas and it shall be performable for all purposes in Dallas County, Texas. Any action or proceeding concerning, related to, regarding, or commenced in connection with the Agreement must be brought in accordance with the arbitration procedure described in Section 22 of the Employment Agreement.

13. Successors. Because the obligations of this Agreement are personal in nature to Employee, Employee is not entitled to assign, sell, transfer, delegate, or otherwise dispose of, whether voluntarily or involuntarily, or by operation of law, any rights or obligations under this Agreement. This Agreement shall inure to the benefit of and be binding upon Employee's heirs, spouse, descendants, administrators and executors. Company may assign the rights hereunder to an entity controlled, directly or indirectly, by Company or to a purchaser of Company's business as then operated by Company (or a successor of Company). The terms and conditions of this Agreement shall inure to the benefit of and be binding upon the respective successors of Company. In the event that Company's business is sold, reorganized or otherwise transferred (in whole or in part) to another business or entity, it is intended that the limitations of Paragraphs 7 - 12 shall continue in effect with respect to any portion of Company's business that is retained by Company as well as any portion that is so transferred and, to that end, the term "Company" in this Agreement shall include any successor to all or any portion of Company's business (as applicable).

14. Section 409A. This Agreement shall be interpreted so that the payments and benefits provided for under this Agreement shall either comply with, or be exempt from, the requirements of section 409A of the Code, the regulations and other binding guidance promulgated thereunder ("Section 409A") so that Employee is not subject to any taxes, penalties or interest under Section 409A. Employee represents and warrants that the release contemplated in this Agreement will include any claims against the Released Parties for any taxes, penalties or interest that may be imposed on Employee pursuant to Section 409A as a result of the payments and benefits provided for under this Agreement. Company and Employee agree that Employee's Termination Date will be the date of Employee's "separation from service" for purposes of Section 409A.

15. Construction of Agreement. The language of this Agreement shall not be construed for or against any particular party. The headings used herein are for reference only and shall not affect the construction of this Agreement.

16. Severability; Enforceability. If any provision of this Agreement, or the application thereof to any person, place, or circumstance, shall be held to be invalid, unenforceable, or void by the final determination of an arbitrator or court of competent jurisdiction, and all appeals therefrom shall have failed or the time for such appeals shall have expired, such clause or provision shall be deemed eliminated from this Agreement but the remaining provisions shall nevertheless be given full force and effect. In the event this Agreement or any portion hereof is more restrictive than permitted by the law of the jurisdiction in which enforcement is sought, this Agreement or such portion shall be limited in that jurisdiction only, and shall be enforced in that jurisdiction as so limited to the maximum extent permitted by the law of that jurisdiction.

17. Entire Agreement. This Agreement, along with (to the extent applicable) the Stock Plans, the Option Agreements, the Restricted Stock Agreements, the Employment Agreement, and any other agreements referenced in Paragraph 8 above, sets forth the entire agreement between the parties with respect to Employee's resignation from employment with Company and Company's obligations to Employee prior to such time, as well as following such resignation; and, except as otherwise provided herein, supersedes all prior plans, policies, agreements and arrangements between the parties, oral or written, or which have covered Employee during his period of employment with Company.

18. Amendment to Agreement. Any amendment to this Agreement must be in a writing signed by duly authorized representatives of the parties hereto and stating the intent of the parties to amend this Agreement.

19. Assumption of Risk. The parties hereto fully understand that if any fact with respect to any matter covered by this Agreement is found hereafter to be other than, or different from, the facts now believed to be true, they expressly accept and assume the risk of such possible difference in fact and agree that the release provisions hereof shall be and remain effective notwithstanding any such difference in fact.

20. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Photographic copies of such signed counterparts may be used in lieu of the originals for any purpose.

Signature Page Attached

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the dates indicated below.

COMPANY:

RealPage, Inc.

By:/s/ Stephen T. Winn
Stephen T. Winn
Chief Executive Officer

Date:01/07/2019

EMPLOYEE:

Signed:/s/ W. Bryan Hill
Name: W. Bryan Hill

Date:01/07/2019

SCHEDULE A

TO CONSULTING AGREEMENT
For
W. Bryan Hill
(Anticipated as of February 28, 2019)

Grant Name	Grant Price	Granted	Vested	Unvested	Exercisable	Exercised / Released	Outstanding	Restricted Shares Scheduled to Vest on 04/01/2019
02/26/2016 RS CIC-D&D	$0.00	46,200	42,350	3,850	0	42,350	3,850	3,850
03/02/2017 RS CIC-D&D	$0.00	36,135	21,077	15,058	0	21,077	15,058	3,011
03/02/2018 RS CIC D&D	$0.00	22,585	5,646	16,939	0	5,646	16,939	1,882
03/02/2018 RS (Market Based) CIC-D&D	$0.00	45,172	5,646	39,526	0	5,646	39,526	2,823
Total		**150,092**	**74,719**	**75,373**	**0**	**74,719**	**75,373**	**11,566**

Exhibit 10.33

EMPLOYMENT AGREEMENT

THIS EMPLOYMENT AGREEMENT (this "*Agreement*"), is made as of the 7th day of January, 2019 (the "*Effective Date*") by and between Thomas C. Ernst, Jr. ("*Executive*"), and RealPage, Inc., a Delaware company ("*Employer*"), located at 2201 Lakeside Blvd., Richardson, TX 75082.

1. Employment and Consideration. Employer hereby agrees to employ Executive, and Executive hereby accepts such employment, on the terms and conditions hereinafter set forth. In consideration of the promises of Executive contained in this Agreement, Employer agrees to employ Executive, and to provide Executive with trade secrets and confidential information of Employer necessary for the performance of Executive's position.

2. Employment Screening. Executive has successfully completed a pre-employment consumer report verification, and Employer new hire paperwork, each of which was to be conducted in accordance with applicable state and/or federal law. Executive understands and agrees that Executive will be subject to Employer's general policies and practices concerning applicants for senior executive positions and new senior executive employees.

3. Employment Period. The period during which Executive shall furnish services to Employer hereunder (the "*Employment Period*") shall commence on January 7, 2019 and shall end on the Date of Termination (as defined in Section 8(b) below). Nothing in this Section 3 shall limit the right of Employer or Executive to terminate Executive's employment hereunder on the terms and conditions set forth in Section 7 hereof.

4. Position and Duties.

(a) Office; Reporting; Duties. During the Employment Period, Executive shall serve as Executive Vice President, Chief Financial Officer of Employer or such other designation as approved by the Chief Executive Officer. Executive shall report directly to the Chief Executive Officer of Employer or such other executive as the Chief Executive Officer of Employer shall designate ("*Supervisory Executive*"). Executive shall have those powers, duties and perquisites consistent with a senior management position and such other powers and duties as may be prescribed by the Supervisory Executive, *provided* that such other powers and duties are consistent with Executive's position within the management structure of Employer.

(b) Commitment of Full Time Efforts. Executive agrees to devote substantially his full working time, attention and energies to the performance of Executive's duties for Employer, *provided*, *however*, that it shall not be a violation of this Agreement for Executive to (i) serve on civic or charitable boards or committees, (ii) serve on non-public corporate boards or committees, (iii) manage personal investments, (iv) give speeches and make media appearances in Executive's individual capacity to discuss matters of public interest (so long as such shall not involve any illegal conduct), or (v) during the period on or prior to February 28, 2019, manage the completion of current consulting obligations at Tom Ernst Advisory for consulting clients that are not competitors of Employer, and the winding down or sale of that business; in each case so long as the foregoing activities comply with the RealPage, Inc. Code of Business Conduct and Ethics and do not interfere materially with the performance of Executive's responsibilities for Employer.

5. Place of Performance. Executive shall perform Executive's duties for Employer from the offices of Employer, located at 2201 Lakeside Blvd., Richardson, TX 75082 or such other location as is either within a 25-mile radius thereof or within a 25-mile radius of the Executive's principal residence (at the time the applicable location becomes Executive's principal office); *provided, however,* that it shall not be a violation of this Agreement for Executive occasionally to perform Executive's duties for Employer from Executive's secondary residences in Minnesota, not to exceed 10% of Executive's working time in any quarter without the prior approval of the Supervisory Executive.

6. Compensation and Related Matters.

(a) Base Salary. As compensation for the performance by Executive of Executive's obligations hereunder, during the Employment Period, Employer shall pay Executive a base salary at a rate not less than $37,500 per month, or $450,000 on an annualized basis (the base salary, at the rate in effect from time to time,

is hereinafter referred to as the "*Base Salary*"). Base Salary shall be paid in approximately equal installments in accordance with Employer's customary payroll practices and legal requirements regarding withholding and deductions. During the Employment Period, the Base Salary shall be reviewed no less frequently than annually to determine whether or not the same should be adjusted in light of the duties, responsibilities and performance of Executive and other relevant factors.

(b) Annual Bonus. During the Employment Period, Executive shall be eligible for an annual bonus under the terms of the RealPage Management Incentive Plan ("*MIP Target*") of 70% of Executive's Base Salary for achievement of MIP Target at 100%. The performance criteria shall be as established by the Compensation Committee of Employer's Board of Directors. To be eligible for the Annual Bonus, Executive must be employed by Employer on December 31 of the year with regard to which the Annual Bonus is applicable and must be employed on the date the Annual Bonus is paid. Annual Bonuses shall be paid according to the RealPage Management Incentive Plan.

(c) Equity Grants. Executive shall be eligible for equity compensation grants pursuant to the RealPage, Inc. 2010 Equity Incentive Plan, as amended (the "*Plan*"), or any successor thereto. Under the terms and conditions of the Plan, and subject to approval of the Compensation Committee of the RealPage Board of Directors and its standard policies for issuing equity grants, Executive shall be eligible to receive an initial grant of (i) restricted shares of RealPage common stock valued at $1,100,000, as determined by the Compensation Committee of the RealPage Board of Directors in its sole discretion, pursuant to a Restricted Stock Award Agreement included in the form attached as **Exhibit I** hereto or such other terms as determined by the Compensation Committee; and (ii) restricted shares of RealPage common stock valued at $1,100,000, as determined by the Compensation Committee of the RealPage Board of Directors in its sole discretion, subject to performance criteria tied to the market price of RealPage common stock, pursuant to a Restricted Stock Award Agreement included in the form attached as **Exhibit II** hereto or such other terms as determined by the Compensation Committee.

(d) Expenses and Vacations. Employer, according to its standard travel policy, shall reimburse Executive for all reasonable, in-policy business expenses upon the presentation of itemized statements of such expenses. Executive shall be entitled to three weeks' paid vacation per year, in accordance with Employer's vacation policy and practice applicable to senior executives of Employer; provided that following Executive's fifth anniversary of employment with Employer, Executive shall be entitled to four weeks' paid vacation per year.

(e) Fringe Benefits and Perquisites. During the Employment Period, Employer shall make available to Executive all the fringe benefits and perquisites that are made available to other senior executives of Employer, including an additional $3,500 payment towards medical expenses.

(f) Other Benefits. During the Employment Period, Executive shall be eligible to participate in all other employee welfare benefit plans and other benefit programs (including group life insurance, medical and dental insurance, and accident and disability insurance) made available generally to employees or senior executives of Employer.

7. Termination. Executive's employment hereunder may be terminated under the following circumstances, in each case subject to the provisions of this Agreement:

(a) Death. Executive's employment hereunder shall terminate upon Executive's death.

(b) Disability. If, as a result of Executive's incapacity due to physical or mental condition and, if reasonable accommodation is required by law, after any reasonable accommodation, Executive shall have been absent from Executive's duties hereunder on a full-time basis (i) for a period of six consecutive months or (ii) for shorter periods aggregating six months during any 12-month period, and, in either case, within 30 days after written Notice of Termination (as described in Section 8(a) hereof) is given, Executive shall not

have returned to the performance of Executive's duties hereunder on a full-time basis, Employer may terminate Executive's employment hereunder for "*Disability*."

(c) Cause. Employer may terminate Executive's employment hereunder for Cause. In the event of a termination under this Section 7(c), the Date of Termination shall be the date set forth in the Notice of Termination. For purposes of this Employment Agreement, "*Cause*" means the occurrence of any of the following events which are not cured by Executive within ten days after receipt of written notice of such alleged cause from Employer or, if such event cannot be corrected within such ten-day period, if Executive does not commence to correct such default within said ten-day period and thereafter diligently prosecute the correction of same to completion within a reasonable time, *provided*, *however*, for no period greater than 30 days: (i) Executive's conviction for any acts of fraud or breach of trust or any felony criminal acts; (ii) Executive's knowingly making a materially false written statement to Employer's auditors or legal counsel; (iii) Executive's willful and material falsification of any corporate document or form; (iv) any material breach by Executive of any Employer published policy received and acknowledged by Executive in writing; (v) any material breach by Executive of a material provision of this Employment Agreement; (vi) Executive's making a material misrepresentation of fact or omission to disclose material facts in relation to transactions occurring in the business and financial matters of Employer; or (vii) Executive's repeated and material failure substantially to perform Executive's duties. Notwithstanding the foregoing, during the two-year period following a Change in Control (as defined in the Plan, "*Change in Control*") (the "*Protected Period*"), a termination for Cause (other than pursuant to Section 7(c)(i)) shall require a showing by Employer that the actions giving rise to such termination resulted in material and demonstrable harm to Employer.

(d) Good Reason. For purposes of this Agreement, "*Good Reason*" shall mean, without Executive's written consent: (i) a material reduction in Executive's base salary or incentive compensation opportunity, (ii) a material reduction in Executive's responsibilities or authority; (iii) a material breach by Employer of a material provision of this Agreement, or (iv) a material change in the geographic location at which Executive must perform Executive's services (except as provided in Section 5 above); *provided*, that in no instance will the relocation of Executive to a facility or a location that is either 25 miles or less from Executive's then-current office or 25 miles or less from Executive's then-current primary residence be deemed material for purposes of this Agreement.

In the event of a resignation for Good Reason, Executive must provide Employer with written notice of the acts or omissions constituting the grounds for Good Reason within 90 days of the initial existence of the grounds for Good Reason and a reasonable opportunity for Employer to cure the conditions giving rise to such Good Reason, which shall not be less than 30 days following the date of notice from Executive. If Employer cures the conditions giving rise to such Good Reason within 30 days of the date of such notice, Executive will not be entitled to severance payments and/or benefits contemplated by Section 9(a) below if Executive thereafter resigns from Employer based on such grounds. Any termination for Good Reason must be effectuated within 90 days of the expiration of such cure period.

(e) Other Terminations. Notwithstanding the foregoing provisions, Employer may terminate Executive's employment at any time, for any reason, with or without Cause, and Executive may terminate Executive's employment at any time, with or without cause, in accordance with applicable state and federal law. The parties acknowledge that Executive is an at-will employee of Employer.

8. Termination Procedure.

(a) Notice of Termination. Any termination of Executive's employment by Employer or by Executive (other than termination pursuant to Section 7(a) hereof) shall be communicated by written Notice of Termination to the other party hereto in accordance with Section 15.

(b) Date of Termination. "*Date of Termination*" shall mean (i) if Executive's employment is terminated by Executive's death, the date of Executive's death; (ii) if Executive's employment is terminated pursuant to Section 7(b), 30 days after Notice of Termination is given (*provided* that Executive shall not have

returned to the performance of Executive's duties on a full-time basis during such 30-day period); (iii) if Executive's employment is terminated pursuant to Section 7(c), the date specified in the Notice of Termination; (iv) if Executive terminates Executive's employment for Good Reason, upon expiration of the 30-day cure period set forth in Section 7(d) if Employer's breach shall be uncured; and (v) if Executive's employment is terminated pursuant to Section 7(e), immediately upon written notice delivered by the terminating party to the other, unless such notice designates a different termination date (in the case of a termination by Executive pursuant to Section 7(e), Employer may elect to accelerate the Date of Termination to any date following receipt of such notice, and such acceleration shall not be deemed a termination by Employer without Cause).

9. Compensation Upon Termination.

(a) Death; Disability; Termination By Employer without Cause or By Executive for Good Reason. If Executive's employment is terminated during the Employment Period by reason of Executive's death or Disability or by Employer without Cause or by Executive for Good Reason, Employer shall pay to Executive (or Executive's legal representatives or estate or as may be directed by the legal representatives of Executive's estate, as the case may be) (i) the Severance Amount (defined in Section 9(b)), payable in 12 equal monthly installments on the applicable monthly anniversaries of the Date of Termination; (ii) a payment, payable on the 60th day following the Date of Termination equal to the product of (x) the excess of the monthly COBRA premium required for Executive to continue health insurance coverage at the level in effect as of the Date of Termination over the employee premium Executive would be required to pay for such coverage were Executive still actively employed by Employer (each determined as of the Date of Termination) multiplied by (y) 12 (or, if the Date of Termination occurs during the Protected Period other than due to death or Disability, 24); and (iii) a lump sum cash payment, payable within five days following such Date of Termination, of an amount equal to any earned but unpaid Base Salary or bonus (in the case of an annual bonus, such payment may be made on the date annual bonuses for the applicable year are to be made generally, if such year ended prior to the Date of Termination but such general payment date is to occur subsequent to the fifth day following the Date of Termination) due to Executive in respect of periods through the Date of Termination plus accrued vacation in accordance with Employer's vacation policy - subject to all required deductions and withholdings (the amounts due pursuant to this clause (iii), the "*Accrued Amounts*"). The amounts set forth in Section 9(a)(i)-(ii) shall be payable if and only if Executive shall have executed on or before the 50th day following the Date of Termination, and not subsequently revoked, a mutual release and covenant agreement substantially in the form set forth as **Exhibit III** (the "*Release Agreement*"). For the avoidance of doubt, in the event that Executive is willing to execute the Release Agreement and the Company is not, the Company shall not be required to sign the Release Agreement, but, so long as Executive timely delivers an executed Release Agreement, the amounts set forth in Section 9(a)(i)-(ii) shall be payable to Executive. In the event Executive does not timely execute (or revokes) the Release Agreement, Executive shall repay to Employer, within five days following the 60th day following the Date of Termination, any payments previously made to Executive pursuant to Section 9(a)(i). For purposes of this Section 9, if Executive's employment is terminated without Cause or by Executive for Good Reason prior to a Change in Control but proximate to, or following, Employer's (as defined in the Plan) entry into an agreement to enter into a transaction that would constitute a Change in Control, and such termination (or the event giving rise to the Good Reason claim) is made at the direction of the third-party effectuating such Change in Control, such termination shall be deemed to have occurred during the Protected Period.

(b) Severance Amount. For the purposes of Section 9(a), "*Severance Amount*" means an amount equal to

(i) if Executive's employment is terminated by reason of Executive's death or Disability, six months of Executive's Base Salary (determined as of the Date of Termination);

(ii) if, other than during the Protected Period, Executive's employment is terminated by Employer without Cause or by Executive with Good Reason, one multiplied by Executive's Base Salary (determined as of the Date of Termination); or

(iii) if, during the Protected Period, Executive's employment is terminated by Employer without Cause or by Executive with Good Reason, two multiplied by Executive's Base Salary (determined as of the Date of Termination).

(c) Cause or By Executive Other than for Good Reason. If Executive's employment is terminated by Employer for Cause or by Executive other than for Good Reason, then Employer shall pay Executive, within five days following such Date of Termination, in a lump sum cash payment, the Accrued Amounts (other than annual bonuses with respect to which Executive did not satisfy the continued service requirements of Section 6(b)).

(d) Certain Reductions. Anything in this Agreement to the contrary notwithstanding, in the event that the Accounting Firm (as defined below) determines that receipt of all Payments (as defined below) would subject Executive to the tax under Section 4999 of the Code, the Accounting Firm shall determine whether to reduce any of the Agreement Payments (as defined below) to Executive so that the Parachute Value (as defined below) of all Payments to Executive, in the aggregate, equals the applicable Safe Harbor Amount (as defined below). Agreement Payments shall be so reduced only if the Accounting Firm determines that Executive would have a greater Net After-Tax Receipt (as defined below) of aggregate Payments if the Agreement Payments were so reduced. If the Accounting Firm determines that Executive would not have a greater Net After-Tax Receipt of aggregate Payments if the Agreement Payments were so reduced, Executive shall receive all Agreement Payments to which Executive is entitled hereunder.

(i) If the Accounting Firm determines that the aggregate Agreement Payments to Executive should be reduced so that the Parachute Value of all Payments to Executive, in the aggregate, equals the applicable Safe Harbor Amount, Employer shall promptly give Executive notice to that effect and a copy of the detailed calculation thereof. All determinations made by the Accounting Firm under this Section 9(d) shall be binding upon Employer and Executive and shall be made as soon as reasonably practicable and in no event later than 15 days following the Date of Termination. For purposes of reducing the Agreement Payments to Executive so that the Parachute Value of all Payments to Executive, in the aggregate, equals the applicable Safe Harbor Amount, only Agreement Payments (and no other Payments) shall be reduced. The reduction contemplated by this Section 9(d), if applicable, shall be made by reducing payments and benefits (to the extent such amounts are considered Payments) under the following sections in the following order: (i) Section 9(a)(i); (ii) Section 9(a)(ii); and (iii) Section 9(a)(iii).

(ii) As a result of the uncertainty in the application of Section 4999 of the Code at the time of the initial determination by the Accounting Firm hereunder, it is possible that amounts will have been paid or distributed by Employer to or for the benefit of Executive pursuant to this Agreement that should not have been so paid or distributed (each, an "*Overpayment*") or that additional amounts that will have not been paid or distributed by Employer to or for the benefit of Executive pursuant to this Agreement could have been so paid or distributed (each, an "*Underpayment*"), in each case consistent with the calculation of the applicable Safe Harbor Amount hereunder. In the event that the Accounting Firm, based on the assertion of a deficiency by the Internal Revenue Service against Employer or Executive which the Accounting Firm believes has a high probability of success, determines that an Overpayment has been made, any such Overpayment paid or distributed by Employer to or for the benefit of Executive shall be repaid by Executive to Employer, together with interest at the applicable federal rate provided for in Section 7872(f)(2) of the Code; *provided*, *however*, that no such repayment shall be required if and to the extent such deemed repayment would not either reduce the amount on which Executive is subject to tax under Sections 1 and 4999 of the Code or generate a refund of such taxes. If the Accounting Firm, based on controlling precedent or substantial authority, determines that an Underpayment has occurred, any such Underpayment shall be promptly paid by Employer to or for the benefit of Executive, together with interest at the applicable federal rate provided for in Section 7872(f)(2) of the Code.

(iii) In connection with making determinations under this Section 9(d), the Accounting Firm shall take into account the value of any reasonable compensation for services to be rendered by Executive before or after the applicable transaction giving rise to application of Section 4999 of the Code, including any noncompetition provisions that may apply to Executive (whether set forth in this Agreement or otherwise), and Employer shall cooperate in the valuation of any such services, including any noncompetition provisions.

(iv) All fees and expenses of the Accounting Firm in implementing the provisions of this Section 9(d) shall be borne by Employer.

(v) The following terms shall have the following meanings for purposes of this Section 9(d).

(1) "Accounting Firm" shall mean a nationally recognized certified public accounting firm (which accounting firm shall in no event be the accounting firm for the entity seeking to effectuate such change of control) or other professional services organization that is a certified public accounting firm recognized as an expert in determinations and calculations for purposes of Section 280G of the Code that is selected by Employer (as it exists prior to a change of control) and reasonably acceptable to Executive for purposes of making the applicable determinations hereunder.

(2) "Agreement Payment" shall mean a Payment paid or payable pursuant to this Agreement.

(3) "Net After-Tax Receipt" shall mean the Present Value of a Payment net of all taxes imposed on Executive with respect thereto under Sections 1 and 4999 of the Code and under applicable state, local, and foreign laws, determined by applying the highest marginal rate under Section 1 of the Code and under state, local, and foreign laws that applied to Executive's taxable income for the immediately preceding taxable year, or such other rate as such Executive shall certify, in Executive's sole discretion, as likely to apply to Executive in the relevant tax year.

(4) "Parachute Value" of a Payment shall mean the present value as of the date of the change in control for purposes of Section 280G of the Code of the portion of such Payment that constitutes a "parachute payment" under Section 280G(b)(2) of the Code, as determined by the Accounting Firm for purposes of determining whether and to what extent the excise tax under Section 4999 of the Code will apply to such Payment.

(5) A "Payment" shall mean any payment, benefit or distribution in the nature of compensation (within the meaning of Section 280G(b)(2) of the Code) to or for the benefit of Executive, whether paid or payable pursuant to this Agreement or otherwise.

(6) "Present Value" of a Payment shall mean the economic present value of a Payment as of the date of the change in control for purposes of Section 280G of the Code, as determined by the Accounting Firm using the discount rate required by Section 280G(d)(4) of the Code.

(7) "Safe Harbor Amount" means (x) 3.0 times Executive's "base amount," within the meaning of Section 280G(b)(3) of the Code, minus (y) $1.00.

10. No Mitigation. Executive shall not be required to mitigate amounts payable pursuant to Section 9 of this Agreement by seeking other employment or otherwise, nor shall such payments be reduced on account of any

remuneration earned by Executive attributable to employment by another employer, by retirement benefits, by offset against any amount claimed to be owed by Executive to Employer or otherwise.

11. Confidentiality, Non-Compete, and Non-Solicitation.

(a) Non-Disclosure and Non-Use of Confidential Information. Executive shall not disclose any Employer Confidential Information (as defined below) to any third party (other than accountants, lawyers and other third parties engaged by and working at the behest of Employer) without the specific written consent of Employer and shall use Employer Confidential Information solely for the benefit of Employer. Following the termination of Executive's employment with Employer (regardless of whether termination is voluntary or involuntary and with or without cause), Executive will not, without the written consent of Employer, use, disclose, reproduce, or distribute any Employer Confidential Information.

(b) Definition of Employer Confidential Information. For purposes of this Agreement, "*Employer Confidential Information*" shall mean all information, regardless of its form or format, about Employer, its customers and employees that is not readily accessible to the public and not a matter of common knowledge in Employer's business trade or industry and that is disclosed to or learned by Executive as a direct or indirect consequence of or through Executive's employment with Employer — about Employer, its parents or subsidiaries, including information about Employer's technology, finances, business methods, plans, operations, services, products and processes (whether existing or contemplated), or any of its executives, clients, agents or suppliers, information relating to software programs, source codes or object codes; computer systems; computer systems analyses; testing results; flow charts and designs; product specifications and documentation; user documentation; sales plans; sales records; sales literature; customer lists and files; research and development projects or plans; marketing and merchandising plans and strategies; pricing strategies; price lists; sales or licensing terms and conditions; consulting sources; supply and service sources; procedure or policy manuals; legal matters; financial statements; financing methods; financial projections; and the terms and conditions of business arrangements with its parent, clients, suppliers, banks, or other financial institutions.

(c) Covenant Not To Compete. In consideration of Employer's provision of Employer Confidential Information and the consideration payable to Executive pursuant to Sections 9(a)-(c), Executive hereby agrees that during employment and for a period of two years thereafter (the "*Restricted Period*") (other than on behalf of Employer or its affiliates), Executive shall not provide the same or substantially the same services to a Competing Business (as defined below) anywhere in the Restricted Area (as defined below), regardless of whether these services are provided as a principal, agent, employee executive, consultant, or volunteer; *provided*, *however*, that mere ownership of securities having no more than one percent of the outstanding voting power of any Competing Business listed on any national securities exchange or traded actively in the national over-the-counter market shall not be deemed to be in violation of this Section 11(c) so long as Executive otherwise complies with the terms of this provision.

"*Restricted Area*" shall mean each and every current market throughout the United States in which Employer conducts business. The term "Restricted Area" shall also include any potential markets that Executive is directly or indirectly involved in helping develop on behalf of Employer during the 12 months immediately preceding Executive's termination of employment. The term "Competing Business" shall have the same definition as set forth in Section (d) below.

(d) Non-Solicitation of Customers. Executive hereby agrees that, during the Restricted Period (other than on behalf of Employer or its affiliates), Executive shall not in any way directly or indirectly, for the purpose of conducting or engaging in a Competing Business:

(i) solicit any business from, or attempt to sell any products or services, or to call upon or solicit any customer or client of Employer then-existing, or any Past customer of Employer, or any affiliate of Employer that Executive had direct or indirect contact while employed with Employer;

(ii) assist, cooperate or encourage any third party to do any of the foregoing.

For purposes of this Section 11(c) and (d), the term "*Past*" customer or "*Past*" licensee shall refer to any former customer or licensee of Employer or any affiliate within one year of their having ceased to be a customer or licensee of Employer or any affiliate. "*Competing Business*" means the business of developing, designing, publishing, marketing, maintaining or distributing databases and software applications which are competitive with products or services of Employer, are generally referred to as "*single family or multi-tenant real estate management applications*" and are generally used at apartment communities by personnel engaged in the operation, screening, call center, leasing, pricing, promotion and maintenance of apartment units. Without limitation of the foregoing, single family or multi-tenant real estate management applications, data bases, software and services shall include software used in prospecting, selling or screening potential residents, performing property management or accounting functions, providing pricing information or performing market research, communicating via the Internet with applicants, residents, service providers, suppliers and advertising providers, facilitating or providing billing, payments and cash management services, vendor screening and vendor compliance services, providing energy management or convergent billing services and producing, soliciting and/or assisting with the solicitation of insurance products or services or developing, marketing or selling a single family or multi-tenant vendor network solution.

(e) Non-Solicitation of Licensees. Executive hereby agrees that, during the Restricted Period (other than on behalf of Employer or its affiliates), Executive shall not in any way directly or indirectly, for the purpose of conducting or engaging in a Competing Business:

(i) solicit any business from, or attempt to sell any products or services, or to call upon or solicit any licensee of Employer then-existing, or any Past licensee of Employer, or any affiliate of Employer that Executive had direct or indirect contact while employed with Employer;

(ii) assist, cooperate or encourage any third party to do any of the foregoing.

For purposes of this Section 11(e), the term "*Past*" customer or "*Past*" licensee shall refer to any former customer or licensee of Employer within one year of their having ceased to be a customer or licensee of Employer.

(f) Non-Interference with Employees. Executive hereby agrees, during the Restricted Period, not to, directly or indirectly, solicit or induce any of Employer's or any affiliate of Employer's then-existing employees, representatives, consultants or agents to give up employment with or representation of Employer or any affiliate. If Employer terminates the employment or services of any such individual, Executive may thereafter hire such individual.

(g) Non-Interference with Business Relationships. Executive hereby agrees, during the Restricted Period, that Executive shall not, directly or indirectly, for the purpose of conducting or engaging in a Competing Business, utilize Employer Confidential Information to interfere with, impair, or adversely affect any contractual relationships or business relationships between Employer and any of the technology or distribution companies with whom Employer or any affiliate has strategic relationships.

(h) Non-Disparagement. Executive hereby agrees that during the Employment Period and at all times thereafter, Executive shall not disparage either orally or in writing Employer or any affiliate, their products or services, or their officers, directors, or employees. Employer hereby agrees that during the Employment Period and at all times thereafter it shall instruct its directors and officers not to disparage Executive orally or in writing. This Section 11(h) shall not be violated by truthful statements in response to legal process, testifying in any legal or administrative proceeding, or responding to inquiries or requests for information by any regulator or auditor.

(i) Injunctive Relief. Executive recognizes and agrees that the injury Employer will suffer in the event of a breach of this Section 11 may cause Employer irreparable injury that cannot adequately be

compensated by monetary damages alone. Therefore, in the event of a breach of this Section 11 by Executive, or any attempted or threatened breach, Executive agrees that Employer, without limiting any legal or equitable remedies available to it, may be entitled to equitable relief by preliminary and permanent injunction or otherwise, without the necessity of posting any bond or undertaking, against Executive and/or the business enterprise with which Executive may have become associated, from any court of competent jurisdiction.

12. Reasonableness of Restrictions. Executive understands and acknowledges that Employer would not have entered into the Employment Agreement, unless and until it had secured from Executive assurance that Executive would become and remain, until the Date of Termination, as an executive of Employer in accordance with the terms and conditions hereof including the specific restriction on disclosure of confidential information in accordance with the terms of Section 11 hereof. **Executive expressly acknowledges and agrees that the covenants and restrictive agreements contained in this Agreement are reasonable as to scope, location, and duration and that observation thereof will not cause Executive undue hardship or unreasonably interfere with Executive's ability to earn a livelihood and practice Executive's present skills and trades. Executive has consulted with legal counsel of Executive's own selection regarding the meaning of such covenants and restrictions, which have been explained to Executive's satisfaction.**

13. Successors; Binding Agreement.

(a) Employer's Successors. Employer shall require any successor (whether direct or indirect, by purchase, merger, consolidation or otherwise) to all or substantially all of its businesses and/or assets ("*Transaction*") to assume and agree to perform this Agreement in the same manner and to the same extent that Employer would be required to perform it if no such succession had taken place. Employer may honor the obligation set forth in the preceding sentence through execution in the course of consummating the Transaction of either a specific assignment and assumption agreement relating to the obligations set forth herein, or a general assignment and assumption agreement. Failure of Employer to obtain such assumption and agreement prior to the effectiveness of any such succession shall be a material breach of a material provision of this Agreement. As used in this Agreement, the "*Employer*" shall mean Employer as hereinbefore defined and any successor to the business and/or assets as aforesaid which executes and delivers the agreement provided for in this Section 13 or which otherwise becomes bound by all the terms and provisions of this Agreement by operation of law.

(b) Executive's Successors. This Agreement shall not be assignable by Executive. This Agreement and all rights of Executive hereunder shall inure to the benefit of and be enforceable by Executive's personal or legal representatives, executors, administrators, successors, heirs, distributees, devisees and legatees. If Executive should die while any amounts would still be payable to Executive hereunder if Executive had continued to live, all such amounts unless otherwise provided herein, shall be paid in accordance with the terms of this Agreement to Executive's devisee, legatee, or other designee or, if there be no such designee, to Executive's estate.

14. Indemnification. To the fullest extent permitted by law, Employer shall indemnify Executive (including the advancement of legal, accounting and other expert expenses) for any judgments, fines, amounts paid in settlement and reasonable expenses, including attorneys' fees, incurred by Executive in connection with the defense of any lawsuit or other claim to which Executive is made a party by reason of performing Executive's responsibilities as an officer or executive of Employer or any of its subsidiaries; except that, Employer shall have no such duty of indemnification with regard to claims or suits brought, for any reason, against Executive by any former employer of Executive.

15. Notice. For the purposes of this Agreement, notices, demands and all other communications provided for in this Agreement shall be in writing and shall be deemed to have been duly given either (a) when delivered to a national overnight delivery service or (unless otherwise specified) mailed by United States certified or registered mail, return receipt requested, postage prepaid, addressed (i) in the case of notice to Employer, as set forth in the Preamble of this Agreement, attention of Employer's Chief Executive Officer and Employer's Chief Legal Officer and (ii) in the case of notice to Executive, to the address then current in Employer's records, or to such other address as any party may have furnished to the other in writing in accordance herewith, except that notices of change of address shall be effective

only upon receipt, or (b) by e-mail to Employer e-mail address of (i) in the case of notice to Employer, Employer's Chief Executive Officer and Employer's Chief Legal Officer and (ii) in the case of notice to Executive, Executive. No notices may be given via facsimile transmission.

16. **Severability**. Should any term, condition, provision or part of this Agreement be found to be unlawful, invalid, illegal or unenforceable, that portion shall be deemed null and void and severed from the Agreement for all purposes, but such illegality, or invalidity or unenforceability shall not affect the legality, validity or enforceability of the remaining parts of this Agreement, and the remainder of the Agreement shall remain in full force and effect, unless such would be manifestly inequitable or would serve to deprived either party of a material part of what it bargained for in entering in this Agreement.

17. **Counterparts**. This Agreement may be executed in one or more counterparts, each of which shall be deemed to be an original but all of which together will constitute one and the same instrument.

18. **Withholding**. Notwithstanding any other provision of this Agreement, Employer may withhold from amounts payable under this Agreement all federal, state, local and foreign taxes that are required to be withheld by applicable laws or regulations.

19. **Confidential Information and Invention Assignment**. Executive shall execute and deliver a Confidential Information, Invention Assignment and Arbitration Agreement in the form attached as **Exhibit IV** hereto.

20. **Outside Fees**. Executive agrees and covenants not to solicit or receive, in connection with Executive's employment with Employer, any income or other compensation from any third party doing business with Employer, including, without limitation, any supplier, client, customer, or executive of Employer.

21. **Miscellaneous**. No provision of this Agreement may be modified, waived or discharged unless such waiver, modification or discharge is agreed to in writing signed by Executive and an authorized officer of Employer. No waiver by any party hereto at any time of any breach by the other parties hereto of, or compliance with, any condition or provision of this Agreement to be performed by any such other party shall be deemed a waiver of similar or dissimilar provisions or conditions at the same or at any prior or subsequent time. Any termination of Executive's employment or of this Agreement shall have no effect on any continuing obligations arising under this Agreement, including without limitation, the right of Executive to receive payments pursuant to Section 9 hereof and the obligations of Executive described in Section 11 hereof.

22. **Applicable Law, Venue, Jurisdiction and Arbitration. This Agreement shall be governed, construed, and enforced in accordance with the laws of the State of Texas, or U.S. federal law when applicable and supreme (without regard to the principles of conflicts of law). Any action or proceeding concerning, related to, regarding, or commenced in connection with the Agreement must be brought in a state or federal court located in Dallas, Texas, and the parties to the Agreement hereby irrevocably submit to the personal jurisdiction of such courts and waive any objection they may now or hereafter have as to the venue of any such action or proceeding brought in any such court, or that any such court is an inconvenient forum.**

(a) **Arbitration Option**. Either party shall also have the option to submit any disputes between Executive (and Executive's attorneys, successors, and assigns) and Employer (and its Affiliates, shareholders, directors, officers, employees, agents, successors, attorneys, and assigns) relating in any manner whatsoever to Executive's employment or termination thereof by either party, including, without limitation, all disputes arising under this Agreement ("*Arbitrable Claims*"), to binding arbitration in Dallas County, Texas, pursuant to the rules of the American Arbitration Association and the arbitration rules set forth in Texas Code of Civil Procedure (the "*Rules*"). The arbitrator shall administer and conduct any arbitration in accordance with Texas law, including the Texas Code of Civil Procedure, or U.S. federal law when applicable and supreme. To the extent that the AAA Employment Rules conflict with Texas or U.S. federal law, Texas or U.S. federal law shall take precedence. All persons and entities specified in this Section (other than Employer and Executive) shall be considered third-party beneficiaries of the rights and obligations created by this Section on Arbitration.

The decision of the Arbitrator shall be final and binding on the parties and judgment upon the award may be entered in any of the aforementioned courts having jurisdiction over this Agreement.

(b) Arbitrable Claims. Arbitrable Claims shall include, but are not limited to, contract (express or implied) and tort claims of all kinds, as well as all claims based on any federal, state, or local law, statute, or regulation, excepting only claims under applicable workers' compensation law and unemployment insurance claims. By way of example and not in limitation of the foregoing, Arbitrable Claims shall include (to the fullest extent permitted by law) any claims arising under Title VII of the Civil Rights Act of 1964, the Age Discrimination in Employment Act, the Americans with Disabilities Act, as well as any claims asserting wrongful termination, harassment, breach of contract, breach of the covenant of good faith and fair dealing, negligent or intentional infliction of emotional distress, negligent or intentional misrepresentation, negligent or intentional interference with contract or prospective economic advantage, defamation, invasion of privacy, and claims related to disability. The parties shall be eligible to recover in arbitration any and all types of relief that would otherwise be available to them if they brought their claims in a judicial forum. Executive understands that this Agreement does not prohibit Executive from pursuing an administrative claim with a local, state, or federal administrative body or government agency that is authorized to enforce or administer laws related to employment, including, but not limited to, the Department of Fair Employment and Housing, the Equal Employment Opportunity Commission, the National Labor Relations Board, or the Workers' Compensation Appeals Board. This Agreement does, however, preclude Executive from pursuing court action regarding any such claim, except as permitted by law.

(c) Procedure.

(i) Initiation. Arbitration of Arbitrable Claims shall be in accordance with the Employment Rules and Mediation Procedures of the American Arbitration Association as amended ("*AAA Employment Rules*"), as augmented in this Agreement. Arbitration shall be initiated as provided by the AAA Employment Rules, although the written notice to the other party initiating arbitration shall also include a statement of the claim(s) asserted and the facts upon which the claim(s) are based. Either party may bring an action in court to compel arbitration under this Agreement and to enforce an arbitration award.

(ii) Binding Arbitration. Arbitration shall be final and binding upon the parties and shall be the exclusive forum for all Arbitrable Claims, except for any appeals or enforcement of an arbitration award. Should one party select arbitration pursuant to this Agreement, then no other party shall initiate or prosecute any lawsuit or administrative action on overlapping issues of law or fact, unless the rights or obligations of third parties not subject to being determined in such arbitration are affected or must be determined in order for there to be a complete determination of the controversy, in which event the arbitration may be stayed or dismissed pending determination of the parties' rights in a different forum where appropriate third parties are joined.

(iii) Venue. All arbitration hearings under this Agreement shall be conducted in Dallas County, Texas.

(iv) Arbitrator's Decision Must Be In Writing. The decision of the arbitrator shall be in writing and shall include a statement of the essential conclusions and findings upon which the decision is based.

(d) Waiver of Jury Trial. THE PARTIES HEREBY WAIVE ANY RIGHTS THEY MAY HAVE TO TRIAL BY JURY IN REGARD TO ARBITRABLE CLAIMS, INCLUDING WITHOUT LIMITATION ANY RIGHT TO TRIAL BY JURY AS TO THE MAKING, EXISTENCE, VALIDITY, OR ENFORCEABILITY OF THE AGREEMENT TO ARBITRATE.

(e) **Arbitrator Selection and Authority**. All disputes involving Arbitrable Claims shall be decided by a single arbitrator. The arbitrator shall be selected by mutual agreement of the parties within 30 days of the effective date of the notice initiating the arbitration. If the parties cannot agree on an arbitrator, then the complaining party shall notify the AAA and request selection of an arbitrator in accordance with the AAA Employment Rules. The arbitrator shall have only such authority to award equitable relief, damages, costs, and fees as a court would have for the particular claim(s) asserted. The arbitrator shall have exclusive authority to resolve all Arbitrable Claims, including, but not limited to, whether any particular claim is arbitrable and whether all or any part of this Agreement is void or unenforceable.

(f) **Arbitration Fees**. ***Employer shall pay the expenses and fees of the arbitrator, together with other expenses of the arbitration incurred or approved by the neutral arbitrator, but excluding an initial filing fee of $100 (payable to AAA), and counsel fees or witness fees or other expenses incurred by a party for Executive's own benefit.*** If the allocation of responsibility for payment of the arbitrator's fees would render the obligation to arbitrate unenforceable, the parties authorize the arbitrator to modify the allocation as necessary to preserve enforceability.

(g) **Confidentiality**. All proceedings and all documents prepared in connection with any Arbitrable Claim shall be confidential and, unless otherwise required by law, the subject matter thereof shall not be disclosed to any person other than the parties to the proceedings, their counsel, witnesses and experts, tax and financial advisors and immediate family members of Executive, the arbitrator, and, if involved, the court and court staff. All documents filed with the arbitrator or with a court shall be filed under seal. The parties shall stipulate to all arbitration and court orders necessary to effectuate fully the provisions of this subsection concerning confidentiality.

(h) **Continuing Obligations**. The rights and obligations of Executive and Employer set forth in this Section on Arbitration shall survive the termination of Executive's employment and the expiration of this Agreement.

23. **Section 409A**.

(a) Notwithstanding anything to the contrary in this Agreement, if Executive is a "specified employee" within the meaning of Section 409A of the Code and the final regulations and any guidance promulgated thereunder ("*Section 409A*") at the time of Executive's termination (other than due to death), and the severance payable to Executive, if any, pursuant to this Agreement, when considered together with any other severance payments or separation benefits which may be considered deferred compensation under Section 409A (together, the "*Deferred Compensation Separation Benefits*") will not and could not under any circumstances, regardless of when such termination occurs, be paid in full by March 15 of the year following Executive's termination, then only that portion of the Deferred Compensation Separation Benefits which do not exceed the Section 409A Limit (as defined below) may be made within the first six months following Executive's termination of employment in accordance with the payment schedule applicable to each payment or benefit (and such portion shall be payable within such period only to the extent permissible without resulting in tax under Section 409A). For these purposes, each severance payment is hereby designated as a separate payment and will not collectively be treated as a single payment. Any portion of the Deferred Compensation Separation Benefits that cannot be paid during such six-month period due to Section 409A shall accrue and, to the extent such portion of the Deferred Compensation Separation Benefits would otherwise have been payable within such six-month period, will become payable on the first payroll date that occurs on or after the date six months and one day following the date of Executive's termination. All subsequent Deferred Compensation Separation Benefits, if any, will be payable in accordance with the payment schedule applicable to each payment or benefit. Notwithstanding anything herein to the contrary, if Executive dies following Executive's termination but prior to the six-month anniversary of Executive's termination, then any payments delayed in accordance with this paragraph will be payable in a lump sum as soon as administratively practicable after the date of Executive's death and all other Deferred Compensation Separation Benefits will be payable in accordance with the payment schedule applicable to each payment or benefit.

(b) The foregoing provision is intended to comply with the requirements of Section 409A so that none of the severance payments and benefits to be provided hereunder will be subject to the additional tax imposed under Section 409A, and any ambiguities herein will be interpreted to so comply. Employer and Executive agree to work together in good faith to consider amendments to this Agreement and to take such reasonable actions which are necessary, appropriate or desirable to avoid imposition of any additional tax or income recognition prior to actual payment to Executive under Section 409A.

(c) For purposes of this Agreement, "*Section 409A Limit*" will mean the lesser of two times: (A) Executive's annualized compensation based upon the annual rate of pay paid to Executive during Employer's taxable year preceding Employer's taxable year of Executive's termination of employment as determined under Treasury Regulation 1.409A-1(b)(9)(iii)(A)(1) and any Internal Revenue Service guidance issued with respect thereto; or (B) the maximum amount that may be taken into account under a qualified plan pursuant to Section 401(a)(17) of the Code for the year in which Executive's employment is terminated.

24. **Entire Agreement**. This Agreement sets forth the entire agreement of the parties hereto in respect of the subject matter contained herein and supersedes all prior agreements, letters of intent, promises, covenants, arrangements, communications, representations or warranties, whether oral or written, by an officer, executive or representative of any party hereto; and any prior agreement of the parties hereto in respect to the subject matter contained herein, including the Prior Agreement. **Executive acknowledges and agrees that no officer, executive or representative of Employer is authorized to offer any term or condition of employment which is in addition to or different than those set forth in this Agreement**.

[Signature Page Follows]

IN WITNESS WHEREOF, the parties, intending to be legally bound, have executed this Agreement as of the Effective Date.

REALPAGE, INC.

By: /s/ Stephen T. Winn
Name: Stephen T. Winn
Title: Chief Executive Officer

EXECUTIVE:

/s/ Thomas C. Ernst, Jr.
Thomas C. Ernst, Jr.

[Signature Page – Thomas C. Ernst, Jr. Employment Agreement]

EXHIBIT III

FORM OF GENERAL RELEASE AND SEPARATION AGREEMENT

This General Release and Separation Agreement (" Agreement") is made and entered into by and between [NAME], a resident of [STATE] ("Employee"), and RealPage, Inc., a Delaware corporation (" Company"), in full and final settlement of any and all claims that Employee may have against Company and any and all claims that Company may have against Employee. This Agreement shall become effective on the eighth day after Employee signs and delivers this Agreement to Company (the "Effective Date"), provided that Employee does not revoke this Agreement prior to such date pursuant to Paragraph 3(f)(iv) below and provided further that Employee signs this Agreement on or before the fiftieth day following the Termination Date (as defined below).

1. Termination as Executive of RealPage, Inc. Employee acknowledges and agrees that Employee's employment with Company in any capacity terminated effective [DATE] (the "Termination Date"). Regardless of whether Employee executes this Agreement, (a) Company will pay Employee, on or before the Termination Date, the Accrued Amounts (as defined in the Employment Agreement, dated as of _____, 201__, by and among Company and Employee (the "Employment Agreement")) and (b) nothing contained herein shall be deemed to affect Employee's right to vested benefits (if any) under Company's 401(k) plan or with respect to health benefit continuation in accordance with the federal law known as COBRA.

2. Consideration for Agreement from Company. In return for this Agreement, and in full and final settlement, compromise, and release of any and all claims that Employee has or may have against the Released Parties (as defined below in Paragraph 3), including Company (as described in Paragraph 3 below), and provided that Employee complies with the obligations under this Agreement, Employer shall pay and provide Employee the payments and benefits described in Sections 9(a)(i)-(ii) of the Employment Agreement.

3. General Release.

(a) Except as expressly set forth in this Agreement, Employee, on behalf of Employee and Employee's spouse, heirs, descendants, administrators, representatives and assigns, hereby releases, forever discharges and covenants not to sue, Company, its past, present and future parents, subsidiaries, divisions, affiliates, and each of its and their respective predecessors, successors and assigns, and each of their past, present and future employees, officers, directors, agents, insurers, members, partners, joint venturers, employee welfare benefit plans, employee pension benefit plans and deferred compensation plans, and their trustees, administrators and other fiduciaries, and all persons acting by, through, under or in concert with them, or any of them (the "Released Parties"), of, from, and with respect to any action, cause of action, in law or in equity, suit, debt, lien, contract, agreement, obligation, promise, liability, claim, demand, damage, loss, cost or expense, of any nature whatsoever, known or unknown, suspected or unsuspected, or fixed or contingent (hereinafter called "Claims"), which Employee now has or may hereafter have against the Released Parties, or

any of them, by reason of any act, omission, matter, cause or thing whatsoever occurring from the beginning of time through the date Employee signs this Agreement. Employee understands that this release includes, without limitation:

- Claims arising out of or by virtue of or in connection with Employee's employment with Company or any of the Released Parties, the terms and conditions of that employment, or the termination of that employment. This release includes (but is not limited to) Claims for breach of contract and common law Claims for wrongful discharge; assault and battery; negligence; negligent hiring, retention and/or supervision; intentional or negligent invasion of privacy; defamation; intentional or negligent infliction of emotional distress; violations of public policy; or any other law grounded in tort, contract or common law. With the exception of any Claims covered by Paragraph 3(b) of this Agreement, this release further includes (but is not limited to) statutory Claims for failure to pay wages and/or overtime, unlawful harassment, and unlawful retaliation, Claims arising under federal, state or local laws, statutes or orders or regulations that relate to the employment relationships and/or prohibiting employment discrimination or any other federal, state or local law, including, but not limited to, Claims under the following statutes:

    - Title VII of the Civil Rights Act of 1964, as amended in 1991;
    - Section 1981 of the Civil Rights Act of 1866, as amended;
    - 42 U.S.C. Sections 1981 - 1988;
    - The Age Discrimination in Employment Act;
    - The Employee Income Retirement Security Act;
    - The Fair Labor Standards Act;
    - The Americans With Disabilities Act;
    - The Family and Medical Leave Act;
    - The National Labor Relations Act;
    - The Fair Credit Reporting Act;
    - The Immigration Reform Control Act;
    - The Occupational Safety & Health Act;
    - The Equal Pay Act;
    - The Uniformed Services Employment and Reemployment Rights Act;

- The Worker Adjustment and Retraining Notification Act;
- The Employee Polygraph Protection Act;
- The Texas Labor Code;
- Any state or federal consumer protection and/or trade practices act; and
- Any state or federal workers' compensation or disability, to the maximum extent permitted by law.

(b) Exceptions to Release by Employee: Excluded from this Agreement are (i) Claims with respect to the breach of any covenant to be performed by Company after the date of this Agreement and (ii) any Claims that cannot be waived by law, including, but not limited to, the right to file a charge with or participate in an investigation conducted by the Texas Workforce Commission or the Equal Employment Opportunity Commission (the "EEOC"). Employee is waiving, however, Employee's right to any monetary recovery or relief should the Texas Workforce Commission or EEOC or any other agency pursue any Claims on Employee's behalf.

(c) Employee represents and warrants that Employee has not assigned or transferred to any third party any interest in any Claim which Employee may have against the Released Parties, or any of them, and Employee agrees to indemnify and hold the Released Parties, and each of them, harmless from any liability, claims, demands, damages, costs, expenses and attorneys' fees incurred by them, or any of them, as a result of any such assignment or transfer.

(d) Employee represents and warrants that Employee has not asserted, filed or otherwise taken actions to initiate any Claim in any federal, state or local court, administrative agency, arbitral forum, or any other forum.

(e) If any Claim is not subject to release, to the extent permitted by law, Employee waives any right or ability to be a class or collective action representative or to otherwise participate in any putative or certified class, collective or multi-party action or proceeding based on such a Claim in which Company or any of the Releasees identified in this Agreement is a party.

(f) Waiver Of Age Discrimination Claims : Employee expressly acknowledges and agrees that, by entering into this Agreement, Employee is waiving any and all rights or Claims that Employee may have arising under the Age Discrimination in Employment Act, as amended (the "ADEA"), which have arisen on or before the date of execution of this Agreement. Employee further expressly acknowledges and agrees that:

(i) In return for this Agreement, Employee will receive compensation beyond that which Employee was already entitled to receive before entering into this Agreement;

(ii) Employee is hereby advised in writing by this Agreement to consult with an attorney before signing this Agreement and Employee fully understands the significance of all the terms and conditions of this Agreement and has discussed them with Employee's

attorney (or Employee has had a reasonable opportunity to discuss the terms and conditions of this Agreement with an attorney, if desired) prior to signing this Agreement;

(iii) Employee is hereby informed that Employee has 21 days within which to consider this Agreement and that if Employee signs it prior to the end of such 21-day period, Employee will have done so voluntarily and with full knowledge that Employee is waiving the right to have 21 days to consider this Agreement;

(iv) Employee is hereby advised that Employee has seven (7) days following the date of execution of this Agreement in which to revoke in writing the release of rights or Claims Employee may have arising under the ADEA. Any revocation must be in writing and must be received by Company's Chief Executive Officer during the seven-day revocation period. In the event that Employee exercises Employee's right of revocation, all other releases and obligations under this Agreement shall not be valid or enforceable;

(v) Nothing in this Agreement prevents or precludes Employee from challenging or seeking a determination in good faith of the validity of this waiver under the ADEA, nor does it impose any condition precedent, penalties or costs from doing so, unless specifically authorized by federal law;

(vi) Employee has carefully read this Agreement, acknowledges that Employee has not relied on any representation or statement, written or oral, not set forth in this Agreement or the Employment Agreement; and

(vii) Employee represents and warrants that Employee is signing this release knowingly and voluntarily.

4. Company Release.

(a) In consideration of the Employee's execution and non-revocation of this Agreement, and for other good and valuable consideration, receipt of which is hereby acknowledged, Company, on behalf of itself and each of its subsidiaries, hereby releases, forever discharges and covenants not to sue Employee with respect to and from any Claim which Company or its applicable subsidiary now has or may hereafter have against Employee by reason of any act, omission, matter, cause or thing whatsoever occurring from the beginning of time through the date Employee signs this Agreement; provided, however, that this release excludes (i) any Claims that cannot be waived by law, (ii) Claims with respect to the breach of any covenant to be performed by Employee after the date of this Agreement and (iii) Claims based upon Employee's willful misconduct.

(b) Company represents and warrants that Company has not assigned or transferred to any third party any interest in any Claim which Company may have against Employee, and Company agrees to indemnify and hold Employee harmless from any liability, claims, demands, damages, costs, expenses and attorneys' fees incurred by Employee as a result of any such assignment or transfer.

(c) Company represents and warrants that Company has not asserted, filed or otherwise taken actions to initiate any Claim against Employee in any federal, state or local court, administrative agency, arbitral forum, or any other forum.

5. Continuing Obligations Contained in Other Documents and Return of Company Property . Employee agrees and acknowledges that Employee has complied, and will continue to comply, with the obligations under this Agreement and the Employment Agreement (including, without limitation, the restrictive covenants set forth in Section 11 of the Employment Agreement). Company agrees and acknowledges that Company has complied, and will continue to comply, with the obligations under this Agreement and the Employment Agreement (including, without limitation, the non-disparagement covenant set forth in Section 11(h) of the Employment Agreement). In addition, Employee shall return to Company all Company property in Employee's possession, custody or control on or before the Termination Date.

6. Waiver of Breach . A waiver by Employee or Company of a breach of any provision of this Agreement shall not operate or be construed as a waiver of any subsequent breach by either party.

7. No Admission of Liability . Employee and Company understand and acknowledge that this Agreement constitutes a compromise and settlement of any and all potential disputed Claims that Employee may have against Company and the Released Parties and that Company may have against Employee. Neither this Agreement nor any action taken by Employee or Company (or any of its parent, subsidiary or affiliated entities), either previously or in connection with this Agreement, shall be deemed or construed to be: (a) an admission of the truth or falsity of any potential Claims; (b) an acknowledgment or admission by Company of any fault or liability whatsoever to Employee or to any third party; or (b) an acknowledgment or admission by Employee of any fault or liability whatsoever to Company or to any third party. Neither this Agreement nor anything in this Agreement shall be construed to be, or shall be admissible in any proceeding as, evidence of liability or wrongdoing by Employee, Company or any other Released Party.

8. Miscellaneous. Sections 13 ("Successors, Binding Agreement"), 15 ("Notice"), 16 ("Severability"), 17 ("Counterparts"), 21 ("Miscellaneous"), 22 ("Applicable Law, Venue, Jurisdiction and Arbitration"), 23 ("Section 409A"), and 24 ("Entire Agreement") of the Employment Agreement shall apply to this Agreement.

[Signature Page to Follow]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the dates indicated on the following page.

RealPage, Inc.

By:__
Name:

Title:

Date: __

EMPLOYEE:

By:__
Name:

Date: __

Address:

ACKNOWLEDGMENT AND WAIVER

I, [NAME], hereby acknowledge that I was given 21 days to consider the foregoing Agreement and voluntarily chose to sign this Agreement prior to the expiration of the 21-day period.

I declare under penalty of perjury under the laws of the State of Texas that the foregoing is true and correct.

EXECUTED this ___ day of _____ 201_, at _____County, _____.

Name:

EXHIBIT IV

REALPAGE, INC.

FORM OF CONFIDENTIAL INFORMATION,

INVENTION ASSIGNMENT, AND ARBITRATION AGREEMENT

As a condition of my employment with RealPage, Inc., or its subsidiaries, affiliates, successors or assigns (together the " **Company**"), and in consideration of my employment with the Company and my receipt of the compensation now and hereafter paid to me by the Company, and other good and valuable consideration herein, the undersigned agrees to the following provisions of this Confidential Information, Invention Assignment, and Arbitration Agreement (this "**Agreement**"):

I. *Confidential Information*.

A. *Company Information*. I agree and acknowledge that as an Employee of the Company, I will be given access to Confidential Information that the Company has collected, developed, and/or discovered over time, and at great expense. I agree that during and for all times after my employment with the Company terminates, regardless of the reason for termination, I will hold in the strictest confidence, and will not use (except for the benefit of the Company during my employment) or disclose to any person, firm, or corporation (without written authorization of the President or the Board of Directors of the Company) any Company Confidential Information. I understand that my unauthorized use or disclosure of Company Confidential Information during my employment may lead to disciplinary action, up to and including immediate termination and legal action by the Company. I understand that "**Company Confidential Information**" means any non-public information that is not readily and easily available to the public or a matter of common knowledge to those in the Company's business, trade, or industry that relates to the actual or anticipated business, research or development of the Company, or to the Company's technical data, trade secrets, or know-how, including, but not limited to, research, product plans, or other information regarding the Company's products or services and markets therefor customer lists and customers (including, but not limited to, customers of the Company on which I called or with which I may become acquainted during the term of my employment), software, developments, inventions, processes, formulas, technology, designs, drawings, engineering, hardware configuration information, marketing, finances, and other business information; provided, however, Company Confidential Information does not include any of the foregoing items to the extent the same have become publicly known and made generally available through no wrongful act of mine. I understand that nothing in this Agreement is intended to limit employees' rights to discuss the terms, wages, and working conditions of their employment, as protected by applicable law.

B. *Former Employer Information*. I agree that during my employment with the Company, I will not improperly use, disclose, or induce the Company to use any proprietary

information or trade secrets of any former or concurrent employer or other person or entity. I further agree that I will not bring onto the premises of the Company or transfer onto the Company's technology systems any unpublished document, proprietary information, or trade secrets belonging to any such employer, person, or entity unless consented to in writing by both the Company and such employer, person, or entity.

C. *Third Party Information*. I recognize that the Company may have received and in the future may receive from third parties associated with the Company, e.g., the Company's customers, suppliers, licensors, licensees, partners, or collaborators ("**Associated Third Parties**"), their confidential or proprietary information (" **Associated Third Party Confidential Information** "). By way of example, Associated Third Party Confidential Information may include the habits or practices of Associated Third Parties, the technology of Associated Third Parties, requirements of Associated Third Parties, and information related to the business conducted between the Company and such Associated Third Parties. I agree at all times during my employment with the Company and thereafter to hold in the strictest confidence, and not to use or to disclose to any person, firm, or corporation, any Associated Third Party Confidential Information, except as necessary in carrying out my work for the Company consistent with the Company's agreement with such Associated Third Parties. I further agree to comply with any and all Company policies and guidelines that may be adopted from time to time regarding Associated Third Parties and Associated Third Party Confidential Information. I understand that my unauthorized use or disclosure of Associated Third Party Confidential Information or violation of any Company policies during my employment will lead to disciplinary action, up to and including immediate termination and legal action by the Company.

II. *Inventions.*

A. *Inventions Retained and Licensed*. I have attached hereto as Exhibit A, a list describing all inventions, discoveries, original works of authorship, developments, improvements, and trade secrets that were conceived in whole or in part by me prior to my employment with the Company and to which I have any right, title, or interest, and which relate to the Company's proposed business, products, or research and development ("**Prior Inventions**"); or, if no such list is attached, I represent and warrant that there are no such Prior Inventions. Furthermore, I represent and warrant that if any Prior Inventions are included on Exhibit A, they will not materially affect my ability to perform all obligations under this Agreement. If, in the course of my employment with the Company, I incorporate into or use in connection with any product, process, service, technology, or other work by or on behalf of the Company any Prior Invention, I hereby grant to the Company a non-exclusive, royalty-free, fully paid-up, irrevocable, perpetual, worldwide license, with the right to grant and authorize sublicenses, to make, have made, modify, use, import, offer for sale, and sell such Prior Invention as part of or in connection with such product, process, service, technology, or other work, and to practice any method related thereto.

B. *Assignment of Inventions*. I agree that I will promptly make full written disclosure to the Company, will hold in trust for the sole right and benefit of the Company, and

hereby assign to the Company, or its designee, all my right, title, and interest in and to any and all inventions, original works of authorship, developments, concepts, improvements, designs, discoveries, ideas, trademarks, or trade secrets, whether or not patentable or registrable under patent, copyright, or similar laws, which I may solely or jointly conceive or develop or reduce to practice, or cause to be conceived or developed or reduced to practice, during the period of time I am in the employ of the Company (including during my off-duty hours), or with the use of Company's equipment, supplies, facilities, or Company Confidential Information, except as provided in Section II.E below (collectively referred to as "**Inventions**"). I further acknowledge that all original works of authorship that are made by me (solely or jointly with others) within the scope of and during the period of my employment with the Company and that are protectable by copyright are "works made for hire," as that term is defined in the United States Copyright Act. I understand and agree that the decision whether or not to commercialize or market any Inventions is within the Company's sole discretion and for the Company's sole benefit, and that no royalty or other consideration will be due to me as a result of the Company's efforts to commercialize or market any such Inventions.

C. *Maintenance of Records*. I agree to keep and maintain adequate, current, accurate, and authentic written records of all Inventions made by me (solely or jointly with others) during the term of my employment with the Company. The records will be in the form of notes, sketches, drawings, electronic files, reports, or any other format that may be specified by the Company. The records are and will be available to and remain the sole property of the Company at all times.

D. *Patent and Copyright Registrations*. I agree to assist the Company, or its designee, at the Company's expense, in every proper way to secure the Company's rights in the Inventions and any rights relating thereto in any and all countries, including the disclosure to the Company of all pertinent information and data with respect thereto, the execution of all applications, specifications, oaths, assignments, and all other instruments that the Company shall deem proper or necessary in order to apply for, register, obtain, maintain, defend, and enforce such rights, and in order to assign and convey to the Company, its successors, assigns, and nominees the sole and exclusive rights, title, and interest in and to such Inventions and any rights relating thereto, and testifying in a suit or other proceeding relating to such Inventions and any rights relating thereto. I further agree that my obligation to execute or cause to be executed, when it is in my power to do so, any such instrument or papers shall continue after the termination of this Agreement. If the Company is unable because of my mental or physical incapacity or for any other reason to secure my signature with respect to any Inventions, including, without limitation, to apply for or to pursue any application for any United States or foreign patents or copyright registrations covering such Inventions, then I hereby irrevocably designate and appoint the Company and its duly authorized officers and agents as my agent and attorney in fact, to act for and in my behalf and stead, to execute and file any papers and oaths, and to do all other lawfully permitted acts with respect to such Inventions with the same legal force and effect as if executed by me.

III. *Conflicting Employment*.

A. *Current Obligations.* I agree that during the term of my employment with the Company, I will not engage in or undertake any other employment, occupation, consulting relationship, or commitment that is directly related to the business in which the Company is now involved or becomes involved or has plans to become involved, nor will I engage in any other activities that conflict with my obligations to the Company.

B. *Prior Relationships*. Without limiting Section III.A, I represent that I have no other agreements, relationships, or commitments to any other person or entity that conflict with my obligations to the Company under this Agreement or my ability to become employed and perform the services for which I am being hired by the Company. I further agree that if I have signed a confidentiality agreement or similar type of agreement with any former employer or other entity, I will comply with the terms of any such agreement to the extent that its terms are lawful under applicable law. I represent and warrant that after undertaking a careful search (including searches of my computers, cell phones, electronic devices, and documents), I have returned all property and confidential information belonging to all prior employers. Moreover, I agree to fully indemnify the Company, its directors, officers, agents, employees, investors, shareholders, administrators, affiliates, divisions, subsidiaries, predecessor and successor corporations, and assigns for all verdicts, judgments, settlements, and other losses incurred by any of them resulting from my breach of my obligations under any agreement to which I am a party or obligation to which I am bound, as well as any reasonable attorneys' fees and costs if the plaintiff is the prevailing party in such an action, except as prohibited by law.

IV. *Returning Company Documents*. Upon separation from employment with the Company or on demand by the Company during my employment, I will immediately deliver to the Company, and will not keep in my possession, recreate, or deliver to anyone else, any and all Company property, including, but not limited to, Company Confidential Information, Associated Third Party Confidential Information, as well as all devices and equipment belonging to the Company (including computers, handheld electronic devices, telephone equipment, and other electronic devices), Company credit cards, records, data, notes, notebooks, reports, files, proposals, lists, correspondence, specifications, drawings, blueprints, sketches, materials, photographs, charts, any other documents and property, and reproductions of any and all of the aforementioned items that were developed by me pursuant to my employment with the Company, obtained by me in connection with my employment with the Company, or otherwise belonging to the Company, its successors, or assigns, including, without limitation, those records maintained pursuant to Section II.C I also consent to an exit interview to confirm my compliance with this Section IV.

V. *Termination Certification.* Upon separation from employment with the Company, I agree to immediately sign and deliver to the Company the "Termination Certification" attached hereto as Exhibit B. I also agree to keep the Company advised of my home and business address for a period of seven (7) years after termination of my employment with the Company, so that the Company can contact me regarding my continuing obligations provided by this Agreement.

VI. *Notification of New Employer*. In the event that I leave the employ of the Company, I hereby grant consent to notification by the Company to my new employer about my obligations under this Agreement.

VII. *Conflict of Interest Guidelines*. I agree to diligently adhere to all policies of the Company, including the Company's insider's trading policies and the Conflict of Interest Guidelines attached as Exhibit C hereto, which may be revised from time to time during my employment.

VIII. *Representations*. I agree to execute any proper oath or verify any proper document required to carry out the terms of this Agreement. I represent that my performance of all the terms of this Agreement will not breach any agreement to keep in confidence proprietary information acquired by me in confidence or in trust prior to my employment by the Company. I hereby represent and warrant that I have not entered into, and I will not enter into, any oral or written agreement in conflict herewith.

IX. *Audit.* I acknowledge that I have no reasonable expectation of privacy in any computer, technology system, email, handheld device, telephone, or documents that are used to conduct the business of the Company. As such, the Company has the right to audit and search all such items and systems, without further notice to me, to ensure that the Company is licensed to use the software on the Company's devices in compliance with the Company's software licensing policies, to ensure compliance with the Company's policies, and for any other business-related purposes in the Company's sole discretion. I understand that I am not permitted to add any unlicensed, unauthorized, or non-compliant applications to the Company's technology systems and that I shall refrain from copying unlicensed software onto the Company's technology systems or using non-licensed software or websites. I understand that it is my responsibility to comply with the Company's policies governing use of the Company's documents and the internet, email, telephone, and technology systems to which I will have access in connection with my employment.

X. *Dispute Resolution*. I agree that any and all controversies, claims, or disputes with the Company (including any employee, officer, director, stockholder or benefit Plan of the Company) shall be resolved in accordance with the procedures set forth in Section 23 of my Employment Agreement with the Company.

XI. *General Provisions*.

A. *Entire Agreement*. This Agreement, together with the Exhibits herein, my executed Employment Agreement and any agreements relating to restricted stock and other awards pursuant to the RealPage, Inc. Amended and Restated 2010 Equity Incentive Plan set forth the entire agreement and understanding between the Company and me relating to the subject matter herein and supersedes all prior discussions or representations between us, including, but not limited to, any representations made during my interview(s) or relocation negotiations, whether written or oral. No modification of or amendment to this Agreement, nor any waiver of any rights under this Agreement, will be effective unless in writing signed by the President of the Company and me. Any subsequent change or changes in my duties, salary, or compensation will not affect the validity or scope of this Agreement.

B. *Severability*. If one or more of the provisions in this Agreement are deemed void by law, then the remaining provisions will continue in full force and effect.

C. *Successors and Assigns*. This Agreement will be binding upon my heirs, executors, assigns, administrators, and other legal representatives, and will be for the benefit of the Company, its successors, and its assigns. There are no intended third-party beneficiaries to this Agreement, except as expressly stated.

D. *Waiver.* Waiver by the Company of a breach of any provision of this Agreement will not operate as a waiver of any other or subsequent breach.

E. Survivorship. The rights and obligations of the parties to this Agreement will survive termination of my employment with the Company.

F. *Signatures.* This Agreement may be signed in two counterparts, each of which shall be deemed an original, with the same force and effectiveness as though executed in a single document.

Date:__ Witness:

Signature Signature

Name of Employee (typed or printed) Name of Employee (typed or printed)

Exhibit A

LIST OF PRIOR INVENTIONS
AND ORIGINAL WORKS OF AUTHORSHIP

Title	Date	Identifying Number or Brief Description

___ No inventions or improvements
___ Additional Sheets Attached

Signature of Employee: __

Print Name of Employee: __

Date: __

Exhibit B

REALPAGE, INC.

TERMINATION CERTIFICATION

This is to certify that I do not have in my possession, nor have I failed to return, any devices, records, data, notes, reports, proposals, lists, correspondence, specifications, drawings, blueprints, sketches, materials, equipment, any other documents or property, or reproductions of any and all aforementioned items belonging to RealPage, Inc., its subsidiaries, affiliates, successors or assigns (together, the "**Company**").

I further certify that I have complied with all the terms of the attached Confidential Information, Invention Assignment, and Arbitration Agreement signed by me, including the reporting of any inventions and original works of authorship (as defined therein) conceived or made by me (solely or jointly with others), as covered by that agreement.

I further agree that, in compliance with the Confidential Information, Invention Assignment, and Arbitration Agreement, I will preserve as confidential all Company Confidential Information and Associated Third Party Confidential Information, including trade secrets, confidential knowledge, data, or other proprietary information relating to products, processes, know-how, designs, formulas, developmental or experimental work, computer programs, databases, other original works of authorship, customer lists, business plans, financial information, or other subject matter pertaining to any business of the Company or any of its employees, clients, consultants, or licensees, to the extent required by the terms of that agreement.

I also agree that I will comply with the post-termination obligations enumerated in my Employment Agreement with Company dated _____and Confidential Information, Invention Assignment, and Arbitration Agreement dated _____.

After leaving the Company's employment, I will be employed by _____ in the position of: _____.

Signature of employee

Print name

Date

Exhibit C

REALPAGE, INC.

CONFLICT OF INTEREST GUIDELINES

It is the policy of RealPage, Inc. to conduct its affairs in strict compliance with the letter and spirit of the law and to adhere to the highest principles of business ethics. Accordingly, all officers, employees, and independent contractors must avoid activities that are in conflict, or give the appearance of being in conflict, with these principles and with the interests of the Company. The following are potentially compromising situations that must be avoided:

1. Revealing confidential information to outsiders or misusing confidential information. Unauthorized divulging of information is a violation of this policy whether or not for personal gain and whether or not harm to the Company is intended. (The At-Will Employment, Confidential Information, Invention Assignment, and Arbitration Agreement elaborates on this principle and is a binding agreement.)

2. Accepting or offering substantial gifts, excessive entertainment, favors, or payments that may be deemed to constitute undue influence or otherwise be improper or embarrassing to the Company.

3. Participating in civic or professional organizations that might involve divulging confidential information of the Company.

4. Initiating or approving personnel actions affecting reward or punishment of employees or applicants where there is a family relationship or is or appears to be a personal or social involvement.

5. Initiating or approving any form of personal or social harassment of employees.

6. Investing or holding outside directorship in suppliers, customers, or competing companies, including financial speculations, where such investment or directorship might influence in any manner a decision or course of action of the Company.

7. Borrowing from or lending to employees, customers, or suppliers.

8. Acquiring real estate of interest to the Company.

9. Improperly using or disclosing to the Company any proprietary information or trade secrets of any former or concurrent employer or other person or entity with whom obligations of confidentiality exist.

10. Unlawfully discussing prices, costs, customers, sales, or markets with competing companies or their employees.

11. Making any unlawful agreement with distributors with respect to prices.

12. Improperly using or authorizing the use of any inventions that are the subject of patent claims of any other person or entity.

13. Engaging in any conduct that is not in the best interest of the Company.

Each officer, employee, and independent contractor must take every necessary action to ensure compliance with these guidelines and to bring problem areas to the attention of higher management for review. Violations of this conflict of interest policy may result in discharge without warning.

Exhibit 10.36

EMPLOYMENT AGREEMENT

THIS EMPLOYMENT AGREEMENT (this "*Agreement*"), is made as of the 7th day of January, 2019 (the "*Effective Date*") by and between Kandis Thompson ("*Executive*"), and RealPage, Inc., a Delaware company ("*Employer*"), located at 2201 Lakeside Blvd., Richardson, TX 75082.

1. Employment and Consideration. Employer hereby agrees to employ Executive, and Executive hereby accepts such employment, on the terms and conditions hereinafter set forth. In consideration of the promises of Executive contained in this Agreement, Employer agrees to employ Executive, and to provide Executive with trade secrets and confidential information of Employer necessary for the performance of Executive's position.

2. Employment Screening. Executive has successfully completed a pre-employment consumer report verification, and Employer new hire paperwork, each of which was to be conducted in accordance with applicable state and/or federal law. Executive understands and agrees that Executive will be subject to Employer's general policies and practices concerning applicants for senior executive positions and new senior executive employees.

3. Employment Period. Executive shall furnish services to Employer hereunder during the period (the "*Employment Period*") commencing on January 7, 2019 and ending on the Date of Termination (as defined in Section 8(b) below). Nothing in this Section 3 shall limit the right of Employer or Executive to terminate Executive's employment hereunder on the terms and conditions set forth in Section 7 hereof.

4. Position and Duties.

(a) Office; Reporting; Duties. During the Employment Period, Executive shall serve as Senior Vice President and Chief Accounting Officer of Employer or such other designation as approved by the Chief Executive Officer or Chief Financial Officer. Executive shall report directly to the Chief Financial Officer of Employer or such other executive as the Chief Executive Officer of Employer shall designate ("*Supervisory Executive*"). Executive shall have those powers, duties and perquisites consistent with a senior management position and such other powers and duties as may be prescribed by the Supervisory Executive, *provided* that such other powers and duties are consistent with Executive's position within the management structure of Employer.

(b) Commitment of Full Time Efforts. Executive agrees to devote substantially her full working time, attention and energies to the performance of Executive's duties for Employer, *provided*, *however*, that it shall not be a violation of this Agreement for Executive to (i) serve on civic or charitable boards or committees, (ii) serve on non-public corporate boards or committees, (iii) manage personal investments, or (iv) give speeches and make media appearances in Executive's individual capacity to discuss matters of public interest (so long as such shall not involve any illegal conduct), so long as the foregoing activities comply with the RealPage, Inc. Code of Business Conduct and Ethics and do not interfere materially with the performance of Executive's responsibilities for Employer.

5. Place of Performance. Executive shall perform Executive's duties for Employer from the offices of Employer, located at 2201 Lakeside Blvd., Richardson, TX 75082 or such other location as is either within a 25-mile radius thereof or within a 25-mile radius of the Executive's principal residence (at the time the applicable location becomes Executive's principal office).

6. Compensation and Related Matters.

(a) Base Salary. As compensation for the performance by Executive of Executive's obligations hereunder, during the Employment Period, Employer shall pay Executive a base salary at a rate not less than $25,000 per month, or $300,000 on an annualized basis (the base salary, at the rate in effect from time to time,

is hereinafter referred to as the "*Base Salary*"). Base Salary shall be paid in approximately equal installments in accordance with Employer's customary payroll practices and legal requirements regarding withholding and deductions. During the Employment Period, the Base Salary shall be reviewed no less frequently than annually to determine whether or not the same should be adjusted in light of the duties, responsibilities and performance of Executive and other relevant factors.

(b) Annual Bonus. During the Employment Period, Executive shall be eligible for an annual bonus under the terms of the RealPage Management Incentive Plan ("*MIP Target*") of 45% of Executive's Base Salary for achievement of MIP Target at 100%. The performance criteria shall be as established by the Compensation Committee of Employer's Board of Directors. To be eligible for the Annual Bonus, Executive must be employed by Employer on December 31 of the year with regard to which the Annual Bonus is applicable and must be employed on the date the Annual Bonus is paid. Annual Bonuses shall be paid according to the RealPage Management Incentive Plan.

(c) Equity Grants. Executive shall be eligible for equity compensation grants pursuant to the RealPage, Inc. 2010 Equity Incentive Plan, as amended (the "*Plan*"), or any successor thereto.

(d) Expenses and Vacations. Employer, according to its standard travel policy, shall reimburse Executive for all reasonable, in-policy business expenses upon the presentation of itemized statements of such expenses. Executive shall be entitled to three weeks' paid vacation per year, in accordance with Employer's vacation policy and practice applicable to senior executives of Employer; provided that following Executive's fifth anniversary of employment with Employer (determined based upon Executive's initial employment date of July 9, 2018), Executive shall be entitled to four weeks' paid vacation per year.

(e) Fringe Benefits and Perquisites. During the Employment Period, Employer shall make available to Executive all the fringe benefits and perquisites that are made available to other senior executives of Employer, including an additional $3,500 payment towards medical expenses.

(f) Other Benefits. During the Employment Period, Executive shall be eligible to participate in all other employee welfare benefit plans and other benefit programs (including group life insurance, medical and dental insurance, and accident and disability insurance) made available generally to employees or senior executives of Employer.

(g) Educational Expenses. During the Employment Period, Employer agrees to pay on Executive's behalf the tuition and related fees incurred by Executive in connection with Executive's enrollment in a mutually approved executive MBA program (the "*Program*"), in an amount not to exceed $150,000, for a period of two years from enrollment by Executive in such Program. Such payments shall not include travel or other related expenses that may be incurred by Executive in connection with participation in the Program.

7. Termination. Executive's employment hereunder may be terminated under the following circumstances, in each case subject to the provisions of this Agreement:

(a) Death. Executive's employment hereunder shall terminate upon Executive's death.

(b) Disability. If, as a result of Executive's incapacity due to physical or mental condition and, if reasonable accommodation is required by law, after any reasonable accommodation, Executive shall have been absent from Executive's duties hereunder on a full-time basis (i) for a period of six consecutive months or (ii) for shorter periods aggregating six months during any 12-month period, and, in either case, within 30 days after written Notice of Termination (as described in Section 8(a) hereof) is given, Executive shall not have returned to the performance of Executive's duties hereunder on a full-time basis, Employer may terminate Executive's employment hereunder for "*Disability*."

(c) **Cause**. Employer may terminate Executive's employment hereunder for Cause. In the event of a termination under this Section 7(c), the Date of Termination shall be the date set forth in the Notice of Termination. For purposes of this Employment Agreement, "*Cause*" means the occurrence of any of the following events which are not cured by Executive within ten days after receipt of written notice of such alleged cause from Employer or, if such event cannot be corrected within such ten-day period, if Executive does not commence to correct such default within said ten-day period and thereafter diligently prosecute the correction of same to completion within a reasonable time, *provided*, *however*, for no period greater than 30 days: (i) Executive's conviction for any acts of fraud or breach of trust or any felony criminal acts; (ii) Executive's knowingly making a materially false written statement to Employer's auditors or legal counsel; (iii) Executive's willful and material falsification of any corporate document or form; (iv) any material breach by Executive of any Employer published policy received and acknowledged by Executive in writing; (v) any material breach by Executive of a material provision of this Employment Agreement; (vi) Executive's making a material misrepresentation of fact or omission to disclose material facts in relation to transactions occurring in the business and financial matters of Employer; or (vii) Executive's repeated and material failure substantially to perform Executive's duties. Notwithstanding the foregoing, during the two-year period following a Change in Control (as defined in the Plan, "*Change in Control*") (the "*Protected Period*"), a termination for Cause (other than pursuant to Section 7(c)(i)) shall require a showing by Employer that the actions giving rise to such termination resulted in material and demonstrable harm to Employer.

(d) **Good Reason**. For purposes of this Agreement, "*Good Reason*" shall mean, without Executive's written consent: (i) a material reduction in Executive's base salary or incentive compensation opportunity, (ii) a material reduction in Executive's responsibilities or authority; (iii) a material breach by Employer of a material provision of this Agreement, or (iv) a material change in the geographic location at which Executive must perform Executive's services (except as provided in Section 5 above); *provided*, that in no instance will the relocation of Executive to a facility or a location that is either 25 miles or less from Executive's then-current office or 25 miles or less from Executive's then-current primary residence be deemed material for purposes of this Agreement.

In the event of a resignation for Good Reason, Executive must provide Employer with written notice of the acts or omissions constituting the grounds for Good Reason within 90 days of the initial existence of the grounds for Good Reason and a reasonable opportunity for Employer to cure the conditions giving rise to such Good Reason, which shall not be less than 30 days following the date of notice from Executive. If Employer cures the conditions giving rise to such Good Reason within 30 days of the date of such notice, Executive will not be entitled to severance payments and/or benefits contemplated by Section 9(a) below if Executive thereafter resigns from Employer based on such grounds. Any termination for Good Reason must be effectuated within 90 days of the expiration of such cure period.

(e) **Other Terminations**. Notwithstanding the foregoing provisions, Employer may terminate Executive's employment at any time, for any reason, with or without Cause, and Executive may terminate Executive's employment at any time, with or without cause, in accordance with applicable state and federal law. The parties acknowledge that Executive is an at-will employee of Employer.

8. **Termination Procedure**.

(a) **Notice of Termination** . Any termination of Executive's employment by Employer or by Executive (other than termination pursuant to Section 7(a) hereof) shall be communicated by written Notice of Termination to the other party hereto in accordance with Section 15.

(b) **Date of Termination** . "*Date of Termination*" shall mean (i) if Executive's employment is terminated by Executive's death, the date of Executive's death; (ii) if Executive's employment is terminated pursuant to Section 7(b), 30 days after Notice of Termination is given (*provided* that Executive shall not have returned to the performance of Executive's duties on a full-time basis during such 30-day period); (iii) if Executive's employment is terminated pursuant to Section 7(c), the date specified in the Notice of Termination;

(iv) if Executive terminates Executive's employment for Good Reason, upon expiration of the 30-day cure period set forth in Section 7(d) if Employer's breach shall be uncured; and (v) if Executive's employment is terminated pursuant to Section 7(e), immediately upon written notice delivered by the terminating party to the other, unless such notice designates a different termination date (in the case of a termination by Executive pursuant to Section 7(e), Employer may elect to accelerate the Date of Termination to any date following receipt of such notice, and such acceleration shall not be deemed a termination by Employer without Cause).

9. **Compensation Upon Termination**.

(a) **Death; Disability; Termination By Employer without Cause or By Executive for Good Reason**. If Executive's employment is terminated during the Employment Period by reason of Executive's death or Disability or by Employer without Cause or by Executive for Good Reason, Employer shall pay to Executive (or Executive's legal representatives or estate or as may be directed by the legal representatives of Executive's estate, as the case may be) (i) the Severance Amount (defined in Section 9(b)), payable in 12 equal monthly installments on the applicable monthly anniversaries of the Date of Termination; (ii) a payment, payable on the 60th day following the Date of Termination equal to the product of (x) the excess of the monthly COBRA premium required for Executive to continue health insurance coverage at the level in effect as of the Date of Termination over the employee premium Executive would be required to pay for such coverage were Executive still actively employed by Employer (each determined as of the Date of Termination) multiplied by (y) 12 (or, if the Date of Termination occurs during the Protected Period other than due to death or Disability, 24); and (iii) a lump sum cash payment, payable within five days following such Date of Termination, of an amount equal to any earned but unpaid Base Salary or bonus (in the case of an annual bonus, such payment may be made on the date annual bonuses for the applicable year are to be made generally, if such year ended prior to the Date of Termination but such general payment date is to occur subsequent to the fifth day following the Date of Termination) due to Executive in respect of periods through the Date of Termination plus accrued vacation in accordance with Employer's vacation policy - subject to all required deductions and withholdings (the amounts due pursuant to this clause (iii), the "*Accrued Amounts*"). The amounts set forth in Section 9(a)(i)-(ii) shall be payable if and only if Executive shall have executed on or before the 50th day following the Date of Termination, and not subsequently revoked, a mutual release and covenant agreement substantially in the form set forth as **Exhibit I** (the "*Release Agreement*"). For the avoidance of doubt, in the event that Executive is willing to execute the Release Agreement and the Company is not, the Company shall not be required to sign the Release Agreement, but, so long as Executive timely delivers an executed Release Agreement, the amounts set forth in Section 9(a)(i)-(ii) shall be payable to Executive. In the event Executive does not timely execute (or revokes) the Release Agreement, Executive shall repay to Employer, within five days following the 60th day following the Date of Termination, any payments previously made to Executive pursuant to Section 9(a)(i). For purposes of this Section 9, if Executive's employment is terminated without Cause or by Executive for Good Reason prior to a Change in Control but proximate to, or following, Employer's (as defined in the Plan) entry into an agreement to enter into a transaction that would constitute a Change in Control, and such termination (or the event giving rise to the Good Reason claim) is made at the direction of the third-party effectuating such Change in Control, such termination shall be deemed to have occurred during the Protected Period.

(b) **Severance Amount**. For the purposes of Section 9(a), "*Severance Amount*" means an amount equal to

(i) if Executive's employment is terminated by reason of Executive's death or Disability, six months of Executive's Base Salary (determined as of the Date of Termination);

(ii) if, other than during the Protected Period, Executive's employment is terminated by Employer without Cause or by Executive with Good Reason, one multiplied by Executive's Base Salary (determined as of the Date of Termination); or

(iii) if, during the Protected Period, Executive's employment is terminated by Employer without Cause or by Executive with Good Reason, two multiplied by Executive's Base Salary (determined as of the Date of Termination).

(c) **Cause or By Executive Other than for Good Reason**. If Executive's employment is terminated by Employer for Cause or by Executive other than for Good Reason, then Employer shall pay Executive, within five days following such Date of Termination, in a lump sum cash payment, the Accrued Amounts (other than annual bonuses with respect to which Executive did not satisfy the continued service requirements of Section 6(b)). If Executive's employment is terminated by Employer for Cause or by Executive other than for Good Reason during Executive's participation in the Program or within two years thereafter, or if Executive voluntarily ceases to participate in the Program prior to completion thereof, Executive shall reimburse Employer for all amounts Employer previously paid related to the Program pursuant to Section 6(g).

(d) **Certain Reductions**. Anything in this Agreement to the contrary notwithstanding, in the event that the Accounting Firm (as defined below) determines that receipt of all Payments (as defined below) would subject Executive to the tax under Section 4999 of the Code, the Accounting Firm shall determine whether to reduce any of the Agreement Payments (as defined below) to Executive so that the Parachute Value (as defined below) of all Payments to Executive, in the aggregate, equals the applicable Safe Harbor Amount (as defined below). Agreement Payments shall be so reduced only if the Accounting Firm determines that Executive would have a greater Net After-Tax Receipt (as defined below) of aggregate Payments if the Agreement Payments were so reduced. If the Accounting Firm determines that Executive would not have a greater Net After-Tax Receipt of aggregate Payments if the Agreement Payments were so reduced, Executive shall receive all Agreement Payments to which Executive is entitled hereunder.

(i) If the Accounting Firm determines that the aggregate Agreement Payments to Executive should be reduced so that the Parachute Value of all Payments to Executive, in the aggregate, equals the applicable Safe Harbor Amount, Employer shall promptly give Executive notice to that effect and a copy of the detailed calculation thereof. All determinations made by the Accounting Firm under this Section 9(d) shall be binding upon Employer and Executive and shall be made as soon as reasonably practicable and in no event later than 15 days following the Date of Termination. For purposes of reducing the Agreement Payments to Executive so that the Parachute Value of all Payments to Executive, in the aggregate, equals the applicable Safe Harbor Amount, only Agreement Payments (and no other Payments) shall be reduced. The reduction contemplated by this Section 9(d), if applicable, shall be made by reducing payments and benefits (to the extent such amounts are considered Payments) under the following sections in the following order: (i) Section 9(a)(i); (ii) Section 9(a)(ii); and (iii) Section 9(a)(iii).

(ii) As a result of the uncertainty in the application of Section 4999 of the Code at the time of the initial determination by the Accounting Firm hereunder, it is possible that amounts will have been paid or distributed by Employer to or for the benefit of Executive pursuant to this Agreement that should not have been so paid or distributed (each, an "*Overpayment*") or that additional amounts that will have not been paid or distributed by Employer to or for the benefit of Executive pursuant to this Agreement could have been so paid or distributed (each, an "*Underpayment*"), in each case consistent with the calculation of the applicable Safe Harbor Amount hereunder. In the event that the Accounting Firm, based on the assertion of a deficiency by the Internal Revenue Service against Employer or Executive which the Accounting Firm believes has a high probability of success, determines that an Overpayment has been made, any such Overpayment paid or distributed by Employer to or for the benefit of Executive shall be repaid by Executive to Employer, together with interest at the applicable federal rate provided for in Section 7872(f)(2) of the Code; *provided*, *however*, that no such repayment shall be required if and to the extent such deemed repayment would not either

reduce the amount on which Executive is subject to tax under Sections 1 and 4999 of the Code or generate a refund of such taxes. If the Accounting Firm, based on controlling precedent or substantial authority, determines that an Underpayment has occurred, any such Underpayment shall be promptly paid by Employer to or for the benefit of Executive, together with interest at the applicable federal rate provided for in Section 7872(f)(2) of the Code.

(iii) In connection with making determinations under this Section 9(d), the Accounting Firm shall take into account the value of any reasonable compensation for services to be rendered by Executive before or after the applicable transaction giving rise to application of Section 4999 of the Code, including any noncompetition provisions that may apply to Executive (whether set forth in this Agreement or otherwise), and Employer shall cooperate in the valuation of any such services, including any noncompetition provisions.

(iv) All fees and expenses of the Accounting Firm in implementing the provisions of this Section 9(d) shall be borne by Employer.

(v) The following terms shall have the following meanings for purposes of this Section 9(d).

(1) "Accounting Firm" shall mean a nationally recognized certified public accounting firm (which accounting firm shall in no event be the accounting firm for the entity seeking to effectuate such change of control) or other professional services organization that is a certified public accounting firm recognized as an expert in determinations and calculations for purposes of Section 280G of the Code that is selected by Employer (as it exists prior to a change of control) and reasonably acceptable to Executive for purposes of making the applicable determinations hereunder.

(2) "Agreement Payment" shall mean a Payment paid or payable pursuant to this Agreement.

(3) "Net After-Tax Receipt" shall mean the Present Value of a Payment net of all taxes imposed on Executive with respect thereto under Sections 1 and 4999 of the Code and under applicable state, local, and foreign laws, determined by applying the highest marginal rate under Section 1 of the Code and under state, local, and foreign laws that applied to Executive's taxable income for the immediately preceding taxable year, or such other rate as such Executive shall certify, in Executive's sole discretion, as likely to apply to Executive in the relevant tax year.

(4) "Parachute Value" of a Payment shall mean the present value as of the date of the change in control for purposes of Section 280G of the Code of the portion of such Payment that constitutes a "parachute payment" under Section 280G(b)(2) of the Code, as determined by the Accounting Firm for purposes of determining whether and to what extent the excise tax under Section 4999 of the Code will apply to such Payment.

(5) A "Payment" shall mean any payment, benefit or distribution in the nature of compensation (within the meaning of Section 280G(b)(2) of the Code) to or for the benefit of Executive, whether paid or payable pursuant to this Agreement or otherwise.

(6) "Present Value" of a Payment shall mean the economic present value of a Payment as of the date of the change in control for purposes of Section 280G of the Code,

as determined by the Accounting Firm using the discount rate required by Section 280G(d)(4) of the Code.

(7) "Safe Harbor Amount" means (x) 3.0 times Executive's "base amount," within the meaning of Section 280G(b)(3) of the Code, minus (y) $1.00.

10. **No Mitigation**. Executive shall not be required to mitigate amounts payable pursuant to Section 9 of this Agreement by seeking other employment or otherwise, nor shall such payments be reduced on account of any remuneration earned by Executive attributable to employment by another employer, by retirement benefits, by offset against any amount claimed to be owed by Executive to Employer or otherwise.

11. **Confidentiality, Non-Compete, and Non-Solicitation**.

(a) **Non-Disclosure and Non-Use of Confidential Information**. Executive shall not disclose any Employer Confidential Information (as defined below) to any third party (other than accountants, lawyers and other third parties engaged by and working at the behest of Employer) without the specific written consent of Employer and shall use Employer Confidential Information solely for the benefit of Employer. Following the termination of Executive's employment with Employer (regardless of whether termination is voluntary or involuntary and with or without cause), Executive will not, without the written consent of Employer, use, disclose, reproduce, or distribute any Employer Confidential Information.

(b) **Definition of Employer Confidential Information**. For purposes of this Agreement, "*Employer Confidential Information*" shall mean all information, regardless of its form or format, about Employer, its customers and employees that is not readily accessible to the public and not a matter of common knowledge in Employer's business trade or industry and that is disclosed to or learned by Executive as a direct or indirect consequence of or through Executive's employment with Employer — about Employer, its parents or subsidiaries, including information about Employer's technology, finances, business methods, plans, operations, services, products and processes (whether existing or contemplated), or any of its executives, clients, agents or suppliers, information relating to software programs, source codes or object codes; computer systems; computer systems analyses; testing results; flow charts and designs; product specifications and documentation; user documentation; sales plans; sales records; sales literature; customer lists and files; research and development projects or plans; marketing and merchandising plans and strategies; pricing strategies; price lists; sales or licensing terms and conditions; consulting sources; supply and service sources; procedure or policy manuals; legal matters; financial statements; financing methods; financial projections; and the terms and conditions of business arrangements with its parent, clients, suppliers, banks, or other financial institutions.

(c) **Covenant Not To Compete**. In consideration of Employer's provision of Employer Confidential Information and the consideration payable to Executive pursuant to Sections 9(a)-(c), Executive hereby agrees that during employment and for a period of two years thereafter (the "*Restricted Period*") (other than on behalf of Employer or its affiliates), Executive shall not provide the same or substantially the same services to a Competing Business (as defined below) anywhere in the Restricted Area (as defined below), regardless of whether these services are provided as a principal, agent, employee executive, consultant, or volunteer; *provided*, *however*, that mere ownership of securities having no more than one percent of the outstanding voting power of any Competing Business listed on any national securities exchange or traded actively in the national over-the-counter market shall not be deemed to be in violation of this Section 11(c) so long as Executive otherwise complies with the terms of this provision.

"*Restricted Area*" shall mean each and every current market throughout the United States in which Employer conducts business. The term "Restricted Area" shall also include any potential markets that Executive is directly or indirectly involved in helping develop on behalf of Employer during the 12 months immediately preceding Executive's termination of employment. The term "Competing Business" shall have the same definition as set forth in Section (d) below.

(d) **Non-Solicitation of Customers**. Executive hereby agrees that, during the Restricted Period (other than on behalf of Employer or its affiliates), Executive shall not in any way directly or indirectly, for the purpose of conducting or engaging in a Competing Business:

(i) solicit any business from, or attempt to sell any products or services, or to call upon or solicit any customer or client of Employer then-existing, or any Past customer of Employer, or any affiliate of Employer that Executive had direct or indirect contact while employed with Employer;

(ii) assist, cooperate or encourage any third party to do any of the foregoing.

For purposes of this Section 11(c) and (d), the term "*Past*" customer or "*Past*" licensee shall refer to any former customer or licensee of Employer or any affiliate within one year of their having ceased to be a customer or licensee of Employer or any affiliate. "*Competing Business*" means the business of developing, designing, publishing, marketing, maintaining or distributing databases and software applications which are competitive with products or services of Employer, are generally referred to as "*single family or multi-tenant real estate management applications*" and are generally used at apartment communities by personnel engaged in the operation, screening, call center, leasing, pricing, promotion and maintenance of apartment units. Without limitation of the foregoing, single family or multi-tenant real estate management applications, data bases, software and services shall include software used in prospecting, selling or screening potential residents, performing property management or accounting functions, providing pricing information or performing market research, communicating via the Internet with applicants, residents, service providers, suppliers and advertising providers, facilitating or providing billing, payments and cash management services, vendor screening and vendor compliance services, providing energy management or convergent billing services and producing, soliciting and/or assisting with the solicitation of insurance products or services or developing, marketing or selling a single family or multi-tenant vendor network solution.

(e) **Non-Solicitation of Licensees**. Executive hereby agrees that, during the Restricted Period (other than on behalf of Employer or its affiliates), Executive shall not in any way directly or indirectly, for the purpose of conducting or engaging in a Competing Business:

(i) solicit any business from, or attempt to sell any products or services, or to call upon or solicit any licensee of Employer then-existing, or any Past licensee of Employer, or any affiliate of Employer that Executive had direct or indirect contact while employed with Employer;

(ii) assist, cooperate or encourage any third party to do any of the foregoing.

For purposes of this Section 11(e), the term "*Past*" customer or "*Past*" licensee shall refer to any former customer or licensee of Employer within one year of their having ceased to be a customer or licensee of Employer.

(f) **Non-Interference with Employees**. Executive hereby agrees, during the Restricted Period, not to, directly or indirectly, solicit or induce any of Employer's or any affiliate of Employer's then-existing employees, representatives, consultants or agents to give up employment with or representation of Employer or any affiliate. If Employer terminates the employment or services of any such individual, Executive may thereafter hire such individual.

(g) **Non-Interference with Business Relationships**. Executive hereby agrees, during the Restricted Period, that Executive shall not, directly or indirectly, for the purpose of conducting or engaging in a Competing Business, utilize Employer Confidential Information to interfere with, impair, or adversely affect any contractual relationships or business relationships between Employer and any of the technology or distribution companies with whom Employer or any affiliate has strategic relationships.

(h) **Non-Disparagement**. Executive hereby agrees that during the Employment Period and at all times thereafter, Executive shall not disparage either orally or in writing Employer or any affiliate, their products or services, or their officers, directors, or employees. Employer hereby agrees that during the Employment Period and at all times thereafter it shall instruct its directors and officers not to disparage Executive orally or in writing. This Section 11(h) shall not be violated by truthful statements in response to legal process, testifying in any legal or administrative proceeding, or responding to inquiries or requests for information by any regulator or auditor.

(i) **Injunctive Relief**. Executive recognizes and agrees that the injury Employer will suffer in the event of a breach of this Section 11 may cause Employer irreparable injury that cannot adequately be compensated by monetary damages alone. Therefore, in the event of a breach of this Section 11 by Executive, or any attempted or threatened breach, Executive agrees that Employer, without limiting any legal or equitable remedies available to it, may be entitled to equitable relief by preliminary and permanent injunction or otherwise, without the necessity of posting any bond or undertaking, against Executive and/or the business enterprise with which Executive may have become associated, from any court of competent jurisdiction.

12. **Reasonableness of Restrictions**. Executive understands and acknowledges that Employer would not have entered into the Employment Agreement, unless and until it had secured from Executive assurance that Executive would become and remain, until the Date of Termination, as an executive of Employer in accordance with the terms and conditions hereof including the specific restriction on disclosure of confidential information in accordance with the terms of Section 11 hereof. **Executive expressly acknowledges and agrees that the covenants and restrictive agreements contained in this Agreement are reasonable as to scope, location, and duration and that observation thereof will not cause Executive undue hardship or unreasonably interfere with Executive's ability to earn a livelihood and practice Executive's present skills and trades. Executive has consulted with legal counsel of Executive's own selection regarding the meaning of such covenants and restrictions, which have been explained to Executive's satisfaction.**

13. **Successors; Binding Agreement**.

(a) **Employer's Successors**. Employer shall require any successor (whether direct or indirect, by purchase, merger, consolidation or otherwise) to all or substantially all of its businesses and/or assets ("*Transaction*") to assume and agree to perform this Agreement in the same manner and to the same extent that Employer would be required to perform it if no such succession had taken place. Employer may honor the obligation set forth in the preceding sentence through execution in the course of consummating the Transaction of either a specific assignment and assumption agreement relating to the obligations set forth herein, or a general assignment and assumption agreement. Failure of Employer to obtain such assumption and agreement prior to the effectiveness of any such succession shall be a material breach of a material provision of this Agreement. As used in this Agreement, the "*Employer*" shall mean Employer as hereinbefore defined and any successor to the business and/or assets as aforesaid which executes and delivers the agreement provided for in this Section 13 or which otherwise becomes bound by all the terms and provisions of this Agreement by operation of law.

(b) **Executive's Successors**. This Agreement shall not be assignable by Executive. This Agreement and all rights of Executive hereunder shall inure to the benefit of and be enforceable by Executive's personal or legal representatives, executors, administrators, successors, heirs, distributees, devisees and legatees. If Executive should die while any amounts would still be payable to Executive hereunder if Executive had continued to live, all such amounts unless otherwise provided herein, shall be paid in accordance with the terms of this Agreement to Executive's devisee, legatee, or other designee or, if there be no such designee, to Executive's estate.

14. **Indemnification**. To the fullest extent permitted by law, Employer shall indemnify Executive (including the advancement of legal, accounting and other expert expenses) for any judgments, fines, amounts paid in settlement and

reasonable expenses, including attorneys' fees, incurred by Executive in connection with the defense of any lawsuit or other claim to which Executive is made a party by reason of performing Executive's responsibilities as an officer or executive of Employer or any of its subsidiaries; except that, Employer shall have no such duty of indemnification with regard to claims or suits brought, for any reason, against Executive by any former employer of Executive.

15. **Notice**. For the purposes of this Agreement, notices, demands and all other communications provided for in this Agreement shall be in writing and shall be deemed to have been duly given either (a) when delivered to a national overnight delivery service or (unless otherwise specified) mailed by United States certified or registered mail, return receipt requested, postage prepaid, addressed (i) in the case of notice to Employer, as set forth in the Preamble of this Agreement, attention of Employer's Chief Executive Officer and Employer's Chief Legal Officer and (ii) in the case of notice to Executive, to the address then current in Employer's records, or to such other address as any party may have furnished to the other in writing in accordance herewith, except that notices of change of address shall be effective only upon receipt, or (b) by e-mail to Employer e-mail address of (i) in the case of notice to Employer, Employer's Chief Executive Officer and Employer's Chief Legal Officer and (ii) in the case of notice to Executive, Executive. No notices may be given via facsimile transmission.

16. **Severability**. Should any term, condition, provision or part of this Agreement be found to be unlawful, invalid, illegal or unenforceable, that portion shall be deemed null and void and severed from the Agreement for all purposes, but such illegality, or invalidity or unenforceability shall not affect the legality, validity or enforceability of the remaining parts of this Agreement, and the remainder of the Agreement shall remain in full force and effect, unless such would be manifestly inequitable or would serve to deprived either party of a material part of what it bargained for in entering in this Agreement.

17. **Counterparts**. This Agreement may be executed in one or more counterparts, each of which shall be deemed to be an original but all of which together will constitute one and the same instrument.

18. **Withholding**. Notwithstanding any other provision of this Agreement, Employer may withhold from amounts payable under this Agreement all federal, state, local and foreign taxes that are required to be withheld by applicable laws or regulations.

19. **Confidential Information and Invention Assignment**. Executive shall execute and deliver a Confidential Information, Invention Assignment and Arbitration Agreement in the form attached as **Exhibit II** hereto.

20. **Outside Fees**. Executive agrees and covenants not to solicit or receive, in connection with Executive's employment with Employer, any income or other compensation from any third party doing business with Employer, including, without limitation, any supplier, client, customer, or executive of Employer.

21. **Miscellaneous**. No provision of this Agreement may be modified, waived or discharged unless such waiver, modification or discharge is agreed to in writing signed by Executive and an authorized officer of Employer. No waiver by any party hereto at any time of any breach by the other parties hereto of, or compliance with, any condition or provision of this Agreement to be performed by any such other party shall be deemed a waiver of similar or dissimilar provisions or conditions at the same or at any prior or subsequent time. Any termination of Executive's employment or of this Agreement shall have no effect on any continuing obligations arising under this Agreement, including without limitation, the right of Executive to receive payments pursuant to Section 9 hereof and the obligations of Executive described in Section 11 hereof.

22. **Applicable Law, Venue, Jurisdiction and Arbitration . This Agreement shall be governed, construed, and enforced in accordance with the laws of the State of Texas, or U.S. federal law when applicable and supreme (without regard to the principles of conflicts of law). Any action or proceeding concerning, related to, regarding, or commenced in connection with the Agreement must be brought in a state or federal court located in Dallas, Texas, and the parties to the Agreement hereby irrevocably submit to the personal jurisdiction of such courts**

and waive any objection they may now or hereafter have as to the venue of any such action or proceeding brought in any such court, or that any such court is an inconvenient forum.

(a) **Arbitration Option**. Either party shall also have the option to submit any disputes between Executive (and Executive's attorneys, successors, and assigns) and Employer (and its Affiliates, shareholders, directors, officers, employees, agents, successors, attorneys, and assigns) relating in any manner whatsoever to Executive's employment or termination thereof by either party, including, without limitation, all disputes arising under this Agreement ("*Arbitrable Claims*"), to binding arbitration in Dallas County, Texas, pursuant to the rules of the American Arbitration Association and the arbitration rules set forth in Texas Code of Civil Procedure (the "*Rules*"). The arbitrator shall administer and conduct any arbitration in accordance with Texas law, including the Texas Code of Civil Procedure, or U.S. federal law when applicable and supreme. To the extent that the AAA Employment Rules conflict with Texas or U.S. federal law, Texas or U.S. federal law shall take precedence. All persons and entities specified in this Section (other than Employer and Executive) shall be considered third-party beneficiaries of the rights and obligations created by this Section on Arbitration. The decision of the Arbitrator shall be final and binding on the parties and judgment upon the award may be entered in any of the aforementioned courts having jurisdiction over this Agreement.

(b) **Arbitrable Claims**. Arbitrable Claims shall include, but are not limited to, contract (express or implied) and tort claims of all kinds, as well as all claims based on any federal, state, or local law, statute, or regulation, excepting only claims under applicable workers' compensation law and unemployment insurance claims. By way of example and not in limitation of the foregoing, Arbitrable Claims shall include (to the fullest extent permitted by law) any claims arising under Title VII of the Civil Rights Act of 1964, the Age Discrimination in Employment Act, the Americans with Disabilities Act, as well as any claims asserting wrongful termination, harassment, breach of contract, breach of the covenant of good faith and fair dealing, negligent or intentional infliction of emotional distress, negligent or intentional misrepresentation, negligent or intentional interference with contract or prospective economic advantage, defamation, invasion of privacy, and claims related to disability. The parties shall be eligible to recover in arbitration any and all types of relief that would otherwise be available to them if they brought their claims in a judicial forum. Executive understands that this Agreement does not prohibit Executive from pursuing an administrative claim with a local, state, or federal administrative body or government agency that is authorized to enforce or administer laws related to employment, including, but not limited to, the Department of Fair Employment and Housing, the Equal Employment Opportunity Commission, the National Labor Relations Board, or the Workers' Compensation Appeals Board. This Agreement does, however, preclude Executive from pursuing court action regarding any such claim, except as permitted by law.

(c) **Procedure**.

(i) Initiation. Arbitration of Arbitrable Claims shall be in accordance with the Employment Rules and Mediation Procedures of the American Arbitration Association as amended ("*AAA Employment Rules*"), as augmented in this Agreement. Arbitration shall be initiated as provided by the AAA Employment Rules, although the written notice to the other party initiating arbitration shall also include a statement of the claim(s) asserted and the facts upon which the claim(s) are based. Either party may bring an action in court to compel arbitration under this Agreement and to enforce an arbitration award.

(ii) Binding Arbitration. Arbitration shall be final and binding upon the parties and shall be the exclusive forum for all Arbitrable Claims, except for any appeals or enforcement of an arbitration award. Should one party select arbitration pursuant to this Agreement, then no other party shall initiate or prosecute any lawsuit or administrative action on overlapping issues of law or fact, unless the rights or obligations of third parties not subject to being determined in such arbitration are affected or must be determined in order for there to be a complete determination of the controversy, in which event the arbitration may be stayed or

dismissed pending determination of the parties' rights in a different forum where appropriate third parties are joined.

(iii) Venue. All arbitration hearings under this Agreement shall be conducted in Dallas County, Texas.

(iv) Arbitrator's Decision Must Be In Writing. The decision of the arbitrator shall be in writing and shall include a statement of the essential conclusions and findings upon which the decision is based.

(d) Waiver of Jury Trial. THE PARTIES HEREBY WAIVE ANY RIGHTS THEY MAY HAVE TO TRIAL BY JURY IN REGARD TO ARBITRABLE CLAIMS, INCLUDING WITHOUT LIMITATION ANY RIGHT TO TRIAL BY JURY AS TO THE MAKING, EXISTENCE, VALIDITY, OR ENFORCEABILITY OF THE AGREEMENT TO ARBITRATE.

(e) Arbitrator Selection and Authority. All disputes involving Arbitrable Claims shall be decided by a single arbitrator. The arbitrator shall be selected by mutual agreement of the parties within 30 days of the effective date of the notice initiating the arbitration. If the parties cannot agree on an arbitrator, then the complaining party shall notify the AAA and request selection of an arbitrator in accordance with the AAA Employment Rules. The arbitrator shall have only such authority to award equitable relief, damages, costs, and fees as a court would have for the particular claim(s) asserted. The arbitrator shall have exclusive authority to resolve all Arbitrable Claims, including, but not limited to, whether any particular claim is arbitrable and whether all or any part of this Agreement is void or unenforceable.

(f) Arbitration Fees. ***Employer shall pay the expenses and fees of the arbitrator, together with other expenses of the arbitration incurred or approved by the neutral arbitrator, but excluding an initial filing fee of $100 (payable to AAA), and counsel fees or witness fees or other expenses incurred by a party for Executive's own benefit.*** If the allocation of responsibility for payment of the arbitrator's fees would render the obligation to arbitrate unenforceable, the parties authorize the arbitrator to modify the allocation as necessary to preserve enforceability.

(g) Confidentiality. All proceedings and all documents prepared in connection with any Arbitrable Claim shall be confidential and, unless otherwise required by law, the subject matter thereof shall not be disclosed to any person other than the parties to the proceedings, their counsel, witnesses and experts, tax and financial advisors and immediate family members of Executive, the arbitrator, and, if involved, the court and court staff. All documents filed with the arbitrator or with a court shall be filed under seal. The parties shall stipulate to all arbitration and court orders necessary to effectuate fully the provisions of this subsection concerning confidentiality.

(h) Continuing Obligations. The rights and obligations of Executive and Employer set forth in this Section on Arbitration shall survive the termination of Executive's employment and the expiration of this Agreement.

23. Section 409A.

(a) Notwithstanding anything to the contrary in this Agreement, if Executive is a "specified employee" within the meaning of Section 409A of the Code and the final regulations and any guidance promulgated thereunder ("*Section 409A*") at the time of Executive's termination (other than due to death), and the severance payable to Executive, if any, pursuant to this Agreement, when considered together with any other severance payments or separation benefits which may be considered deferred compensation under Section 409A (together, the "*Deferred Compensation Separation Benefits*") will not and could not under any circumstances, regardless of when such termination occurs, be paid in full by March 15 of the year following

Executive's termination, then only that portion of the Deferred Compensation Separation Benefits which do not exceed the Section 409A Limit (as defined below) may be made within the first six months following Executive's termination of employment in accordance with the payment schedule applicable to each payment or benefit (and such portion shall be payable within such period only to the extent permissible without resulting in tax under Section 409A). For these purposes, each severance payment is hereby designated as a separate payment and will not collectively be treated as a single payment. Any portion of the Deferred Compensation Separation Benefits that cannot be paid during such six-month period due to Section 409A shall accrue and, to the extent such portion of the Deferred Compensation Separation Benefits would otherwise have been payable within such six-month period, will become payable on the first payroll date that occurs on or after the date six months and one day following the date of Executive's termination. All subsequent Deferred Compensation Separation Benefits, if any, will be payable in accordance with the payment schedule applicable to each payment or benefit. Notwithstanding anything herein to the contrary, if Executive dies following Executive's termination but prior to the six-month anniversary of Executive's termination, then any payments delayed in accordance with this paragraph will be payable in a lump sum as soon as administratively practicable after the date of Executive's death and all other Deferred Compensation Separation Benefits will be payable in accordance with the payment schedule applicable to each payment or benefit.

(b) The foregoing provision is intended to comply with the requirements of Section 409A so that none of the severance payments and benefits to be provided hereunder will be subject to the additional tax imposed under Section 409A, and any ambiguities herein will be interpreted to so comply. Employer and Executive agree to work together in good faith to consider amendments to this Agreement and to take such reasonable actions which are necessary, appropriate or desirable to avoid imposition of any additional tax or income recognition prior to actual payment to Executive under Section 409A.

(c) For purposes of this Agreement, "*Section 409A Limit*" will mean the lesser of two times: (A) Executive's annualized compensation based upon the annual rate of pay paid to Executive during Employer's taxable year preceding Employer's taxable year of Executive's termination of employment as determined under Treasury Regulation 1.409A-1(b)(9)(iii)(A)(1) and any Internal Revenue Service guidance issued with respect thereto; or (B) the maximum amount that may be taken into account under a qualified plan pursuant to Section 401(a)(17) of the Code for the year in which Executive's employment is terminated.

24. **Entire Agreement**. This Agreement sets forth the entire agreement of the parties hereto in respect of the subject matter contained herein and supersedes all prior agreements, letters of intent, promises, covenants, arrangements, communications, representations or warranties, whether oral or written, by an officer, executive or representative of any party hereto; and any prior agreement of the parties hereto in respect to the subject matter contained herein, including the Prior Agreement. **Executive acknowledges and agrees that no officer, executive or representative of Employer is authorized to offer any term or condition of employment which is in addition to or different than those set forth in this Agreement**.

[Signature Page Follows]

IN WITNESS WHEREOF, the parties, intending to be legally bound, have executed this Agreement as of the Effective Date.

REALPAGE, INC.

By: /s/ Stephen T. Winn
Name: Stephen T. Winn
Title: Chief Executive Officer

EXECUTIVE:

/s/ Kandis Thompson
Kandis Thompson

[Signature Page – Kandis Thompson Employment Agreement]

EXHIBIT I

FORM OF GENERAL RELEASE AND SEPARATION AGREEMENT

This General Release and Separation Agreement ("Agreement") is made and entered into by and between [NAME], a resident of [STATE] ("Employee"), and RealPage, Inc., a Delaware corporation ("Company"), in full and final settlement of any and all claims that Employee may have against Company and any and all claims that Company may have against Employee. This Agreement shall become effective on the eighth day after Employee signs and delivers this Agreement to Company (the "Effective Date"), provided that Employee does not revoke this Agreement prior to such date pursuant to Paragraph 3(f)(iv) below and provided further that Employee signs this Agreement on or before the fiftieth day following the Termination Date (as defined below).

1. Termination as Executive of RealPage, Inc. Employee acknowledges and agrees that Employee's employment with Company in any capacity terminated effective [DATE] (the "Termination Date"). Regardless of whether Employee executes this Agreement, (a) Company will pay Employee, on or before the Termination Date, the Accrued Amounts (as defined in the Employment Agreement, dated as of _____, 201__, by and among Company and Employee (the "Employment Agreement")) and (b) nothing contained herein shall be deemed to affect Employee's right to vested benefits (if any) under Company's 401(k) plan or with respect to health benefit continuation in accordance with the federal law known as COBRA.

2. Consideration for Agreement from Company. In return for this Agreement, and in full and final settlement, compromise, and release of any and all claims that Employee has or may have against the Released Parties (as defined below in Paragraph 3), including Company (as described in Paragraph 3 below), and provided that Employee complies with the obligations under this Agreement, Employer shall pay and provide Employee the payments and benefits described in Sections 9(a)(i)-(ii) of the Employment Agreement.

3. General Release.

(a) Except as expressly set forth in this Agreement, Employee, on behalf of Employee and Employee's spouse, heirs, descendants, administrators, representatives and assigns, hereby releases, forever discharges and covenants not to sue, Company, its past, present and future parents, subsidiaries, divisions, affiliates, and each of its and their respective predecessors, successors and assigns, and each of their past, present and future employees, officers, directors, agents, insurers, members, partners, joint venturers, employee welfare benefit plans, employee pension benefit plans and deferred compensation plans, and their trustees, administrators and other fiduciaries, and all persons acting by, through, under or in concert with them, or any of them (the "Released Parties"), of, from, and with respect to any action, cause of action, in law or in equity, suit, debt, lien, contract, agreement, obligation, promise, liability, claim, demand, damage, loss, cost or expense, of any nature whatsoever, known or unknown, suspected or unsuspected, or fixed or contingent (hereinafter called "Claims"), which Employee now has or may hereafter have against the Released Parties, or any of them, by reason of any act, omission, matter, cause or thing whatsoever occurring from the beginning of time through the date Employee signs this Agreement. Employee understands that this release includes, without limitation:

- Claims arising out of or by virtue of or in connection with Employee's employment with Company or any of the Released Parties, the terms and conditions of that employment, or the termination of that employment. This release includes (but is not limited to) Claims for breach of contract and common law Claims for wrongful discharge; assault and battery; negligence; negligent hiring, retention and/or supervision; intentional or negligent invasion of privacy; defamation; intentional or negligent infliction of emotional distress; violations of public policy; or any other law grounded in tort, contract or common law. With the exception of any Claims covered by Paragraph 3(b) of this Agreement, this release further

includes (but is not limited to) statutory Claims for failure to pay wages and/or overtime, unlawful harassment, and unlawful retaliation, Claims arising under federal, state or local laws, statutes or orders or regulations that relate to the employment relationships and/or prohibiting employment discrimination or any other federal, state or local law, including, but not limited to, Claims under the following statutes:

- Title VII of the Civil Rights Act of 1964, as amended in 1991;
- Section 1981 of the Civil Rights Act of 1866, as amended;
- 42 U.S.C. Sections 1981 - 1988;
- The Age Discrimination in Employment Act;
- The Employee Income Retirement Security Act;
- The Fair Labor Standards Act;
- The Americans With Disabilities Act;
- The Family and Medical Leave Act;
- The National Labor Relations Act;
- The Fair Credit Reporting Act;
- The Immigration Reform Control Act;
- The Occupational Safety & Health Act;
- The Equal Pay Act;
- The Uniformed Services Employment and Reemployment Rights Act;
- The Worker Adjustment and Retraining Notification Act;
- The Employee Polygraph Protection Act;
- The Texas Labor Code;
- Any state or federal consumer protection and/or trade practices act; and
- Any state or federal workers' compensation or disability, to the maximum extent permitted by law.

(b) Exceptions to Release by Employee: Excluded from this Agreement are (i) Claims with respect to the breach of any covenant to be performed by Company after the date of this Agreement and (ii) any Claims that cannot be waived by law, including, but not limited to, the right to file a charge with or participate in an investigation conducted by the Texas Workforce Commission or the Equal Employment Opportunity Commission (the "EEOC"). Employee is waiving, however, Employee's right to any monetary recovery or relief should the Texas Workforce Commission or EEOC or any other agency pursue any Claims on Employee's behalf.

(c) Employee represents and warrants that Employee has not assigned or transferred to any third party any interest in any Claim which Employee may have against the Released Parties, or any of them, and Employee agrees

to indemnify and hold the Released Parties, and each of them, harmless from any liability, claims, demands, damages, costs, expenses and attorneys' fees incurred by them, or any of them, as a result of any such assignment or transfer.

(d) Employee represents and warrants that Employee has not asserted, filed or otherwise taken actions to initiate any Claim in any federal, state or local court, administrative agency, arbitral forum, or any other forum.

(e) If any Claim is not subject to release, to the extent permitted by law, Employee waives any right or ability to be a class or collective action representative or to otherwise participate in any putative or certified class, collective or multi-party action or proceeding based on such a Claim in which Company or any of the Releasees identified in this Agreement is a party.

(f) Waiver Of Age Discrimination Claims : Employee expressly acknowledges and agrees that, by entering into this Agreement, Employee is waiving any and all rights or Claims that Employee may have arising under the Age Discrimination in Employment Act, as amended (the "ADEA"), which have arisen on or before the date of execution of this Agreement. Employee further expressly acknowledges and agrees that:

(i) In return for this Agreement, Employee will receive compensation beyond that which Employee was already entitled to receive before entering into this Agreement;

(ii) Employee is hereby advised in writing by this Agreement to consult with an attorney before signing this Agreement and Employee fully understands the significance of all the terms and conditions of this Agreement and has discussed them with Employee's attorney (or Employee has had a reasonable opportunity to discuss the terms and conditions of this Agreement with an attorney, if desired) prior to signing this Agreement;

(iii) Employee is hereby informed that Employee has 21 days within which to consider this Agreement and that if Employee signs it prior to the end of such 21-day period, Employee will have done so voluntarily and with full knowledge that Employee is waiving the right to have 21 days to consider this Agreement;

(iv) Employee is hereby advised that Employee has seven (7) days following the date of execution of this Agreement in which to revoke in writing the release of rights or Claims Employee may have arising under the ADEA. Any revocation must be in writing and must be received by Company's Chief Executive Officer during the seven-day revocation period. In the event that Employee exercises Employee's right of revocation, all other releases and obligations under this Agreement shall not be valid or enforceable;

(v) Nothing in this Agreement prevents or precludes Employee from challenging or seeking a determination in good faith of the validity of this waiver under the ADEA, nor does it impose any condition precedent, penalties or costs from doing so, unless specifically authorized by federal law;

(vi) Employee has carefully read this Agreement, acknowledges that Employee has not relied on any representation or statement, written or oral, not set forth in this Agreement or the Employment Agreement; and

(vii) Employee represents and warrants that Employee is signing this release knowingly and voluntarily.

4. Company Release.

(a) In consideration of the Employee's execution and non-revocation of this Agreement, and for other good and valuable consideration, receipt of which is hereby acknowledged, Company, on behalf of itself and each of

its subsidiaries, hereby releases, forever discharges and covenants not to sue Employee with respect to and from any Claim which Company or its applicable subsidiary now has or may hereafter have against Employee by reason of any act, omission, matter, cause or thing whatsoever occurring from the beginning of time through the date Employee signs this Agreement; provided, however, that this release excludes (i) any Claims that cannot be waived by law, (ii) Claims with respect to the breach of any covenant to be performed by Employee after the date of this Agreement and (iii) Claims based upon Employee's willful misconduct.

(b) Company represents and warrants that Company has not assigned or transferred to any third party any interest in any Claim which Company may have against Employee, and Company agrees to indemnify and hold Employee harmless from any liability, claims, demands, damages, costs, expenses and attorneys' fees incurred by Employee as a result of any such assignment or transfer.

(c) Company represents and warrants that Company has not asserted, filed or otherwise taken actions to initiate any Claim against Employee in any federal, state or local court, administrative agency, arbitral forum, or any other forum.

5. Continuing Obligations Contained in Other Documents and Return of Company Property. Employee agrees and acknowledges that Employee has complied, and will continue to comply, with the obligations under this Agreement and the Employment Agreement (including, without limitation, the restrictive covenants set forth in Section 11 of the Employment Agreement). Company agrees and acknowledges that Company has complied, and will continue to comply, with the obligations under this Agreement and the Employment Agreement (including, without limitation, the non-disparagement covenant set forth in Section 11(h) of the Employment Agreement). In addition, Employee shall return to Company all Company property in Employee's possession, custody or control on or before the Termination Date.

6. Waiver of Breach. A waiver by Employee or Company of a breach of any provision of this Agreement shall not operate or be construed as a waiver of any subsequent breach by either party.

7. No Admission of Liability. Employee and Company understand and acknowledge that this Agreement constitutes a compromise and settlement of any and all potential disputed Claims that Employee may have against Company and the Released Parties and that Company may have against Employee. Neither this Agreement nor any action taken by Employee or Company (or any of its parent, subsidiary or affiliated entities), either previously or in connection with this Agreement, shall be deemed or construed to be: (a) an admission of the truth or falsity of any potential Claims; (b) an acknowledgment or admission by Company of any fault or liability whatsoever to Employee or to any third party; or (b) an acknowledgment or admission by Employee of any fault or liability whatsoever to Company or to any third party. Neither this Agreement nor anything in this Agreement shall be construed to be, or shall be admissible in any proceeding as, evidence of liability or wrongdoing by Employee, Company or any other Released Party.

8. Miscellaneous. Sections 13 ("Successors, Binding Agreement"), 15 ("Notice"), 16 ("Severability"), 17 ("Counterparts"), 21 ("Miscellaneous"), 22 ("Applicable Law, Venue, Jurisdiction and Arbitration"), 23 ("Section 409A"), and 24 ("Entire Agreement") of the Employment Agreement shall apply to this Agreement.

[Signature Page to Follow]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the dates indicated on the following page.

RealPage, Inc.

By:__
Name:

Title:

Date: __

EMPLOYEE:

By:__
Name:

Date: __

Address:

ACKNOWLEDGMENT AND WAIVER

I, [NAME], hereby acknowledge that I was given 21 days to consider the foregoing Agreement and voluntarily chose to sign this Agreement prior to the expiration of the 21-day period.

I declare under penalty of perjury under the laws of the State of Texas that the foregoing is true and correct.

EXECUTED this ___ day of _____ 201_, at _____County, _____.

Name:

EXHIBIT II

REALPAGE, INC.

FORM OF CONFIDENTIAL INFORMATION,

INVENTION ASSIGNMENT, AND ARBITRATION AGREEMENT

As a condition of my employment with RealPage, Inc., or its subsidiaries, affiliates, successors or assigns (together the "**Company**"), and in consideration of my employment with the Company and my receipt of the compensation now and hereafter paid to me by the Company, and other good and valuable consideration herein, the undersigned agrees to the following provisions of this Confidential Information, Invention Assignment, and Arbitration Agreement (this "**Agreement**"):

I. *Confidential Information.*

A. *Company Information.* I agree and acknowledge that as an Employee of the Company, I will be given access to Confidential Information that the Company has collected, developed, and/or discovered over time, and at great expense. I agree that during and for all times after my employment with the Company terminates, regardless of the reason for termination, I will hold in the strictest confidence, and will not use (except for the benefit of the Company during my employment) or disclose to any person, firm, or corporation (without written authorization of the President or the Board of Directors of the Company) any Company Confidential Information. I understand that my unauthorized use or disclosure of Company Confidential Information during my employment may lead to disciplinary action, up to and including immediate termination and legal action by the Company. I understand that "**Company Confidential Information**" means any non-public information that is not readily and easily available to the public or a matter of common knowledge to those in the Company's business, trade, or industry that relates to the actual or anticipated business, research or development of the Company, or to the Company's technical data, trade secrets, or know-how, including, but not limited to, research, product plans, or other information regarding the Company's products or services and markets therefor customer lists and customers (including, but not limited to, customers of the Company on which I called or with which I may become acquainted during the term of my employment), software, developments, inventions, processes, formulas, technology, designs, drawings, engineering, hardware configuration information, marketing, finances, and other business information; provided, however, Company Confidential Information does not include any of the foregoing items to the extent the same have become publicly known and made generally available through no wrongful act of mine. I understand that nothing in this Agreement is intended to limit employees' rights to discuss the terms, wages, and working conditions of their employment, as protected by applicable law.

B. *Former Employer Information*. I agree that during my employment with the Company, I will not improperly use, disclose, or induce the Company to use any proprietary information or trade secrets of any former or concurrent employer or other person or entity. I further agree that I will not bring onto the premises of the Company or transfer onto the Company's technology systems any unpublished document, proprietary information, or trade secrets belonging to any such employer, person, or entity unless consented to in writing by both the Company and such employer, person, or entity.

C. *Third Party Information*. I recognize that the Company may have received and in the future may receive from third parties associated with the Company, e.g., the Company's customers, suppliers, licensors, licensees, partners, or collaborators ("**Associated Third Parties**"), their confidential or proprietary information ("**Associated Third Party Confidential Information**"). By way of example, Associated Third Party Confidential Information may include the habits or practices of Associated Third Parties, the technology of Associated Third Parties, requirements of Associated Third Parties, and information related to the business conducted between the Company and such Associated Third Parties. I agree at all times during my employment with the Company and

thereafter to hold in the strictest confidence, and not to use or to disclose to any person, firm, or corporation, any Associated Third Party Confidential Information, except as necessary in carrying out my work for the Company consistent with the Company's agreement with such Associated Third Parties. I further agree to comply with any and all Company policies and guidelines that may be adopted from time to time regarding Associated Third Parties and Associated Third Party Confidential Information. I understand that my unauthorized use or disclosure of Associated Third Party Confidential Information or violation of any Company policies during my employment will lead to disciplinary action, up to and including immediate termination and legal action by the Company.

II. *Inventions*.

A. *Inventions Retained and Licensed*. I have attached hereto as Exhibit A, a list describing all inventions, discoveries, original works of authorship, developments, improvements, and trade secrets that were conceived in whole or in part by me prior to my employment with the Company and to which I have any right, title, or interest, and which relate to the Company's proposed business, products, or research and development ("**Prior Inventions**"); or, if no such list is attached, I represent and warrant that there are no such Prior Inventions. Furthermore, I represent and warrant that if any Prior Inventions are included on Exhibit A, they will not materially affect my ability to perform all obligations under this Agreement. If, in the course of my employment with the Company, I incorporate into or use in connection with any product, process, service, technology, or other work by or on behalf of the Company any Prior Invention, I hereby grant to the Company a non-exclusive, royalty-free, fully paid-up, irrevocable, perpetual, worldwide license, with the right to grant and authorize sublicenses, to make, have made, modify, use, import, offer for sale, and sell such Prior Invention as part of or in connection with such product, process, service, technology, or other work, and to practice any method related thereto.

B. *Assignment of Inventions*. I agree that I will promptly make full written disclosure to the Company, will hold in trust for the sole right and benefit of the Company, and hereby assign to the Company, or its designee, all my right, title, and interest in and to any and all inventions, original works of authorship, developments, concepts, improvements, designs, discoveries, ideas, trademarks, or trade secrets, whether or not patentable or registrable under patent, copyright, or similar laws, which I may solely or jointly conceive or develop or reduce to practice, or cause to be conceived or developed or reduced to practice, during the period of time I am in the employ of the Company (including during my off-duty hours), or with the use of Company's equipment, supplies, facilities, or Company Confidential Information, except as provided in Section II.E below (collectively referred to as "**Inventions**"). I further acknowledge that all original works of authorship that are made by me (solely or jointly with others) within the scope of and during the period of my employment with the Company and that are protectable by copyright are "works made for hire," as that term is defined in the United States Copyright Act. I understand and agree that the decision whether or not to commercialize or market any Inventions is within the Company's sole discretion and for the Company's sole benefit, and that no royalty or other consideration will be due to me as a result of the Company's efforts to commercialize or market any such Inventions.

C. *Maintenance of Records*. I agree to keep and maintain adequate, current, accurate, and authentic written records of all Inventions made by me (solely or jointly with others) during the term of my employment with the Company. The records will be in the form of notes, sketches, drawings, electronic files, reports, or any other format that may be specified by the Company. The records are and will be available to and remain the sole property of the Company at all times.

D. *Patent and Copyright Registrations*. I agree to assist the Company, or its designee, at the Company's expense, in every proper way to secure the Company's rights in the Inventions and any rights relating thereto in any and all countries, including the disclosure to the Company of all pertinent information and data with respect thereto, the execution of all applications, specifications, oaths, assignments, and all other instruments that the Company shall deem proper or necessary in order to apply for, register, obtain, maintain, defend, and enforce such rights, and in order to assign and convey to the Company, its successors, assigns, and nominees the sole and exclusive rights, title, and interest in and to such Inventions and any rights relating thereto, and testifying in a suit or other proceeding relating to such Inventions and any rights relating thereto. I further agree that my obligation to execute or cause to be executed, when it is in my power to do so, any such instrument or papers

shall continue after the termination of this Agreement. If the Company is unable because of my mental or physical incapacity or for any other reason to secure my signature with respect to any Inventions, including, without limitation, to apply for or to pursue any application for any United States or foreign patents or copyright registrations covering such Inventions, then I hereby irrevocably designate and appoint the Company and its duly authorized officers and agents as my agent and attorney in fact, to act for and in my behalf and stead, to execute and file any papers and oaths, and to do all other lawfully permitted acts with respect to such Inventions with the same legal force and effect as if executed by me.

III. *Conflicting Employment*.

A. *Current Obligations.* I agree that during the term of my employment with the Company, I will not engage in or undertake any other employment, occupation, consulting relationship, or commitment that is directly related to the business in which the Company is now involved or becomes involved or has plans to become involved, nor will I engage in any other activities that conflict with my obligations to the Company.

B. *Prior Relationships.* Without limiting Section III.A, I represent that I have no other agreements, relationships, or commitments to any other person or entity that conflict with my obligations to the Company under this Agreement or my ability to become employed and perform the services for which I am being hired by the Company. I further agree that if I have signed a confidentiality agreement or similar type of agreement with any former employer or other entity, I will comply with the terms of any such agreement to the extent that its terms are lawful under applicable law. I represent and warrant that after undertaking a careful search (including searches of my computers, cell phones, electronic devices, and documents), I have returned all property and confidential information belonging to all prior employers. Moreover, I agree to fully indemnify the Company, its directors, officers, agents, employees, investors, shareholders, administrators, affiliates, divisions, subsidiaries, predecessor and successor corporations, and assigns for all verdicts, judgments, settlements, and other losses incurred by any of them resulting from my breach of my obligations under any agreement to which I am a party or obligation to which I am bound, as well as any reasonable attorneys' fees and costs if the plaintiff is the prevailing party in such an action, except as prohibited by law.

IV. *Returning Company Documents*. Upon separation from employment with the Company or on demand by the Company during my employment, I will immediately deliver to the Company, and will not keep in my possession, recreate, or deliver to anyone else, any and all Company property, including, but not limited to, Company Confidential Information, Associated Third Party Confidential Information, as well as all devices and equipment belonging to the Company (including computers, handheld electronic devices, telephone equipment, and other electronic devices), Company credit cards, records, data, notes, notebooks, reports, files, proposals, lists, correspondence, specifications, drawings, blueprints, sketches, materials, photographs, charts, any other documents and property, and reproductions of any and all of the aforementioned items that were developed by me pursuant to my employment with the Company, obtained by me in connection with my employment with the Company, or otherwise belonging to the Company, its successors, or assigns, including, without limitation, those records maintained pursuant to Section II.C I also consent to an exit interview to confirm my compliance with this Section IV.

V. *Termination Certification.* Upon separation from employment with the Company, I agree to immediately sign and deliver to the Company the "Termination Certification" attached hereto as Exhibit B. I also agree to keep the Company advised of my home and business address for a period of seven (7) years after termination of my employment with the Company, so that the Company can contact me regarding my continuing obligations provided by this Agreement.

VI. *Notification of New Employer.* In the event that I leave the employ of the Company, I hereby grant consent to notification by the Company to my new employer about my obligations under this Agreement.

VII. *Conflict of Interest Guidelines*. I agree to diligently adhere to all policies of the Company, including the Company's insider's trading policies and the Conflict of Interest Guidelines attached as Exhibit C hereto, which may be revised from time to time during my employment.

VIII. *Representations.* I agree to execute any proper oath or verify any proper document required to carry out the terms of this Agreement. I represent that my performance of all the terms of this Agreement will not breach any agreement to keep in confidence proprietary information acquired by me in confidence or in trust prior to my employment by the Company. I hereby represent and warrant that I have not entered into, and I will not enter into, any oral or written agreement in conflict herewith.

IX. *Audit.* I acknowledge that I have no reasonable expectation of privacy in any computer, technology system, email, handheld device, telephone, or documents that are used to conduct the business of the Company. As such, the Company has the right to audit and search all such items and systems, without further notice to me, to ensure that the Company is licensed to use the software on the Company's devices in compliance with the Company's software licensing policies, to ensure compliance with the Company's policies, and for any other business-related purposes in the Company's sole discretion. I understand that I am not permitted to add any unlicensed, unauthorized, or non-compliant applications to the Company's technology systems and that I shall refrain from copying unlicensed software onto the Company's technology systems or using non-licensed software or websites. I understand that it is my responsibility to comply with the Company's policies governing use of the Company's documents and the internet, email, telephone, and technology systems to which I will have access in connection with my employment.

X. *Dispute Resolution.* I agree that any and all controversies, claims, or disputes with the Company (including any employee, officer, director, stockholder or benefit Plan of the Company) shall be resolved in accordance with the procedures set forth in Section 23 of my Employment Agreement with the Company.

XI. *General Provisions.*

A. *Entire Agreement*. This Agreement, together with the Exhibits herein, my executed Employment Agreement and any agreements relating to restricted stock and other awards pursuant to the RealPage, Inc. Amended and Restated 2010 Equity Incentive Plan set forth the entire agreement and understanding between the Company and me relating to the subject matter herein and supersedes all prior discussions or representations between us, including, but not limited to, any representations made during my interview(s) or relocation negotiations, whether written or oral. No modification of or amendment to this Agreement, nor any waiver of any rights under this Agreement, will be effective unless in writing signed by the President of the Company and me. Any subsequent change or changes in my duties, salary, or compensation will not affect the validity or scope of this Agreement.

B. *Severability*. If one or more of the provisions in this Agreement are deemed void by law, then the remaining provisions will continue in full force and effect.

C. *Successors and Assigns*. This Agreement will be binding upon my heirs, executors, assigns, administrators, and other legal representatives, and will be for the benefit of the Company, its successors, and its assigns. There are no intended third-party beneficiaries to this Agreement, except as expressly stated.

D. *Waiver.* Waiver by the Company of a breach of any provision of this Agreement will not operate as a waiver of any other or subsequent breach.

E. Survivorship. The rights and obligations of the parties to this Agreement will survive termination of my employment with the Company.

F. *Signatures.* This Agreement may be signed in two counterparts, each of which shall be deemed an original, with the same force and effectiveness as though executed in a single document.

Date:__ Witness:

Signature Signature

Name of Employee (typed or printed) Name of Employee (typed or printed)

Exhibit A

LIST OF PRIOR INVENTIONS
AND ORIGINAL WORKS OF AUTHORSHIP

Title	Date	Identifying Number or Brief Description

___ No inventions or improvements
___ Additional Sheets Attached

Signature of Employee: __

Print Name of Employee: __

Date: __

Exhibit B

REALPAGE, INC.

TERMINATION CERTIFICATION

This is to certify that I do not have in my possession, nor have I failed to return, any devices, records, data, notes, reports, proposals, lists, correspondence, specifications, drawings, blueprints, sketches, materials, equipment, any other documents or property, or reproductions of any and all aforementioned items belonging to RealPage, Inc., its subsidiaries, affiliates, successors or assigns (together, the "**Company**").

I further certify that I have complied with all the terms of the attached Confidential Information, Invention Assignment, and Arbitration Agreement signed by me, including the reporting of any inventions and original works of authorship (as defined therein) conceived or made by me (solely or jointly with others), as covered by that agreement.

I further agree that, in compliance with the Confidential Information, Invention Assignment, and Arbitration Agreement, I will preserve as confidential all Company Confidential Information and Associated Third Party Confidential Information, including trade secrets, confidential knowledge, data, or other proprietary information relating to products, processes, know-how, designs, formulas, developmental or experimental work, computer programs, databases, other original works of authorship, customer lists, business plans, financial information, or other subject matter pertaining to any business of the Company or any of its employees, clients, consultants, or licensees, to the extent required by the terms of that agreement.

I also agree that I will comply with the post-termination obligations enumerated in my Employment Agreement with Company dated _____and Confidential Information, Invention Assignment, and Arbitration Agreement dated _____.

After leaving the Company's employment, I will be employed by _____ in the position of: _____.

Signature of employee

Print name

Date

Exhibit C

REALPAGE, INC.

CONFLICT OF INTEREST GUIDELINES

It is the policy of RealPage, Inc. to conduct its affairs in strict compliance with the letter and spirit of the law and to adhere to the highest principles of business ethics. Accordingly, all officers, employees, and independent contractors must avoid activities that are in conflict, or give the appearance of being in conflict, with these principles and with the interests of the Company. The following are potentially compromising situations that must be avoided:

1. Revealing confidential information to outsiders or misusing confidential information. Unauthorized divulging of information is a violation of this policy whether or not for personal gain and whether or not harm to the Company is intended. (The At-Will Employment, Confidential Information, Invention Assignment, and Arbitration Agreement elaborates on this principle and is a binding agreement.)

2. Accepting or offering substantial gifts, excessive entertainment, favors, or payments that may be deemed to constitute undue influence or otherwise be improper or embarrassing to the Company.

3. Participating in civic or professional organizations that might involve divulging confidential information of the Company.

4. Initiating or approving personnel actions affecting reward or punishment of employees or applicants where there is a family relationship or is or appears to be a personal or social involvement.

5. Initiating or approving any form of personal or social harassment of employees.

6. Investing or holding outside directorship in suppliers, customers, or competing companies, including financial speculations, where such investment or directorship might influence in any manner a decision or course of action of the Company.

7. Borrowing from or lending to employees, customers, or suppliers.

8. Acquiring real estate of interest to the Company.

9. Improperly using or disclosing to the Company any proprietary information or trade secrets of any former or concurrent employer or other person or entity with whom obligations of confidentiality exist.

10. Unlawfully discussing prices, costs, customers, sales, or markets with competing companies or their employees.

11. Making any unlawful agreement with distributors with respect to prices.

12. Improperly using or authorizing the use of any inventions that are the subject of patent claims of any other person or entity.

13. Engaging in any conduct that is not in the best interest of the Company.

Each officer, employee, and independent contractor must take every necessary action to ensure compliance with these guidelines and to bring problem areas to the attention of higher management for review. Violations of this conflict of interest policy may result in discharge without warning.

Exhibit 21.1

List of Subsidiaries of the Registrant

Subsidiary	Jurisdiction
Active Building, LLC	Washington
A.L. Wizard LLC	Delaware
AssetEye Inc.	Delaware
ClickPay Services, Inc.	Delaware
DepositIQ and RentersIQ Insurance Agency LLC	Delaware
eReal Estate Integration, Inc.	California
Kigo, Inc.	Delaware
Kigo Rental Systems, S.L.	Spain
LeaseStar LLC	Delaware
Level One LLC	Delaware
MTS Connecticut, Inc.	Delaware
MTS Minnesota, Inc.	Delaware
MTS New Jersey, Inc.	Delaware
Multifamily Internet Ventures, LLC	California
MyBuilding LLC	Delaware
NovelPay LLC	Delaware
On-Site Labs, Inc.	California
Open-C Solutions, Inc.	Delaware
PEX Software Limited	United Kingdom
PEX Software Australia Pty Ltd.	Australia
Propertyware LLC	California
PropertyPhotos.com LLC	Delaware
RealPage Canada Inc.	Yukon Territory, Canada
RealPage Equipment Services LLC	Delaware
RealPage India Holdings, Inc.	Delaware
RealPage India Private Limited	India
RealPage Middle East Holdings LLC	Delaware
RealPage ME DMCC	Dubai
RealPage Payment Processing Services, Inc.	Nevada
RealPage Payments Services LLC	Texas
RealPage Payments UK Ltd.	United Kingdom
RealPage Philippines Holdings LLC	Delaware
RealPage (Philippines) Inc.	Philippines
RealPage UK Ltd.	United Kingdom
RealPage UK Holdings Ltd.	United Kingdom
RealPage Utility Management Inc.	Delaware
RealPage Vendor Compliance LLC	Delaware
Rentlytics, Inc.	Delaware
RP ABC LLC	Delaware
RP Axiometrics LLC	Delaware
RP LeaseLabs LLC	Delaware
RP Newco V LLC	Delaware
RP Newco VIII LLC	Texas
RP Newco XIII LLC	Texas
RP Newco XV LLC	Texas
RP On-Site LLC	Delaware
RP Rainmaker Multifamily LLC	Delaware
Starfire Media, Inc.	Delaware
Windsor Compliance LLC	Texas

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the Registration Statement on Form S-8 (No. 333-168878), Registration Statement on Form S-8 (No. 333-172573), Registration Statement on Form S-8 (No. 333-179773), Registration Statement on Form S-8 (No. 333-186964), Registration Statement on Form S-8 (No. 333-202462), and the Registration on Form S-8 (No. 333-210189) each pertaining to the RealPage, Inc., 2010 Equity Incentive Plan, and the Registration Statement on Form S-8 (No. 333-176742) pertaining to Multifamily Technology Solutions, Inc., 2005 Equity Incentive Plan, and the Registration Statement on Form S-3 (No. 333-225074), of our reports dated February 27, 2019, with respect to the consolidated financial statements and schedule of RealPage, Inc. and the effectiveness of internal control over financial reporting of RealPage, Inc. included in this Form 10-K for the year ended December 31, 2018.

/s/ Ernst & Young LLP

Dallas, Texas
February 27, 2019

Exhibit 31.1

CERTIFICATION PURSUANT TO RULE 13a-14(a) OR 15d-14(a) OF THE SECURITIES EXCHANGE ACT OF 1934, AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Stephen T. Winn, certify that:

1. I have reviewed this Annual Report on Form 10-K for the fiscal year ended December 31, 2018 of RealPage, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
    (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
    (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
    (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
    (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting.
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
    (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
    (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 27, 2019

/s/ Stephen T. Winn

Stephen T. Winn
Chairman of the Board of Directors, Chief Executive Officer, President and Director

Exhibit 31.2

CERTIFICATION PURSUANT TO RULE 13a-14(a) OR 15d-14(a) OF THE SECURITIES EXCHANGE ACT OF 1934, AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Thomas C. Ernst, Jr., certify that:

1. I have reviewed this Annual Report on Form 10-K for the fiscal year ended December 31, 2018 of RealPage, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting.

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 27, 2019

/s/ Thomas C. Ernst, Jr.

Thomas C. Ernst, Jr.

Executive Vice President, Chief Financial Officer and Treasurer

Exhibit 32.1

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of RealPage, Inc. (the "Company") on Form 10-K for the period ending December 31, 2018 (the "Report"), I, Stephen T. Winn, Chairman of the Board of Directors, Chief Executive Officer, President and Director of RealPage Inc., certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

(1) the Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of RealPage, Inc.

Date: February 27, 2019

/s/ Stephen T. Winn

Stephen T. Winn
Chairman of the Board of Directors, Chief Executive Officer, President and Director

A signed original of this written statement required by Section 906 has been provided to RealPage, Inc. and will be retained by RealPage, Inc. and furnished to the Securities and Exchange Commission or its staff upon request. The foregoing certification is being furnished solely pursuant to 18 U.S.C. Section 1350 and is not being filed as part of the Report or as a separate disclosure document.

Exhibit 32.2

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of RealPage, Inc. (the "Company") on Form 10-K for the period ending December 31, 2018 (the "Report"), I, Thomas C. Ernst, Jr., Executive Vice President, Chief Financial Officer and Treasurer of RealPage, Inc., certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

(1) the Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of RealPage, Inc.

Date: February 27, 2019

/s/ Thomas C. Ernst, Jr.

Thomas C. Ernst, Jr.
Executive Vice President, Chief Financial Officer and Treasurer

A signed original of this written statement required by Section 906 has been provided to RealPage, Inc. and will be retained by RealPage, Inc. and furnished to the Securities and Exchange Commission or its staff upon request. The foregoing certification is being furnished solely pursuant to 18 U.S.C. Section 1350 and is not being filed as part of the Report or as a separate disclosure document.