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Form 10-K
February 14, 2019
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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

(Mark One)

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

For the fiscal year ended December 31, 2018

or

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

For the transition period from ____ to ____

Commission File Number: 001-36537

TRUPANION, INC.

(Exact name of registrant as specified in its charter)

Delaware	**83-0480694**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification Number)

6100 4th Avenue S, Suite 200
Seattle, Washington 98108
(855) 727 - 9079

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

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

Title of Each Class	Name of Exchange on Which Registered
Common Stock, $0.00001 par value per share	NASDAQ Stock Market LLC

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

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. x Yes o 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. o Yes x 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. xYes o 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). x Yes o 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 the 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. o

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	x	Accelerated filer	o
Non-accelerated filer	o (Do not check if smaller reporting company)	Smaller reporting company	o
		Emerging growth company	o

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

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

The aggregate market value of the registrant's common stock held by non-affiliates as of June 30, 2018, the last business day of the registrant's most recently completed second fiscal quarter, was approximately $1,190,862,535 using the closing price on that day of $38.60.

As of February 7, 2019, there were approximately 34,332,607 shares of the registrant's common stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE Part III incorporates certain information by reference from the definitive proxy statement to be filed by the registrant in connection with the 2018 Annual Meeting of Stockholders (Proxy Statement). The Proxy Statement will be filed by the registrant with the Securities and Exchange Commission pursuant to Regulation 14A not later than 120 days after the end of the registrant's fiscal year ended December 31, 2018.

TRUPANION, INC.
Annual Report on Form 10-K
For the Fiscal Year Ended December 31, 2018
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Note About Forward-Looking Statements

This Annual Report on Form 10-K contains forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended, and section 27A of the Securities Act of 1933, as amended (Securities Act). All statements contained in this Annual Report on Form 10-K other than statements of historical fact, including statements regarding our future results of operations and financial position, our business strategy and plans and our objectives for future operations, are forward-looking statements. The words “believe,” “may,” “will,” “potentially,” “estimate,” “target,” “continue,” “anticipate,” “intend,” “could,” “would,” “project,” “plan” and “expect,” and similar expressions that con uncertainty of future events or outcomes, are intended to identify forward-looking statements.

These forward-looking statements are subject to a number of risks, uncertainties and assumptions, including those described in Part I. Item 1A. “Risk Factors” and elsewhere in this Annual Report on Form 10-K. Moreover, we operate in a very competitive and rapidly changing environment, and new risks emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. In light of these risks, uncertainties and assumptions, the forward-looking events and circumstances discussed in this Annual Report on Form 10-K may not occur and actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements.

You should not rely on forward-looking statements as predictions of future events. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee that the future results, levels of activity, performance or events and circumstances reflected in the forward-looking statements will be achieved or occur. We undertake no obligation to update publicly any forward-looking statements for any reason, except as required by law.

Unless otherwise stated or the context otherwise indicates, references to “we,” “us,” “our” and similar references refer to Trupanion, Inc. and its subsidiaries taken as a whole.

PART I

Item 1. Business

Our Mission

Our mission is to help the pets we all love receive the best veterinary care.

Our Company and Approach

We provide medical insurance for cats and dogs throughout the United States, Canada and Puerto Rico. Our data-driven, vertically-integrated approach enables us to provide pet owners with what we believe is the highest value medical insurance for the life of their pets, priced specifically for each pet’s unique characteristics. Our growing and loyal member base provides us with highly predictable and recurring revenue. We operate our business similar to other subscription-based businesses, with a focus on maximizing the lifetime value of each pet while sustaining a favorable ratio of lifetime value relative to acquisition cost, based on our desired return on investment.

Our target market is large and under-penetrated. We have pioneered a unique solution that sits at the center of the pet medical ecosystem, meeting the needs of pets, pet owners and veterinarians, and we believe we are uniquely positioned to continue to drive market penetration. Our aggregate total pets enrolled grew from 31,207 pets on January 1, 2010 to 521,326 pets on December 31, 2018, which represents a compound annual growth rate of 37%.

Total Revenue by New and Existing Pets Enrolled
(in millions)

It is very difficult for pet owners to budget for their pet becoming sick or injured when they don't know whether their pet's health will be average, lucky, or unlucky, and the cost of medical care varies dramatically by geography and pet breed. A pet owner budgeting for average medical care costs is not an effective solution for an unlucky pet. Additionally, the timing of accidents or illnesses may not align with the owner's budgeting approach. Our cost-plus model is designed to spread the risk evenly within each category of pets. Our goal is to charge each pet the appropriate amount for their specific circumstances (*e.g.*, breed, age at enrollment, geography, etc.) so that each pet receives the same value proposition, and, in aggregate, the extra amount paid by lucky pets covers the veterinary costs incurred by unlucky pets. To an informed, responsible, and loving pet owner, Trupanion is a hedge to help them budget for the unexpected cost and variable timing of necessary veterinary care.

We provide our members with a high-quality medical plan for the life of their cat or dog. Our product is simple, fair, and covers all unexpected illnesses and injuries, including those that are most likely to occur with particular breeds of pet, which other insurance providers may label as congenital or hereditary conditions. We pay 90% of actual veterinary costs if a pet becomes sick or injured, including all diagnostic tests, surgeries, and medications. In general, only certain taxes, examination fees, and medical issues existing prior to enrollment are not included. Once enrolled in our subscription, we pay for the veterinary costs for the pet's entire life, and pet owners are free to use any licensed veterinarian in the United States and Canada, including any referral or specialty hospital. We aim to pay veterinarians directly, within five minutes of the veterinary invoice being created and prior to the pet owner checking out, eliminating the traditional reimbursement model and providing our members the convenience of not having to pay out of pocket or confirm treatment.

Veterinarians are able to recommend treatment to Trupanion members without having their decisions dictated by costs or the financial burden of the pet owner. Veterinarians, as a result, are able to establish stronger relationships and better alignment with pet owners who are protected by Trupanion. Our members tend to visit veterinarians more frequently and select the best course of treatment for their pet regardless of cost.

We generate revenue primarily from our members' subscription fees. Fees are paid at the beginning of each subscription period, which automatically renews on a monthly basis. Since 2010, at least 88% of our subscription business revenue every quarter has come from existing members who had active subscriptions at the beginning of the quarter. Due to our focus on providing a superior value proposition and member experience, our members are very loyal, as evidenced by our 98.5% average monthly retention rate since 2010. For more information regarding average monthly retention, including an explanation of how we calculate this metric, see “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Key Operating Metrics.”

We enrolled our first pet in Canada in 2000 and our first pet in the United States in 2008. Our revenue for the year ended December 31, 2018 was $304.0 million, representing a compound annual growth rate of 41% from our revenue of $19.1 million for the year ended December 31, 2010. We have made and expect to continue to make substantial investments in member acquisition and in expanding our operations to support our expected growth. For the year ended December 31, 2018, we had a net loss of $0.9 million and our accumulated deficit was $83.7 million at December 31, 2018.

Our Strategy

We are focused on attracting and retaining members by providing a best-in-class value and member experience by focusing on the following strategies:

Increase the number of referring veterinary practices. We intend to increase the number of veterinary practices that are actively introducing Trupanion to their clients.

Increase the number of referrals from active veterinary practices. We intend to continue increasing the number and quality of interactions that we have with veterinarians to accelerate the rate at which active veterinary practices refer us leads.

Increase the number of third-party referrals from members. We believe that it is critical to our long-term success that existing members add a pet or refer their friends and family to Trupanion, so we focus on improving the member experience. For example, Trupanion Express® is designed to directly pay veterinary invoices, eliminating the reimbursement model and transforming the payment process to simplify the administrative hassle for our members.

Improve online lead generation and conversion. We are investing in our online marketing capabilities, and intend to continue to do so in order to fully capture the online opportunity. Our online marketing initiatives have played an integral role in converting leads to enrolled pets and also, to a lesser extent, in generating new leads.

Explore other member acquisition channels. We regularly evaluate new member acquisition channels. We intend to aggressively pursue those channels that we believe could, over time, generate an attractive ratio of lifetime value relative to acquisition cost, based on our desired return on investment.

Expand internationally. While we are primarily focused on capturing the large opportunity in the U.S. and Canadian markets, we are in the process of entering the Australian market and may choose to explore other international expansion in the future.

Pursue other revenue opportunities. We may opportunistically engage in other revenue opportunities. For example, our wholly-owned insurance subsidiary, American Pet Insurance Company, has partnered with unaffiliated general agents offering pet insurance products since 2012.

Sales and Marketing

Marketing to Veterinarians

Veterinary practices represent our largest referral source, and combined with referrals from members, accounted for approximately 73% of our leads in 2018. Our Territory Partner model was designed to facilitate frequent, in-person, face-to-face communications with veterinarians and their staff about the benefits of Trupanion and high-quality medical insurance for the life of a pet. The most important job of a Territory Partner is to build strong relationships with each veterinary hospital, so the staff can trust and recommend Trupanion. Alignment with veterinarians is critical for a positive member experience, long-term retention, and pet owner referrals. We strongly believe that earning the trust of veterinarians and their staff is the first step to successfully capturing more of the North American market.

The current market for veterinary services is highly fragmented and includes many sole-owner veterinary practices and small veterinary practices that are difficult to reach. We believe that no pet insurance company has a resource that compares in scale to our Territory Partners and that it would be extremely difficult, costly and time consuming to replicate. Our Territory Partners are independent contractors who market our product and are paid fees based on activity in their regions. Their role is not to sell or solicit policies directly to pet owners. Their role is instead to communicate and to build relationships with veterinarians and their staff, primarily through face-to-face interactions. We believe this structure aligns our interests and provides a platform that we can leverage over time.

Sales and Marketing to Pet Owners

We generate leads through a diverse set of third-party referrals and online member acquisition channels, which we then convert into members through our contact center and website.

- *Referrals from third-parties.* We actively promote the value of Trupanion to veterinarians, veterinary affiliates (including purchasing groups and other veterinary membership organizations), corporate employee benefit providers, and shelters and breeders so they can inform their clients on the benefits of Trupanion. For the year ended December 31, 2018, 65% of our new pet enrollments were generated from these third-party referrals (excluding referral from existing members).
- *Referrals from existing members.* For the year ended December 31, 2018, 26% of our new pet enrollments were generated from existing members adding a pet or referring their friends and family.
- *Online.* We believe many of our members spend some time researching options before deciding to purchase our subscription. A significant portion of the members we acquire from online leads come through our paid search marketing, email marketing, social media marketing and search engine optimization initiatives.

Competition

We compete with consumers that self-fund veterinary costs with cash or credit, as well as traditional "pet insurance" providers and new entrants to our market. The vast majority of pet owners in the United States and Canada do not currently have medical insurance for their pets. We are primarily focused on expanding the overall size of the market by improving the value proposition for consumers. We view our primary competitive challenge as educating pet owners on why Trupanion is a better alternative to self-funding.

In addition, new entrants backed by large insurance companies with substantial financial resources have attempted to enter the market in the past and may do so again in the future. Further, traditional providers may consolidate, resulting in the emergence of new providers that are vertically integrated or able to create other operational efficiencies, which could lead to increased competition. We believe that we have competitive strengths that position us favorably related to existing and potential competitors. These include: a superior value proposition for pet owners due, in part, to our vertically integrated structure that reduces frictional costs; a unique member acquisition strategy, which we have developed using Territory Partners; a proprietary database containing historical data since the year 2000, which provides actionable data insights; a powerful technology infrastructure; and an experienced management team.

Intellectual Property

We rely on federal, state, common law, and international rights, as well as contractual restrictions, to protect our intellectual property. We control access to our proprietary technology, software, and documentation by entering into confidentiality and invention assignment agreements with our employees and partners, and confidentiality agreements with third parties, such as service providers, vendors, individuals and entities that may be exploring a business relationship with us. We also rely on a combination of intellectual property rights, including trade secrets, patents, copyrights, trademarks, and domain names to establish and protect our intellectual property. We seek to protect our proprietary position by filing patent applications in the United States and in jurisdictions outside of the United States related to our technology, inventions, and improvements that are important to our business. We hold two U.S. patents related to the technology underlying our proprietary Trupanion Express platform, one patent for the design of the platform, and we have additional patent applications pending in the United States and in other jurisdictions. We additionally rely on data and market exclusivity, and patent term extensions when available. Our ability to protect and enforce our intellectual property rights is subject to risk and may adversely impact our business.

Employees

We highly value our company culture. We are a mission-driven company and attract employees that share our passion for pets. Our culture enables our employees to channel that passion collectively toward our goals and is key to our success. As of December 31, 2018, we had 586 employees.

Regulation

Each U.S. state, the District of Columbia and U.S. territories and possessions, as well as all of the Canadian provinces, have insurance laws that apply to companies licensed to transact insurance business in the jurisdiction. The primary regulator of an insurance company, however, is located in its state of domicile. Our insurance subsidiary, American Pet Insurance Company (APIC), is domiciled in New York State and its primary regulator is therefore the New York Department of Financial Services (NY DFS). APIC is currently licensed to do business in all 50 states, Puerto Rico and the District of Columbia in the United States. As such, APIC is subject to comprehensive regulation and supervision under U.S. state and federal laws.

State insurance regulators have broad authority with respect to all aspects of the insurance industry, including the following:

- licensing to transact business, and approval and issuance of certificates of authority;
- revoking or suspending previously issued certificates of authority;
- assessing the officers and directors to ensure a minimum level of competency and trustworthiness;
- licensing of individual producers and agents and business entities marketing and selling insurance products;
- licensing of claims adjusters and third-party administrators;
- penalizing for noncompliance with respect to licensing requirements and regulations;
- admitting assets to statutory surplus and regulating the nature of investments;
- regulating premium rate levels for the insurance products offered;
- approving policy forms;
- regulating claims practices; and
- establishing reserve requirements and solvency standards.

Regulators also have broad authority to perform on-site market conduct examinations of our management and operations, marketing and sales, underwriting, customer service, claims handling and licensing. Market conduct examinations can involve direct, on-site contact with a company to identify potential regulatory violations, discussion and correction of an identified problem, or obtaining a better understanding of how the company is operating in the marketplace.

State insurance laws and regulations in the United States require APIC to file financial statements with state insurance regulators everywhere it is licensed and its operations and accounts are subject to examination at any time. APIC's statutorily required financial statements are available to the public. APIC prepares statutory financial statements in accordance with accounting practices and procedures prescribed or permitted by these regulators. The National Association of Insurance Commissioners (NAIC) has approved a series of uniform statutory accounting principles

(SAP) that have been adopted, in some cases with minor modifications, by all state insurance regulators. As a basis of accounting, SAP was developed to monitor and regulate the solvency of insurance companies. In developing SAP, insurance regulators were primarily concerned with assuring an insurer's ability to pay all its current and future obligations to policyholders. As a result, statutory accounting focuses on conservatively valuing the assets and liabilities of insurers, generally in accordance with standards specified by the insurer's domiciliary state. The values for assets, liabilities and equity reflected in financial statements prepared in accordance with U.S. generally accepted accounting principles are usually different from those reflected in financial statements prepared under SAP.

In Canada, our medical insurance is written by an unaffiliated Canadian-licensed insurer, Omega General Insurance Company (Omega). Under the terms of our agreements with Omega, our subsidiary Trupanion Brokers Ontario acts as a general agent through a fronting and reinsurance agreement with Omega pursuant to which, we retain any financial risk associated with our Canadian business. Effective January 1, 2015, these agreements were restructured to include our segregated cell business, Wyndham Segregated Account AX (WICL), located in Bermuda. These restructured agreements automatically renew annually, but may be terminated by either party with one year's written notice. Omega's Canadian insurance operations are supervised and regulated by the Canadian federal, provincial and territorial governments. Omega is a fully licensed insurer in all of the Canadian provinces and territories in which we do business.

Though we are not directly regulated by the Bermuda Monetary Authority (BMA), WICL's regulation and compliance impacts us as it could have an adverse impact on the ability of WICL to pay dividends. WICL is regulated by the BMA under the Insurance Act of 1978 (Insurance Act) and the Segregated Accounts Company Act of 2000. The Insurance Act imposes on Bermuda insurance companies solvency and liquidity standards, certain restrictions on the declaration and payment of dividends and distributions, certain restrictions on the reduction of statutory capital, and auditing and reporting requirements, and grants BMA the powers to supervise and, in certain circumstances, to investigate and intervene in the affairs of insurance companies. Under the Insurance Act, WICL as a class 3 insurer is required to maintain available statutory capital and surplus at a level equal to or in excess of a prescribed minimum established by reference to net written premiums and loss reserves.

Under the Bermuda Companies Act of 1981, as amended, a Bermuda company may not declare or pay a dividend or make a distribution out of contributed surplus if there are reasonable grounds for believing that: (a) the company is, or would be after the payment, unable to pay its liabilities as they become due; or (b) the realizable value of the company's assets would thereby be less than its liabilities. The Segregated Accounts Company Act of 2000 further requires that dividends out of a segregated account can only be paid to the extent that the cell remains solvent. The value of its assets must remain greater than the aggregate of its liabilities, issued share capital, and share premium accounts. Per our contractual agreements with WICL, the allowable dividend to be paid by WICL is equivalent to the positive undistributed profit attributable to the shares.

Insurance Holding Company Regulation

APIC is subject to laws governing insurance holding companies in New York, its state of domicile. These laws impact us in a number of ways, including the following:

- We must file periodic information reports with the NY DFS, including information concerning our capital structure, ownership, financial condition and general business operations.
- New York regulates certain transactions between APIC and our other affiliated entities, including the fee levels payable by APIC to affiliates that provide services to APIC.

New York law restricts the ability of any one person to acquire certain levels of our voting securities without prior regulatory approval. State insurance holding company regulations generally provide that no person, corporation or other entity may acquire control of an insurance company, or a controlling interest in any parent company of an insurance company, without the prior approval of such insurance company's domiciliary state insurance regulator. Any person acquiring, directly or indirectly, 10% or more of the voting securities of an insurance company is presumed to have acquired "control" of the company. To obtain approval of any change in control, the proposed acquirer must file with the applicable insurance regulator an application disclosing, among other information, its background, financial condition, the financial condition of its affiliates, the source and amount of funds by which it will effect the acquisition, the criteria used in determining the nature and amount of consideration to be paid for the acquisition, proposed changes in the management and operations of the insurance company and other related matters. In considering an application to acquire control of an insurer, the insurance commissioner generally will consider such factors as the experience, competence and financial strength of the applicant, the integrity of the applicant's board of directors and executive officers, the acquirer's plans for the management and operation of the insurer and any anti-competitive results that may arise from the acquisition.

- New York law restricts the ability of APIC to pay dividends to its holding company parent. These restrictions are based in part on the prior year's statutory income and surplus. In general, dividends up to specified levels are

considered ordinary and may be paid without prior approval, and dividends in larger amounts, or extraordinary dividends, are subject to approval by the NY DFS. An extraordinary dividend or distribution is defined as a dividend or distribution that, in the aggregate in any 12-month period, exceeds the lesser of (i) 10% of surplus as of the preceding December 31 or (ii) the insurer's adjusted net investment income for such 12-month period, not including realized capital gains.

Financial Regulation of Insurers

Risk-Based Capital Requirements

The NAIC has adopted risk-based capital requirements for life, health and property and casualty insurance companies. Refer to Item 1A. “Risk Factors” for details of these requirements.

NAIC Insurance Regulatory Information System Ratios

The NAIC has developed a set of financial relationships or tests known as the Insurance Regulatory Information System, or IRIS, to assist state regulators in monitoring the financial condition of U.S. insurance companies and identifying companies requiring special attention or action. IRIS consists of a statistical phase and an analytical phase whereby financial examiners review insurers’ annual statements and financial ratios. The statistical phase consists of 12 key financial ratios based on year-end data that are generated from the NAIC database annually; each ratio has a “usual range” of results. For IRIS ratio purposes, APIC submits data annually to state insurance regulators who then analyze our data using prescribed financial data ratios. A ratio falling outside the prescribed “usual range” is not considered a failing result. Rather, unusual values are viewed as part of the regulatory early monitoring system. In many cases, it is not unusual for financially sound companies to have one or more ratios that fall outside the usual range. As of December 31, 2018, APIC had four such ratios outside the usual range, relating to net premiums written to surplus, change in policyholders’ surplus, and investment yield.

Regulators may investigate or monitor an insurance company if its IRIS ratios fall outside the prescribed usual range. The inquiries made by state insurance regulators into an insurance company’s IRIS ratios can take various forms. In some instances, regulators may require the insurance company to provide a written explanation as to the causes of the particular ratios being outside the usual range, management’s actions to produce results that will be within the usual range in future years and what, if any, actions the insurance company’s domiciliary state insurance regulators have taken. Regulators are not required to take action if an IRIS ratio is outside the usual range, but, depending on the nature and scope of the particular insurance company’s exception, regulators may request additional information to monitor going forward and, as a consequence, may take additional regulatory action.

Insurance Guaranty Associations, Residual Markets, Wind Pools and State-specific Reinsurance Mechanisms

Most jurisdictions in which we operate have laws or regulations that require insurance companies doing business in the state to participate in various types of guaranty associations or other similar arrangements designed to protect policyholders from losses under insurance policies issued by insurance companies that become impaired or insolvent. Typically, these associations levy assessments, up to prescribed limits, on member insurers on the basis of the member insurer’s proportionate share of the business in the relevant jurisdiction in the lines of business in which the impaired or insolvent insurer is engaged. Some jurisdictions permit member insurers to recover assessments that they paid through full or partial premium tax offsets, usually over a period of years.

Some states in which APIC operates have residual markets, wind pools or state reinsurance mechanisms. The general intent behind these is to provide insurance to individuals and businesses that cannot find appropriate insurance in the private marketplace. The intent of state-specific reinsurance mechanisms generally is to stabilize the cost of, and ensure access to, reinsurance for admitted insurers writing business in the state. Historically, APIC has had minimal financial exposure to guaranty associations, residual markets, wind pools and state-specific reinsurance mechanisms; however there is no guarantee that these items will continue to be of low financial impact to APIC.

Federal Initiatives

The U.S. federal government generally does not directly regulate the insurance business. From time to time, various regulatory and legislative changes have been proposed in the insurance industry. Among the proposals that have in the past been, or are at present may be under consideration, are the possible introduction of federal regulation in addition to, or in lieu of, the current system of state regulation of insurers. There have also been proposals in various state legislatures (some of which have been enacted) to conform portions of their insurance laws and regulations to various model acts adopted by the NAIC. The NAIC has undertaken a Solvency Modernization Initiative focused on updating the U.S. insurance solvency regulation framework, including capital requirements, governance and risk management, group supervision, accounting and financial reporting and reinsurance. The NAIC Amendments are a result of these efforts. Additional requirements are also expected.

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In July 2010, the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act) established a Federal Insurance Office within the U.S. Department of the Treasury. The Federal Insurance Office initially is charged with monitoring all aspects of the insurance industry (other than health insurance, certain long-term care insurance and crop insurance), gathering data and conducting a study on methods to modernize and improve the insurance regulatory system in the United States. It is not possible to predict whether, in what form or in what jurisdictions any of these proposals might be adopted, or the effect federal involvement in insurance will have, if any, on us.

Privacy and Data Collection Regulation

There are numerous federal, state and foreign laws regarding privacy and the protection of member data. The regulatory environment in this area for online businesses is very unsettled in the United States and internationally and new legislation is frequently being proposed and enacted.

In the area of information security and data protection, many states have passed laws requiring notification to users when there is a security breach for personal data or requiring the adoption of minimum information security standards. In addition, our operations subject us to certain payment card association operating rules, certification requirements and rules, including the Payment Card Industry Data Security Standard, a security standard for companies that collect, store or transmit certain data regarding credit and debit cards, credit and debit card holders and credit and debit card transactions.

Despite our efforts to protect our proprietary rights, unauthorized parties may attempt to copy or obtain and use our technology or data to develop products that may compete with our offerings. Policing unauthorized use of our technology or data is difficult. The laws of other countries in which we operate may offer little or no effective protection of our proprietary technology. Our competitors could also independently develop technologies equivalent to ours, and our intellectual property rights may not be broad enough for us to prevent competitors from selling products incorporating those technologies.

Companies in our industry and in other industries may own a large number of patents, copyrights and trademarks and may frequently request license agreements, threaten litigation or file suit against us based on allegations of infringement or other violations of intellectual property rights. From time to time, we face, and we expect to face in the future, allegations that we have infringed the trademarks, copyrights, patents and other intellectual property rights of third parties, including our competitors. As we face increasing competition and as our business grows, we will likely face more claims of infringement.

Corporate Information

We were founded in Canada in 2000 as Vetinsurance Ltd. In 2006, we effected a business reorganization whereby Vetinsurance Ltd. became a consolidated subsidiary of Vetinsurance International, Inc., a Delaware corporation. In 2007, we began doing business as Trupanion. In 2013, we formally changed our name from Vetinsurance International, Inc. to Trupanion, Inc. Our principal executive offices are located at 6100 4th Avenue South, Seattle, Washington 98108, and our telephone number is (855) 727-9079. Our website address is www.trupanion.com. Information contained on, or that can be accessed through, our website is not incorporated by reference, and you should not consider information on our website to be part of this Annual Report on Form 10-K.

Available Information

We are required to file annual, quarterly and other reports, proxy statements and other information with the Securities and Exchange Commission (SEC) under the Securities Exchange Act of 1934, as amended (Exchange Act). We also make available, free of charge on the investor relations portion of our website at investors.trupanion.com, our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after they are filed electronically with the SEC. The SEC also maintains an Internet website at www.sec.gov where you can obtain our SEC filings. You can also obtain paper copies of these reports, without charge, by contacting Investor Relations at InvestorRelations@Trupanion.com.

Investors and others should note that we may announce material financial information to our investors using our investor relations website, SEC filings, our annual stockholder meeting, press releases, public conference calls, investor conferences, presentations and webcasts. We use these channels, as well as social media, to communicate with our members and the public about our company, our services and other issues. It is possible that the information

we post on these channels, such as social media, could be deemed to be material information.

Item 1A. Risk Factors

Investing in our common stock involves a high degree of risk. You should carefully consider the risks and uncertainties described below, together with all of the other information in this report and in our other filings with the SEC, in evaluating our business and before investing in our common stock. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties that are not expressly stated, that we are unaware of, or that we currently believe are not material, may also become important factors that affect us. If any of the following risks occur, our business may suffer and you could lose part or all of your investment.

Risks Related to Our Business and Industry

We have incurred significant cumulative net losses since our inception and may not be able to achieve or maintain profitability in the future.

We have incurred significant cumulative net losses since our inception. We have funded our operations through equity financings, borrowings under a revolving line of credit and term loans and, more recently, positive cash flows from operations. We may not be able to achieve or maintain profitability in the future. Our recent growth, including our growth in revenue and membership, may not be sustainable or may decrease, and we may not generate sufficient revenue to achieve or maintain profitability. Additionally, our expense levels are based, in significant part, on our estimates of future revenue and many of these expenses are fixed in the short term. As a result, we may be unable to adjust our spending in a timely manner if our revenue falls short of our expectations. Accordingly, any significant shortfall of revenue in relation to our estimates could have an immediate negative effect on our financial results.

We have made and plan to continue to make significant investments to grow our member base. Our average pet acquisition cost and the number of new pets we enroll depends on a number of factors and assumptions, including the effectiveness of our sales execution and marketing initiatives, changes in costs of media, the mix of our sales and marketing expenditures and the competitive environment. Our average pet acquisition cost has in the past significantly varied and in the future may significantly vary period to period based upon specific marketing initiatives. We also regularly test new member acquisition channels and marketing initiatives, which often are more expensive than our traditional marketing channels and generally increase our average acquisition costs. We plan to expand the number of Territory Partners we use to reach veterinarians and other referral sources and to engage in other marketing activities, including direct to consumer advertising, which are likely to increase our acquisition costs.

We also expect to continue to make significant expenditures relating to the acquisition of new members, including the increase of inside account managers retention of our existing members and development and implementation of our technology platforms. These increased expenditures may not be effective and may make it more difficult for us to scale or even remain profitable. If we are unable to achieve or maintain profitability or otherwise invest in our growth, we may not be able to execute our business plan, our prospects may be harmed and our stock price could be materially and adversely affected.

We base our decisions regarding our member acquisition expenditures primarily on the projected lifetime value of the pets that we expect to acquire and the projected internal rate of return on marketing spend. Our estimates and assumptions may not accurately reflect our future results, we may overspend on member acquisition, and we may not be able to recover our member acquisition costs or generate profits from these investments.

We invest significantly in member acquisition. We spent $23.7 million on sales and marketing to acquire new members for the year ended December 31, 2018. We expect to continue to spend significant amounts to acquire additional members. We utilize Territory Partners, who are paid fees based on activity in their regions, to communicate the benefits of our subscription to veterinarians through in-person visits. Veterinarians then educate pet owners, who visit our website or call our contact center to learn more about, and potentially enroll in, our subscription. We also invest in other third-party referrals and direct to consumer member acquisition channels, though we have limited experience with some of them.

We base our decisions regarding our member acquisition expenditures primarily on the lifetime value of the pets that we project to acquire. This analysis depends substantially on estimates and assumptions based on our historical experience with pets enrolled in earlier periods, including our key operating metrics described in “Management’s Discussion and Analysis of Financial Condition and Results of Operations-Key Operating Metrics.”

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If our estimates and assumptions regarding internal rate of return and the lifetime value of the pets that we project to acquire and our related decisions regarding investments in member acquisition prove incorrect, or if our calculation of internal rate of return and lifetime value of the pets that we project to acquire differs significantly from that of pets acquired in prior periods, we may be unable to recover our member acquisition costs or generate profits from our investment in acquiring new members. Moreover, if our member acquisition costs increase or we invest in member acquisition channels that do not ultimately result in any or an adequate number of new member enrollments, the return on our investment may be lower than we anticipate irrespective of the lifetime value of the pets that we project to acquire as a result of the new members. If we cannot generate profits from this investment, we may need to alter our growth strategy, and our growth rate and operating results may be adversely affected.

If we are unable to maintain high member retention rates, our growth prospects and revenue will be adversely affected.

We have historically experienced high average monthly retention rates. For example, our average monthly retention rate between 2010 and 2018 was 98.5%. If our efforts to satisfy our existing members are not successful or if new marketing initiatives result in enrolling more pets that inherently have a lower retention rate, we may not be able to maintain our retention rates. Members we obtain through aggressive promotions or other channels that involve relatively less meaningful contact between us and the member may be more likely to terminate their subscription. In the past, we have experienced reduced retention rates during periods of rapid member growth, as our retention rate generally has been lower during the first year of member enrollment. Members may choose to terminate their subscription for a variety of reasons, including perceived or actual lack of value, delays or other unsatisfactory experiences in how we review and process veterinary invoice payments, unsatisfactory member service, an economic downturn, increased subscription fees, loss of a pet, a more attractive offer from a competitor, changes in our subscription or other reasons, including reasons that are outside of our control. Our cost of acquiring a new member is substantially greater than the cost involved in maintaining our relationship with an existing member. If we are not able to successfully retain existing members and limit terminations, our revenue and operating margins will be adversely impacted and our business, operating results and financial condition would be harmed.

The prices of our subscriptions are based on assumptions and estimates and may be subject to regulatory approvals. If our actual experience differs from these assumptions and estimates or if we are unable to obtain any necessary regulatory pricing approvals, our revenue and financial condition could be adversely affected.

The pricing of our subscriptions reflects amounts we expect to pay for a pet's medical care derived from assumptions that we make regarding a number of factors, including a pet’s species, breed, age, gender and location. Factors related to pet location include the current and assumed changes in the cost and availability of veterinary technology and treatments and local veterinary practice preferences. The prices of our subscriptions also include assumptions and estimates regarding our own operating costs and expenses. We monitor and manage our pricing and overall sales mix to achieve target returns. Profitability from new members emerges over a period of years depending on the nature and length of time a pet is enrolled, and is subject to variability as actual results may differ from pricing assumptions. If the subscription fees we collect are insufficient to cover actual costs, including veterinary invoice expense, operating costs and expenses within anticipated pricing allowances, or if our member retention rates are not high enough to ensure recovery of member acquisition costs, then our gross profit could be adversely affected, and our revenue may be insufficient to achieve or maintain profitability. Conversely, if our pricing assumptions differed from actual results such that we overpriced risks, our competitiveness and growth prospects could be adversely affected. Further, even if our pricing assumptions are accurate, we may not be able to obtain the necessary regulatory approvals for any pricing changes that we may determine are appropriate based on our pricing assumptions, which could prevent us from obtaining sufficient revenue from subscriptions to cover our costs, including veterinary invoice expense, processing costs, pet acquisition costs and other expenses in any such jurisdiction unless and until such regulatory approvals are obtained in appropriate amounts.

The anticipated benefits of our analytics platform may not be fully realized.

Our analytics platform draws upon our proprietary pet data to price our subscriptions. The assumptions we make about breeds and other factors in pricing may prove to be inaccurate and, accordingly, these pricing analytics may not accurately reflect the expense that we will ultimately incur. Furthermore, if any of our competitors develop similar or

better data systems, adopt similar or better underwriting criteria and pricing models or receive our data, our competitive advantage could decline or be lost.

Our actual veterinary invoice expense may exceed our current reserve established for veterinary invoices and may adversely affect our operating results and financial condition.

Our recorded reserve for veterinary invoices is based on our best estimates of the amount of veterinary invoices we expect to pay, inclusive of an estimate for veterinary invoices we have not yet received, after considering known facts and interpretations of circumstances and the estimated cost to process and pay those veterinary invoices. We consider internal factors, including data from our proprietary data analytics platform, experience with similar cases, actual veterinary invoices paid, historical trends involving veterinary invoice payment patterns, patterns of receipt of veterinary invoices, seasonality, pending levels of unpaid veterinary invoices, veterinary invoice processing programs and contractual terms. We may also consider external factors, including changes in the law, court decisions, changes to regulatory requirements and economic conditions. Because reserves are estimates of veterinary invoices that have been incurred but are not yet submitted to us, the establishment of appropriate reserves is an inherently uncertain and complex process that involves significant subjective judgment. Further, we do not transfer or cede our risk as an insurer and, therefore, we maintain more risk than we would if we purchased reinsurance. The ultimate cost of paying veterinary invoices and the related administration may vary materially from recorded reserves, and such variance may result in adjustments to the reserve for veterinary invoices, which could have a material effect on our operating results.

We rely significantly on Territory Partners, veterinarians and other third parties to recommend us.

We rely significantly on Territory Partners and other third parties to cultivate direct veterinary relationships and build awareness of the benefits that we offer veterinarians and their clients. In turn, we rely on veterinarians to introduce and recommend Trupanion to their clients. We also rely significantly on other third parties, such as existing members, online and other businesses, animal shelters, breeders and veterinary affiliates, including veterinarian purchasing groups and associations, to help generate leads for our subscription. Veterinary referred leads represent our largest member acquisition channel. In the year ended December 31, 2018, approximately 73% of our enrollments came from referrals from veterinarians and existing members, as well as people adding pets to their existing subscription.

Many factors influence the success of our relationships with these referral sources, including:

- the continued positive market presence, reputation and growth of our company and of the referral sources;
- the effectiveness of referral sources;
- the decision of any such referral source to support one or more of our competitors;
- the interest of the referral sources' customers or clients in our subscription;
- the relationship and level of trust between Territory Partners and veterinarians, and between us and the referral source;
- the percentage of the referral sources' customers or clients that submit applications or use trial certificates to enroll through our website or contact center;
- our ability to implement or maintain any marketing programs, including trial certificates, in any jurisdiction; and
- our ability to work with the referral source to implement any changes in our marketing initiatives, including website changes, infrastructure and technology and other programs and initiatives necessary to generate positive consumer experiences.

In order for us to implement our business strategy and grow our revenue, we must effectively maintain and increase the number and quality of our relationships with Territory Partners, veterinarians and other referral sources, and continue to scale and improve our processes, programs and procedures that support them. Those processes, programs and procedures could become increasingly complex and difficult to manage. We expend significant time and resources attracting qualified Territory Partners and providing them with complete and current information about our business. Their relationship with us may be terminated at any time, and, if terminated, we may not recoup the costs associated with educating them about our subscription or be able to maintain any relationships they may have developed with veterinarians within their territories. Sometimes a single relationship may be used to cover multiple territories so that a terminated relationship could significantly impact our company. Further, if we experience an increase in the rate at which Territory Partner relationships are terminated, we may not develop or maintain relationships with veterinarians as quickly as we have in the past. If the financial cost to maintain our relationships with Territory Partners outweighs the benefits provided by Territory Partners, or if they feel unsupported or undervalued by us and terminate their relationship with us, our growth and financial performance could be adversely affected.

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The success of our relationships with veterinary practices depends on the overall value we can provide to veterinarians. If the scope of our subscription is perceived to be inadequate or if our process for paying veterinary invoices is unsatisfactory to the veterinarians' clients because, for example, a service is not included in our subscription, member requests for reimbursement are denied or we fail to timely settle and pay veterinary invoices, veterinarians may be unwilling to recommend us to their clients and they may encourage their existing clients who have subscribed to stop or to purchase a competing product. If veterinarians determine our subscription is unreliable, cumbersome or otherwise does not provide sufficient value, they may terminate their relationship with us or begin recommending a competing product, which could negatively impact our ability to increase our member base and grow our business.

If we fail to establish or are unable to maintain successful relationships with Territory Partners, veterinarians and other referral sources, or experience an increase in the rate at which any of these relationships are terminated, it could negatively impact our ability to increase and retain our member base and our financial results. If we are unable to maintain our existing member acquisition channels and/or continue to add new member acquisition channels, if the cost of our existing sources increases or does not scale as we anticipate, or if we are unable to continue to use any existing channels or programs in any jurisdiction, including our trial certificate program, our member levels and sales and marketing expenses may be adversely affected.

Territory Partners are independent contractors and, as such, may pose additional risks to our business.

Territory Partners are independent contractors and, accordingly, we do not directly provide the same direction, motivation and oversight over Territory Partners as we otherwise could if Territory Partners were our own employees. Further, Territory Partners may themselves employ or engage others; we refer to these partners and their associates, collectively, as our Territory Partners. We do not control a Territory Partner’s employment or engagement of others, and it is possible that the actions of their employees and/or contractors could create threatened or actual legal proceedings against us.

Territory Partners may decide not to participate in our marketing initiatives and/or training opportunities, accept our introduction of new solutions or comply with our policies and procedures applicable to them, any of which may adversely affect our ability to develop relationships with veterinarians and grow our membership. Our sole recourse against Territory Partners who fail to perform is to terminate their contract, which could also trigger contractually obligated termination payments or result in disputes, including threatened or actual legal or regulatory proceedings.

We believe that Territory Partners are not and should not be classified as employees under existing interpretations of the applicable laws of the jurisdictions in which we operate. We do not pay or withhold any employment tax with respect to or on behalf of Territory Partners or extend any benefits to them that we generally extend to our employees, and we otherwise treat Territory Partners as independent contractors. Applicable authorities or the Territory Partners have in the past questioned and may in the future challenge this classification. Further, the applicable laws or regulations, including tax laws or interpretations, may change. If it were determined that we had misclassified any of our Territory Partners, we may be subjected to penalties and/or be required to pay withholding taxes, extend employee benefits, provide compensation for unpaid overtime, or otherwise incur substantially greater expenses with respect to Territory Partners.

Any of the foregoing circumstances could have a material adverse impact on our operating results and financial condition.

Our member base has grown rapidly in recent periods, and we may not be able to maintain the same rate of membership growth.

Our ability to grow our business and to generate revenue depends significantly on attracting new members. For the year ended December 31, 2018, we generated 87% of our revenue from subscriptions. In order to continue to increase our membership, we must continue to offer a superior value to our members. Our ability to continue to grow our membership will also depend in part on the effectiveness of our sales and marketing programs. Our member base may not continue to grow or may decline as a result of increased competition or the maturation of our business.

We may not maintain our current rate of revenue growth.

Our revenue has increased quickly and substantially in recent periods. We believe that our continued revenue growth will depend on, among other factors, our ability to:

- improve our market penetration through efficient and effective sales and marketing programs to attract new members;
- convert leads into enrollments;
- maintain high retention rates;
- increase the lifetime value per pet to, in turn, enable us to spend more on sales and marketing programs;
- maintain positive relationships with veterinarians and other referral sources;
- maintain positive relationships with and increase the number and efficiency of Territory Partners;
- continue to offer a superior value with competitive features and rates;

- accurately price our subscriptions in relation to actual member costs and operating expenses and achieve required regulatory approval for pricing changes;
- provide our members with superior member service, including timely and efficient payment of veterinary invoices, and by recruiting, integrating and retaining skilled and experienced personnel who can appropriately and efficiently review veterinary invoices and process payments;
- generate new and maintain existing relationships and programs in our other business segment;
- recruit, integrate and retain skilled, qualified and experienced sales department professionals who can demonstrate our value proposition to new and existing members;
- react to changes in technology and challenges in the industry, including from existing and new competitors;
- increase awareness of and positive associations with our brand; and
- successfully respond to any regulatory matters and defend any litigation.

You should not rely on our historical rate of revenue growth as an indication of our future performance.

Our use of capital may be constrained by risk-based capital regulations or contractual obligations.

Our subsidiary, American Pet Insurance Company, is subject to risk-based capital regulations that require us to maintain certain levels of surplus to support our overall business operations in consideration of our size and risk profile. We have in the past and may in the future fail to maintain the amount of risk-based capital required to avoid additional regulatory oversight, which was $53.4 million as of December 31, 2018. To comply with these regulations and our related contractual obligations, we may be required to maintain capital that we would otherwise invest in our growth and operations, which may require us to modify our operating plan or marketing initiatives, delay the implementation of new solutions or development of new technologies, decrease the rate at which we hire additional personnel and enter into relationships with Territory Partners, incur indebtedness or pursue equity or debt financings or otherwise modify our business operations, any of which could have a material adverse effect on our operating results and financial condition.

We are also subject to a contractual obligation related to our reinsurance agreement with Omega General Insurance Company (Omega). Under this agreement, we are required to fund a Canadian Trust account in accordance with Canadian regulations. As of December 31, 2018, the account held CAD $3.5 million.

Unexpected increases in the number or amounts of veterinary invoices received, or that we expect to receive, may negatively impact our operating results.

Unexpected changes in the number or amounts of veterinary invoices received, or that we expect to receive, may negatively impact our operating results. Rising costs of veterinary care and the increasing availability and usage of more expensive, technologically advanced medical treatments may increase the amounts of veterinary invoices we receive. Increases in the number of veterinary invoices we receive could arise from unexpected events that are inherently difficult to predict, such as a pandemic that spreads through the pet population, tainted pet food or supplies or an unusually high number of serious injuries or illnesses. We may experience volatility in the number of veterinary invoices we receive from time to time, and short-term trends may not continue over the longer term. The number of veterinary invoices may be affected by the level of care and attentiveness an owner provides to the pet, the pet's breed and age and other factors outside of our control, as well as fluctuations in member retention rates and by new member initiatives that encourage an increase in veterinary invoices and other new member acquisition activities. A significant increase in the number or amounts of veterinary invoices could increase our cost of revenue and have a material adverse effect on our financial condition.

Our success depends on our ability to review, process, and pay veterinary invoices timely and accurately.

We must accurately evaluate and pay veterinary invoices timely in a manner that gives our members high satisfaction. Many factors can affect our ability to do this, including the training, experience and skill of our personnel, our ability to reduce the number of payment requests made for services not included in our subscription, the department's culture and the effectiveness of its management, our ability to develop or select and implement appropriate procedures, supporting technologies and systems, and changes in our policy. Our failure to fairly pay veterinary invoices, accurately and in a timely manner, or to deploy resources appropriately, could result in unanticipated costs to us, lead to material litigation, undermine member goodwill and our reputation, and impair our brand image and, as a result, materially and adversely affect our competitiveness, financial results, prospects and liquidity.

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We may not identify fraudulent or improperly inflated veterinary invoices.

It is possible that a member, or a third-party actually or purportedly on behalf of the member, could submit a veterinary invoice which we would then pay that appears authentic but in fact does not reflect services provided or products purchased for which the member paid. It is also possible that veterinarians will charge insured customers higher amounts than they would charge their non-insured clients for the same service or product. Such activity could lead to unanticipated costs to us and/or to time and expense to recover such costs. They could also lead to strained relationships with veterinarians and/or members, and could adversely affect our competitiveness, financial results and liquidity.

Changes in the foreign exchange rates may adversely affect our revenue and operating results.

We offer our subscription in Canada, and in the future may offer it in other countries, which exposes us to the risk of changes in currency exchange rates. For the year ended December 31, 2018, approximately 19% of our total revenue was generated in Canada. Fluctuations in the relative strength of the US dollar has in the past and could in the future adversely affect our revenue and operating results.

We are and will continue to be faced with many competitive challenges, any of which could adversely affect our prospects, operating results and financial condition.

We compete with pet owners that self-finance unexpected veterinary invoices with savings or credit, as well as traditional "pet insurance" providers and relatively new entrants into our market. The vast majority of pet owners in the United States and Canada do not currently have medical insurance for their pets. We are focused primarily on expanding our share of the overall market, and we view our primary competitive challenge as educating pet owners on why our subscription is a better alternative to self-financing.

Additionally, there are traditional insurance companies that provide pet insurance products, either as a stand-alone product or along with a broad range of other insurance products. In addition, new entrants backed by large insurance companies have attempted to enter the pet insurance market in the past and may do so again in the future. Further, traditional "pet insurance" providers may consolidate or take other actions to mimic the efficiencies from our vertically-integrated structure or create other operational efficiencies, which could lead to increased competition. Some of our current and potential competitors have longer operating histories, larger customer bases, greater brand recognition and significantly greater financial, technical, marketing and other resources than we do. Some of our competitors may be able to undertake more extensive marketing initiatives for their brands and services, devote more resources to website and systems development and make more attractive offers to potential employees, referral sources and third-party service providers.

To compete effectively, we will need to continue to invest significant resources in sales and marketing, in improving our member service levels, in the online experience and functionalities of our website and in other technologies and infrastructure. Failure to compete effectively against our current or future competitors could result in loss of current or potential members, subscription terminations or a reduction in member retention rates, which could adversely affect our pricing, lower our revenue and prevent us from maintaining profitability. We may not be able to compete effectively for members in the future against existing or new competitors, and the failure to do so could result in loss of existing or potential members, increased sales and marketing expenses or diminished brand strength, any of which could harm our business.

If we are not successful in cost-effectively converting visitors to our website and contact center into members, our business and operating results would be harmed.

Our growth depends in large part upon growth in our member base. We seek to convert consumers who visit our website and call our contact center into members. The rate at which consumers visiting our website and contact center considering enrollment in our subscription are converted into members is a significant factor in the growth of our member base. A number of factors have influenced, and could in the future influence, the conversion rates for any given period, some of which are outside of our control. These factors include:

- the competitiveness of our subscription, including its perceived value, simplicity, and fairness;
- changes in consumer shopping behaviors due to circumstances outside of our control, such as economic conditions and consumers' ability or willingness to pay for our product;
- the quality of and changes to the consumer experience when speaking with us on the phone or using our website;

regulatory requirements, including those that make the experience on our website cumbersome or difficult to navigate or that hinder our ability to speak with potential members quickly and in a way that is conducive to converting leads, enrolling new pets, and/or resolving member concerns;

- system failures or interruptions in the operation of our abilities to write policies or operate our website or contact center; and

- changes in the mix of consumers who are referred to us through various member acquisition channels, such as veterinary referrals, existing members adding a pet and referring their friends and family members and other third-party referrals and direct-to-consumer acquisition channels.

Our ability to convert consumers into members can be impacted by a change in the mix of referrals received through our member acquisition channels. In addition, changes to our website or contact center, or other programs or initiatives we undertake, may adversely impact our ability to convert consumers into members at our current rate, or at all. These changes may have the unintended consequence of adversely impacting our conversion rates. A decline in the percentage of members who enroll in our subscription on our website or by calling our contact center also could result in increased member acquisition costs. To the extent the rate at which we convert consumers into members suffers, the growth rate of our member base may decline, which would harm our business, operating results and financial condition.

We have made and plan to continue to make substantial investments in features and functionality for our website and training and staffing for our contact center that are designed to generate traffic, increase member engagement and improve new and existing member service. These activities do not directly generate revenue, however, and we may never realize any benefit from these investments. If the expenses that we incur in connection with these activities do not result in sufficient growth in members to offset the cost, our business, operating results and financial condition will be adversely affected.

If we are unable to maintain and enhance our brand recognition and reputation, our business and operating results will be harmed.

We believe that maintaining and enhancing our brand recognition and reputation is critical to our relationships with existing members, Territory Partners, veterinarians and other referral sources, and to our ability to attract new members, new Territory Partners, additional supportive veterinarians and other referral sources. We also believe that the importance of our brand recognition and reputation will continue to increase as competition in our market continues to develop and mature. Our success in this area will depend on a wide range of factors, some of which are out of our control, including the following:

- the efficacy and viability of our sales and marketing programs;
- the perceived value of our subscription;
- quality of service provided, including the fairness, ease and timeliness of reviewing and paying veterinary invoices;
- actions of our competitors, Territory Partners, veterinarians and other referral sources;
- positive or negative publicity, including regulatory pronouncements and material on the Internet or social media;
- regulatory and other government-related developments; and
- litigation-related developments.

The promotion of our brand may require us to make substantial investments, and we anticipate that, as our market becomes increasingly competitive, these branding initiatives may become increasingly difficult and expensive. Our brand promotion activities may not be successful or yield increased revenue, and to the extent that these activities result in increased revenue, the increased revenue may not offset the expenses we incur and our operating results could be harmed. If we do not successfully maintain and enhance our brand, our business may not grow and our relationships with veterinarians and other referral sources could be terminated, which would harm our business, operating results and financial condition.

Furthermore, negative publicity, whether or not justified, relating to events or activities attributed to us, our employees, our strategic partners, our affiliates, or others associated with any of these parties, may tarnish our reputation and reduce the value of our brands. Damage to our reputation and loss of brand equity may reduce demand for our services and have an adverse effect on our business, operating results, and financial condition. Moreover, any attempts to rebuild our reputation and restore the value of our brands may be costly and time consuming, and such efforts may not ultimately be successful.

Our business depends on our ability to maintain and scale the infrastructure necessary to operate our technology platform and could be adversely affected by a system failure.

Our business depends on our ability to maintain and scale the infrastructure necessary to operate our technology platform, which includes our analytics and pricing engine, systems for managing veterinary invoice payments, customer relationship management system, billing system, contact center phone system and website. We use these technology frameworks to price our subscriptions, enroll members, engage with current members and pay veterinary invoices. Our members review and purchase subscriptions through our website and contact center, and we receive and pay veterinarian invoices directly through our software. Our reputation and ability to acquire, retain and serve our members depends on the reliable performance of our technology platform and the underlying network systems and infrastructure, and on providing best-in-class member service, including through our contact center and website. As our member base continues to grow, the amount of information collected and stored on the systems and infrastructure supporting our technology platform will continue to grow, and we expect to require an increasing amount of network capacity, computing power and information technology personnel to develop and maintain our technology platform and service our departments involved in member interaction.

We have made, and expect to continue to make, substantial investments in equipment and related network infrastructure to handle the operational demands on our technology platform, including increasing data collection, software development, traffic on our website and the volume of calls at our contact center. The operation of the systems and infrastructure supporting our technology platform is expensive and complex and could experience operational failures. In the event that our data collection, member base or amount of traffic on these systems grows more quickly than anticipated, we may be required to incur significant additional costs to increase the capacity in our systems. Any system failure that causes an interruption in or decreases the responsiveness of our services could impair our revenue-generating capabilities, harm our business and operating results and damage our reputation. In addition, any loss or mishandling of data could result in breach of confidence, competitive disadvantage or loss of members, and subject us to potential liability. Any failure of the systems and infrastructure that we rely on could negatively impact our enrollments as well as our relationship with members. If we do not maintain or expand the systems and infrastructure underlying our technology platform successfully, or if we experience operational failures, our reputation could be harmed and we could lose current and potential members, which could harm our operating results and financial condition.

We have made, and expect to continue to make, significant investments in new solutions and enhancements to our technology platform. These new solutions and enhancements may not be successful, and we may not recognize the expected benefits.

We have a team of product and engineering professionals dedicated in part to enhancing our technology platform and developing new solutions. We have made, and expect to continue to make, significant investments in these new solutions and enhancements. For example, we have made significant investments in our software, which is designed to facilitate the direct payment of invoices to veterinary practices. These development and implementation activities may not be successful, and we may incur delays or cost overruns or elect to curtail our currently planned expenditures related to them. Further, if or when these new solutions or enhancements are introduced, they may not be well received by veterinarians or by new or existing members, particularly if they are costly, cumbersome or unreliable. Even if they are well-received, they may be or become obsolete due to technological reasons or to the availability of alternative solutions in the marketplace. If new solutions and enhancements are not successful on a long-term basis, we may not realize benefits from these investments, and our business and financial condition could be adversely affected.

If we fail to effectively manage our growth, our business, operating results and financial condition may suffer.

We have recently experienced, and expect to continue to experience, significant growth, which has placed, and may continue to place, significant demands on our management and our operational and financial systems and infrastructure. We expect that our growth strategy will require us to commit substantial financial, operational and technical resources. It may also result in increased costs, including unexpected increases in our underlying costs (such as member acquisition costs or increases in the number or amounts of veterinary invoices received) generated by our new business, which could prevent us from remaining profitable and could impair our ability to compete effectively

for business. Additionally, we have in the past, and may in the future, experience increases in terminations as our membership grows, which negatively affects our retention rate. If we do not effectively manage growth at any time, our financial condition could be harmed and the quality of our services could suffer.

In order to successfully expand our business, we need to hire, integrate and retain highly skilled and motivated employees. We also need to continue to improve our existing systems for operational and financial management. These improvements could require significant capital expenditures and place increasing demands on our management. We may not be successful in managing or expanding our operations or in maintaining adequate financial and operating systems and controls. If we do not successfully implement improvements in these areas, our business, operating results and financial condition will be harmed.

Our operating results may vary, which could cause the trading price of our stock to fluctuate or decline, make period-to-period comparisons less meaningful, and make our future results difficult to predict.

We may experience fluctuations in our revenue, expenses and operating results in future periods. Our operating results may fluctuate in the future as a result of a number of factors, many of which are beyond our control. These fluctuations 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 result in declines in our stock price. Moreover, these fluctuations may make comparing our operating results on a period-to-period basis less meaningful and make our future results difficult to predict. You should not rely on our past results as an indication of our future performance. In addition, if revenue levels do not meet our expectations, our operating results and ability to execute on our business plan are likely to be harmed. In addition to the other factors listed in this "Risk Factors" section, factors that could affect our operating results include the following:

- our ability to retain our current members and grow our member base;
- the level of operating expense we elect to incur related to sales and marketing and technology and development initiatives that are discretionary in nature;
- the effectiveness of our sales and marketing programs;
- our ability to improve veterinarians' and other third-parties' willingness to recommend our subscription;
- the timing, volume and amount of veterinary invoices and the adequacy of our related reserve;
- our ability to accurately price our subscription and achieve required regulatory pricing approvals;
- regulatory limitations or other constraints on our ability or our willingness to implement pricing changes;
- the level of demand for and cost of our subscription or competing products;
- fluctuations in applicable foreign currency exchange rates;
- the perceived value of our subscription to veterinarians and pet owners;
- spending decisions by our members and prospective members;
- our costs and expenses, including pet acquisition costs and costs to pay and process veterinary invoices;
- our ability to expand the scope and efficiency of our Territory Partner group;
- our ability to effectively manage our growth;
- the effects of increased competition in our business;
- our ability to keep pace with changes in technology and our competitors;
- the impact of any security incidents or service interruptions;
- costs associated with defending any regulatory action or litigation or with enforcing our intellectual property, contractual or other rights;
- the impact of economic conditions on our revenue and expenses; and
- changes in government regulation affecting our business.

Seasonal or periodic variations in the behavior of our members also may cause fluctuations in our financial results. Enrollment in our subscription tends to be discretionary in nature and may be sporadic, reflecting overall economic conditions, budgeting constraints, pet-buying patterns and a variety of other factors, many of which are outside our control. For example, we expect to experience some effects of seasonal trends in visits to veterinarians in the fourth quarter and in the beginning of the first quarter of each year in connection with the traditional holiday season. While we believe seasonal trends have affected and will continue to affect our quarterly results, our growth may have overshadowed these effects to date. We believe that our business will continue to be subject to seasonality in the future, which may result in fluctuations in our financial results.

Due to these and other factors, our financial results for any quarterly or annual period may not meet our expectations or the expectations of investors or analysts that follow our stock and may not be meaningful indications of our future performance.

Our vertical integration may result in higher costs.

We manage all aspects of our business, including operating our own insurance subsidiary, implementing our own national independent referral group of Territory Partners, pricing our subscriptions with our in-house actuarial team, processing and paying veterinary invoices, operating our own contact center and owning our own brand. While we believe this vertically integrated approach reduces frictional costs and enhances members' experiences, third-party providers may, now or in the future, be able to replicate this model, partially or entirely, on a more efficient and effective basis. If our in-house services are or become less efficient or less effective than the same services provided by a third party, we may not realize the related cost savings and may be unable to provide a superior membership experience, which may have an adverse effect on our operating results.

Medical insurance for cats and dogs is an evolving industry, which makes it difficult to evaluate our near- and long-term business prospects.

Medical insurance for cats and dogs continues to develop as an industry, and it is difficult to assess the future of the industry, including future penetration rates. As an evolving industry, the marketplace is subject to significant challenges and new competitors, and as a result the future revenue, income and growth potential of our business is uncertain.

Mergers or other strategic transactions in the animal health industry or among our competitors could adversely affect our ability to compete effectively and harm our results of operations.

It is probable that the veterinary industry will experience further consolidation in the future, which could result in more veterinarians' practices regarding communicating with pet owners about medical insurance being determined at a group level. Such consolidation could negatively impact our business. In addition, the animal health industry in general could experience future consolidation, which could negatively impact our relationships with participants in the industry. Moreover, some of our competitors may enter into new alliances with each other, or may establish or strengthen cooperative relationships with industry participants. Any of these developments could adversely affect our ability to compete effectively and lead to pricing pressure and our loss of market share and could result in a competitor with greater financial, technical, marketing, service and other resources, all of which could harm our business, financial condition, cash flows and results of operations.

Our forecasts of market growth may prove to be inaccurate, and even if the market for medical insurance for cats and dogs in North America achieves the forecasted growth, our business may not grow at similar rates, if at all.

Growth forecasts are subject to significant uncertainty and are based on assumptions and estimates, which may not prove to be accurate. Although we believe that the North American market for pet medical insurance will grow over time if consumers are offered a high-value product, the market in North America has been historically growing slowly, if at all, and may not be capable of growing further. Even if this market experiences significant growth, we may not grow our business at similar rates, or at all. For example, the market for medical insurance for cats and dogs in North America has been highly fragmented and competitive and may become even more so in the future. Our growth is subject to many factors, including our success in implementing our business strategy and maintaining our position in a highly competitive market, which are subject to many risks and uncertainties.

We depend on key personnel to operate our business and, if we are unable to retain, attract and integrate qualified personnel, our ability to develop and successfully grow our business could be harmed.

Our success depends to a significant extent on the continued services of our current management team, including Darryl Rawlings, our founder and Chief Executive Officer. The loss of Mr. Rawlings or several other key executives or employees within a short time frame could have a material adverse effect on our business. We employ all of our executive officers and key employees on an at-will basis, and their employment can be terminated by us or them at any time, for any reason and without notice, subject, in certain cases, to severance payment rights. We maintain no "key man" insurance. Additionally, if we were to lose a large percentage of our current employees in a relatively short time period, or our employees were to engage in a work stoppage or unionize, we may be unable to hire and train new employees quickly enough to prevent disruptions in our operations, which may result in the loss of members, Territory Partners or referral sources.

Our success also depends on our ability to attract, retain and motivate additional skilled management personnel. We plan to continue to expand our work force, which we believe will enhance our business and operating results. We believe that there is significant competition for qualified personnel with the skills and knowledge that we require. Many of the other companies with which we compete for qualified personnel have greater financial and other resources than we do. They also may provide more diverse opportunities and better chances for career advancement. Some of these characteristics may be more appealing to high-quality candidates than those we have to offer. In order to retain valuable employees, in addition to salary and cash incentives, we have provided and in the future expect to provide stock options and restricted stock that vest over time and may in the future grant equity awards tied to company performance. The value to employees of stock options and restricted stock that vest over time will be significantly affected by movements in our stock price that are beyond our control and may at any time be insufficient to maintain their retention benefit or counteract offers from other companies. If we are unable to attract and retain the necessary qualified personnel to accomplish our business objectives, we may experience constraints that will significantly impede the achievement of our business objectives and our ability to pursue our business strategy. New hires require significant training and, in most cases, take significant time before they achieve full productivity. New employees may not become as productive as we expect, and we may be unable to hire or retain sufficient numbers of qualified individuals. If our recruiting, training and retention efforts are not successful or do not generate a corresponding increase in revenue, our business will be harmed.

If we cannot maintain our corporate culture as we grow, we could lose the innovation, teamwork and focus that contribute crucially to our business.

Our culture is fundamental to our success and defines who we are and how we operate our business. We were founded on a deep appreciation of the special relationship between pet owners, their beloved pets and their trusted veterinarians. We have invested substantial time, energy and resources in developing a culture that fosters teamwork, innovation, creativity and a focus on providing value for our members as well as for Territory Partners and veterinarians. As we develop our infrastructure while we grow, we may find it difficult to maintain these valuable aspects of our corporate culture. Any failure to preserve our culture could negatively impact our future success, including our ability to attract and retain personnel, encourage innovation and teamwork and effectively focus on and pursue our corporate objectives.

We depend on relationships with strategic partners, and our inability to maintain our existing and secure new relationships with strategic partners could harm our revenue and operating results.

A portion of our revenue is attributable to a variety of different types of strategic partnership arrangements. These partnerships involve various risks, depending on their structure, including the following:

- we may be unable to maintain or secure favorable relationships with strategic partners;
- our strategic partners may not be successful in creating leads;
- we may be unable to convert leads from our strategic partners into enrolled pets;
- our strategic partners could terminate their relationships with us;
- we may not experience a consistent correlation between revenues and expenditures related to the partnership, and
- bad publicity and other issues faced by our strategic partners could negatively impact us.

Our business and financial condition is subject to risks related to our writing of policies pursuant to contractual relationships with unaffiliated third parties.

Our other business segment generally includes revenues and expenses involving contractual relationships with unaffiliated third parties and marketing to enterprises. We have relatively limited experience in writing policies for unaffiliated third parties. This business is not expected to grow at the same rate as our core business and may have different financial and operational impacts. Changes to this business may be volatile due to the nature of the relationships. Further, this business historically has had, and we expect it to continue to have, lower margins than our core business. As a result of this line of business, we are subject to additional regulatory requirements and scrutiny, which increase our costs, risks and may have an adverse effect on our operations. Further, administration of this business and any similar business in the future may divert our time and attention away from our core business, which could adversely affect our operating results in the aggregate.

For example, we have written pet insurance policies for general agents since 2012. These policies are subject to materially different terms and conditions than our subscription. Further, the unaffiliated general agents administer these policies and market them to consumers. For the year ended December 31, 2018, premiums from these policies accounted for 11% of our total revenue. These relationships can be terminated by either party and, if terminated, would result in a reduction in our revenue to the extent we cannot enter other relationships and generate equivalent revenues with different general agents. In addition, the general agents control trust accounts they maintain on our behalf. If the general agents make operating decisions that adversely affect its business or brand, our business or brand could also be adversely affected.

In Canada, our medical plan is written by Omega General Insurance Company. If Omega were to terminate its underwriting arrangement with us, our business could be adversely affected.

In Canada, our medical plan is written by Omega, and we assume all premiums written by Omega and the related veterinary invoice expense through an agency agreement and a fronting and administration agreement. These agreements may be terminated by either party with one year's prior written notice. If Omega were to terminate our agreement or be unable to write insurance for regulatory or other reasons, we may have to terminate subscriptions with our existing members, or suspend member enrollment and renewals, in Canada until we entered into a relationship with another third party to write our subscription, which may take a significant amount of time and require significant expense. We may not be able to enter into a new relationship, and any new relationship would likely be on less favorable terms. Any delay in entry into a new relationship or suspension of member enrollment and renewals could have a material adverse effect on our operating results and financial condition.

We may operate multiple insurance subsidiaries, which may complicate our business and harm our results of operations.

Currently, American Pet Insurance Company (APIC), our wholly owned subsidiary, underwrites subscriptions for our U.S. product, and Omega underwrites subscriptions for our Canadian product. In the future, we may set up and operate additional wholly-owned insurance companies in the U.S., Canada, or a different country. These efforts may require investment of resources and we may not achieve any or all of the anticipated benefits. In addition, we may require additional capital to meet our risk-based capital requirements for the new insurance subsidiaries and could be subject to additional regulatory scrutiny in the jurisdictions in which the insurance subsidiary is formed and operates.

If we are unable to implement and maintain effective internal control over financial reporting in the future, investors may lose confidence in the accuracy and completeness of our financial reports and the market price of our common stock may be negatively affected.

We are required to maintain internal control over financial reporting and to report any material weaknesses in such internal control. Section 404 of the Sarbanes-Oxley Act of 2002 (the Sarbanes-Oxley Act) requires that we evaluate and determine the effectiveness of our internal control over financial reporting and provide a management report on the internal control over financial reporting, which must be attested to by our independent registered public accounting firm.

We may not detect errors on a timely basis and our financial statements may be materially misstated. We have had in the past, and may have in the future, material weaknesses and significant deficiencies in our internal control over financial reporting. No evaluation of assessment of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud, if any, have been detected. Over time, controls may become inadequate because of changes in circumstance. If we or our independent registered public accounting firm identify future material weaknesses in our internal control over financial reporting, we are unable to comply with the requirements of Section 404 in a timely manner, we are unable to assert that our internal control over financial reporting is effective or our independent registered public accounting firm is unable to express an opinion as to the effectiveness of our internal control over financial reporting, investors may lose confidence in the accuracy and completeness of our financial reports and the market price of our common stock could be negatively affected. We could also become subject to investigations by the stock exchange on which our securities are listed, the SEC or other regulatory authorities, which could require additional financial and management resources.

If our security measures are breached and unauthorized access is obtained to our data, including our members' data, we may lose our competitive advantage, our systems may be perceived as not being secure and we may incur third-party liability.

Our data repository contains proprietary information that we believe gives us a competitive advantage, including data on veterinary invoices received and other data with respect to members, Territory Partners, veterinarians and other third parties. Security breaches could expose us to a risk of loss of our data and/or disclosure of this data, either publicly or to a third party who could use the information to gain a competitive advantage. In the event of a loss of our systems or data, we could experience increased costs, delays legal liability, and reputational harm, which in turn may harm our financial condition, damage our brand and result in the loss of members. Such a disclosure also could lead to litigation and possible liability.

In the course of operating our business, we may store and/or transmit our members' confidential information. Security breaches could expose us to a risk of loss of this information, litigation and possible liability. Our payment services may be susceptible to credit card and other payment fraud schemes, including unauthorized use of credit cards, debit cards or bank account information, identity theft or merchant fraud.

If our security measures are breached as a result of third-party action, employee error, malfeasance or otherwise, and, as a result, someone obtains unauthorized access to our data, including data of our members, our reputation may be damaged, our business may suffer and we could incur significant liability. Because techniques used to obtain unauthorized access or to sabotage systems change frequently and generally are not recognized until launched against a target, we may be unable to anticipate these techniques or implement adequate preventative measures. If an actual or perceived breach of our security occurs, the public perception of the effectiveness of our security measures could be harmed and we could lose members, which would adversely affect our business.

Any legal liability, regulatory penalties or negative publicity we encounter, including based on the information on our website or that we otherwise distribute or provide, directly or through Territory Partners or other referral sources, could harm our business, operating results and financial condition.

Any legal disputes or regulatory penalties involving us may be publicly announced, which could materially harm our reputation and adversely affect our business. We also provide information on our website, through our contact center and in other ways regarding pet health, the pet insurance industry in general and our subscription, including information relating to subscription fees, benefits, exclusions, limitations, availability and medical plan comparisons. A significant amount of both automated and manual effort is required to maintain the information on our website. Separately, from time to time, we use the information provided on our website and otherwise collected by us to publish reports designed to educate consumers. For example, we produce a significant amount of marketing materials regarding our subscription. If the information we provide on our website, through our contact centers or otherwise is not accurate or is construed as misleading, or if we improperly assist individuals in purchasing subscriptions, our members, competitors or others could attempt to hold us liable for damages, our relationships with veterinarians and other referral sources could be terminated and regulators could attempt to subject us to penalties, revoke our licenses to transact business in one or more jurisdictions or compromise the status of our licenses to transact our business in other jurisdictions, which could result in our loss of revenue. In the ordinary course of operating our business, we may receive complaints that the information we provided was not accurate or was misleading. These types of claims could be time-consuming and expensive to defend, could divert our management's attention and other resources and could cause a loss of confidence in our business. As a result, whether or not we are able to successfully resolve these claims, they could harm our business, operating results and financial condition.

We are subject to a number of risks related to accepting automatic fund transfers and credit card and debit card payments.

We accept payments of subscription fees from our members through automatic fund transfers and credit and debit card transactions. For credit and debit card payments, we pay interchange and other fees, which may increase over time. An increase in the number of members who utilize credit and debit cards to pay their subscription fees or related credit and debit card fees would reduce our margins and could require us to increase subscription fees, which could cause us to lose members and revenue, or suffer an increase in our operating expenses, either of which could adversely affect our operating results.

If we, or any of our processing vendors or banks have problems with our billing software, or if the billing software malfunctions, it could have an adverse effect on our member satisfaction and could cause one or more of the major credit card companies or banks to disallow our continued use of their payment products. In addition, if our billing software fails to work properly and, as a result, we do not automatically charge our members' credit cards on a timely basis or at all, or a bank withdraws the incorrect amount or fails to timely transfer the correct amount to us, we could lose revenue and harm our member experience, which could adversely affect our business and operating results. Moreover, a vendor could fail to process payments, or could process payments in the wrong amounts, which could result in us failing to collect premiums, could result in increased cancellations and could adversely affect our reputation.

We are also subject to payment card association operating rules, certification requirements and rules governing electronic funds transfers, including the Payment Card Industry Data Security Standard (PCI DSS), a security standard applicable to companies that collect, store or transmit certain data regarding credit and debit cards, holders and transactions. In the past we may not have been and in the future we may not be, fully or materially compliant with PCI DSS, or other payment card operating rules. Any failure to comply fully or materially with the PCI DSS now or at any

point in the future may violate payment card association operating rules, federal and state laws and regulations, and the terms of our contracts with payment processors and merchant banks. Such failure to comply fully or materially also may subject us to fines, penalties, damages and civil liability, and may result in the loss of our ability to accept credit and debit card payments. In addition, there is no guarantee that PCI DSS compliance will prevent illegal or improper use of our payment systems or the theft, loss or misuse of data pertaining to credit and debit cards, credit and debit card holders and credit and debit card transactions.

If we fail to adequately control fraudulent credit card transactions, we may face civil liability, diminished public perception of our security measures and significantly higher credit card-related costs, each of which could adversely affect our business, operating results and financial condition.

If we are unable to maintain our chargeback rate at acceptable levels, our credit card fees for chargeback transactions, or our fees for many or all categories of credit and debit card transactions, credit card companies and debit card issuers may increase our fees or terminate their relationship with us. Any increases in our credit card and debit card fees could adversely affect our operating results, particularly if we elect not to raise our subscription fees. The termination of our ability to process payments on any major credit or debit card would significantly impair our ability to operate our business.

We have no experience owning an office building and may face unexpected costs.

We used $55 million of the net proceeds from the June 2018 follow-on public offering to help fund the purchase of our home office building, which closed in August 2018. Before then, we leased our current home office since July 2016, and we had no experience owning an office building. While we believe our home office building is in reasonable condition, it is difficult to predict all costs associated with maintaining the building and ensuring it is suitable for our use and that of other tenants. It is possible that the other current tenants in the building may decide to move to newer facilities, wind up operations, or otherwise cease to rent space in the building, which would decrease rental income we expect to receive from them. Tenants may also negotiate tenant improvements, requiring capital expenditures that may adversely impact our financial position. In addition, we may identify structural defects or other conditions, or we may determine that remodeling or renovations are necessary given our business operations and objectives. Managing tenants, maintaining the building, and otherwise facing the costs and responsibilities of being the owner of a building may be a distraction from our core business and cause our performance to suffer.

Our building acquisition may not result in a meaningful or long-term ability to increase our cash.

We acquired our home office building because a portion of the value of the building may be used as an admitted asset on the balance sheet of American Pet Insurance Company (APIC). Over time, if APIC continues to grow its operations and increase its admitted assets, this percentage of admitted assets may result in an increasingly larger dollar amount being invested in our home office building. While the New York Department of Financial Services (NY DFS) approved the use of up to 10% of APIC's admitted assets to own the building, the NY DFS is not prevented from subsequently reducing the percentage of admitted assets that we may use or completely withdrawing its approval. Any such action could reduce the percentage of APIC’s admitted assets that could be invested in our home office building to between 1% and 5%, according to current regulations. If the amount of admitted assets invested in our home office decreases, we may be required to meet our risk-based capital obligations using other forms of capital that we would otherwise invest in our growth and operations. This may require us to modify our operating plan or marketing initiatives, delay the implementation of new initiatives and solutions or development of new technologies, decrease the rate at which we hire additional personnel and enter into relationships with Territory Partners, incur additional indebtedness or pursue equity or debt financings or otherwise modify our business operations, any of which could have a material adverse effect on our operating results and financial condition.

Failure to adequately protect our intellectual property could substantially harm our business and operating results.

We rely on a combination of intellectual property rights, including trade secrets, patents, copyrights, trademarks and domain names, as well as contractual restrictions, to establish and protect our intellectual property. Despite our efforts to protect our proprietary rights, unauthorized parties may attempt to copy our digital content, pricing analytics, technology, software, branding and functionality, or obtain and use information that we consider proprietary. Moreover, policing our proprietary rights is difficult and may not always be effective. If we continue to expand internationally, we may need to enforce our rights under the laws of countries that do not protect proprietary rights to as great an extent as do the laws of the United States, which may be expensive and divert management’s attention away from other operations.

Our Trupanion Express software is protected by patents. These patents may not be sufficient to maintain effective product exclusivity because patent rights are limited in time and do not always provide effective protection. Furthermore, our efforts to enforce or protect our patent rights may be ineffective, could result in substantial costs and diversion of resources and could substantially harm our operating results. Even where our patents rights are enforced, legal remedies available for harm caused to us by infringing products may be inadequate to make us whole. Further, our successful assertion of our patent against one competing product is not necessarily predictive of our future success or failure in asserting the same patent against a second competing product. In addition, patents have a limited lifespan.

In the United States, the natural expiration of a patent is generally 20 years after it is filed. Various extensions may be available however the life of a patent, and the protection it affords, is limited. Once the patent life has expired for our software, our competitors will be able to use our patented technology.

Our digital content is not protected by any registered copyrights or other registered intellectual property. Rather, our digital content is protected by statutory and common law rights, user agreements that limit access to and use of our data and by technological measures. Compliance with use restrictions is difficult to monitor, and our proprietary rights in our digital content databases may be more difficult to enforce than other forms of intellectual property rights.

We currently hold several registered trademarks, including “Trupanion”. Trademark protection may not always be available, or sought by us, in every country in which our subscription is available. Competitors may adopt names similar to ours, or purchase our trademarks and confusingly similar terms as keywords in Internet search engine advertising programs, thereby impeding our ability to build brand identity and possibly confusing members. Moreover, there could be potential trade name or trademark infringement claims brought by owners of other registered trademarks or trademarks that incorporate marks similar to our trademarks.

We may take action, including initiating litigation, to protect our intellectual property rights and the integrity of our brand, and these efforts may prove costly, ineffective and increase the likelihood of counterclaims against us.

We currently hold the “Trupanion.com” Internet domain name and numerous other related domain names. Domain names generally are regulated by Internet regulatory bodies. If we lose the ability to use a domain name in the United States, Canada or any other country, we may be forced to acquire domain names at significant cost or, in the alternative, be forced to incur significant additional expenses to market our subscription, including the development of a new brand and the creation of new promotional materials, which could substantially harm our business and operating results. The regulation of domain names in the United States, Canada and in other foreign countries is subject to change. Regulatory bodies could establish additional top-level domains, appoint additional domain name registrars or modify the requirements for holding domain names. As a result, we may not be able to acquire or maintain the domain names that utilize the “Trupanion” name in all of the countries in which we currently intend to conduct business.

We seek to control access to our proprietary technology, software and documentation by entering into confidentiality and invention assignment agreements with our employees and partners, confidentiality agreements or license agreements with third parties, such as service providers, vendors, individuals and entities that may be exploring a business relationship with us, and terms of use with third parties, such as veterinary hospitals desiring to use our technology, software and documentation. These agreements may not prevent disclosure of intellectual property, trade secrets and/or other confidential information, and may not provide an adequate remedy in the event of misappropriation of trade secrets or any unauthorized disclosure of trade secrets and other confidential information. In addition, others may independently discover trade secrets and confidential information and, in such cases, we may not be able to assert any trade secret rights against such parties. Costly and time-consuming litigation could be necessary to enforce and determine the scope of our intellectual property rights and related confidentiality, license and nondisclosure provisions, and failure to obtain or maintain trade secret protection, or our competitors being able to obtain our trade secrets or to independently develop technology similar to ours or competing technologies, could adversely affect our competitive business position.

Litigation or proceedings before the U.S. Patent and Trademark Office or other governmental authorities and administrative bodies in the United States and abroad may be necessary in the future to enforce our intellectual property rights, to protect our domain names and to determine the validity and scope of the proprietary rights of others. Our efforts to enforce or protect our proprietary rights may be ineffective, could result in substantial costs and diversion of resources and could substantially harm our operating results.

Assertions by third parties of infringement or other violation by us of their intellectual property rights could result in significant costs and substantially harm our business and operating results.

Third parties have in the past and may in the future claim that our services infringe or otherwise violate their intellectual property rights. We may be subject to legal proceedings and claims, including claims of alleged infringement by us of the intellectual property rights of third parties. Any dispute or litigation regarding intellectual property could be expensive and time consuming, regardless of the merits of any claim, and could divert our management and key personnel from our operations.

If we were to discover or be notified that our services potentially infringe or otherwise violate the intellectual property rights of others, we may need to obtain licenses from these parties in order to avoid infringement. We may not be able to obtain the necessary licenses on acceptable terms, or at all, and any such license may substantially restrict our use of the intellectual property. Moreover, if we are sued for infringement and lose the lawsuit, we could be required to pay substantial damages or be enjoined from offering the infringing services. Any of the foregoing could cause us to incur significant costs and prevent us from selling or properly administering subscriptions or performing under our

other contractual relationships.

We rely on third parties to provide intellectual property and technology necessary for the operation of our business. We utilize intellectual property and technology owned by third parties in developing and operating our technology platform and operating our business. From time to time, we may be required to renegotiate with these third parties or negotiate with other third parties to include or continue using their intellectual property or technology in our existing technology platform or business operations or in modifications or enhancements to our technology platform or business operations. We may not be able to obtain the necessary rights from these third parties on commercially reasonable terms, or at all, and the third-party intellectual property and technology we use or desire to use may not be appropriately supported, maintained or enhanced by the third parties. If we are unable to obtain the rights necessary to use or continue to use third-party intellectual property and technology in our operations, or if those third parties are unable to support, maintain and enhance their intellectual property and technology, we could experience increased costs or delays, which in turn may harm our financial condition, damage our brand and result in the loss of members. Our technology platform and our data are also hosted by a third-party service provider. The terms under which such third-party service provider provides us services may change and we may be required to renegotiate with that third party. If we are unable to renegotiate satisfactory terms, we may not be able to transition to an alternative service provider without interrupting the availability of our technology platform and any interruption could materially and adversely affect our business. Additionally, if our third-party service provider experiences any disruptions, outages or catastrophes, or if it ceases to conduct business for any reason, we could experience an interruption in our business, which in turn may damage our brand, result in a loss of members and harm our financial condition.

The outcome of litigation or regulatory proceedings could subject us to significant monetary damages, restrict our ability to conduct our business, harm our reputation and otherwise negatively impact our business.

From time to time, we have been, and in the future may become, subject to litigation, claims and regulatory proceedings and inquiries, including market conduct examinations and investigations by state insurance regulatory agencies and threatened or filed lawsuits by, among others, government agencies, employees, competitors, current or former members, or business partners.

We cannot predict the outcome of these actions or proceedings, and the cost of defending such actions or proceedings could be material. Further, defending such actions or proceedings could divert our management and key personnel from our business operations. If we are found liable in any action or proceeding, we may have to pay substantial damages or fines, or change the way we conduct our business, either of which may have a material adverse effect on our business, operating results, financial condition and prospects. There may also be negative publicity associated with litigation or regulatory proceedings that could harm our reputation or decrease acceptance of our services. These claims may be costly to defend and may result in assessment of damages, adverse tax consequences and harm to our reputation.

Covenants in the credit agreement governing our revolving line of credit may restrict our operations, and if we do not effectively manage our business to comply with these covenants, our financial condition could be adversely affected.

The credit agreement governing our revolving line of credit contains various restrictive covenants, including restrictions on our ability to dispose of our assets, change the name, location, office or executive management of our business, merge with or acquire other entities, incur other indebtedness, incur encumbrances, pay dividends or make distributions to holders of our capital stock, make investments, engage in transactions with our affiliates, permit withdrawals from APIC (with certain exceptions) and conduct operations in certain of our Canadian subsidiaries. Our credit agreement also contains certain financial covenants, including having APIC maintain statutory capital and surplus at all times of not less than the greater of the amount required by regulatory statute or 110% of the highest amount of statutory capital and surplus required in any state in which APIC is licensed; maintaining a minimum cash balance of $1.4 million in our account at Western Alliance Bank (WAB) and/or WAB affiliates and other cash or investments of $2.1 million in our accounts at Pacific Western Bank (PWB); maintaining all of our depository and operating accounts at PWB and/or WAB; maintaining certain investment accounts at PWB and/or PWB affiliates; achieving certain quarterly revenue levels and claims ratio thresholds; maintaining greater than negative $1.0 million net total of operating cash flow and capital expenditures quarterly; and remaining within certain monthly maximum EBITDA loss levels. EBITDA is defined as earnings, plus an amount equal to the sum of (i) tax, plus (ii) depreciation

and amortization, plus (iii) interest and non-cash expenses, plus (iv) any non-cash stock-based compensation expense, plus (v) (gain)/loss from equity method investments. Our ability to meet these restrictive covenants can be affected by events beyond our control, and we have been in the past, and may be in the future, unable to do so. In addition, our failure to maintain effective internal controls to measure compliance with our financial covenants could affect our ability to take corrective actions on a timely basis and could result in our being in breach of these covenants. Our credit agreement provides that our breach or failure to satisfy certain covenants constitutes an event of default. Upon the occurrence of an event of default, our lenders could elect to declare any future amounts outstanding under our credit agreement to be immediately due and payable. If we are unable to repay those amounts, our financial condition could be adversely affected.

Any indebtedness we incur could adversely affect our business and limit our ability to expand our business or respond to changes, and we may be unable to generate sufficient cash flow to satisfy any of our debt service obligations.

As of December 31, 2018, we had $13 million outstanding indebtedness under our revolving line of credit. We may incur indebtedness in the future, including any additional borrowings available under our revolving line of credit. Any substantial indebtedness and the fact that a substantial portion of our cash flow from operating activities could be needed to make payments on this indebtedness could have adverse consequences, including the following:

- reducing the availability of our cash flow for our operations, capital expenditures, future business opportunities and other purposes;
- limiting our flexibility in planning for, or reacting to, changes in our business and the industries in which we operate, which could place us at a competitive disadvantage compared to our competitors that may have less debt;
- limiting our ability to borrow additional funds; and
- increasing our vulnerability to general adverse economic and industry conditions.

Our ability to borrow any funds needed to operate and expand our business will depend in part on our ability to generate cash. Our ability to generate cash is subject to the performance of our business, as well as general economic, financial, competitive, legislative, regulatory and other factors that are beyond our control. We may also need to use operating funds to support risk-based capital requirements and borrow additional funds to support our growth. If our business does not generate sufficient cash flow from operating activities or if future borrowings are not available to us, under our revolving credit facility or otherwise, in amounts sufficient to enable us to fund our liquidity needs, our operating results, financial condition and ability to expand our business and meet our risk-based capital requirements may be adversely affected.

Our financial results may be negatively affected if we are required to pay income tax, premium tax, transaction tax or other taxes in jurisdictions where we are currently not collecting and reporting tax.

We currently pay income tax, premium tax, transaction tax and other taxes in certain jurisdictions in which we do business. A successful assertion by one or more jurisdictions that we should be paying income, premium, transaction or other taxes on our income or in connection with enrollment or intercompany services, or the enactment of new laws requiring the payment of income, premium, transfer or other taxes in connection with our business operations, including enrollment or intercompany services, could result in substantial tax liabilities.

We may have additional tax liabilities.

We are subject to income tax and other taxes in the U.S. and foreign jurisdictions. Significant judgment is required in determining our provision for income taxes. In the ordinary course of our business, there are many transactions and calculations where the ultimate tax determination is uncertain. Further, we often make elections for tax purposes which may ultimately not be upheld. Although we believe our tax estimates are reasonable, the final determination of tax audits and any related litigation in the jurisdictions where we are subject to taxation could be materially different from our historical income tax provisions and accruals. The results of an audit or litigation could have a material effect on our consolidated financial statements in the period or periods in which that determination is made.

If consumer acceptance of the Internet as an acceptable marketplace for our subscription does not continue to increase, our growth prospects will be harmed.

Our success depends in part on widespread consumer acceptance of the Internet as a marketplace for the purchase of medical insurance for cats and dogs. Internet use may not continue to develop at historical rates, and consumers may not continue to use the Internet to research, select and purchase insurance. In addition, the Internet may not be accepted as a viable resource for a number of reasons, including lack of security of information or privacy protection, possible disruptions, computer viruses or other damage to Internet servers or to users' computers, and excessive governmental regulation.

Our success will depend, in large part, on third parties maintaining the Internet infrastructure to provide a reliable network backbone with the speed, data capacity, security and hardware necessary for reliable Internet access and services.

If we do not prominently appear in Internet search engine results, third party sites or other Internet resources, our new member growth could decline, and our business and operating results could be harmed.

We derive a significant amount of traffic to our website from consumers who search for pet medical insurance through Internet search engines, such as Google, Bing and Yahoo!. A critical factor in attracting consumers searching for pet medical insurance on the Internet to our website is whether we are prominently displayed in response to an Internet search relating to pet insurance. Algorithmic search result listings are determined and displayed in accordance with a set of formulas or algorithms developed by the particular Internet search engine, which may change from time to time. If we are listed less prominently in, or removed altogether from, search result listings for any reason, the traffic to our websites would decline and we may not be able to replace this traffic, which in turn would harm our business, operating results and financial condition. If we decide to attempt to replace this traffic, we may be required to increase our sales and marketing expenditures, including by utilizing paid search advertising, which would also increase our pet acquisition costs and harm our business, operating results and financial condition.

Changes in the economy may negatively impact our business, operating results and financial condition.

Our business may be affected by changes in the economic environment. Medical insurance for cats and dogs is a discretionary purchase, and members may reduce or eliminate their discretionary spending during an economic downturn, resulting in an increase in terminations and a reduction in the number of new member enrollments. We may experience a material increase in terminations or a material reduction in our member retention rate in the future, especially in the event of a prolonged recessionary period or a downturn in economic conditions. Conversely, consumers may have more income to pay veterinary costs out-of-pocket and less desire to purchase our subscription during a period of economic growth. In addition, media prices may increase during a period of economic growth, which could increase our sales and marketing expenses. As a result, our business, operating results and financial condition may be significantly affected by changes in the economic environment.

We have and may continue to create, invest in or acquire businesses, products and technologies, which could divert our management's attention, result in additional dilution to our stockholders, otherwise disrupt our operations or harm our operating results.

We have and may continue to create, invest in or acquire businesses, products and technologies. Our ability to successfully evaluate and manage investment opportunities, or make and integrate acquisitions or products, is unproven. The pursuit of potential new products, investments or acquisitions may divert the attention of management and cause us to incur various expenses in identifying, investigating and pursuing suitable opportunities, whether or not they are consummated. Further, even if we successfully invest in or acquire additional businesses or technologies, we may not achieve the anticipated benefits from the transaction. The investment or acquisition may also expose us to additional risks, including from unknowingly inheriting liabilities that are not adequately covered by indemnities. Acquisitions or investments could also result in dilutive issuances of equity securities or the incurrence of debt, which could adversely affect our operating results. If an investment or acquisition fails to meet our expectations, our business, operating results and financial condition may suffer.

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

As of December 31, 2018, we had U.S. federal net operating loss carryforwards of approximately $121.1 million that will begin to expire in 2027. Under Sections 382 and 383 of the Internal Revenue Code of 1986, as amended (the Code), if a corporation undergoes an "ownership change," the corporation's ability to use its pre-change net operating loss carryforwards and other pre-change tax attributes, such as research tax credits, to offset its post-change income and taxes may be limited. In general, an "ownership change" generally occurs if there is a cumulative change in our ownership by "5-percent stockholders" that exceeds 50 percentage points over a rolling three-year period. Similar rules may apply under state tax laws. Pursuant to Sections 382 and 383 of the Code, annual use of our net operating loss carryforwards and credit carryforwards may be limited if we experience an ownership change. We believe the utilization of approximately $0.5 million of net operating losses are subject to limitation as a result of prior ownership changes based on our Section 382 study performed as of September 30, 2018. We note subsequent ownership changes may have already and may further affect the limitation in future years.

We are expanding our operations internationally, and we may therefore become subject to a number of risks associated with international expansion and operations.

As part of our growth plan, we have explored, and expect to continue to explore, opportunities to expand our operations internationally. We are in the process of entering the Australian market and we may launch similar processes in other countries. We have no history of marketing, selling, administrating and supporting our subscription for consumers outside of the United States, Canada and Puerto Rico. International sales and operations are subject to a number of risks, including the following:

- regulatory rules and practices, foreign exchange controls, tariffs, tax laws and treaties that are different than those we operate under in the United States, Canada and Puerto Rico and that carry a greater risk of unexpected changes;
- the costs and resources required to modify our technology and sell our subscription in non-English speaking countries;

- the costs and resources required to modify our subscription appropriately to suit the needs and expectations of residents and veterinarians in such foreign countries;
- our data analytics platform may have limited applicability in foreign countries, which may impact our ability to develop adequate underwriting criteria and accurately price subscriptions in such countries;
- increased expenses incurred in establishing and maintaining office space and equipment for our international operations;
- technological incompatibility;
- fluctuations in exchange rates between the U.S. dollar and foreign currencies in markets where we do business;
- difficulties in attracting and retaining personnel with experience in international operations;
- difficulties in modifying our business model in a manner suitable for any particular foreign country, including any modifications to our Territory Partner model to the extent we determine that our existing model is not suitable for use in foreign countries;
- our lack of experience in marketing to consumers and veterinarians, and encouraging online marketing, in foreign countries;
- our relative lack of industry connections in many foreign countries;
- difficulties in managing operations due to language barriers, distance and time zone differences, staffing, cultural differences and business infrastructure constraints, including difficulty in obtaining foreign and domestic visas;
- application of foreign laws and regulations to us, including more stringent or materially different insurance, employment, consumer and data protection laws;
- the uncertainty of protection for intellectual property rights in some countries;
- greater risk of a failure of foreign employees to comply with applicable U.S. and foreign laws, including antitrust regulations, the U.S. Foreign Corrupt Practices Act and any trade regulations ensuring fair trade practices; and
- general economic and political conditions in these foreign markets.

These factors and other factors could harm our ability to gain future international revenue and, consequently, materially impact our business and operating results. The expansion of our existing international operations and entry into additional international markets will require significant management attention and financial resources, detracting from management attention and financial resources otherwise available to our existing business. Our failure to successfully manage our international operations and the associated risks effectively could limit the future growth of our business and could have an adverse effect on our operating results and financial condition.

A downgrade in the financial strength rating of our insurance company may have an adverse effect on our competitive position, the marketability of our subscription, and/or on our liquidity, access to and cost of borrowing, operating results and financial condition.

Although we do not believe that the financial strength rating of APIC is material for customers or to understand our business beyond what is already publicly available, financial strength ratings can be important factors in establishing the competitive position of insurance companies and generally have an effect on an insurance company's business. On an ongoing basis, rating agencies review the financial performance and condition of APIC and could downgrade or change the outlook on its ratings due to, for example, a change in its statutory capital, a change in the rating agency's determination of the amount of risk-based capital required to maintain a particular rating or a reduced confidence in management or its business strategy, as well as a number of other considerations that may or may not be under our control. The insurance financial strength rating of APIC is subject to quarterly review, and APIC may not retain the current rating. A downgrade in this or any future ratings could have a material effect on our sales, our competitiveness, the marketability of our subscription, our liquidity, access to and cost of borrowing, operating results and financial condition.

Our business is subject to the risks of earthquakes, floods, fires and other natural catastrophic events and to interruption by man-made problems such as computer viruses or terrorism.

Our systems and operations are vulnerable to damage or interruption from earthquakes, human error, intentional bad acts, hurricanes, floods, fires, power losses, telecommunications failures, hardware and system failures, terrorist attacks, acts of war, break-ins or similar events. For example, our corporate headquarters and facilities are located in Seattle, Washington near known earthquake fault zones and are vulnerable to significant damage from earthquakes. In addition, cyber-attacks or acts of terrorism could cause disruptions in our business or the economy as a whole. Our servers and systems may also be vulnerable to computer viruses, break-ins and similar disruptions from unauthorized tampering with our computer systems, which could lead to interruptions, delays, loss of critical data or the unauthorized disclosure of confidential member data. We currently have limited disaster recovery capability, and our business interruption insurance may be insufficient to compensate us for losses that may occur. Such disruptions could negatively impact our ability to run our business, which could have an adverse effect on our operating results and financial condition.

Risks Related to Compliance with Laws and Regulations

We may not maintain the amount of risk-based capital required to avoid additional regulatory oversight, which may adversely affect our ability to operate our business.

Memberships in our U.S. subscription are written by APIC. APIC is an insurance company domiciled in the state of New York and licensed by the New York Department of Financial Services. Regulators in the states in which we do business impose risk-based capital requirements on APIC that generally are approved by the National Association of Insurance Commissioners to ensure APIC maintains reasonably appropriate levels of surplus to protect our members against adverse developments in APIC's financial circumstances, taking into account the risk characteristics of our assets, liabilities and certain other items. Generally, the NY DFS will compare, on an annual basis as of December 31 or more often as deemed necessary, an insurer's total adjusted capital and surplus against what is referred to as an "Authorized Control Level" of risk-based capital that is calculated based on a formula designed to estimate an insurer's capital adequacy. There generally are five outcomes possible from this comparison, depending on the insurer's level of risk-based capital as compared to the applicable Authorized Control Level.

- *No Action Level*: Insurer's total adjusted capital is equal to or greater than 200% of the Authorized Control Level.
- *Company Action Level*: Insurer's total adjusted capital is less than 200% but greater than 150% of the Authorized Control Level. When at this level, an insurer must prepare and submit a financial plan to the NY DFS for review and approval. Generally, a risk-based capital plan would identify the conditions that contributed to the Company Action Level and include the insurer's proposed plans for increasing its risk-based capital in order to satisfy the No Action Level. The failure to provide the NY DFS with a risk-based capital plan on a timely basis or the inability of the NY DFS and the insurer to mutually agree on an appropriate risk-based capital plan could trigger a Regulatory Action Level outcome, subject to the insurer's right to a hearing on the issue.
- *Regulatory Action Level*: Insurer's total adjusted capital is less than 150% but greater than 100% of the Authorized Control Level. When at this level, an insurer generally must provide a risk-based capital plan to the NY DFS and be subject to examination or analysis by the NY DFS to the extent it deems necessary, including such corrective actions as the NY DFS may require.
- *Authorized Control Level*: Insurer's total adjusted capital is less than 100% but greater than 70% of the Authorized Control Level. At this level, the NY DFS generally could take remedial actions that it determines necessary to protect the insurer's assets, including placing the insurer under regulatory control.
- *Mandatory Control Level*: Insurer's total adjusted capital is less than 70% of the Authorized Control Level. At this level, the NY DFS generally is required to take steps to place the insurer under regulatory control, even if the insurer is still solvent.

As of December 31, 2018, APIC was required to maintain at least $53.4 million of risk-based capital to satisfy the No Action Level (the highest of the above levels). As of December 31, 2018, APIC maintained $56.2 million of risk-based capital. The NY DFS may increase the required levels of risk-based capital in the future, and we anticipate that we will need to maintain greater amounts of risk-based capital if our pet enrollment continues to grow.

Additionally, if our risk-based capital falls below the Company Action Level, we may be in breach of various contractual relationships, including, for example, with the unaffiliated general agents for which we write pet insurance policies, which may give such parties the ability to cancel their contracts with us and/or sue us for damages related to our risk-based capital levels, which could have a material adverse effect on our financial condition.

We may require additional capital to meet our risk-based capital requirements, pursue our business objectives and respond to business opportunities, challenges or unforeseen circumstances. If capital is not available to us at any time, our business, operating results and financial condition may be harmed.

We may require additional capital to meet our risk-based capital requirements, operate or expand our business or respond to unforeseen circumstances. Additional funds may not be available when we need them, on terms that are acceptable to us, or at all. If we raise additional funds through the issuance of equity or convertible securities, the percentage ownership of holders of our common stock could be significantly diluted and these newly issued securities may have rights, preferences or privileges senior to those of holders of our common stock. Further, volatility in the credit or equity markets may have an adverse effect on our ability to obtain debt or equity financing or the cost of such financing. Similarly, our access to funds may be impaired if regulatory authorities or rating agencies take negative actions against us. If a combination of these factors were to occur, our internal sources of liquidity may prove to be insufficient and, in such case, we may not be able to successfully obtain additional financing on favorable terms. If funds are unavailable to us on reasonable terms when we need them, we may be unable to meet our risk-based capital requirements, train and support our employees, support Territory Partners, maintain the competitiveness of our technology, pursue business opportunities, service our existing debt, pay veterinary invoices or acquire new members, any of which could have an adverse effect on our business, operating results and financial condition.

If we fail to comply with the numerous laws and regulations that are applicable to the sale of medical insurance for cats and dogs, our business and operating results could be harmed.

The sale of medical insurance for cats and dogs, which is considered a type of property and casualty insurance in most jurisdictions, is heavily regulated by each state in the United States, in the District of Columbia, in Puerto Rico and by Canadian federal, provincial and territorial governments. In the United States, state insurance regulators are charged with protecting policyholders and have broad regulatory, supervisory and administrative powers over our business practices. Because we do business in all 50 states, the District of Columbia, all Canadian provinces and territories and Puerto Rico, compliance with insurance-related laws, rules and regulations is difficult and imposes significant costs on our business. Each jurisdiction’s insurance department typically has the power, among other things, to:

- grant and revoke licenses to transact insurance business;
- conduct inquiries into the insurance-related activities and conduct of agents and agencies and others in the sales, marketing and promotional channels;
- require and regulate disclosure in connection with the sale and solicitation of insurance policies;
- authorize how, by which personnel and under what circumstances insurance premiums can be quoted and published and an insurance policy sold;
- regulate which entities or individuals can be incentivized and the circumstances under which this may occur;
- regulate the content of insurance-related advertisements, including web pages, and other marketing practices;
- approve policy forms, require specific benefits and benefit levels and regulate premium rates;
- impose fines and other penalties; and
- impose continuing education requirements.

While the U.S. federal government does not directly regulate the insurance industry, federal legislation and administrative policies can also affect us. Congress and various federal agencies periodically discuss proposals that would provide for federal oversight of insurance companies. We cannot predict whether any such laws will be enacted or the effect that such laws would have on our business. We also do business in all ten provinces and three territories of Canada. The provincial and territorial insurance regulators have the power to regulate the market conduct of insurers and insurance intermediaries, and the licensing and supervision of insurance agents, and brokers, along with enforcement rights, including the right to assess administrative monetary penalties in certain provinces.

Insurance companies are also regulated at the federal level in Canada, and the Insurance Companies Act prohibits a foreign entity from insuring risks in Canada unless it is authorized by an Order made by the Superintendent of Financial Institutions (Canada) permitting it to do so.

Due to the complexity, periodic modification and differing interpretations of insurance laws and regulations, we have not always been, and we may not always be, in compliance with them. New insurance laws, regulations and guidelines also may not be compatible with the manner in which we market and sell subscriptions in all of our jurisdictions and member acquisition channels, including over the Internet. Failure to comply with insurance laws, regulations and guidelines or other laws and regulations applicable to our business could result in significant liability, additional department of insurance licensing requirements, the revocation of licenses in a particular jurisdiction or our inability to sell subscriptions, which could significantly increase our operating expenses, result in the loss of our revenue and otherwise harm our business, operating results and financial condition.

Moreover, an adverse regulatory action in one jurisdiction could result in penalties and adversely affect our license status or reputation in other jurisdictions, including due to the current requirement that adverse regulatory actions in one jurisdiction be reported to other jurisdictions. Even if the allegations in any regulatory or other action against us ultimately are determined to be unfounded, we could incur significant time and expense defending against the allegations, and any related negative publicity could harm consumer and third-party confidence in us, which could significantly damage our brand.

In addition, we have received, and may in the future receive, inquiries from regulators regarding our marketing and business practices. These inquires may include investigations regarding a number of our business practices, including the manner in which we market and sell subscriptions, the manner in which we write policies for any unaffiliated general agent, and whether any amounts we pay to hospitals or hospital groups is appropriate. Any modification of our marketing or business practices in response to regulatory inquiries could harm our business, operating results or financial condition and lead to reputational harm.

A regulatory environment that limits rate increases may adversely affect our operating results and financial condition.

Many states, including New York, have adopted laws or are considering proposed legislation that, among other things, limit the ability of insurance companies to effect rate increases or to cancel, reduce or not renew existing policies, and many state regulators have the power to reduce, or to disallow increases in premium rates. Most states, including New York, require licensure and regulatory approval prior to marketing new insurance products. Our practice has been to regularly reevaluate the price of our subscriptions, with any pricing changes implemented at least annually, subject to the review and approval of the state regulators, who may reduce or disallow our pricing changes. Such review has often in the past resulted, and may in the future result, in delayed implementation of pricing changes and prevent us from making changes we believe are necessary to achieve our targeted payout ratio, which could adversely affect our operating results and financial condition. In addition, we may be prevented by regulators from limiting significant pricing changes, requiring us to raise rates more quickly than we otherwise may desire. This could damage our reputation with our members and reduce our retention rates, which could significantly damage our brand, result in the loss of expected revenue and otherwise harm our business, operating results and financial condition.

In addition to regulating rates, certain states have enacted laws that require a property-casualty insurer, which includes a pet insurance company, conducting business in that state to participate in assigned risk plans, reinsurance facilities, joint underwriting associations (JUAs), Fair Access to Insurance Requirements (FAIR) plans and wind pools. In these markets, if the state reinsurance facilities, wind pools, FAIR plans or JUAs recognize a financial deficit, they may in turn have the ability to assess participating insurers, adversely affecting our operating results and financial condition if we are a part of such state reinsurance facilities, wind pools, FAIR plans or JUAs. Additionally, certain states require insurers to participate in guaranty funds for impaired or insolvent insurance companies. These funds periodically assess losses against all insurance companies doing business in the state. Our operating results and financial condition could be adversely affected by any of these factors.

Regulations that require individuals or entities to be insurance licensed may be interpreted to apply to our business more broadly than we expect them to, which could require us to modify our business practices, create liabilities, damage our reputation, and harm our business.

We may not interpret and apply regulations requiring insurance licenses in the same manner as all applicable regulators, and even if we have, the requirements or regulatory interpretations of those requirements may change. Insurance regulations generally require that each individual or entity who sells, solicits or negotiates insurance

business on our behalf, or who receives an insurance commission, must maintain a valid license in one or more jurisdictions. Regulations may also require certain individuals who process claims to be licensed. These requirements are subject to a variety of interpretations between jurisdictions. Regulators have in the past and may in the future determine that certain individuals or entities who have relationships with us were required to be licensed but were not. If such persons were not in fact licensed in any such jurisdiction, we could face liability, including the imposition of significant monetary penalties or other sanctions. We would also likely be required to modify our business practices and/or sales and marketing programs, or license the affected individuals, which may be impractical or costly and time-consuming to implement. Any modification of our business or marketing practices in response to regulatory licensing requirements could harm our business, operating results or financial condition.

We are subject to numerous laws and regulations, and compliance with one law or regulation may result in non-compliance with another.

We are subject to numerous laws and regulations that are administered and enforced by a number of different governmental authorities, each of which exercises a degree of interpretive latitude, including, in the United States, state insurance regulators, state securities administrators, state attorneys general and federal agencies including the SEC, Internal Revenue Service and the U.S. Department of Justice. Consequently, we are subject to the risk that compliance with any particular regulator's or enforcement authority's interpretation of a legal issue may not result in compliance with another's interpretation of the same issue, particularly when compliance is judged in hindsight. In addition, there is risk that laws and regulations or any particular regulator's or enforcement authority's interpretation of a legal issue may change over time to our detriment, or that changes in the overall legal environment may, even absent any particular regulator's or enforcement authority's interpretation of a legal issue changing, cause us to change our views regarding the actions we need to take from a legal risk management perspective, thus necessitating changes to our practices that may, in some cases, increase our costs and limit our ability to grow or to improve the profitability of our business. Further, in some cases, these laws and regulations are designed to protect or benefit the interests of a specific constituency rather than a range of constituencies. For example, state insurance laws and regulations generally are intended to protect or benefit purchasers or users of insurance products, not holders of securities, which generally is the jurisdiction of the SEC. In many respects, these laws and regulations limit our ability to grow or to improve the profitability of our business.

Regulation of the sale of medical insurance for cats and dogs is subject to change, and future regulations could harm our business and operating results.

The laws and regulations governing the offer, sale and purchase of medical insurance for cats and dogs are subject to change, and future changes may be adverse to our business. For example, if a jurisdiction were to increase our risk-based capital requirements or alter the requirements for obtaining or maintaining an agent's license in connection with the enrollment of a member, it could have a material adverse effect on our operations. Some states in the United States have adopted, and others are expected to adopt, new laws and regulations related to the insurance industry. It is difficult to predict how these or any other new laws and regulations will impact our business, but, in some cases, changes in insurance laws, regulations and guidelines may be incompatible with various aspects of our business and require that we make significant modifications to our existing technology or practices, which may be costly and time-consuming to implement and could also harm our business, operating results and financial condition.

Failure to comply with federal, state and provincial laws and regulations relating to privacy and security of personal information, and civil liabilities relating to breaches of privacy and security of personal information, could create liabilities for us, damage our reputation and harm our business.

A variety of U.S. and Canadian federal, state and provincial laws and regulations govern the collection, use, retention, sharing and security of personal information. We collect and utilize demographic and other information from and about our members when they visit our website, call our contact center and apply for enrollment. Further, we use tracking technologies, including "cookies," to help us manage and track our members' interactions and deliver relevant advice and advertising. Claims or allegations that we have violated applicable laws or regulations related to privacy and data security could in the future result in negative publicity and a loss of confidence in us by our members and our participating service providers, and may subject us to fines by credit card companies and the loss of our ability to accept credit and debit card payments. In addition, we have posted privacy policies and practices concerning the collection, use and disclosure of member data on our website. Several Internet companies have incurred penalties for failing to abide by the representations made in their privacy policies and practices. In addition, our use and retention of personal information could lead to civil liability exposure in the event of any disclosure of such information due to hacking, viruses, inadvertent action or other use or disclosure. Several companies have been subject to civil actions, including class actions, relating to this exposure.

We have incurred, and will continue to incur, expenses to comply with privacy and security standards and protocols for personal information imposed by law, regulation, self-regulatory bodies, industry standards and contractual obligations. Such laws, standards and regulations, however, are evolving and subject to potentially differing interpretations, and federal, state and provincial legislative and regulatory bodies may expand current or enact new

laws or regulations regarding privacy matters. We are unable to predict what additional legislation, standards or regulation in the area of privacy and security of personal information could be enacted or its effect on our operations and business.

Laws and regulations regarding phone solicitation, the Internet, email and texting could adversely affect our business.

The laws governing general commerce on the Internet remain unsettled and it may take years to fully determine whether and how existing laws such as those governing insurance, intellectual property, privacy and taxation apply to the Internet. In addition, the growth and development of the market for electronic commerce and Internet-related pet insurance advertisements and transactions may prompt calls for more stringent consumer protection laws that may impose additional burdens on companies conducting business and selling subscriptions over the Internet. Any new laws or regulations or new interpretations of existing laws or regulations relating to the Internet could harm our business and we could be forced to incur substantial costs in order to comply with them, which would harm our business, operating results and financial condition.

Additionally, we use phone solicitation, email and texting to market our services to potential members and as a means of communicating with our existing members. The laws and regulations governing the use of phone solicitation, email and texting continue to evolve, and the growth and development of the market for commerce over the Internet may lead to the adoption of additional legislation. Failure to comply with existing or new laws regarding phone solicitation, text or electronic communications with members could lead to significant damages. We have incurred, and will continue to incur, expenses to comply with electronic messaging laws. If new laws or regulations are adopted, or existing laws and regulations are interpreted, to impose additional restrictions on our ability to send email to our members or potential members, we may not be able to communicate with them in a cost-effective manner. In addition to legal restrictions on the use of email for commercial purposes, Internet and email service providers and others attempt to block the transmission of unsolicited email, commonly known as “spam.” Many service providers have relationships with organizations whose purpose it is to detect and notify the Internet and email service providers of entities that the organization believes are sending unsolicited email. If an Internet or email service provider identifies messaging and email from us as “spam” as a result of reports from these organizations or otherwise, we could be placed on a restricted list that will block our emails to members or potential members. If we are restricted or unable to communicate by phone, text or email with our members and potential members as a result of legislation, blockage or otherwise, our business, operating results and financial condition would be harmed.

Applicable insurance laws regarding the change in control of our company may impede potential acquisitions that our stockholders might consider to be desirable.

We are subject to statutes and regulations of the state of New York that generally require that any person or entity desiring to acquire direct or indirect control of APIC obtain prior regulatory approval. These laws may discourage potential acquisition proposals and may delay, deter or prevent a change in control of our company, including through transactions, and in particular unsolicited transactions, that some of our stockholders might consider to be desirable. Similar laws or regulations may also apply in other states in which we may operate.

Our segregated account in Bermuda, WICL segregated account AX, could be adversely impacted by regulatory compliance of a third party.

Wyndham Insurance Company (SAC) Limited (WICL) is a class 3 insurer regulated by the Bermuda Monetary Authority (BMA). WICL's ability to continue operations and pay dividends could impact the ability of our segregated account to do the same. WICL's failure to meet regulatory requirements set forth by the BMA could result in our inability to transact business with WICL segregated account AX. Further, WICL could be limited from allowing dividends to be paid out of segregated account AX in the event of adverse regulatory actions.

We will continue to incur significantly increased costs and devote substantial management time as a result of operating as a public company.

As a public company, we incur significant legal, accounting and other expenses that we did not incur as a private company. For example, we are subject to the reporting requirements of the Exchange Act, and are required to comply with the applicable requirements of the Sarbanes-Oxley Act, and the Dodd-Frank Wall Street Reform and Consumer Protection Act, as well as rules and regulations subsequently implemented by the SEC and the stock exchange on which our common stock is listed, including the establishment and maintenance of effective disclosure and financial controls and changes in corporate governance practices. Compliance with these requirements has and may continue to increase our legal and financial compliance costs and will make some activities more time consuming and costly. In

addition, from time to time, our management and other personnel need to divert attention from operational and other business matters to devote substantial time to these public company requirements. In particular, we have and will continue to incur significant expenses and devote substantial management effort toward ensuring compliance with the requirements of Section 404 of the Sarbanes-Oxley. We cannot predict or estimate the amount of additional costs we may incur as a result of being a public company or the timing of such costs.

Our reported financial results may be adversely affected by changes in accounting principles generally accepted in the United States.

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

Risks Related to Ownership of Our Common Stock

Our actual operating results may differ significantly from our guidance.

From time to time we have released, and may continue to release, guidance in our quarterly earnings conference call, quarterly earnings releases, or otherwise, regarding our future performance that represents our management's estimates as of the date of release. This guidance, which includes forward-looking statements, has been and will be based on projections prepared by our management. These projections are not prepared with a view toward compliance with published guidelines of the American Institute of Certified Public Accountants, and neither our independent registered public accounting firm nor any other independent expert or outside party compiles or examines the projections. Accordingly, no such person expresses any opinion or any other form of assurance with respect to the projections. Projections are based upon a number of assumptions and estimates that, while presented with numerical specificity, are inherently subject to significant business, economic and competitive uncertainties and contingencies, many of which are beyond our control and are based upon specific assumptions with respect to future business decisions, some of which will change. We intend to state possible outcomes as high and low ranges which are intended to provide a sensitivity analysis as variables are changed but are not intended to imply that actual results could not fall outside of the suggested ranges. The principal reason that we release guidance is to provide a basis for our management to discuss our business outlook with analysts and investors. We do not accept any responsibility for any projections or reports published by any such third parties.

Guidance is necessarily speculative in nature, and it can be expected that some or all of the assumptions underlying the guidance furnished by us will not materialize or will vary significantly from actual results. Accordingly, our guidance is only an estimate of what management believes is realizable as of the date of release. Actual results may vary from our guidance and the variations may be material. In light of the foregoing, investors are urged not to rely upon our guidance in making an investment decision regarding our common stock.

Any failure to successfully implement our operating strategy or the occurrence of any of the events or circumstances set forth in this report or our other reports filed with the SEC could result in the actual operating results being different from our guidance, and the differences may be adverse and material.

If securities or industry analysts do not publish research, or publish inaccurate or unfavorable research, about our business, our stock price and trading volume could decline.

The trading market for our common stock depends in part on the research and reports that securities or industry analysts publish about us or our business. If one or more of the securities or industry analysts who publish research about us or our business downgrade our stock or publish inaccurate or unfavorable evaluations of our company or our stock, the price of our stock could decline. If one or more of these analysts cease coverage of our company, our stock may lose visibility in the market, which in turn could cause our stock price to decline.

The market price of our common stock has been and is likely to continue to be volatile, and you may be unable to sell your shares at or above the price at which you purchased them.

The market price of our common stock has been and is likely to continue to fluctuate widely. Factors affecting the market price of our common stock include:

- variations in our operating results, earnings per share, cash flows from operating activities, and key operating metrics, and how those results compare to analyst expectations;
- forward-looking guidance that we provide to the public and industry and financial analysts related to future revenue and profitability, and any change in that guidance or our failure to achieve the results reflected in that guidance;
- the net increases in the number of members, either independently or as compared with published expectations of industry, financial or other analysts that cover our company;

- changes in the estimates of our operating results or changes in recommendations by securities analysts that elect to follow our common stock;
- announcements of changes to our subscription, strategic alliances or significant agreements by us or by our competitors;

- announcements by us or by our competitors of mergers or other strategic acquisitions, or rumors of such transactions involving us or our competitors;
- recruitment or departure of key personnel;
- the economy as a whole and market conditions in our industry;
- trading activity by a limited number of stockholders who together beneficially own a majority of our outstanding common stock;
- the number of shares of our stock trading on a regular basis; and
- any other factors discussed in these risk factors and elsewhere in this report.

In addition, if the market for stock in our industry or the stock market in general experiences uneven investor confidence, the market price of our common stock could decline for reasons unrelated to our business, operating results or financial condition. The market price of our common stock might also decline in reaction to events that affect other companies within, or outside, our industry even if these events do not directly affect us. Some companies that have experienced volatility in the trading price of their stock have been the subject of securities class action litigation. If we are the subject of such litigation, it could result in substantial costs and a diversion of our management's attention and resources.

We do not intend to pay dividends on our common stock and, therefore, any returns will be limited to the value of our stock.

We have never declared or paid any cash dividends on our common stock. We currently intend to retain all available funds and any future earnings for the development, operation and expansion of our business and do not anticipate declaring or paying any cash dividends for the foreseeable future. In addition, our ability to pay cash dividends on our common stock is limited by the terms of our credit agreement, APIC's ability to pay dividends is limited by New York state insurance laws, and WICL Segregated Account AX's ability to pay dividends is limited by our agreements with WICL as well as WICL's regulatory requirements. Any return to stockholders will therefore be limited to the increase, if any, of our stock price.

Our directors and principal stockholders own a significant percentage of our stock and will be able to exert significant control over matters subject to stockholder approval.

Our directors, five percent or greater stockholders and their respective affiliates beneficially hold a significant amount of our outstanding voting stock. Therefore, these stockholders have the ability to influence us through this ownership position. These stockholders may be able to determine all matters requiring stockholder approval. For example, these stockholders may be able to control elections of directors, amendments of our organizational documents, or approval of any merger, sale of assets, or other major corporate transaction. This may prevent or discourage unsolicited acquisition proposals or offers for our common stock that you or other stockholders may feel are in your or their best interest as one of our stockholders.

Provisions in our restated certificate of incorporation, restated bylaws and Delaware law might discourage, delay or prevent a change in control of our company or changes in our management and, therefore, depress the market price of our common stock.

Our restated certificate of incorporation and restated bylaws contain provisions that could depress the market price of our common stock by acting to discourage, delay or prevent a change in control of our company or changes in our management that the stockholders of our company may deem advantageous. These provisions, among other things:

- establish a classified board of directors so that not all members of our board are elected at one time;
- permit only the board of directors to establish the number of directors and fill vacancies on the board;
- provide that directors may only be removed "for cause" and only with the approval of two-thirds of our stockholders;
- require super-majority voting to amend some provisions in our restated certificate of incorporation and restated bylaws;
- authorize the issuance of "blank check" preferred stock that our board could use to implement a stockholder rights plan (also known as a "poison pill");
- eliminate the ability of our stockholders to call special meetings of stockholders;
- prohibit stockholder action by written consent, which requires all stockholder actions to be taken at a meeting of our stockholders;

- prohibit cumulative voting; and
- establish advance notice requirements for nominations for election to our board or for proposing matters that can be acted upon by stockholders at annual stockholder meetings.

In addition, Section 203 of the Delaware General Corporation Law may discourage, delay or prevent a change in control of our company. Section 203 imposes certain restrictions on mergers, business combinations and other transactions between us and holders of 15% or more of our common stock.

Our restated certificate of incorporation provides that, unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware shall be the sole and exclusive forum for certain litigation that may be initiated by our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers or employees.

Our restated certificate of incorporation provides that, unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware shall be the sole and exclusive forum for (i) any derivative action or proceeding brought on our behalf, (ii) any action asserting a claim for breach of a fiduciary duty owed by any of our directors, officers or other employees to us or our stockholders, (iii) any action asserting a claim arising pursuant to any provision of the Delaware General Corporation Law, our restated certificate of incorporation or our restated bylaws, (iv) any action to interpret, apply, enforce or determine the validity of our restated certificate of incorporation or restated bylaws, or (v) any action asserting a claim against us governed by the internal affairs doctrine. The choice of forum provision may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers or other employees, which may discourage such lawsuits against us and our directors, officers and other employees. Stockholders who do bring a claim in the Court of Chancery could face additional litigation costs in pursuing any such claim, particularly if they do not reside in or near the State of Delaware. The Court of Chancery may also reach different judgments or results than would other courts, including courts where a stockholder considering an action may be located or would otherwise choose to bring the action, and such judgments or results may be more favorable to us than to our stockholders. Alternatively, if a court were to find the choice of forum provision contained in our restated certificate of incorporation to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions, which could adversely affect our business and financial condition.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Our principal executive offices are located at 6100 4th Avenue South, Seattle, Washington. We purchased the building in August 2018 and occupy 91,437 square feet. We also occupy 1,600 s

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Item 3. Legal Proceedings

Information with respect to this item may be found in Note 8 of Item 8, "Financial Statements and Supplementary Data", under the caption, "Legal Proceedings" which information is incorporated herein by reference.

Item 4. Mine Safety Disclosures

Not applicable.

PART II

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

Market for our Common Stock

Our common stock began trading on the New York Stock Exchange (NYSE) under the symbol "TRUP" on July 18, 2014. Prior to that time, there was no public market for our common stock. On June 17, 2016, we voluntarily transferred the listing of our common stock from the NYSE to the NASDAQ Global Market of the NASDAQ Stock Market LLC (NASDAQ) where our common stock continues to be traded under the symbol "TRUP".

Dividend Policy

We have never declared or paid cash dividends on our capital stock. We currently intend to retain any future earnings for use in the operation of our business and do not intend to declare or pay any cash dividends in the foreseeable future. Any further determination to pay dividends on our capital stock will be at the discretion of our board of directors, subject to applicable laws and restrictions in our outstanding credit agreement, and will depend on our financial condition, results of operations, capital requirements, general business conditions and other factors that our board of directors considers relevant.

Holders of Record

As of February 7, 2019, there were 44 stockholders of record of our common stock. The actual number of stockholders is greater than this number of record holders, and includes stockholders who are beneficial owners, whose shares are held of record by banks, brokers, and other financial institutions.

Securities Authorized for Issuance under Equity Compensation Plans

The information called for by this item is incorporated by reference to our Proxy Statement for the Annual Meeting of Stockholders to be held in 2019. See Part III, Item 12 "Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters."

Stock Performance Graph

The following shall not be deemed "filed" for purposes of Section 18 of the Exchange Act, or incorporated by reference into any of our other filings under the Exchange Act or the Securities Act, except to the extent we specifically incorporate it by reference into such filing.

This chart compares the stockholder return on an investment of $100 at the close of market on July 18, 2014 for (1) our common stock, (2) the S&P Small Cap 600 Index, (3) the NASDAQ-100 Technology Sector Index, and (4) the Russell 2000 Index. All values assume the reinvestment of any dividends; however, no dividends have been declared on our common stock to date. The stockholder return on the following graph is not necessarily indicative of future performance.

	7/18/2014	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018
Trupanion Inc.	$ 100.00	$ 60.79	$ 85.61	$ 136.14	$ 256.75	$ 223.33
S&P Small Cap 600 Index	$ 100.00	$ 104.67	$ 101.16	$ 126.19	$ 140.99	$ 127.24
NASDAQ-100 Technology Sector Index	$ 100.00	$ 108.80	$ 106.25	$ 131.81	$ 180.16	$ 170.27
Russell 2000 Index	$ 100.00	$ 104.61	$ 98.63	$ 117.85	$ 133.34	$ 117.10

Use of Proceeds from Registered Securities

In June 2018, we completed a follow-on public offering whereby we sold 2,090,909 shares of common stock at a price to the public of $33.00 per share. We received aggregate net proceeds of $65.7 million, reflecting gross proceeds of $69.0 million, reduced by underwriting discounts and commissions and offering expenses payable by us. The shares sold in the follow-on public offering were registered under the Securities Act pursuant to a registration statement on Form S-3 (File No. 333-225760), which became effective immediately upon filing with the SEC on June 20, 2018 (the "Registration Statement"). The proceeds were primarily used to purchase real estate consisting of properties in use as our home office. In August 2018, we issued additional 303,030 shares of common stock via a private placement under Section 4(a)(2) of the Securities Act to an accredited investor as a portion of the purchase price for the real estate.

Item 6. Selected Financial Data

The selected statements of operations, balance sheet, and other data presented below should be read with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and related notes included elsewhere in this report. The selected statements of operations and balance sheet data are derived from our audited consolidated financial statements included elsewhere in this report and our previously audited financial statements that are not included herein. Our historical results are not necessarily indicative of the results to be expected in any future period.

	Year Ended December 31,				
	2018	2017	2016	2015	2014
	(in thousands)				
Consolidated statements of operations data:					
Revenue:					
Subscription business	$263,738	$218,354	$173,356	$133,406	$103,502
Other business	40,218	24,313	14,874	13,557	12,408
Total revenue	303,956	242,667	188,230	146,963	115,910
Cost of revenue:					
Subscription business[(1)]	215,992	176,883	141,321	109,428	85,169
Other business	36,598	22,734	13,621	12,306	10,867
Total cost of revenue	252,590	199,617	154,942	121,734	96,036
Gross profit:					
Subscription business	47,746	41,471	32,035	23,978	18,333
Other business	3,620	1,579	1,253	1,251	1,541
Total gross profit	51,366	43,050	33,288	25,229	19,874
Operating expenses:					
Technology and development[(1)]	9,248	9,768	9,534	11,215	9,899
General and administrative[(1)]	18,164	16,820	15,205	15,558	14,312
Sales and marketing[(1)]	24,999	19,104	15,247	15,231	11,608
Total operating expenses	52,411	45,692	39,986	42,004	35,819
Operating loss	(1,045)	(2,642)	(6,698)	(16,775)	(15,945)
Interest expense	1,198	533	218	325	6,726
Other (income) expense, net	(1,309)	(1,244)	(58)	(9)	(1,487)
Loss before income taxes	(934)	(1,931)	(6,858)	(17,091)	(21,184)
Income tax (benefit) expense	(7)	(428)	38	114	(7)
Net loss	$(927)	$(1,503)	$(6,896)	$(17,205)	$(21,177)

(1) Includes stock-based compensation expense as follows:

	Year Ended December 31,				
	2018	2017	2016	2015	2014
	(in thousands)				
Cost of revenue	$927	$594	$275	$263	$315
Technology and development	209	216	246	404	461
General and administrative	2,304	1,887	1,893	1,889	2,755
Sales and marketing	1,335	722	532	446	553
Total stock-based compensation expense	$4,775	$3,419	$2,946	$3,002	$4,084

	December 31,				
	2018	2017	2016	2015	2014
	(in thousands)				
Consolidated balance sheet data:					
Cash and cash equivalents	$26,552	$25,706	$23,637	$17,956	$53,098
Short-term investments	54,559	37,590	29,570	25,288	22,371
Working capital	54,773	40,692	34,729	30,016	62,111
Total assets	207,510	105,859	82,345	70,917	98,306
Current and long-term debt	12,862	9,324	4,767	—	14,900
Total liabilities	78,337	57,425	37,630	25,561	39,031
Common stock and additional paid-in capital	219,838	134,511	129,574	122,844	119,045
Accumulated deficit	(83,711)	(82,784)	(81,281)	(74,385)	(57,180)
Total stockholders' equity	129,173	48,434	44,715	45,356	59,275

	Year Ended December 31,				
	2018	2017	2016	2015	2014
Other operational data[1]:					
Total pets enrolled (at period end)	521,326	423,194	343,649	291,818	232,450
Total subscription pets enrolled	430,770	371,683	323,233	272,636	215,491
Monthly average revenue per pet	$54.34	$52.07	$47.82	$45.04	$44.14
Lifetime value of a pet (LVP)	$710	$727	$631	$591	$591
Average pet acquisition cost (PAC)[2]	$164	$152	$123	$132	$121
Average monthly retention	98.60 %	98.63 %	98.60 %	98.64 %	98.69 %

(1) For more information about how we calculate total pets enrolled, total subscription pets enrolled, monthly average revenue per pet, lifetime value of a pet, average pet acquisition cost and average monthly retention, see “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Key Operating Metrics.”
(2) Average pet acquisition cost is calculated in part based on net acquisition cost, a non-GAAP financial measure. For more information about net acquisition cost and a reconciliation of sales and marketing expenses to net acquisition cost, see “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Non-GAAP

Financial Measures."

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

Overview

We provide medical insurance for cats and dogs throughout the United States, Canada and Puerto Rico. Our data-driven, vertically-integrated approach enables us to provide pet owners with what we believe is the highest value medical insurance for their pets, priced specifically for each pet's unique characteristics. Our growing and loyal member base provides us with highly predictable and recurring revenue. We operate our business similar to other subscription-based businesses, with a focus on maximizing the lifetime value of each pet while sustaining a favorable ratio of lifetime value relative to pet acquisition cost, based on our desired return on investment.

We operate in two business segments: subscription business and other business. We generate revenue in our subscription business segment primarily from subscription fees for our medical insurance, which we market to consumers. Fees are paid at the beginning of each subscription period, which automatically renews on a monthly basis. We generate revenue in our other business segment writing policies on behalf of third parties, where we do not undertake the marketing, and have more of a business-to-business relationship. Our other business segment consists of companies or organizations that choose to provide medical insurance for cats and dogs as a benefit to their employees or members, and contracts include multiple pets. The policies in our other business segment may be materially different from our subscription business. Our ultimate goal is to build the Trupanion brand by continuing to offer the highest value proposition in the industry and maintain strong alignment with the veterinary community. We believe our activities in our other business segment benefit the overall market for pet medical insurance by expanding upon product options and distribution models within other market niches.

We generate leads for our subscription business through both third-party referrals and direct-to-consumer acquisition channels, which we then convert into members through our website and contact center. Veterinary practices represent our largest referral source. We engage our Territory Partners to have face-to-face visits with veterinarians and their staff. Territory Partners are dedicated to cultivating direct veterinary relationships and building awareness of the benefits of our subscription to veterinarians and their clients. Veterinarians then educate pet owners, who visit our website or call our contact center to learn more about, and potentially enroll in, Trupanion. We pay Territory Partners fees based on activity in their regions. We also receive a significant number of new leads from existing members adding pets and referring their friends and family members. Our direct-to-consumer acquisition channels serve as important resources for pet owner education and drive new member leads and conversion. We continuously evaluate the effectiveness of our member acquisition channels and marketing initiatives based upon their return on investment, which we measure by comparing the ratio of the lifetime value of a pet generated through each specific channel or initiative to the related acquisition cost.

Key Operating Metrics

The following tables set forth our key operating metrics for our subscription business and total enrolled pets for the periods ended December 31, 2018, 2017 and 2016, and for each of the last eight fiscal quarters.

	Year Ended December 31,		
	2018	2017	2016
Total pets enrolled (at period end)	521,326	423,194	343,649
Total subscription pets enrolled (at period end)	430,770	371,683	323,233
Monthly average revenue per pet	$54.34	$52.07	$47.82
Lifetime value of a pet (LVP)	$710	$727	$631
Average pet acquisition cost (PAC)	$164	$152	$123
Average monthly retention	98.60 %	98.63 %	98.60 %

	Period Ended							
	Dec. 31, 2018	Sept. 30, 2018	Jun. 30, 2018	Mar. 31, 2018	Dec. 31, 2017	Sept. 30, 2017	Jun. 30, 2017	Mar. 31, 2017
Total pets enrolled (at period end)	521,326	497,942	472,480	446,533	423,194	404,069	383,293	364,259
Total subscription pets enrolled (at period end)	430,770	416,527	401,033	385,640	371,683	359,102	346,409	334,909
Monthly average revenue per pet	$55.15	$54.55	$53.96	$53.62	$53.17	$52.95	$51.47	$50.50
Lifetime value of a pet (LVP)	$710	$714	$732	$727	$727	$701	$654	$637
Average pet acquisition cost (PAC)	$186	$155	$150	$165	$184	$151	$143	$128
Average monthly retention	98.60 %	98.61 %	98.64 %	98.63 %	98.63 %	98.61 %	98.57 %	98.58 %

Total pets enrolled. Total pets enrolled reflects the number of subscription pets or pets enrolled in one of the insurance products offered in our other business segment at the end of each period presented. We monitor total pets enrolled because it provides an indication of the growth of our consolidated business.

Total subscription pets enrolled. Total subscription pets enrolled reflects the number of pets in active memberships at the end of each period presented. We monitor total subscription pets enrolled because it provides an indication of the growth of our subscription business.

Monthly average revenue per pet. Monthly average revenue per pet is calculated as amounts billed in a given period for subscriptions divided by the total number of subscription pet months in the period. Total subscription pet months in a period represents the sum of all subscription pets enrolled for each month during the period. We monitor monthly average revenue per pet because it is an indicator of the per pet unit economics of our subscription business.

Lifetime value of a pet. Lifetime value of a pet (LVP) is a business operating metric that we believe reflects the lifetime value we might expect from a new subscription pet enrollment. We calculate LVP based on gross profit from our subscription business segment for the 12 months prior to the period end date excluding stock-based compensation expense related to cost of revenue from our subscription business segment, sign-up fee revenue and the change in deferred revenue between periods, multiplied by the implied average subscriber life in months. Implied average subscriber life in months is calculated as the quotient obtained by dividing one by one minus the average monthly retention rate. We monitor LVP to assess how much lifetime value we might expect from new pets over their implied average subscriber life in months and to evaluate the amount of sales and marketing expenses we may want to incur to attract new subscription pet enrollments, based on our targeted internal rate of return.

Average pet acquisition cost. Average pet acquisition cost (PAC) is calculated as net acquisition cost divided by the total number of new subscription pets enrolled in that period. Net acquisition cost, a non-GAAP financial measure, is calculated in a reporting period as sales and marketing expense, excluding stock-based compensation expense and other business segment sales and marketing expense, offset by sign-up fee revenue. We exclude stock-based compensation expense because the amount varies from period to period based on number of awards issued and market-based valuation inputs. We offset sign-up fee revenue because it is a one-time charge to new members collected at the time of enrollment used to partially offset initial setup costs, which are included in sales and marketing expenses. We exclude other business segment sales and marketing expense because that does not relate to subscription enrollments. We monitor average pet acquisition cost to evaluate the efficiency of our sales and marketing programs in acquiring new members and measure effectiveness using the ratio of our lifetime value of a pet to average pet acquisition cost, based on our desired return on investment.

Average monthly retention. Average monthly retention is measured as the monthly retention rate of enrolled subscription pets for each applicable period averaged over the 12 months prior to the period end date. As such, our average monthly retention rate as of December 31, 2018 is an average of each month’s retention from January 1, 2018 through December 31, 2018. We calculate monthly retention as the number of pets that remain after subtracting all pets that cancel during a month, including pets that enroll and cancel within that month, divided by the total pets enrolled at the beginning of that month. We monitor average monthly retention because it provides a measure of member satisfaction and allows us to calculate the implied average subscriber life in months.

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Non-GAAP Financial Measures

We believe that using net acquisition cost to calculate and present certain of our other key metrics is helpful to our investors and an important tool for financial and operational decision-making and evaluating our operating results over different periods of time. Measuring net acquisition cost by removing stock-based compensation expense and other business segment sales and marketing expense offset by sign-up fee revenue provides for a more comparable metric across periods.

This measure, which is a non-GAAP financial measure, may not provide information that is directly comparable to that provided by other companies in our industry. In addition, this measure excludes stock-based compensation expense, which has been, and is expected to continue to be for the foreseeable future, a significant recurring component of our sales and marketing expense. The presentation and utilization of non-GAAP financial measures is not meant to be considered in isolation or as a substitute for the directly comparable financial measures prepared in accordance with GAAP.

The following tables reflect the reconciliation of net acquisition cost to sales and marketing expense (in thousands):

	Year Ended December 31,		
	2018	2017	2016
Sales and marketing expense	$24,999	$19,104	$15,247
Net of sign-up fee revenue	(2,587)	(2,169)	(2,073)
Excluding:			
Stock-based compensation expense	(1,335)	(722)	(532)
Other business segment sales and marketing expense	(377)	(218)	(218)
Net acquisition cost	$20,700	$15,995	$12,424

	Period Ended							
	Dec. 31, 2018	Sept. 30, 2018	Jun. 30, 2018	Mar. 31, 2018	Dec. 31, 2017	Sept. 30, 2017	Jun. 30, 2017	Mar. 31, 2017
Sales and marketing expense	$6,994	$6,365	$5,702	$5,938	$5,781	$4,862	$4,372	$4,089
Net of sign-up fee revenue	(655)	(693)	(624)	(616)	(550)	(558)	(517)	(544)
Excluding:								
Stock-based compensation expense	(355)	(358)	(349)	(273)	(172)	(165)	(198)	(187)
Other business segment sales and marketing expense	(102)	(99)	(88)	(87)	(56)	(51)	(63)	(48)
Net acquisition cost	$5,882	$5,215	$4,641	$4,962	$5,003	$4,088	$3,594	$3,310

Components of Operating Results

General

We operate in two business segments: subscription business and other business. Our subscription business segment includes revenue and expenses related to monthly subscriptions for pet medical insurance, which we market to consumers. When we do not directly market and sell to consumers, we classify the related revenue and expenses in our other business segment.

Revenue

We generate revenue in our subscription business segment primarily from subscription fees for our pet medical insurance. Fees are paid at the beginning of each subscription period, which automatically renews on a monthly basis. In most cases, our members authorize us to directly charge their credit card, debit card or bank account through automatic funds transfer. Subscription revenue is recognized on a pro rata basis over the monthly enrollment term. Membership may be canceled at any time without penalty, and we issue a refund for the unused portion of the canceled membership.

We generate revenue in our other business segment primarily from writing policies on behalf of third parties where we do not undertake the direct consumer marketing. This segment includes the writing of policies that may be materially different from our subscription.

Cost of Revenue

Cost of revenue in each of our segments is comprised of the following:

Veterinary invoice expense

Veterinary invoice expense includes our costs to review veterinary invoices, administer the payments, and provide member services, and other operating expenses directly or indirectly related to this process. We also accrue for veterinary invoices that have been incurred but not yet received. This also includes amounts paid by unaffiliated general agents, and an estimate of amounts incurred and not yet paid for our other business segment.

Other cost of revenue

Other cost of revenue for the subscription business segment includes direct and indirect member service expenses, Territory Partner renewal fees, credit card transaction fees and premium tax expenses. Other cost of revenue for the other business segment includes the commissions we pay to unaffiliated general agents, costs to administer the programs in the other business segment and premium taxes on the sales in this segment.

Operating Expenses

Our operating expenses are classified into three categories: technology and development, general and administrative, and sales and marketing. For each category, the largest component is personnel costs, which include salaries, employee benefit costs, bonuses and stock-based compensation expense.

Technology and Development

Technology and development expenses primarily consist of personnel costs and related expenses for our technology staff, which includes information technology development and infrastructure support and third-party services, as well as depreciation of hardware and capitalized software.

General and Administrative

General and administrative expenses consist primarily of personnel costs and related expenses for our finance, actuarial, human resources, regulatory, legal and general management functions, as well as facilities and professional services.

Sales and Marketing

Sales and marketing expenses primarily consist of the cost to educate veterinarians and consumers about the benefits of Trupanion, to generate leads and to convert leads into enrolled pets, as well as print, online and promotional advertising costs, and employee compensation and related costs. Sales and marketing expenses are driven primarily by investments to acquire new members.

Factors Affecting Our Performance

Average monthly retention. Our performance depends on our ability to continue to retain our existing and newly enrolled pets and is impacted by our ability to provide a best-in-class value and member experience. Our ability to retain enrolled pets depends on a number of factors, including the actual and perceived value of our services and the quality of our member experience, the ease and transparency of the process for reviewing and paying veterinary invoices for our members, and the competitive environment. In addition, other initiatives across our business may temporarily impact retention and make it difficult for us to improve or maintain this metric. For example, if the number of new pets enrolled increases at a faster rate than our historical experience, our average monthly retention rate could be adversely impacted, as our retention rate is generally lower during the first year of member enrollment.

Investment in pet acquisition. We have made and plan to continue to make significant investments to grow our member base. Our net acquisition cost and the number of new members we enroll depends on a number of factors, including the amount we elect to invest in sales and marketing activities in any particular period in the aggregate and by channel, the frequency of existing members adding a pet or referring their friends or family, effectiveness of our sales execution and marketing initiatives, changes in costs of media, the mix of our sales and marketing expenditures and the competitive environment. Our average pet acquisition cost has in the past significantly varied, and in the future may significantly vary, from period to period based upon specific marketing initiatives and the actual or expected relationship to LVP and estimated rates of return on pet acquisition spend. We also regularly test new member acquisition channels and marketing initiatives, which may be more expensive than our traditional marketing channels and may increase our average acquisition costs. We continually assess our sales and marketing activities by monitoring the ratio of LVP to PAC and the return on PAC spend both on a detailed level by acquisition channel and in the aggregate.

Timing of initiatives. Over time we plan to implement new initiatives to improve our member experience, make modifications to our subscription plan and find other ways to maintain a strong value proposition for our members. These initiatives will sometimes be accompanied by price adjustments, in order to compensate for an increase in benefits received by our members. The implementation of such initiatives may not always coincide with the timing of price adjustments, resulting in fluctuations in revenue and gross profit in our subscription business segment.

Geographic mix of sales. The relative mix of our business between the United States and Canada impacts the monthly average revenue per pet we receive. Prices for our plan in Canada are generally higher than in the United States (in local currencies), which is consistent with the relative cost of veterinary care in each country. As our mix of business between the United States and Canada changes, our metrics, such as our monthly average revenue per pet, and our exposure to foreign exchange fluctuations will be impacted.

Other business segment. Our other business segment primarily includes revenue and expenses related to policies written on behalf of third parties. This segment includes the writing of policies that may be materially different from our subscription. Our relationships in our other business segment are generally subject to termination provisions and are non-exclusive. Accordingly, we cannot control the volume of business, even if a contract is not terminated. Loss of an entire program via contract termination could result in the associated policies and revenues being lost over a period of 12 to 18 months, which could have a material impact on our results of operations. We may enter into additional relationships in the future to the extent we believe they will be profitable to us, which could also impact our operating results.

Results of Operations

The following tables set forth our results of operations for the periods presented both in absolute dollars and as a percentage of total 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
	(in thousands)		
Revenue:			
Subscription business	$263,738	$218,354	$173,356
Other business	40,218	24,313	14,874
Total revenue	303,956	242,667	188,230
Cost of revenue:			
Subscription business[(1)]	215,992	176,883	141,321
Other business	36,598	22,734	13,621
Total cost of revenue	252,590	199,617	154,942
Gross profit:			
Subscription business	47,746	41,471	32,035
Other business	3,620	1,579	1,253
Total gross profit	51,366	43,050	33,288
Operating expenses:			
Technology and development[(1)]	9,248	9,768	9,534
General and administrative[(1)]	18,164	16,820	15,205
Sales and marketing[(1)]	24,999	19,104	15,247
Total operating expenses	52,411	45,692	39,986
Operating loss	(1,045)	(2,642)	(6,698)
Interest expense	1,198	533	218
Other income, net	(1,309)	(1,244)	(58)
Loss before income taxes	(934)	(1,931)	(6,858)
Income tax (benefit) expense	(7)	(428)	38
Net loss	$(927)	$(1,503)	$(6,896)

(1) Includes stock-based compensation expense as follows:

	Year Ended December 31,		
	2018	2017	2016
	(in thousands)		
Cost of revenue	$927	$594	$275
Technology and development	209	216	246
General and administrative	2,304	1,887	1,893
Sales and marketing	1,335	722	532
Total stock-based compensation expense	$4,775	$3,419	$2,946

	Year Ended December 31,		
	2018	2017	2016
	(as a percentage of revenue)		
Revenue	100 %	100 %	100 %
Cost of revenue	83	82	82
Gross profit	17	18	18
Operating expenses:			
Technology and development	3	4	5
General and administrative	6	7	8
Sales and marketing	8	8	8
Total operating expenses	17	19	21
Operating loss	—	(1)	(4)
Interest expense	—	—	—
Other (income) expense, net	—	(1)	—
Loss before income taxes	—	(1)	(4)
Income tax (benefit) expense	—	—	—
Net loss	— %	(1)%	(4)%

	Year Ended December 31,		
	2018	2017	2016
	(as a percentage of subscription revenue)		
Subscription business revenue	100%	100%	100%
Subscription business cost of revenue	82	81	82
Subscription business gross profit	18 %	19 %	18 %

Comparison of the years ended December 31, 2018, 2017, and 2016

Revenue

	Year Ended December 31,			Change	
	2018	2017	2016	2018 vs. 2017	2017 vs. 2016
	(in thousands, except percentages, pet and per pet data)				
Revenue:					
Subscription business	$263,738	$218,354	$173,356	21%	26%
Other business	40,218	24,313	14,874	65	63
Total revenue	$303,956	$242,667	$188,230	25	29
Percentage of Revenue by Segment:					
Subscription business	87 %	90 %	92 %		
Other business	13	10	8		
Total revenue	100 %	100 %	100 %		
Total pets enrolled (at period end)	521,326	423,194	343,649	23	23
Total subscription pets enrolled (at period end)	430,770	371,683	323,233	16	15
Monthly average revenue per pet	$54.34	$52.07	$47.82	4	9
Average monthly retention	98.60 %	98.63 %	98.60 %		

Year ended December 31, 2018 compared to year ended December 31, 2017. Total revenue increased by $61.3 million to $304.0 million for the year ended December 31, 2018, or 25%. Revenue from our subscription business segment increased by $45.4 million to $263.7 million for the year ended December 31, 2018, or 21%. This increase in subscription business revenue was primarily due to a 16% increase in total subscription pets enrolled as of December 31, 2018 compared to December 31, 2017, and increased average revenue per pet of 4% for the same period. Increases in pricing were due to the increased cost and utilization of veterinary care. Revenue from our other business segment increased $15.9 million to $40.2 million for the year ended December 31, 2018, or 65%, due to an increase in enrolled pets in this segment.

Year ended December 31, 2017 compared to year ended December 31, 2016. Total revenue increased by $54.4 million to $242.7 million for the year ended December 31, 2017, or 29%. Revenue for our subscription business segment increased by $45.0 million to $218.4 million for the year ended December 31, 2017, or 26%. This increase in subscription business revenue was primarily due to a 15% increase in total subscription pets enrolled as of December 31, 2017 compared to December 31, 2016, and increased average revenue per pet of 9% for the same period. Increases in pricing were due to the increased cost of veterinary care and more accurately pricing to our cost-plus margin structure by subcategory. Revenue from our other business segment increased $9.4 million to $24.3 million for the year ended December 31, 2017, or 63%, due to an increase in enrolled pets in this segment.

Cost of Revenue

	Year Ended December 31,			Change	
	2018	2017	2016	2018 vs. 2017	2017 vs. 2016
	(in thousands, except percentages, pet and per pet data)				
Cost of Revenue:					
Subscription business:					
Veterinary invoice expense	$191,051	$155,554	$124,636	23%	25%
Other cost of revenue	24,941	21,329	16,685	17	28
Total cost of revenue	215,992	176,883	141,321	22	25
Gross profit	47,746	41,471	32,035	15	29
Other business:					
Veterinary invoice expense	23,488	14,568	8,898	61	64
Other cost of revenue	13,110	8,166	4,723	61	73
Total cost of revenue	36,598	22,734	13,621	61	67
Gross profit	3,620	1,579	1,253	129	26
Percentage of Revenue by Segment:					
Subscription business:					
Veterinary invoice expense	72 %	71 %	72 %		
Other cost of revenue	9	10	10		
Total cost of revenue	82	81	82		
Gross profit	18	19	18		
Other business:					
Veterinary invoice expense	58	60	60		
Other cost of revenue	33	34	32		
Total cost of revenue	91	94	92		
Gross profit	9	6	8		
Total pets enrolled (at period end)	521,326	423,194	343,649	23	23
Total subscription pets enrolled (at period end)	430,770	371,683	323,233	16	15
Monthly average revenue per pet	$54.34	$52.07	$47.82	4	9

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Year ended December 31, 2018 compared to year ended December 31, 2017. Cost of revenue for our subscription business segment was $216.0 million, or 82% of revenue, for the year ended December 31, 2018, compared to $176.9 million, or 81%, of revenue for the year ended December 31, 2017. This $39.1 million increase in subscription cost of revenue was primarily the result of a 23% increase in veterinary invoice expense. As a percentage of revenue, these costs increased to 72% for the year ended December 31, 2018 from 71% for the year ended December 31, 2017, due to the increases in monthly average revenue per pet lagging slightly behind increases in veterinary invoice expense increases. Cost of revenue for our other business segment increased $13.9 million to $36.6 million for the year ended December 31, 2018, due to an increase in enrolled pets in this segment.

Year ended December 31, 2017 compared to year ended December 31, 2016. Cost of revenue for our subscription business segment was $176.9 million, or 81% of revenue, for the year ended December 31, 2017, compared to $141.3 million, or 82% of revenue, for the year ended December 31, 2016. This $35.6 million increase in subscription cost of revenue was primarily the result of a 15% increase in subscription pets enrolled, resulting in a 25% increase in veterinary invoice expense and related internal processing costs. As a percentage of revenue, these costs decreased to 71% for the year ended December 31, 2017 from 72% for the year ended December 31, 2016, due to the increase in monthly average revenue per pet outpacing the cost of veterinary care for certain subcategories as we more accurately priced those subcategories. Cost of revenue for our other business segment increased $9.1 million to $22.7 million for the year ended December 31, 2017, due to an increase in enrolled pets in this segment.

Technology and Development Expenses

	Year Ended December 31,			Change	
	2018	2017	2016	2018 vs. 2017	2017 vs. 2016
	(in thousands, except percentages)				
Technology and development	$9,248	$9,768	$9,534	(5)%	2%
Percentage of total revenue	3 %	4 %	5 %		

Year ended December 31, 2018 compared to year ended December 31, 2017. Technology and development expenses decreased $0.5 million, or 5%, to $9.2 million for the year ended December 31, 2018. This decrease was partially due to a $0.1 million decrease in amortization expense and a $0.1 million decrease in infrastructure-related costs compared to the same period in the prior year. In addition, more resources were dedicated to capital projects, resulting in a higher proportion of costs being capitalized in 2018.

Year ended December 31, 2017 compared to year ended December 31, 2016. Technology and development expenses increased $0.2 million, or 2%, to $9.8 million for the year ended December 31, 2017. This increase was primarily due to a $0.5 million increase in amortization expense related to projects placed in service in late 2016. This was offset by a $0.3 million decrease in infrastructure related costs compared to the same period in the prior year.

General and Administrative Expenses

	Year Ended December 31,			Change	
	2018	2017	2016	2018 vs. 2017	2017 vs. 2016
	(in thousands, except percentages)				
General and administrative	$ 18,164	$ 16,820	$ 15,205	8%	11%
Percentage of total revenue	6 %	7 %	8 %		

Year ended December 31, 2018 compared to year ended December 31, 2017. General and administrative expenses increased $1.4 million, or 8%, to $18.2 million for the year ended December 31, 2018. This increase was primarily due to increases of compensation expense by $1.0 million and professional service fees by $0.6 million, partially offset by lower expenses as a result of owning our corporate headquarters building. General and administrative expenses decreased from 7% to 6% as a percentage of revenue for the year ended December 31, 2018, as we experienced scale in our support functions.

Year ended December 31, 2017 compared to year ended December 31, 2016. General and administrative expenses increased $1.6 million, or 11%, to $16.8 million for the year ended December 31, 2017. This was primarily due to an

increase of $1.0 million related to higher rent and occupancy costs after our move to a new building in the third quarter of 2016. General and administrative expenses decreased from 8% to 7% as a percentage of revenue for the year ended December 31, 2017, as we experienced scale in our support functions.

Sales and Marketing Expenses

	Year Ended December 31,			Change	
	2018	2017	2016	2018 vs. 2017	2017 vs. 2016
	(in thousands, except pet and per pet data)				
Sales and marketing	$24,999	$19,104	$15,247	31%	25%
Subscription Business:					
Total subscription pets enrolled (at period end)	430,770	371,683	323,233	16	15
Average pet acquisition cost (PAC)	$164	$152	$123	8	24

Year ended December 31, 2018 compared to year ended December 31, 2017. Sales and marketing expense increased $5.9 million, or 31%, to $25.0 million, while gross subscription new pets increased 20%, to 126,182, and PAC increased 8% for the year ended December 31, 2018. The increase in expense consisted primarily of an additional $3.5 million in compensation expense, due to a 27% increase in headcount, and $2.0 million related to new marketing initiatives.

Year ended December 31, 2017 compared to year ended December 31, 2016. Sales and marketing expenses increased $3.9 million, or 25%, to $19.1 million for the year ended December 31, 2017. PAC increased 24% from December 31, 2016, to $152 for the year ended December 31, 2017, as a result of $1.8 million in additional testing of new marketing initiatives. Additionally, compensation and related expenses increased by $2.0 million due to a 21% increase in headcount in the year ended December 31, 2017.

Total Other (Income) Expense, Net

	Year Ended December 31,		
	2018	2017	2016
	(in thousands)		
Interest expense	$1,198	$533	$218
Other income, net	(1,309)	(1,244)	(58)
Total other (income) expense, net	$(111)	$(711)	$160

Year ended December 31, 2018 compared to year ended December 31, 2017. Total other (income) expense, net decreased by $0.6 million primarily due to a $1.0 million gain related to the sale of our equity method investment during prior year, partially offset by higher interest expense in the year ended December 31, 2018, primarily due to higher average debt balances.

Year ended December 31, 2017 compared to year ended December 31, 2016. Total other (income) expense, net improved by $0.9 million due to a $1.0 million gain related to the sale of our equity method investment in the second quarter of 2017.

Income Tax (Benefit) Expense

	Year Ended December 31,		
	2018	2017	2016
	(in thousands, except percentages)		
Income tax (benefit) expense	$(7)	$(428)	$38
Effective tax rate	0.8 %	22.2 %	(0.6)%

Year ended December 31, 2018 compared to year ended December 31, 2017. In December 2017, the U.S. government enacted the Tax Cuts and Jobs Act (the Tax Act). The Tax Act makes broad and complex changes to the Code, including reducing the corporate tax rate to 21% effective January 1, 2018. As a result, we recorded a decrease of $0.6 million to our net deferred tax liability recorded on our consolidated balance sheet, with a corresponding adjustment to income tax benefit for the year ended December 31, 2017. No additional adjustments were made to our net deferred tax liability as a result of finalizing our analysis of the impact of the Tax Act in 2018. As such, the effective tax rate for 2018 is the result of maintaining a full valuation allowance on our reported U.S. federal deferred tax assets.

Year ended December 31, 2017 compared to year ended December 31, 2016. As a result of the Tax Act, we recorded a decrease of $0.6 million to our net deferred tax liability recorded on our consolidated balance sheet, with a corresponding adjustment to income tax benefit for the year ended December 31, 2017. This tax benefit represents our best estimate of the impact of the Tax Act in accordance with our understanding of the Tax Act and available guidance as of our date of filing.

The Tax Act makes additional significant changes to the Code, such as, (1) imposing a mandatory one-time tax on accumulated earnings of foreign subsidiaries and transitioning U.S. international taxation from a worldwide tax system to a territorial system with base erosion rules; (2) imposing changes on the utilization of net operating losses; (3) other general changes to the taxation of corporations, including changes to cost recovery rules, changes to the deductibility of interest expense, and elimination of the performance-based compensation exception for executive compensation. The overall impact of the Tax Act on our future results of operations is uncertain at this time. We intend to continue to reinvest all of our foreign earnings indefinitely outside of the U.S.

Quarterly Results of Operations

The following tables contain selected quarterly financial information for the years ended December 31, 2018 and 2017. The unaudited quarterly information has been prepared on a basis consistent with the audited consolidated financial statements and includes all adjustments that we consider necessary for a fair presentation of the information shown. These quarterly operating results for any fiscal quarter are not necessarily indicative of the operating results for any full fiscal year or future period.

Consolidated Statements of Operations Data:	**Three Months Ended**							
	Dec. 31, 2018	**Sept. 30, 2018**	**Jun. 30, 2018**	**Mar. 31, 2018**	**Dec. 31, 2017**	**Sept. 30, 2017**	**Jun. 30, 2017**	**Mar. 31, 2017**
	(in thousands)							
Revenue:								
Subscription business	$70,933	$67,421	$63,867	$61,517	$58,991	$56,493	$52,641	$50,229
Other business	11,707	10,743	9,525	8,243	7,554	6,625	5,634	4,500
Total revenue	82,640	78,164	73,392	69,760	66,545	63,118	58,275	54,729
Cost of revenue:								
Subscription business[(1)]	57,892	54,753	52,333	51,014	47,831	45,215	42,591	41,246
Other business	10,543	9,667	8,706	7,682	6,977	6,096	5,333	4,328
Total cost of revenue	68,435	64,420	61,039	58,696	54,808	51,311	47,924	45,574
Gross profit:								
Subscription business	13,041	12,668	11,534	10,503	11,160	11,278	10,050	8,983
Other business	1,164	1,076	819	561	577	529	301	172
Total gross profit	14,205	13,744	12,353	11,064	11,737	11,807	10,351	9,155
Operating expenses:								
Technology and development[(1)]	2,487	2,299	2,298	2,164	2,572	2,471	2,322	2,403
General and administrative[(1)]	4,922	4,174	4,610	4,458	4,546	4,017	4,245	4,012
Sales and marketing[(1)]	6,994	6,365	5,702	5,938	5,781	4,862	4,372	4,089
Total operating expenses	14,403	12,838	12,610	12,560	12,899	11,350	10,939	10,504
Operating (loss) income	(198)	906	(257)	(1,496)	(1,162)	457	(588)	(1,349)
Interest expense	311	336	332	219	163	124	109	137
Other income, net	(238)	(628)	(303)	(140)	(5)	(99)	(1,112)	(28)
(Loss) income before income taxes	(271)	1,198	(286)	(1,575)	(1,320)	432	415	(1,458)
Income tax expense (benefit)	4	(7)	91	(95)	(482)	26	4	24
Net (loss) income	$(275)	$1,205	$(377)	$(1,480)	$(838)	$406	$411	$(1,482)

(1) Includes stock-based compensation expense as follows (in thousands):

	Three Months Ended							
	Dec. 31, 2018	**Sept. 30, 2018**	**Jun. 30, 2018**	**Mar. 31, 2018**	**Dec. 31, 2017**	**Sept. 30, 2017**	**Jun. 30, 2017**	**Mar. 31, 2017**
	(in thousands)							
Cost of revenue	$ 230	$ 249	$ 252	$ 197	$ 162	$ 170	$ 149	$ 113
Technology and development	42	58	60	49	50	57	59	50
General and administrative	595	634	625	449	471	503	482	431
Sales and marketing	355	358	349	273	172	165	198	187
Total stock-based compensation expense	$1,222	$1,299	$1,286	$968	$855	$895	$888	$781

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	Period Ended							
	Dec. 31, 2018	Sept. 30, 2018	Jun. 30, 2018	Mar. 31, 2018	Dec. 31, 2017	Sept. 30, 2017	Jun. 30, 2017	Mar. 31, 2017
Other Financial and Operational Data[2]:								
Total pets enrolled (at period end)	521,326	497,942	472,480	446,533	423,194	404,069	383,293	364,259
Total subscription pets enrolled (at period end)	430,770	416,527	401,033	385,640	371,683	359,102	346,409	334,909
Monthly average revenue per pet	$55.15	$54.55	$53.96	$53.62	$53.17	$52.95	$51.47	$50.50
Lifetime value of a pet (LVP)	$710	$714	$732	$727	$727	$701	$654	$637
Average pet acquisition cost (PAC)[3]	$186	$155	$150	$165	$184	$151	$143	$128
Average monthly retention	98.60 %	98.61 %	98.64 %	98.63 %	98.63 %	98.61 %	98.57 %	98.58 %

	Three Months Ended							
	Dec. 31, 2018	Sept. 30, 2018	Jun. 30, 2018	Mar. 31, 2018	Dec. 31, 2017	Sept. 30, 2017	Jun. 30, 2017	Mar. 31, 2017
	(as a percentage of revenue)							
Revenue	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %
Cost of revenue	83	82	83	84	82	81	82	83
Gross profit	17	18	17	16	18	19	18	17
Operating expenses:								
Technology and development	3	3	3	3	4	4	4	4
General and administrative	6	5	6	6	7	6	7	7
Sales and marketing	8	8	8	8	9	8	8	7
Total operating expenses	17	16	17	18	19	18	19	19
Operating income (loss)	—	1	—	(3)	(2)	1	(1)	(2)
Interest expense	—	—	—	—	—	—	—	—
Other (income) expense, net	—	(1)	—	—	—	—	(2)	—
Income (loss) before income taxes	—	2	—	(2)	(2)	1	1	(3)
Income tax benefit	—	—	—	—	(1)	—	—	—
Net income (loss)	— %	2 %	(1)%	(2)%	(1)%	1 %	1 %	(3)%

	Three Months Ended							
	Dec. 31, 2018	Sept. 30, 2018	Jun. 30, 2018	Mar. 31, 2018	Dec. 31, 2017	Sept. 30, 2017	Jun. 30, 2017	Mar. 31, 2017
	(as a percentage of subscription revenue)							
Subscription business revenue	100%	100%	100%	100%	100%	100%	100%	100%
Subscription business cost of revenue	82	81	82	83	81	80	81	82
Subscription business gross profit	18 %	19 %	18 %	17 %	19 %	20 %	19 %	18 %

Liquidity and Capital Resources

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

	Year Ended December 31,		
	2018	2017	2016
Net cash provided by operating activities	$12,680	$9,666	$5,006
Net cash used in investing activities	(81,451)	(13,056)	(6,508)
Net cash provided by financing activities	71,229	5,081	7,672
Effect of exchange rates on cash and cash equivalents	(812)	378	111
Net change in cash, cash equivalents, and restricted cash	$1,646	$2,069	$6,281

Our primary sources of liquidity are cash provided by operations and available borrowings on our line of credit. In June 2018, we increased the borrowing capacity on our line of credit from $30.0 million to $50.0 million. In addition, we completed the June 2018 follow-on public offering, raising aggregate net proceeds of $65.7 million, primarily to fund the purchase of our home office building. Our primary requirements for liquidity are paying veterinary invoices, funding operations and capital requirements, investing in new member acquisition, investing in enhancements to our member experience, and servicing debt.

As of December 31, 2018, we had $81.1 million of cash, cash equivalents, and short-term investments and $36.6 million available under our line of credit, which excluded $0.4 million reserved for ancillary services. Most of the assets in APIC and WICL Segregated Account AX are subject to certain capital and dividend rules and regulations prescribed by jurisdictions in which they are authorized to operate. As of December 31, 2018, total assets and liabilities held outside of our insurance entities totaled $107.3 million and $26.7 million, respectively. This included $16.0 million of cash and cash equivalents that are segregated from other operating funds and held in trust for the payment of veterinary invoices on behalf of our subsidiaries.

We believe our cash and cash equivalents, short-term investments and line of credit are sufficient to fund our operations and capital requirements for the next 12 months. As we continue to grow, however, we may explore additional financing to fund our operations or to meet capital requirements. Financing could include equity, equity-linked, or debt financing. Additional financing may not be available to us on acceptable terms, or at all.

Operating Cash Flows

We derive operating cash flows from the sale of our subscription plans, which is used to pay veterinary invoices and other cost of revenue. Additionally, cash is used to support the growth of our business by reinvesting to acquire new pet enrollments and to fund projects that improve our members' experience. Cash provided by operating activities was $12.7 million for the year ended December 31, 2018 compared to cash provided by operating activities of $9.7 million for the year ended December 31, 2017. The increase in cash provided by operating activities of $3.0 million was primarily driven by higher operating income, as well as timing differences between collections from members and payments of veterinary invoices and payments to vendors.

Cash provided by operating activities was $9.7 million for the year ended December 31, 2017 compared to cash used in operating activities of $5.0 million for the year ended December 31, 2016. The increase in cash provided by operating activities of $4.7 million was primarily due to the $4.1 million decrease in operating loss, drive by higher revenue and decreased operating expenses as a percentage of revenue as we increased scale in our technology and general and administrative departments.

Investing Cash Flows

Net cash used in investing activities for the year ended December 31, 2018 was primarily related to the purchase of the corporate headquarters in August 2018. Other major investing activities for each of the periods presented were primarily related to the net purchase of investments to increase our statutory capital. As of December 31, 2018, we had $58.1 million in short-term and long-term investments in our insurance entities, APIC and WICL Segregated Account AX. These investments are held to satisfy statutory requirements and we anticipate that we will need to maintain greater amounts of risk-based capital if our pet enrollments continue to grow.

Financing Cash Flows

Cash provided by financing activities was $71.2 million and $5.1 million for the years ended December 31, 2018 and 2017, respectively. The increase of $65.3 million was primarily due to net proceeds of $65.7 million received from the

June 2018 follow-on public offering.

Cash provided by financing activities for the year ended December 31, 2016 was $7.7 million. For the year ended December 31, 2017, cash provided by financing activities decreased by $2.6 million primarily due to a decrease of $1.2 million in proceeds from exercises of stock options. We also paid an additional $0.5 million for tax withholding on restricted stock.

Long-Term Debt

Pacific Western Bank Loan and Security Agreement

We have a syndicated loan agreement with Pacific Western Bank (PWB) and Western Alliance Bank (WAB), which we amended in June 2018 to increase the borrowing capacity from $30.0 million to $50.0 million and extend the maturity date to June 2021. The required restricted cash increased to $1.4 million. We refer to this line of credit as our PWB credit facility. The maximum amount available to us under the PWB credit facility, inclusive of any amounts outstanding under the revolving line of credit, is the lesser of $50.0 million or the total amount of cash and securities held by our insurance entities, less amounts outstanding relating to other ancillary services and letters of credit, totaling $0.4 million as of December 31, 2018. Interest on the PWB credit facility accrues at a variable annual rate equal to the greater of 4.5% or 1.25% plus the prime rate (6.75% at December 31, 2018).

The PWB credit facility requires us to maintain certain financial and non-financial covenants, including maintaining a minimum cash balance of $1.4 million in our account at WAB and/or WAB affiliates and other cash or investments of $2.1 million in our accounts at PWB. As of December 31, 2018, we were in compliance with each of the financial and non-financial covenants.

Our obligations under the PWB credit facility are secured by substantially all of our assets and a pledge of certain of our subsidiaries' stock. As of December 31, 2018, we had $13.0 million in aggregate borrowings outstanding under the PWB credit facility.

Contractual Obligations

We enter into long-term contractual obligations and commitments in the normal course of business, primarily debt obligations and non-cancellable vendor service agreements. For enforceable and legally binding contracts, our contractual cash obligations as of December 31, 2018 are set forth below (in thousands):

	Total	Less Than 1 Year	1-3 Years	3-5 Years	More Than 5 Years
Long-term debt obligations[1]	$13,000	$—	$13,000	$ —	$ —
Capital and operating lease obligations	202	148	54	—	—
Other obligations[2]	6,196	2,886	510	336	2,464
Total	$19,398	$3,034	$13,564	$ 336	$2,464

(1) Consists of our revolving line of credit. Excludes interest of the greater of 4.5% or 1.25% plus the prime rate (6.75% at December 31, 2018).

(2) Consists of contractual obligations from non-cancellable vendor service agreements.

Critical Accounting Policies and Significant Estimates

Our discussion and analysis of our financial condition and results of operations is based upon our consolidated financial statements, which have been prepared in accordance with GAAP. The preparation of these consolidated financial statements requires us to make estimates and judgments that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities as of the date of the consolidated financial statements, as well as the reported revenue and expenses during the reporting periods.

Critical accounting policies and estimates are those that we consider the most important to the portrayal of our financial condition and results of operations because they require our most difficult, subjective or complex judgments, often as a result of the need to make estimates about the effect of matters that are inherently uncertain. Generally, we

base our estimates on historical experience and on various other factors that we believe to be reasonable under the circumstances. Actual results may differ from these estimates.

Reserve for Veterinary Invoices

The reserve for our subscription business represents our estimate of the future amount we will pay for veterinary invoices that are dated as of, or prior to, our balance sheet date. The reserve also includes our estimate of related internal processing costs. To determine the accrual, we make assumptions based on our historical experience, including the number of veterinary invoices we expect to receive, the average cost of those veterinary invoices, the length of time between the date of the veterinary invoice and the date we receive it, and our expected cost to process and administer the payments. As of each balance sheet date, we reevaluate our reserve and may adjust the estimate for new information.

For the year ended December 31, 2018, we paid $10.1 million for veterinary invoices dated on or before December 31, 2017, including related processing costs. Our reserve estimate for these expenses was $11.1 million as of December 31, 2017. As of December 31, 2018, we reevaluated the remaining reserve for those periods prior to December 31, 2017 and recorded an adjustment to our income statement to increase it by $0.4 million. As of December 31, 2018, our reserve was $13.9 million, consisting of $12.5 million for the amount we expect to pay in the future for veterinary invoices dated between January 1, 2018 and December 31, 2018, inclusive of related processing costs, and a reserve of $1.3 million for periods prior to 2018.

Similarly, for the years ended December 31, 2017 and 2016, we adjusted our reserve for prior periods, reducing it by $0.1 million and increasing it by $0.8 million, respectively. These adjustments were recorded in our income statement for each respective year.

Income Taxes

We determine our deferred tax assets and liabilities based on the differences between the financial reporting and tax basis of assets and liabilities. The deferred tax assets and liabilities are measured using the enacted tax rates that will be in effect when the differences are expected to reverse. A valuation allowance is recorded when it is more likely than not that the deferred tax asset will not be recovered. We apply judgment in the determination of the consolidated financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. Although we believe our assumptions, judgments and estimates are reasonable, changes in tax laws or our interpretation of tax laws and the resolution of any tax audits could significantly impact the amounts provided for income taxes in our consolidated financial statements.

Stock-Based Compensation

Compensation expense related to stock-based transactions, including employee and non-employee stock option awards, restricted stock awards, and restricted stock units, is measured and recognized in the financial statements based on fair value. The fair value of stock options is estimated on the measurement date using the Black-Scholes option-pricing model that requires management to apply judgment and make estimates, including:

- *Expected volatility* —We estimate the expected volatility based on the historical volatility of a representative group of publicly traded companies with similar characteristics to us, and our own historical volatility;
- *Expected term for awards granted to employees* —We have based our expected term for awards issued to employees on the simplified method, as permitted by the SEC Staff Accounting Bulletin No. 110, Share-Based Payment, as we have insufficient historical information regarding our stock options to provide a basis for an estimate;
- *Risk-free interest rate*—The risk-free interest rate is based on the yields of U.S. Treasury securities with maturities similar to the expected term of the options; and
- *Expected dividend yield*—We have never declared or paid any cash dividends and do not presently plan to pay cash dividends in the foreseeable future. Consequently, we use an expected dividend yield of zero.

Stock-based compensation expense for stock options, restricted stock awards, and restricted stock units is recognized on a straight-line basis over the requisite service period, which is generally the vesting period of the respective award. We recognize forfeitures when they occur.

Item 7A. Quantitative and Qualitative Disclosures About Market Risks

We are exposed to market risks in the ordinary course of business, primarily related to interest rate sensitivities and foreign currency exchange risk.

Interest Rate Risk

We are exposed to interest rate risk as a result of our debt and our investment activities. Our revolving line of credit with PWB and WAB bears interest at the rate of the greater of 4.5% or 1.25% plus the prime rate. As of December 31, 2018, our aggregate outstanding indebtedness was $13.0 million. The primary objective of our investment activities is to maintain principal and the majority of our investments are short-term in nature. A 10% change in market interest rates would not be expected to have a material impact on our consolidated financial condition or results of operations.

Foreign Currency Exchange Risk

We generate approximately 19% of our revenue in Canada. As our operations in Canada or the United States grow on an absolute basis and/or relative to one another, our results of operations and cash flows will be subject to fluctuations due to changes in foreign currency exchange rates. A 10% change in the Canadian currency exchange rate could have a material impact on our consolidated financial condition or results of operations. A hypothetical change of this magnitude would have increased or decreased our total revenues by approximately $5.8 million, total expenses by approximately $4.1 million, and have a net impact of $1.7 million of income or loss for the year ended December 31, 2018. To date, we have not entered into any material foreign currency hedging contracts although we may do so in the future.

Item 8. Financial Statements and Supplementary Data

Trupanion Inc.
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Report of Independent Registered Public Accounting Firm

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

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Trupanion, Inc. (the Company) as of December 31, 2018 and 2017, the related consolidated statements of operations, comprehensive loss, changes in 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 at Item 15(a) (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 14, 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 2012.

Seattle, Washington
February 14, 2019

Trupanion, Inc.
Consolidated Statements of Operations
(in thousands, except per share data)

	Year Ended December 31,		
	2018	2017	2016
Revenue	$303,956	$242,667	$188,230
Cost of revenue:			
Veterinary invoice expense	214,539	170,122	133,534
Other cost of revenue	38,051	29,495	21,408
Gross profit	51,366	43,050	33,288
Operating expenses:			
Technology and development	9,248	9,768	9,534
General and administrative	18,164	16,820	15,205
Sales and marketing	24,999	19,104	15,247
Total operating expenses	52,411	45,692	39,986
Operating loss	(1,045)	(2,642)	(6,698)
Interest expense	1,198	533	218
Other income, net	(1,309)	(1,244)	(58)
Loss before income taxes	(934)	(1,931)	(6,858)
Income tax (benefit) expense	(7)	(428)	38
Net loss	$(927)	$(1,503)	$(6,896)
Net loss per share:			
Basic and Diluted	$(0.03)	$(0.05)	$(0.24)
Weighted average shares of common stock outstanding:			
Basic and Diluted	31,961,192	29,588,324	28,527,602

Trupanion, Inc.
Consolidated Statements of Comprehensive Loss
(in thousands)

	Year Ended December 31,		
	2018	2017	2016
Net loss	$(927)	$(1,503)	$(6,896)
Other comprehensive income (loss):			
Foreign currency translation adjustments	(642)	277	79
Net unrealized gain (loss) on available-for-sale debt securities	(19)	8	46
Other comprehensive income (loss), net of taxes	(661)	285	125
Comprehensive loss	$(1,588)	$(1,218)	$(6,771)

Trupanion, Inc.
Consolidated Balance Sheets
(in thousands, except share data)

	December 31,	
	2018	**2017**
Assets		
Current assets:		
Cash and cash equivalents	$26,552	$25,706
Short-term investments	54,559	37,590
Accounts and other receivables	31,565	20,367
Prepaid expenses and other assets	5,300	2,895
Total current assets	117,976	86,558
Restricted cash	1,400	600
Long-term investments, at fair value	3,554	3,237
Property and equipment, net	69,803	7,868
Intangible assets, net	8,071	4,972
Other long-term assets	6,706	2,624
Total assets	$207,510	$105,859
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	$2,767	$2,716
Accrued liabilities and other current liabilities	11,347	7,660
Reserve for veterinary invoices	16,062	12,756
Deferred revenue	33,027	22,734
Total current liabilities	63,203	45,866
Long-term debt	12,862	9,324
Deferred tax liabilities	1,002	1,002
Other liabilities	1,270	1,233
Total liabilities	78,337	57,425
Stockholders' equity:		
Common stock: $0.00001 par value per share, 100,000,000 shares authorized at December 31, 2018 and December 31, 2017, 34,781,121 and 34,025,136 shares issued and outstanding at December 31, 2018; 30,778,796 and 30,121,496 shares issued and outstanding at December 31, 2017	—	—
Preferred stock: $0.00001 par value per share, 10,000,000 shares authorized at December 31, 2018 and December 31, 2017, and 0 shares issued and outstanding at December 31, 2018 and December 31, 2017	—	—
Additional paid-in capital	219,838	134,511
Accumulated other comprehensive loss	(753)	(92)
Accumulated deficit	(83,711)	(82,784)
Treasury stock, at cost: 755,985 shares at December 31, 2018 and 657,300 shares at December 31, 2017	(6,201)	(3,201)
Total stockholders' equity	129,173	48,434
Total liabilities and stockholders' equity	$207,510	$105,859

Trupanion, Inc.
Consolidated Statements of Stockholders' Equity
(in thousands, except share amounts)

	Common Stock		Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Treasury Stock	Total Stockholders' Equity
	Shares	Amount					
Balance at January 1, 2016	28,396,189	—	$ 122,844	$ (74,385)	$ (502)	$ (2,601)	$ 45,356
Exercise of warrants	59,999	—	600	—	—	—	600
Issuance of common stock in connection with the Company's equity award programs, net of tax withholdings	1,079,080	—	3,083	—	—	—	3,083
Stock-based compensation expense	—	—	3,047	—	—	—	3,047
Purchase of treasury stock	(36,321)	—	—	—	—	(600)	(600)
Other comprehensive income	—	—	—	—	125	—	125
Net loss	—	—	—	(6,896)	—	—	(6,896)
Balance at December 31, 2016	29,498,947	—	129,574	(81,281)	(377)	(3,201)	44,715
Issuance of common stock in connection with the Company's equity award programs, net of tax withholdings	622,549	—	1,375	—	—	—	1,375
Stock-based compensation expense	—	—	3,562	—	—	—	3,562
Other comprehensive income	—	—	—	—	285	—	285
Net loss	—	—	—	(1,503)	—	—	(1,503)
Balance at December 31, 2017	30,121,496	—	134,511	(82,784)	(92)	(3,201)	48,434
Issuance of common stock from follow-on public offering	2,090,909	—	65,638	—	—	—	65,638
Issuance of common stock for acquisition of corporate real estate	303,030	—	9,633	—	—	—	9,633
Exercise of warrants, net	231,315	—	3,300	—	—	(3,000)	300
Issuance of common stock in connection with the Company's equity award programs, net of tax withholdings	1,278,386	—	1,806	—	—	—	1,806
Stock-based compensation expense	—	—	4,950	—	—	—	4,950
Other comprehensive loss	—	—	—	—	(661)	—	(661)
Net loss	—	—	—	(927)	—	—	(927)
Balance at December 31, 2018	34,025,136	$ —	$ 219,838	$ (83,711)	$ (753)	$ (6,201)	$ 129,173

Trupanion, Inc.
Consolidated Statements of Cash Flows
(in thousands)

	Year Ended December 31,		
	2018	2017	2016
Operating activities			
Net loss	$(927)	$(1,503)	$(6,896)
Adjustments to reconcile net loss to cash provided by operating activities:			
Depreciation and amortization	4,512	4,232	3,846
Stock-based compensation expense	4,775	3,419	2,946
Gain on sale of equity method investment	—	(1,036)	—
Other, net	(240)	(383)	104
Changes in operating assets and liabilities:			
Accounts and other receivables	(11,248)	(10,219)	(1,830)
Prepaid expenses and other assets	(2,628)	(179)	48
Accounts payable, accrued liabilities, and other liabilities	4,531	3,019	1,164
Reserve for veterinary invoices	3,440	3,149	3,226
Deferred revenue	10,465	9,167	2,398
Net cash provided by operating activities	12,680	9,666	5,006
Investing activities			
Purchases of investment securities	(52,862)	(31,920)	(31,616)
Maturities of investment securities	35,413	23,372	27,247
Purchases of other investments	(3,000)	—	—
Acquisition of lease intangibles, related to corporate real estate acquisition	(2,959)	—	—
Proceeds from sale of equity method investment	—	1,402	—
Purchases of property and equipment	(56,936)	(3,131)	(1,941)
Other	(1,107)	(2,779)	(198)
Net cash used in investing activities	(81,451)	(13,056)	(6,508)
Financing activities			
Proceeds from public offering of common stock, net of offering costs	65,671	—	—
Proceeds from exercise of stock options	3,601	2,545	3,745
Shares withheld to satisfy tax withholding	(1,839)	(1,170)	(662)
Proceeds from debt financing, net of financing fees	13,431	4,400	4,988
Repayment of debt financing	(10,000)	—	—
Other financing	365	(694)	(399)
Net cash provided by financing activities	71,229	5,081	7,672
Effect of foreign exchange rate changes on cash, cash equivalents, and restricted cash, net	(812)	378	111
Net change in cash, cash equivalents, and restricted cash	1,646	2,069	6,281
Cash, cash equivalents, and restricted cash at beginning of period	26,306	24,237	17,956
Cash, cash equivalents, and restricted cash at end of period	$27,952	$26,306	$24,237
Supplemental disclosures			
Income taxes paid	216	177	19
Interest paid	1,019	333	153
Noncash investing and financing activities:			
Issuance of common stock for cashless exercise of warrants	3,000	—	600
Issuance of common stock for acquisition of corporate real estate	9,640	—	—
Purchases of property and equipment included in accounts payable and accrued liabilities	106	390	104

Property and equipment acquired under capital lease	—	689	559

Trupanion, Inc.
Notes to Consolidated Financial Statements
1. Nature of Operations and Summary of Significant Accounting Policies

Description of Business

Trupanion, Inc. (collectively with its wholly-owned subsidiaries, the Company) provides medical insurance for cats and dogs throughout the United States, Canada and Puerto Rico. The Company believes its data-driven, vertically-integrated approach makes its subscription the highest value for pet owners, with pricing specific to each pet's unique characteristics. The Company strives to operate the business similar to other subscription-based businesses, with a focus on maximizing the lifetime value of each pet while sustaining a favorable ratio of lifetime value relative to pet acquisition cost, based on the Company's desired return on investment.

Basis of Presentation

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

Use of Estimates

The preparation of consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts and related disclosures. Actual results could differ from such estimates.

Cash, Cash Equivalents and Restricted Cash

The Company considers all highly liquid investments with an original maturity of three months or less to be cash equivalents. At times, cash on deposit may be in excess of the applicable federal deposit insurance corporation limits. The Company considers any cash account that is contractually restricted to withdrawal or use to be restricted cash. The Company is party to a financing agreement requiring a restricted cash balance. As of December 31, 2018, the Company was in compliance with all requirements.

Accounts and Other Receivables

Receivables are comprised of trade receivables and other miscellaneous receivables. Accounts and other receivables are carried at their estimated collectible amounts.

Deferred Acquisition Costs

The Company incurs certain costs, including premium taxes, fees and enrollment-based bonuses, and referral fees that directly relate to the successful acquisition of new or renewal customer contracts. These costs are deferred and are included in prepaid expenses and other assets on the consolidated balance sheet and amortized over the related policy term to the applicable financial statement line item, either sales and marketing expense or other cost of revenue. Deferred acquisition costs as of December 31, 2018 and December 31, 2017 were $1.3 million and $1.0 million, respectively. Amortized deferred acquisition costs classified within sales and marketing amounted to $2.1 million, $1.7 million, and $1.4 million and amortized deferred acquisition costs classified within other cost of revenue amounted to $15.9 million, $13.2 million, and $10.7 million, as of December 31, 2018, 2017, and 2016, respectively.

Investments

The Company invests in investment grade fixed income securities of varying maturities. Long-term investments are classified as available-for-sale and reported at fair value with unrealized gains and losses included in accumulated other comprehensive loss. Short-term investments are classified as held-to-maturity and reported at amortized cost. Premiums or discounts on fixed income securities are amortized or accreted over the life of the security and included in interest income. There have been no realized gains and losses on sales of fixed income securities.

The Company evaluates whether declines in the fair value of its investments below book value are other-than-temporary. This evaluation includes the Company's ability and intent to hold the security until an expected recovery occurs, the severity and duration of the unrealized loss, as well as all available information relevant to the collectability of the security, including past events, current conditions, and reasonable and supportable forecasts, when developing estimates of cash flows expected to be collected.

Fair Value of Financial Instruments

The Company is required to disclose information on all assets and liabilities reported at fair value that enables an assessment of the inputs used in determining the reported fair values. The fair value hierarchy prioritizes valuation inputs based on the observable nature of those inputs. The fair value hierarchy applies only to the valuation inputs used in determining the reported fair value of the investments and is not a measure of the investment credit quality. The hierarchy defines three levels of valuation inputs:

Level 1 - Quoted prices in active markets for identical assets or liabilities

Level 2 - Inputs other than quoted prices that are observable for the asset or liability, either directly or indirectly

Level 3 - Unobservable inputs that reflect the Company's own assumptions about the assumptions market participants would use in pricing the asset or liability

The Company's financial instruments, in addition to those presented in Note 7, Fair Value, include cash and cash equivalents, accounts receivable, accounts payable, and accrued liabilities. The carrying amounts of accounts receivable, accounts payable, and accrued liabilities approximate fair value because of the short-term nature of these instruments.

Property and Equipment

Property and equipment primarily consists of building, land and land improvements, office equipment, internally-developed software related to the Company’s website, and internal support systems, capitalized during the application development stage of the project. Property and equipment is recorded at cost and depreciated using the straight-line method over the estimated useful life of the respective asset:

Land	Not depreciable
Land improvements	10 years
Building	39 years
Software	3 to 5 years
Office equipment	3 to 5 years

Intangible Assets

Acquired finite-lived intangibles are amortized on a straight-line basis over the estimated useful lives of the assets. Indefinite-lived intangible assets are not amortized. The Company reviews these assets for impairment at least annually or if indicators of potential impairment exist.

Asset Impairment

Long-lived assets, including property and equipment, are reviewed for impairment when events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Should an impairment exist, the impairment loss would be measured as the amount the asset's carrying value exceeds its fair value. The Company has recognized no impairment loss on long-lived assets for the years ended December 31, 2018, 2017, and 2016.

Reserve for Veterinary Invoices

Reserve for veterinary invoices is an estimate of the future amount the Company will pay for veterinary invoices that are dated as of, or prior to, its balance sheet date. The reserve also includes the Company's estimate of related internal processing costs. To determine the accrual, the Company makes assumptions based on its historical experience, including the number of veterinary invoices it expects to receive, the average cost of those veterinary invoices, the length of time between the date of the veterinary invoice and the date the Company receives it, the member's chosen deductible, and the Company's expected cost to process and administer the payments.

Deferred Revenue

Deferred revenue consists of subscription fees received or billed in advance of the subscription services within the Company's subscription business, and the unexpired term of premiums related to the Company's unaffiliated general agents within the other business segment.

Revenue Recognition

The Company generates revenue primarily from subscription fees and through underwriting policies for unaffiliated general agents. Revenue is recognized pro-rata over the terms of the customer contracts.

Veterinary Invoice Expense

Veterinary invoice expense includes the Company's costs to review veterinary invoices, administer the payments, and provide member services, and other operating expenses directly or indirectly related to this process. The Company also accrues for veterinary invoices that have been incurred but not yet received. This also includes amounts paid by unaffiliated general agents, and an estimate of amounts incurred and not yet paid for the other business segment.

Other Cost of Revenue

Other cost of revenue for the subscription business segment includes direct and indirect member service expenses, Territory Partner renewal fees, credit card transaction fees and premium tax expenses. Other cost of revenue for the other business segment includes the commissions the Company pays to unaffiliated general agents, costs to administer the programs in the other business segment and premium taxes on the sales in this segment.

Technology and Development

Technology and development expenses primarily consist of personnel costs and related expenses for the Company's technology staff, which includes information technology development and infrastructure support and third-party services, as well as depreciation of hardware and capitalized software.

General and Administrative

General and administrative expenses consist primarily of personnel costs and related expenses for the Company's finance, actuarial, human resources, legal, regulatory, and general management functions, as well as facilities and professional services.

Sales and Marketing

Sales and marketing expenses consist of costs to educate veterinarians and consumers about the benefits of Trupanion, to generate leads, and to convert leads to enrolled pets, as well as print, online and promotional advertising costs, and employee compensation and related costs.

Other (Income) Expense, Net

Other income was $1.3 million for the year ended December 31, 2018. Interest income of $0.9 million, $0.2 million, and $0.1 million was recorded in other income for the years ended December 31, 2018, 2017, and 2016, respectively. Other income in the year ended December 31, 2017 included a gain of $1.0 million from the sale of the Company's equity method investment.

Advertising

Advertising costs are expensed as incurred, with the exception of television advertisements, which are expensed the first time each advertisement is aired. Advertising costs amounted to $6.3 million, $4.9 million and $4.0 million, in the years ended December 31, 2018, 2017 and 2016, respectively.

Stock-Based Compensation

Compensation expense related to stock-based transactions, including employee and non-employee stock option awards, restricted stock awards, and restricted stock units, is measured and recognized in the financial statements based on fair value. The fair value of restricted stock awards and restricted stock units is the common stock price as of the measurement date. The fair value of stock options is estimated on the measurement date using the Black-Scholes option-pricing model that requires management to apply judgment and make estimates, including:

- *Expected volatility* —The Company estimates the expected volatility based on the historical volatility of a representative group of publicly traded companies with similar characteristics to the Company, and its own historical volatility;
- *Expected term for awards granted to employees* —The Company has based its expected term for awards issued to employees on the simplified method, as permitted by the SEC Staff Accounting Bulletin No. 110, Share-Based Payment, as the Company has insufficient historical information regarding its stock options to provide a basis for an estimate;
- *Risk-free interest rate*—The risk-free interest rate is based on the yields of U.S. Treasury securities with maturities similar to the expected term of the options; and
- *Expected dividend yield*—The Company has never declared or paid any cash dividends and does not presently plan to pay cash dividends in the foreseeable future. Consequently, the Company uses an expected dividend yield of zero.

Stock-based compensation expense for stock options, restricted stock awards, and restricted stock units is recognized on a straight-line basis over the requisite service period, which is generally the vesting period of the respective award. The Company recognizes forfeitures when they occur.

Income Taxes

The Company uses the asset and liability approach for accounting and reporting income taxes. Deferred tax assets and liabilities are recognized for future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities, and their respective tax bases, operating loss, and tax credit carryforwards.

Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect of a tax rate change is recognized in the period that includes the enactment date. Valuation allowances are provided for when it is considered more likely than not that deferred tax assets will not be realized.

The Company recognizes the effect of income tax positions only if those positions are more likely than not of being sustained. Recognized income tax positions are measured at the largest amount that is greater than a 50% likelihood of being realized. Penalties and interest are classified as a component of income taxes.

Foreign Currency Translation

The Company’s consolidated financial statements are reported in U.S. dollars. Assets and liabilities denominated in foreign currencies were translated to U.S. dollars, the reporting currency, at the exchange rates in effect on the balance sheet date. Revenue and expenses denominated in foreign currencies were translated to U.S. dollars using a weighted-average rate for the relevant reporting period. Cumulative translation adjustments of $0.7 million, $0.1 million, and $0.4 million were recorded in accumulated other comprehensive loss as of December 31, 2018, 2017, and 2016, respectively.

Insurance Operations

Effective January 1, 2015, the Company formed a segregated account in Bermuda as part of Wyndham Insurance Company (SAC) Limited (WICL), and entered into a revised fronting and reinsurance arrangement with Omega General Insurance Company (Omega) to include its newly formed segregated account. The Company maintains all risk with the business written in Canada and consolidates the entity in its financial statements. Dividends are allowed subject to the Segregated Accounts Company Act of 2000, which allows for dividends only to the extent that the entity remains solvent and the value of its assets remain greater than the aggregate of its liabilities and its issued share capital and share premium accounts.

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For the Company's Canadian business, all plans are written by Omega and the risk is assumed by the Company through a fronting and reinsurance agreement. Premiums are recognized and earned pro rata over the terms of the related customer contracts. Revenue recognized from the agreement in 2018, 2017, and 2016 was $57.4 million, $47.1 million and $36.5 million, respectively, and deferred revenue relating to this arrangement at December 31, 2018 and 2017 was $2.1 million and $1.8 million, respectively. Reinsurance revenue was 19% of total revenue in 2018, 2017, and 2016. Cash designated for the purpose of paying claims related to this reinsurance agreement was $3.9 million and $2.8 million at December 31, 2018 and 2017, respectively. In addition, as required by the Office of the Superintendent of Financial institutions regulations related to the Company's reinsurance agreement with Omega, the Company is required to fund a Canadian Trust account with the greater of CAD $2.0 million or 115% of unearned Canadian premium plus 15% of outstanding Canadian claims, including all incurred but not reported claims. As of December 31, 2018, the account balance was CAD $3.5 million and the Company was in compliance with all requirements.

The Company has not transferred any risk to third-party reinsurers.

Concentrations of Credit Risk

Financial instruments, which potentially subject the Company to concentration of credit risk, consist primarily of cash and cash equivalents and investments. The Company manages its risk by investing cash equivalents and investment securities in money market instruments and securities of the U.S. government, U.S. government agencies and high-credit-quality issuers of debt securities.

Follow-on Common Stock Offerings

In June 2018, the Company completed a follow-on public offering (the June 2018 follow-on public offering) whereby the Company sold 2,090,909 shares of common stock at a price to the public of $33.00 per share. The Company received aggregate net proceeds from the June 2018 follow-on public offering of $65.7 million, after deducting underwriting discounts and commissions and offering expenses payable by the Company. The proceeds were primarily used to purchase real estate consisting of properties in use as the Company's home office. In addition, in August 2018, the Company issued 303,030 shares of common stock via a private placement to an accredited investor as a portion of the purchase price of the real estate. See Note 12, Real Estate.

Acquisition of Real Estate

The Company's real estate acquisition was determined to be an asset acquisition, with the purchase price allocated based on relative fair value of the assets acquired. Additionally, acquisition-related expenses were capitalized as part of the purchase price.

The Company assessed fair value on the date of the acquisition based on Level 3 inputs within the fair value framework, which included estimated cash flow projections that utilized appropriate discount rates, capitalization rates, renewal probability and available market information, which included market rental rates and market rent growth rates. Estimates of future cash flows were based on a number of factors including historical operating results, known and anticipated trends, and market and economic conditions.

The fair value of tangible assets of the acquired property considers the value of the property as if it were vacant. The fair value of acquired "above- and below-" market leases was based on the estimated cash flow projections utilizing discount rates that reflected the risks associated with the leases acquired. The amount recorded was based on the present value of the difference between (i) the contractual amounts to be paid pursuant to each in-place lease and (ii) management's estimate of fair market lease rates for each in-place lease, measured over a period equal to the remaining term of the lease for above-market leases and the initial term plus the extended term for any leases with below-market renewal options. Other intangible assets acquired included amounts for in-place lease values that were based on the Company's evaluation of the specific characteristics of each tenant's lease. Factors considered include estimates of carrying costs during hypothetical expected lease-up periods, market conditions and costs to execute similar leases. In estimating carrying costs, the Company included estimates of lost rents at market rates during the hypothetical expected lease-up periods, which were dependent on local market conditions. In estimating costs to execute similar leases, the Company considered leasing commissions, legal and other related costs.

The results of operations related to our ownership of the building are included in the Company's Consolidated Statements of Operations from the date of acquisition.

Rental Income

The Company leases a portion of its building to third parties and records related rental income within general and administrative expense in the Consolidated Statements of Operations. The Company recorded rental income of $0.9 million for the year ended December 31, 2018.

The following table summarizes the Company's future rental payments to be received from non-cancellable leases in place as of December 31, 2018 (in thousands):

Year ending December 31:	
2019	$2,129
2020	1,224
2021	1,210
2022	1,173
2023	1,210
Thereafter	3,238
Total rental payments	$10,184

Recent Accounting Pronouncements

In February 2016, the Financial Accounting Standards Board (FASB) issued an Accounting Standards Update (ASU) amending the lease presentation guidance. The ASU requires organizations that lease assets to recognize the rights and obligations created by those leases on the consolidated balance sheets. This ASU is effective for fiscal years beginning after December 15, 2018, including interim periods within that reporting period, with early adoption permitted. The Company will adopt this guidance as of January 1, 2019 using the modified retrospective transition method, and will elect all applicable practical expedients upon the adoption. Based on the lease portfolio as of December 31, 2018, the Company does not expect the adoption of this guidance to have a material impact on its consolidated financial statements.

In June 2016, the FASB issued an ASU amending the measurement of credit losses on financial instruments. The ASU requires the measurement and recognition of expected credit losses for financial assets held at amortized cost. This replaces the existing incurred loss impairment model with an expected loss methodology, which will result in more timely recognition of credit losses. This ASU is effective for annual reporting periods, and interim periods within those years, beginning after December 15, 2019. The Company is currently in the process of evaluating the impact the adoption of this ASU will have on its consolidated financial statements.

In August 2018, the FASB issued an ASU that eliminates certain disclosure requirements for fair value measurements, requires new disclosures regarding significant unobservable inputs used to develop Level 3 fair value measurements, and modifies certain existing disclosure requirements for Level 3 fair value measurements. This ASU is effective for fiscal years beginning after December 15, 2019, including interim periods within that reporting period, with early adoption permitted. The Company is currently evaluating the impact the adoption of this ASU will have on its consolidated financial statements.

2. Net Loss per Share

Basic net loss per share is computed using the weighted-average number of shares of common stock outstanding during the period. Diluted net loss per share is calculated using the weighted-average number of shares of common stock plus, when dilutive, potential common shares outstanding using the treasury-stock method. Potential common shares outstanding include stock options, unvested restricted stock awards and restricted stock units, and warrants.

The following potentially dilutive equity securities were not included in the diluted earnings per common share calculation because they would have had an antidilutive effect:

	As of December 31,		
	2018	2017	2016
Stock options	2,621,503	4,006,399	4,123,023
Restricted stock awards and restricted stock units	451,160	256,842	352,996
Warrants	480,000	810,000	810,000

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3. Property and Equipment, Net

Property and equipment, net consisted of the following (in thousands):

	December 31,	
	2018	2017
Land and improvements	$15,833	$—
Building and improvements	46,561	—
Software	20,338	17,221
Office equipment and other	2,772	3,022
Property and equipment, at cost	85,504	20,243
Less: Accumulated depreciation	(15,701)	(12,375)
Property and equipment, net	$69,803	$7,868

Depreciation expense related to property and equipment, inclusive of assets purchased on capital lease, was $4.3 million, $4.2 million and $3.8 million for the years ended December 31, 2018, 2017 and 2016, respectively.

4. Intangible Assets

The following table presents the detail of intangible assets for the periods presented (in thousands):

	Gross Carrying Value	Accumulated Amortization	Net Carrying Value
December 31, 2018:			
Licenses	$ 4,773	$ —	$ 4,773
Patents and trademarks	743	(191)	552
Leases	2,959	(213)	2,746
Total Intangibles	$ 8,475	$ (404)	$ 8,071
December 31, 2017:			
Licenses	$ 4,773	$ —	$ 4,773
Patents and trademarks	373	(174)	199
Leases	—	—	—
Total Intangibles	$ 5,146	$ (174)	$ 4,972

The Company acquired an insurance company in 2007, which originally included licenses in 23 states. These licenses were valued at $4.8 million. The Company is currently licensed in all 50 states, the District of Columbia and Puerto Rico. Most licenses are renewed annually upon payment of various fees assessed by the issuing state. Renewal costs are expensed as incurred. This is considered an indefinite-lived intangible asset given the planned renewal of the certificates of authority and applicable licenses for the foreseeable future.

The lease-related intangible assets relate to in-place lease agreements associated with the building acquisition in August 2018 and will be amortized over a weighted-average useful life of 5.1 years.

Amortization expense associated with intangible assets for the year ended December 31, 2018 was $0.2 million, and is expected to be approximately $0.5 million in each of the five succeeding years.

5. Investments

The amortized cost, gross unrealized holding gains and losses, and fair value of long-term and short-term investments by major security type and class of security were as follows as of December 31, 2018 and 2017 (in thousands):

	Amortized Cost	Gross Unrealized Holding Gains	Gross Unrealized Holding Losses	Fair Value
As of December 31, 2018				
Long-term investments:				
Foreign deposits	$2,573	$ —	$ —	$2,573
Municipal bond	1,000	—	(19)	981
	$3,573	$ —	$ (19)	$3,554
Short-term investments:				
U.S. Treasury securities	$6,645	$ —	$ (3)	$6,642
Certificates of deposit	437	—	—	437
U.S. government funds	47,477	—	—	47,477
	$54,559	$ —	$ (3)	$54,556

	Amortized Cost	Gross Unrealized Holding Gains	Gross Unrealized Holding Losses	Fair Value
As of December 31, 2017				
Long-term investments:				
Foreign deposits	$2,237	$ —	$ —	$2,237
Municipal bond	1,000	—	—	1,000
	$3,237	$ —	$ —	$3,237
Short-term investments:				
U.S. Treasury securities	$5,783	$ —	$ (4)	$5,779
Certificates of deposit	690	1	—	691
U.S. government funds	31,117	—	—	31,117
	$37,590	$ 1	$ (4)	$37,587

Maturities of debt securities classified as available-for-sale were as follows (in thousands):

	December 31, 2018	
	Amortized Cost	Fair Value
Available-for-sale:		
Due after one year through five years	3,573	3,554
	$3,573	$3,554

The Company evaluated its securities for other-than-temporary impairment and considers the decline in market value for the securities to be primarily attributable to current economic and market conditions. For debt securities, the Company does not intend to sell, nor is it more likely than not that the Company will be required to sell, the securities prior to maturity or prior to the recovery of the amortized cost basis.

6. Other Investments

Investment in Variable Interest Entity

In July 2018, the Company purchased $3.0 million in preferred stock of a privately held corporation with a complementary business line. The Company does not have power over the activities that most significantly impact the economic performance of the variable interest entity and is, therefore, not the primary beneficiary. The Company's investment in preferred stock is accounted for as an available-for-sale debt security. Through January 2020, the Company has agreed to purchase an additional $4.0 million in preferred stock of the variable interest entity, contingent upon the exercise of this option by the variable interest entity. The Company has the option to purchase the variable interest entity on the fifth anniversary of the initial preferred stock purchase. Additionally, the Company has extended a $2.5 million revolving line of credit to the variable interest entity. The Company's investment and amounts loaned under the line of credit are recorded in other long-term assets on the consolidated balance sheet. As of December 31, 2018, outstanding loan balance under the line of credit was $0.6 million. The Company has also entered into a series of agreements to provide ancillary services to the variable interest entity at cost. The Company provided $0.6 million of these services for the year ended December 31, 2018, which were recorded against its operating expenses.

Investment in Joint Venture

In September 2018, the Company acquired a non-controlling equity interest in a joint venture, whereby it has committed to licensing certain intellectual property and contributing up to $2.2 million AUD upon the achievement of specific operational milestones over a period of at least four years from the agreement execution date. As of December 31, 2018, the Company has contributed $0.3 million AUD.

7. Fair Value

The following table summarizes, by major security type, the Company's assets that are measured at fair value on a recurring basis, and placement within the fair value hierarchy (in thousands):

	As of December 31, 2018			
	Fair Value	Level 1	Level 2	Level 3
Assets				
Restricted cash	$1,400	$1,400	$—	$—
Money market funds	2,010	2,010	—	—
Fixed maturities:				
Foreign deposits	2,573	2,573	—	—
Municipal bond	981	—	981	—
Investment in variable interest entity	3,000	—	—	3,000
Total	$9,964	$5,983	$981	$3,000

	As of December 31, 2017			
	Fair Value	Level 1	Level 2	Level 3
Assets				
Restricted cash	$600	$600	$—	$—
Money market funds	5,167	5,167	—	—
Fixed maturities:				
Foreign deposits	2,237	2,237	—	—
Municipal bond	1,000	—	1,000	—
Total	$9,004	$8,004	$1,000	$—

The Company measures the fair value of restricted cash, money market funds, and foreign deposits based on quoted prices in active markets for identical assets. The fair value of the municipal bond is based on either recent trades in inactive markets or quoted market prices of similar instruments and other significant inputs derived from or corroborated by observable market data. The estimated fair value of the Company's investment in the variable interest entity is a Level 3 measurement, and is based on market interest rates, the assessed creditworthiness of the entity, and the estimated fair value of the entity's common stock. As of December 31, 2018, the Company estimates that the purchase price approximates the fair value. Short-term investments are carried at amortized cost and the fair value is disclosed in Note 5, Investments. The fair value of these investments is determined in the same manner as for available-for-sale securities and is considered a Level 1 measurement.

Fair Value Disclosures

The Company's other long-term assets balance included notes receivable of $3.0 million and $2.5 million as of December 31, 2018 and 2017, respectively, recorded at their estimated collectible amount. The Company estimates that the carrying value of the notes receivable approximates the fair value. The estimated fair value represents a Level 3 measurement within the fair value hierarchy, and is based on market interest rates and the assessed creditworthiness of the third party.

The Company estimates the fair value of long-term debt based upon rates currently available to the Company for debt with similar terms and remaining maturities. This is a Level 3 measurement. Based upon the terms of the debt, the carrying amount of long-term debt approximated fair value at December 31, 2018 and December 31, 2017.

8. Commitments and Contingencies

The following summarizes the Company's contractual commitments as of December 31, 2018 (in thousands):

	Year Ending December 31,						
	2019	2020	2021	2022	2023	Thereafter	Total
Long-term debt obligations[1]	$—	$—	$13,000	$—	$—	$—	$13,000
Capital and operating leases	148	24	24	6	—	—	202
Other obligations[2]	2,886	325	185	168	168	2,464	6,196
Total	$3,034	$349	$13,209	$174	$168	$2,464	$19,398

(1) Consists of a revolving line of credit. Excludes interest of the greater of 4.5% or 1.25% plus the prime rate (6.75% as of December 31, 2018).
(2) Consists of contractual obligations from non-cancellable vendor service agreements.

The Company had a lease agreement for its headquarters building located in Seattle, Washington until the Company purchased the building in August 2018. Minimum rent payments under operating leases are recognized on a straight-line basis over the term of the lease. Rental expense for operating leases was $1.4 million, $1.8 million and $1.2 million for the years ended December 31, 2018, 2017 and 2016, respectively.

Legal Proceedings

Certain insurance regulators in the United States have contacted the Company regarding whether employees who had helped prospective members enroll by telephone in prior years were required to have an insurance license to conduct such telephone conversations. To date, the Company has resolved each of these matters in non-material amounts and believes it is compliant with the applicable regulations. The Company is currently engaged with a limited number of state insurance regulators to resolve this same legacy issue and believes it has adequately reserved for these matters. In addition, from time to time the Company is or may become subject to various legal proceedings arising in the ordinary course of business, including proceedings against members, other entities or regulatory bodies. Estimated liabilities are recorded when it is both probable that a liability has been incurred and the amount of the loss can be reasonably estimated. In many instances, the Company is unable to determine whether a loss is probable or to reasonably estimate the amount of such a loss and, therefore, the potential future losses arising from a matter may exceed the amount of estimated liabilities the Company has recorded in the financial statements covering these matters. The Company reviews its estimates at least quarterly and makes adjustments to reflect negotiations, estimated settlements, rulings, advice of legal counsel, and other information and events pertaining to a particular matter.

9. Reserve for Veterinary Invoices

The reserve for veterinary invoices is an estimate of the future amount the Company will pay for veterinary invoices that are dated as of, or prior to, its balance sheet date. The reserve also includes the Company's estimate of related internal processing costs. The reserve estimate involves actuarial projections, and is based on management's assessment of facts and circumstances currently known, and assumptions about anticipated patterns. The reserve is made for each of the Company's segments, subscription and other business, and are continually refined as the Company receives and pays veterinary invoices. Changes in management's assumptions and estimates may have a relatively large impact to the reserve and associated expense.

Reserve for veterinary invoices

Summarized below are the changes in the total liability for the Company's subscription business segment (in thousands):

	Year Ended December 31,		
Subscription	**2018**	**2017**	**2016**
Reserve at beginning of year	$11,059	$8,538	$5,384
Veterinary invoice expense during the period related to:			
Current year	190,642	155,623	123,823
Prior years	409	(69)	813
Total veterinary invoice expense	191,051	155,554	124,636
Amounts paid during the period related to:			
Current year	177,418	144,802	115,314
Prior years	10,130	7,777	5,832
Total paid	187,548	152,579	121,146
Non-cash expenses	687	454	336
Reserve at end of period	$13,875	$11,059	$8,538

The Company's reserve for the subscription business segment increased $2.8 million from $11.1 million at December 31, 2017 to $13.9 million at December 31, 2018. This change was comprised of $191.1 million in expense recorded during the period less $187.5 million in payments of veterinary invoices. This $191.1 million in veterinary invoice expense incurred included an increase of $0.4 million to the reserves relating to prior years, which was the result of ongoing analysis of recent payment trends. The Company's adjustments to prior year reserves were a reduction of $0.1 million and an increase of $0.8 million as a result of analysis of payment trends in the years ended December 31, 2017 and 2016, respectively.

Summarized below are the changes in total liability for the Company's other business segment (in thousands):

	Year Ended December 31,		
Other Business	**2018**	**2017**	**2016**
Reserve at beginning of year	$1,697	$983	$890
Veterinary invoice expense during the period related to:			
Current year	23,784	14,739	9,027
Prior years	(296)	(171)	(129)
Total veterinary invoice expense	23,488	14,568	8,898
Amounts paid during the period related to:			
Current year	21,615	13,053	8,048
Prior years	1,383	801	757
Total paid	22,998	13,854	8,805
Non-cash expenses	—	—	—
Reserve at end of period	$2,187	$1,697	$983

The Company’s reserve for the other business segment increased $0.5 million from $1.7 million at December 31, 2017 to $2.2 million at December 31, 2018. This change was comprised of $23.5 million in expense recorded during the period less $23.0 million in payments of veterinary invoices. This $23.5 million in veterinary invoice expense incurred included a reduction of $0.3 million to the reserves relating to prior years, which was the result of ongoing analysis of recent payment trends. The Company's adjustments to decrease prior year reserves were $0.2 million and $0.1 million as a result of analysis of payment trends in each of the years ended December 31, 2017 and 2016, respectively.

Veterinary invoice expenses

In the following tables, the cumulative number of veterinary invoices represents the total number received as of December 31, 2018, by year the veterinary invoice relates to, referred to as the year of occurrence. If a pet is injured or becomes ill, multiple trips to the veterinarian may result in several invoices. Each of these veterinary invoices is included in the cumulative number, regardless of whether the veterinary invoice was paid. Information for years 2015 through 2017 is provided as required supplementary information. Amounts in these tables are presented on a constant currency basis to remove the impact of changes in the foreign currency exchange rate on development. The cumulative expenses as of the end of each year are revalued using the currency exchange rate as of December 31, 2018.

The following table summarizes the development of veterinary invoice expense, on a constant currency basis, for the Company's subscription business segment by year of occurrence (in thousands, except for cumulative number of veterinary invoices data):

	Cumulative veterinary invoice expenses				**Reserve**	**Cumulative number of veterinary invoices**
	As of December 31,				**As of December 31,**	
Subscription	**2015**	**2016**	**2017**	**2018**	**2018**	**2018**
Year of Occurrence	*(unaudited)*	*(unaudited)*	*(unaudited)*			
2015	$94,138	$94,691	$94,749	$94,797	$72	479,172
2016		$123,202	$122,990	$123,072	$271	595,563
2017			$154,209	$154,497	$995	715,375
2018				$188,825	$12,537	800,074
				$561,191	$13,875	

The following table summarizes the development of veterinary invoice expense, on a constant currency basis, for the Company's other business segment by year of occurrence (in thousands, except for cumulative number of veterinary invoices data):

	Cumulative veterinary invoice expenses				**Reserve**	**Cumulative number of veterinary invoices**
	As of December 31,				**As of December 31,**	
Other Business	**2015**	**2016**	**2017**	**2018**	**2018**	**2018**
Year of Occurrence	*(unaudited)*	*(unaudited)*	*(unaudited)*			
2015	$7,973	$7,845	$7,849	$7,857	$2	46,950
2016		$9,027	$8,842	$8,855	$4	59,493
2017			$14,735	$14,417	$12	105,171
2018				$23,775	$2,169	160,393
				$54,904	$2,187	

Cumulative paid veterinary invoice expense

In the following tables, amounts are by year the veterinary invoice relates to, referred to as the year of occurrence. Amounts in these tables are presented on a constant currency basis to remove the impact of changes in the foreign currency exchange rate. The cumulative amounts paid as of the end of each year are revalued using the currency exchange rate as of December 31, 2018. Information for years 2015 through 2017 is provided as required supplementary information.

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The following table summarizes the amounts paid for veterinary invoices, inclusive of related internal processing costs and reported on a constant currency basis, for the subscription segment (in thousands):

	Year Ended December 31,			
Subscription	**2015**	**2016**	**2017**	**2018**
Year of Occurrence	*(unaudited)*	*(unaudited)*	*(unaudited)*	
2015	$88,808	$94,406	$94,621	$94,725
2016		$115,045	$122,461	$122,802
2017			$143,958	$153,502
2018				$176,288
				$547,317
Total amounts unpaid and recorded as a liability				$13,875

The following table summarizes the amounts paid for veterinary invoices, inclusive of related internal processing costs and reported on a constant currency basis, for the other business segment (in thousands):

	Year Ended December 31,			
Other Business	**2015**	**2016**	**2017**	**2018**
Year of Occurrence	*(unaudited)*	*(unaudited)*	*(unaudited)*	
2015	$7,085	$7,841	$7,849	$7,855
2016		$8,048	$8,831	$8,851
2017			$13,050	$14,405
2018				$21,606
				$52,717
Total amounts unpaid and recorded as a liability				$2,187

10. Debt

In June 2018, the Company amended its credit agreement, increasing its borrowing capacity from $30.0 million to $50.0 million, extending the maturity date to June 2021, and increasing the required amount of restricted cash. The facility is secured by any and all interests in the Company's assets that are not otherwise restricted. Interest on the revolving line of credit is payable monthly at the greater of 4.5% or 1.25% plus the prime rate (6.75% at December 31, 2018). The credit agreement includes other ancillary services and letters of credit of up to $4.5 million, and requires a deposit of restricted cash of $1.4 million. As of December 31, 2018, the Company was in compliance with all financial and non-financial covenants required by the credit agreement.

Borrowings on the revolving line of credit were limited to the lesser of $50.0 million or the total amount of cash and securities held by the Company's insurance subsidiaries (American Pet Insurance Company and Wyndham Insurance Company (SAC) Limited Segregated Account AX) as of December 31, 2018 and 2017. As of December 31, 2018, available borrowing capacity on the line of credit was $36.6 million, with an outstanding balance of $0.4 million for ancillary services and letters of credit, and borrowings under the facility of $13.0 million, recorded net of financing fees of $0.1 million.

11. Stock-Based Compensation

Stock-based compensation expense includes stock options, restricted stock awards, and restricted stock units granted to employees and non-employees and has been reported in the Company's consolidated statements of operations depending on the function performed by the employee or non-employee. Stock-based compensation expense recognized in each category of the consolidated statement of operations for the years ended December 31, 2018, 2017 and 2016 was as follows (in thousands):

	Year Ended December 31,		
	2018	2017	2016
Veterinary invoice expense	$571	$355	$234
Other cost of revenue	356	239	41
Technology and development	209	216	246
General and administrative	2,304	1,887	1,893
Sales and marketing	1,335	722	532
Total stock-based compensation	$4,775	$3,419	$2,946

As of December 31, 2018, the Company had 475,368 unvested stock options and 451,160 unvested restricted stock awards and restricted stock units. Total stock-based compensation expense of $3.1 million related to unvested stock options and $7.8 million related to unvested restricted stock awards and restricted stock units is expected to be recognized over a weighted-average period of approximately 1.9 years and 2.6 years, respectively.

Stock Options

The grant date fair value of stock option awards are estimated on the date of grant using the Black-Scholes option-pricing model. The Company did not grant any stock options during the year ended December 31, 2018. For the years ended December 31, 2017 and 2016, valuation assumptions are presented in the following table:

	Year Ended December 31,	
	2017	2016
Valuation assumptions:		
Expected term (in years)	6.25	5.04-6.25
Expected volatility	37.1%-39.8%	37.6%-42.1%
Risk-free interest rate	1.8%-2.2%	1.1%-2.0%
Expected dividend yield	—%	—%

The following table presents information regarding stock options granted, exercised and forfeited for the periods presented:

	Number of Options	Weighted Average Exercise Price per Share	Aggregate Intrinsic Value (in thousands)
Outstanding as of January 1, 2016	4,871,949	$ 3.71	$ 29,644
Granted	666,664	13.37	—
Exercised	(1,119,367)	3.35	11,980
Forfeited	(296,223)	8.14	—
Outstanding as of December 31, 2016	4,123,023	5.06	43,185
Granted	657,339	17.74	—
Exercised	(670,823)	3.80	10,392
Forfeited	(103,140)	12.25	—
Outstanding as of December 31, 2017	4,006,399	7.16	88,578
Granted	—	—	—
Exercised	(1,292,037)	2.82	36,625
Forfeited	(92,859)	15.36	—
Outstanding as of December 31, 2018	2,621,503	9.01	43,136
Exercisable at December 31, 2018	2,146,135	$ 7.46	$ 38,642

As of December 31, 2018, stock options outstanding and stock options exercisable had a weighted average remaining contractual life of 5.6 years and 5.0 years, respectively.

The weighted-average grant date fair value per share and the fair value of options vested were as follows for the years ended December 31, 2018, 2017, and 2016:

	Weighted Average Grant Date Fair Value per Share	Fair Value of Options Vested (in thousands)
Year:		
2016	$ 5.64	$ 4,645
2017	$ 7.25	$ 6,313
2018	$ —	$ 2,665

Restricted Stock Awards and Restricted Stock Units

The below table summarizes the Company's restricted stock award and restricted stock unit activity for the years ended December 31, 2018, 2017 and 2016:

	Number of Shares	Weighted Average Grant Date Fair Value per Share
Unvested shares as of January 1, 2016	467,508	$4.77
Granted	—	—
Vested	(116,877)	4.77
Forfeited	—	—
Unvested shares as of December 31, 2016	350,631	4.77
Granted	23,659	30.19
Vested	(116,877)	4.77
Forfeited	(571)	30.19
Unvested shares as of December 31, 2017	256,842	4.77
Granted	375,313	28.10
Vested	(149,213)	9.74
Forfeited	(31,782)	28.57
Unvested shares as of December 31, 2018	451,160	$22.16

12. Real Estate

In August 2018, the Company purchased real property that houses the company headquarters located at 6100 Fourth Avenue South, Seattle, Washington. The purchase price was $65.2 million, consisting of $55.0 million in cash, 303,030 shares of common stock with an estimated fair value of $9.6 million, and transaction costs totaling $0.6 million. The issued shares are subject to a lock-up period that continues to and includes June 25, 2020. The fair value of the issued shares was estimated as of the closing date for the real estate acquisition using the Black-Scholes option pricing model and the following assumptions:

Assumptions	August 9, 2018 Fair Value
Risk free interest rate	2.5 %
Expected volatility	36.72%
Expected life (years)	1.88
Expected dividend yield	— %

The purchase price was allocated to the following assets based on estimates of their relative fair value (in thousands):

Building and improvements	$46,379
Land and improvements	15,833
Lease-related intangible assets	2,959
Total purchase price	65,171

13. Stockholders' Equity

As of December 31, 2018, the Company had 100,000,000 shares of common stock authorized and 34,025,136 shares of common stock outstanding. Holders of common stock are entitled to one vote on each matter properly submitted to the stockholders of the Company except those related to matters concerning possible outstanding preferred stock. At December 31, 2018, the Company had 10,000,000 shares of undesignated shares of preferred stock authorized for future issuance and did not have any outstanding shares of preferred stock. The holders of common stock are also entitled to receive dividends as and when declared by the board of directors of the Company, whenever funds are legally available. These rights are subordinate to the dividend rights of holders of all classes of stock outstanding at the time. The Company is unable to pay dividends to stockholders as of December 31, 2018 due to restrictions in its credit agreements.

Warrants

During the year ended December 31, 2018, 330,000 of the Company's outstanding warrants were exercised. Warrants to purchase 480,000 shares of the Company's common stock at $10.00 per share remained outstanding at December 31, 2018, which expire in 2019.

14. Segments

The Company has two segments: subscription business and other business. The subscription business segment includes monthly subscription fees related to the Company's medical insurance which is marketed directly to consumers, while the other business segment includes all other business that is not directly marketed to consumers. The chief operating decision maker uses two measures to evaluate segment performance: revenue and gross profit. Additionally, other operating expenses, such as sales and marketing expenses, are allocated to each segment and evaluated when material. Interest and other expenses and income taxes are not allocated to the segments, nor included in the measure of segment profit or loss. The Company does not analyze discrete segment balance sheet information related to long-term assets.

Revenue and gross profit of the Company's segments were as follows (in thousands):

	Year Ended December 31,		
	2018	2017	2016
Revenue:			
Subscription business	$263,738	$218,354	$173,356
Other business	40,218	24,313	14,874
	303,956	242,667	188,230
Veterinary invoice expense:			
Subscription business	191,051	155,554	124,636
Other business	23,488	14,568	8,898
	214,539	170,122	133,534
Other cost of revenue:			
Subscription business	24,941	21,329	16,685
Other business	13,110	8,166	4,723
	38,051	29,495	21,408
Gross profit:			
Subscription business	47,746	41,471	32,035
Other business	3,620	1,579	1,253
	51,366	43,050	33,288
Technology and development	9,248	9,768	9,534
General and administrative	18,164	16,820	15,205
Sales and marketing:			
Subscription business	24,622	18,886	15,029
Other business	377	218	218
	24,999	19,104	15,247
Operating loss	$(1,045)	$(2,642)	$(6,698)

The following table presents the Company's revenue by geographic region of the member (in thousands):

	Year Ended December 31,		
	2018	2017	2016
United States	$246,280	$195,297	$151,361
Canada	57,676	47,370	36,869
Total revenue	$303,956	$242,667	$188,230

Substantially all of the Company's long-lived assets were located in the United States as of December 31, 2018 and 2017.

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15. Dividend Restrictions and Statutory Surplus

The Company's business operations are conducted through subsidiaries, one of which is an insurance company domiciled in New York, American Pet Insurance Company, and one of which is a segregated cell business, Wyndham Segregated Account AX, located in Bermuda. In addition to general state law restrictions on payments of dividends and other distributions to stockholders applicable to all corporations, insurance companies are subject to further regulations that, among other things, may require such companies to maintain certain levels of equity and restrict the amount of dividends and other distributions that may be paid to their parent corporations.

New York law restricts the ability of the Company's insurance subsidiary in New York to pay dividends to its holding company parent. These restrictions are based in part on the prior year's statutory income and surplus. In general, dividends up to specified levels are considered ordinary and may be paid without prior approval, and dividends in larger amounts, or extraordinary dividends, are subject to approval by the New York State Department of Financial Services, the subsidiary's primary regulator. An extraordinary dividend or distribution is defined as a dividend or distribution that, in the aggregate in any 12-month period, exceeds the lesser of (i) 10% of surplus as of the preceding December 31 or (ii) the insurer's adjusted net investment income for such 12-month period, not including realized capital gains. Under regulatory requirements at December 31, 2018, the amount of dividends that may be paid by the Company's insurance subsidiary in New York to the Company without prior approval by regulatory authorities was $0.7 million. This insurance subsidiary did not pay dividends to the Company during the years ended December 31, 2018, 2017, and 2016.

The Company's insurance subsidiary in Bermuda is regulated by the Bermuda Monetary Authority. Under the Bermuda Companies Act of 1981, as amended, a Bermuda company may not declare or pay a dividend or make a distribution out of contributed surplus if there are reasonable grounds for believing that: (a) the company is, or would be after the payment, unable to pay its liabilities as they become due; or (b) the realizable value of the company's assets would thereby be less than its liabilities. The Segregated Accounts Company Act of 2000 further requires that dividends out of a segregated account can only be paid to the extent that the cell remains solvent. The value of its assets must remain greater than the aggregate of its liabilities, issued share capital, and share premium accounts. Per our contractual agreements with Wyndham Insurance Company (SAC) Limited, the allowable dividend is equivalent to the positive undistributed profit attributable to the shares. This insurance subsidiary paid the Company a dividend of $2.2 million and $2.7 million during the years ended December 31, 2018 and 2017, respectfully. No dividends were paid during the year ended December 31, 2016.

The statutory net income for 2018, 2017 and 2016 and statutory capital and surplus at December 31, 2018, 2017 and 2016, for the Company's insurance subsidiary in New York were as follows (in thousands):

	As of December 31,		
	2018	2017	2016
Statutory net income	$11,021	$7,507	$4,081
Statutory capital and surplus	56,244	37,190	30,451

As of December 31, 2018, the Company's insurance subsidiary in New York maintained $56.2 million of statutory capital and surplus which was above the required amount of $53.4 million of statutory capital and surplus to avoid additional regulatory oversight. The increase in statutory capital and surplus as of December 31, 2018 was due to the Company having sufficient history for its average historical loss and loss adjustment expense ratio to be used in the risk-based capital calculation. In prior periods, this calculation used industry average ratios due to having less than ten years of historical data.

As of December 31, 2018, the Company had $6.7 million on deposit with various states in which it writes policies.

16. Income Taxes

Loss before income taxes was as follows for the years ended December 31, 2018, 2017 and 2016 (in thousands):

	Year Ended December 31,		
	2018	2017	2016
United States	$(1,054)	$(1,965)	$(6,906)

Foreign	120	34	48
	$(934)	$(1,931)	$(6,858)

The components of income tax (benefit) expense were as follows (in thousands):

	Year Ended December 31,		
	2018	2017	2016
Current:			
U.S. federal & state	$(10)	$183	$25
Foreign	37	15	13
	27	198	38
Deferred:			
U.S. federal & state	(32)	(620)	—
Foreign	(2)	(6)	—
	(34)	(626)	—
Income tax (benefit) expense	$(7)	$(428)	$38

On December 22, 2017, the Tax Cuts and Jobs Act of 2017 (the “Tax Act”) was signed into law making significant changes to the Internal Revenue Code, including, but not limited to, a corporate tax rate decrease to 21% effective January 1, 2018. In accordance with Staff Accounting Bulletin No. 118 ("SAB 118"), the Company recorded a $0.6 million income tax benefit in the prior year as an estimate in relation to remeasurement of its deferred tax liabilities. The Company has now finalized its analysis of the Tax Act's impact and no change to the estimated income tax benefit recorded at December 31, 2017 is required.

A reconciliation of income tax expense at the statutory federal income tax rate and income taxes as reflected in the financial statements is presented below:

	Year Ended December 31,		
	2018	2017	2016
Federal income taxes at statutory rate	21.0 %	34.0 %	34.0 %
U.S. state income taxes	4.6	(9.5)	(0.6)
Equity compensation	828.5	189.1	7.7
Change in valuation allowance	(857.4)	(229.6)	(40.5)
Meals and entertainment	(5.4)	(3.0)	(0.9)
Other, net	(10.7)	2.0	(0.3)
Change in federal tax rate	—	32.1	—
Credits	20.2	7.1	—
Effective income tax rate	0.8 %	22.2 %	(0.6)%

The principal components of the Company's deferred tax assets and liabilities were as follows (in thousands):

	Year Ended December 31,	
	2018	2017
Deferred tax assets:		
Deferred revenue	$ 1,371	$ 966
Accruals and reserves	475	606
Net operating loss carryforwards	26,566	18,211
Depreciation and amortization	346	317
Equity compensation	1,690	1,024
Credits	397	208
Other	180	270
Total deferred tax assets	31,025	21,602
Deferred tax liabilities:		
Deferred costs	(279)	(183)
Intangible assets	(1,002)	(1,002)
Total deferred tax liabilities	(1,281)	(1,185)
Total deferred taxes	29,744	20,417
Less deferred tax asset valuation allowance	(30,701)	(21,419)
Net deferred tax liability	$ (957)	$ (1,002)

At December 31, 2018, the Company had federal net operating loss carryforwards of $121.1 million and federal credits of $0.4 million. Use of the carryforwards is limited based on the future income of the Company. The federal net operating loss carryforwards currently would begin to expire in 2027. Pursuant to Sections 382 and 383 of the Internal Revenue Code, annual use of the Company's net operating loss carryforwards and credit carryforwards may be limited if the Company experiences an ownership change. As of December 31, 2018, the utilization of approximately $0.5 million of net operating losses are subject to limitation as a result of prior ownership changes; however, subsequent ownership changes may further affect the limitation in future years.

A valuation allowance is required to reduce the deferred tax assets reported if, based on the weight of available evidence, it is more likely than not that some portion or all of the deferred tax assets will not be realized. After consideration of all the evidence, both positive and negative, the Company has recorded a full valuation allowance against its U.S. Federal deferred tax assets as of December 31, 2018 and 2017 because the Company's management has determined that it is more likely than not that these assets will not be fully realized.

The Company intends to reinvest all foreign earnings indefinitely outside of the U.S.

The Tax Act implemented a new tax on foreign subsidiary income referred to as the Global Intangible Low-Taxed Income ("GILTI"). The Company is recording GILTI on a current basis and not booking deferred taxes related to GILTI.

The Company is open to examination by the U.S. federal tax jurisdiction for the years ended December 31, 2015 through 2018. The Company is also open to examination for 2007 and forward with respect to net operating loss carryforwards generated and carried forward from those years in the United States. The Company is open to examination by the Canada Revenue Agency for the years ended December 31, 2014 through 2018 for all corporate tax matters, and open for the years ended December 31, 2011 through 2018 for transactions with non-arm's length non-Canadian residents.

The Company accounts for uncertain tax positions based on a two-step process of evaluating recognition and measurement criteria. The first step assesses whether the tax position is more likely than not to be sustained upon examination by the taxing authority, including resolution of any appeals or litigation, on the basis of the technical merits of the position. If the tax position meets the more-likely-than-not criteria, the portion of the tax benefit greater than 50% likely to be realized upon settlement with the relevant tax authority is recognized in the financial statements. No significant changes in uncertain tax positions are expected in the next twelve months.

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A reconciliation of the beginning and ending amount of gross unrecognized tax benefits is as follows (in thousands):

	Year Ended December 31,		
	2018	2017	2016
Balance, beginning of year	$327	$120	$80
Increases (decreases) to tax positions related to prior periods	(243)	91	—
Increases to tax positions related to the current year	5	116	40
Balance, end of year	$89	$327	$120

17. Employee Benefits

The Company has a 401(k) plan for its U.S. employees. The plan allows employees to contribute a percentage of their pretax earnings annually, subject to limitations imposed by the Internal Revenue Service. The plan also allows the Company to make a matching contribution, subject to certain limitations. To date, the Company has made no contributions to the 401(k) plan.

18. Quarterly Financial Information (Unaudited)

The following table contains quarterly financial data for the years ended December 31, 2018 and 2017 (in thousands, except per share data). The unaudited quarterly information has been prepared on a basis consistent with the audited consolidated financial statements and includes all adjustments that the Company considers necessary for a fair presentation of the information shown. The operating results for any fiscal quarter are not necessarily indicative of the operating results for a full fiscal year or any future period and there can be no assurances that any trend reflected in such results will continue in the future.

	Three Months Ended							
	Dec. 31, 2018	Sept. 30, 2018	Jun. 30, 2018	Mar. 31, 2018	Dec. 31, 2017	Sept. 30, 2017	Jun. 30, 2017	Mar. 31, 2017
Total revenues	$82,640	$ 78,164	$ 73,392	$ 69,760	$ 66,545	$ 63,118	$ 58,275	$ 54,729
Gross profit	14,205	13,744	12,353	11,064	11,737	11,807	10,351	9,155
Net (loss) income	(275)	1,205	(377)	(1,480)	(838)	406	411	(1,482)
Net (loss) income per share:								
Basic	(0.01)	0.04	(0.01)	(0.05)	(0.03)	0.01	0.01	(0.05)
Diluted	(0.01)	0.03	(0.01)	(0.05)	(0.03)	0.01	0.01	(0.05)
Weighted-average common shares outstanding:								
Basic	33,716,975	33,129,416	30,721,037	30,246,585	29,847,574	30,037,282	29,510,907	29,254,681
Diluted	33,716,975	36,385,360	30,721,037	30,246,585	29,847,574	33,113,981	32,734,624	29,254,681

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

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 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 on such evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that as of such date, our disclosure controls and procedures were effective.

Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined under Rule 13a-15(f) and 15d-15(f) under the Exchange Act. Management has assessed the effectiveness of its internal control over financial reporting as of December 31, 2018 based on the criteria established in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework). As a result of this assessment, management concluded that, as of December 31, 2018, its internal control over financial reporting was effective in providing reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with U.S. generally accepted accounting principles. Ernst & Young has independently assessed the effectiveness of the Company's internal control over financial reporting and its report is included below.

Changes in Internal Control

There were no changes in our internal control over financial reporting identified in management's evaluation pursuant to Rules 13a-15(d) or 15d-15(d) of the Exchange Act during the quarter ended December 31, 2018 that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Limitations on Effectiveness of Controls and Procedures

In designing and evaluating the disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives. In addition, the design of disclosure controls and procedures must reflect the fact that there are resource constraints and that management is required to apply judgment in evaluating the benefits of possible controls and procedures relative to their costs.

Report of Independent Registered Public Accounting Firm

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

Opinion on Internal Control over Financial Reporting

We have audited Trupanion, 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, Trupanion, Inc. (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2018 and 2017, the related consolidated statements of operations, comprehensive loss, changes in 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 at Item 15(a) and our report dated February 14, 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
Seattle, Washington
February 14, 2019

Item 9B. Other Information

On February 11, 2019, the Leadership Development and Compensation Committee of the Board of Directors of Trupanion (Committee), adopted the Compensation Clawback Policy, the On-Going Severance Policy for CEO and Key Senior Leaders (Ongoing Severance Policy) and the Change of Control Policy for Select Officers and Key Leaders (Change of Control Policy).

The Compensation Clawback Policy covers all employees as determined by the Committee. If such employees receive any bonus, equity-based awards or other incentive compensation, and the Committee determines that a triggering event has occurred, the Committee may require the employee to forfeit, return or adjust incentive compensation. Triggering events generally include an accounting restatement due to material noncompliance with financial reporting requirements; an extraordinary financial loss, reputational damage or other adverse impact as a result of actions made by the employee; and the award or receipt of covered compensation based on significantly incorrect financial calculations.

The Ongoing Severance Policy and the Change of Control Policy both provide certain economic benefits to specified members of management (Key Senior Leaders) in the event their employment is terminated by the Company without cause (Qualifying Termination). Under the On-Going Severance Policy, in the event of a Qualifying Termination and subject to the Key Senior Leader’s execution of a valid separation agreement, including a full and unconditional release of claims, a Key Senior Leader would receive six months of salary continuation and earned bonuses, and six months of welfare benefits.

Under the Change of Control Policy, in the event of a Qualifying Termination six (6) months prior to or twenty-four (24) months following a Change of Control and subject to the applicable Key Senior Leader’s execution of a valid separation agreement, including a full and unconditional release of claims, a Key Senior Leader would receive a lump sum payment equal to the Key Senior Leader’s base salary for 12 months; a lump sum payment equal to the Key Senior Leader’s bonus; the cash value of an equity earned but not yet issued; acceleration of all unvested time based equity awards; and welfare benefits for 12 months.

In addition, under the Change of Control Policy, a Key Senior Leader who is not subject to a covered termination will either have their equity awards earned but not yet issued replaced by substantially similar awards issued by the acquirer or receive the cash value of such awards.

The foregoing description is a summary of the material terms of the Compensation Clawback Policy, the On-Going Severance Policy and the Change of Control Policy, does not purport to be complete, and is qualified in its entirety by reference to the policies, which are filed as Exhibit 10.22, 10.23, and 10.24 to this Form 10-K and are incorporated by reference herein.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

Information required by this item is incorporated herein by reference to our Proxy Statement with respect to our 2019 Annual Meeting of Stockholders to be filed with the SEC within 120 days of the end of the fiscal year covered by this Annual Report.

Item 11. Executive Compensation

Information required by this item is incorporated herein by reference to our Proxy Statement with respect to our 2019 Annual Meeting of Stockholders to be filed with the SEC within 120 days of the end of the fiscal year covered by this Annual Report.

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

Information required by this item is incorporated herein by reference to our Proxy Statement with respect to our 2019 Annual Meeting of Stockholders to be filed with the SEC within 120 days of the end of the fiscal year covered by this Annual Report.

Item 13. Certain Relationships and Related Transactions and Director Independence

Information required by this item is incorporated herein by reference to our Proxy Statement with respect to our 2019 Annual Meeting of Stockholders to be filed with the SEC within 120 days of the end of the fiscal year covered by this Annual Report.

Item 14. Principal Accountant Fees and Services

Information required by this item is incorporated herein by reference to our Proxy Statement with respect to our 2019 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year covered by this Annual Report.

PART IV

Item 15. Exhibits, Financial Statement Schedules

(a)(1) Financial Statements

We have filed the financial statements listed in the Index to Financial Statements as a part of this Annual Report on Form 10-K.

(a)(2) Financial Statement Schedules

Schedule I Condensed Financial Information of Registrant

No other financial statement schedules have been provided because the information called for is not required or is shown either in the financial statements or notes thereto.

(a)(3) Exhibits

The list of exhibits included in the Exhibit Index to this Annual Report on Form 10-K is incorporated herein by reference.

Item 16. Form 10-K Summary

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, in the city of Seattle, state of Washington, on this 14th day of February, 2019.

TRUPANION, INC.

By: /s/ Darryl Rawlings
Darryl Rawlings
Chief Executive Officer and President

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Darryl Rawlings, Tricia Plouf and Asher Bearman, and each of them, as his or her true and lawful attorneys-in-fact, proxies and agents, each with full power of substitution, for him or her in any and all capacities, to sign any and all amendments to this Annual Report on Form 10-K, and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact, proxies and agents full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully for all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact, proxies and agents, or their or his or her substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Date: February 14, 2019 /s/ Darryl Rawlings
Darryl Rawlings
Chief Executive Officer and President
(Principal Executive Officer)

Date: February 14, 2019 /s/ Tricia Plouf
Tricia Plouf
Chief Financial Officer
(Principal Financial and Accounting Officer)

Date: February 14, 2019 /s/ Murray Low
Murray Low
Chairman of the Board of Directors

Date: February 14, 2019 /s/ Chad Cohen
Chad Cohen
Director

Date: February 14, 2019 /s/ Jacqueline Davidson
Jacqueline Davidson
Director

Date: February 14, 2019 /s/ Michael Doak
Michael Doak
Director

Date: February 14, 2019 /s/ Robin Ferracone
Robin Ferracone
Director

Date: February 14, 2019 /s/ Dan Levitan
Dan Levitan
Director

Date: February 14, 2019 /s/ H. Hays Lindsley
H. Hays Lindsley
Director

Date: February 14, 2019 /s/ Howard Rubin
Howard Rubin
Director

EXHIBIT INDEX

The following exhibits are filed as part of this Annual Report on Form 10-K or are incorporated herein by reference.

Exhibit		Incorporated by Reference				Filed/Furnished
Number	Exhibit Description	Form	File No.	Exhibit	Exhibit Filing Date	Herewith
3.1	Restated Certificate of Incorporation of the Registrant.	10-Q	001-36537	3.1	8/28/2014	
3.2	Certificate of Amendment to the Restated Certificate of Incorporation of the Registrant.	8-K	001-36537	3.1	6/3/2016	
3.3	Restated Bylaws of the Registrant.	10-Q	001-36537	3.2	8/28/2014	
4.1	Form of Common Stock Certificate.	S-1	333-196814	4.1	6/16/2014	
4.2	Third Amended and Restated Registration Rights Agreement, dated October 25, 2011, by and among the Registrant and certain of its stockholders, as amended.	S-1	333-196814	4.4	6/16/2014	
10.1+	Form of Indemnity Agreement.	S-1	333-196814	10.1	6/16/2014	
10.2+	2007 Equity Compensation Plan and forms of stock option agreements and exercise notices, restricted stock notice agreement and restricted stock agreement thereunder.	S-1	333-196814	10.2	6/16/2014	
10.3+	2014 Equity Incentive Plan and forms of stock option award agreement, restricted stock agreement and restricted stock unit award agreement thereunder.	S-1	333-196814	10.3	6/16/2014	
10.4+	2014 Employee Stock Purchase Plan.	S-1	333-196814	10.4	6/16/2014	
10.5+	Amended and Restated Employment Agreement, dated April 20, 2007, by and between the Registrant and Darryl Rawlings.	S-1	333-196814	10.6	6/16/2014	
10.6+	Consulting Agreement, dated May 5, 2014, by and between the Registrant and Howard Rubin.	S-1	333-196814	10.8	6/16/2014	
10.7+	First Amendment to Consulting Agreement, dated January 1, 2016, by and between the Registrant and Howard Rubin.	10-Q	001-36537	10.2	5/5/2016	
10.8+	Second Amendment to Consulting Agreement, dated January 1, 2017 by and between the Registrant and Howard Rubin.	10-K	001-36537	10.13	2/15/2017	
10.9	Senior Credit Facility Loan and Security Agreement, entered into as of December 16, 2016 between Pacific Western Bank, Western Alliance Bank and the Registrant.	10-K	001-36537	10.15	2/15/2017	
10.10	First Amendment to Senior Credit Facility Loan and Security Agreement, dated March 31, 2017 between Pacific Western Bank, Western Alliance Bank and the Registrant.	10-Q	001-36537	10.1	5/2/2017	
10.11	Second Amendment to Senior Credit Facility Loan and Security Agreement, dated September 28, 2017 between Pacific Western Bank,	10-Q	001-36537	10.1	11/2/2017	

	Western Alliance Bank and the Registrant.				
10.12	Real Estate Purchase and Sale Agreement, dated June 19, 2018, between the Registrant and Benaroya Capital Company, L.L.C.	8-K	001-36537	10.1	6/20/2018
10.13	Third Amendment to Senior Credit Facility Loan and Security Agreement, dated June 28, 2018, between Pacific Western Bank, Western Alliance Bank and the Registrant.	10-Q	001-36537	10.1	8/3/2018

10.14	Joinder to Loan and Security Agreement and Amendment and Restated Revolving Note, dated August 6, 2018, between Pacific Western Bank, Western Alliance Bank, Trupanion Managers USA, Inc. and Trupanion-APIC, LLC.	10-Q	001-36537	10.2	11/9/2018	
10.15	Agency Agreement between Omega General Insurance Company and Trupanion Brokers Ontario, Inc., effective January 1, 2015.	10-K	001-36537	10.13	2/24/2015	
10.16	Fronting and Administration Agreement between Wyndham Insurance Company (SAC) Limited and Omega General Insurance Company, effective January 1, 2015.	10-K	001-36537	10.14	2/24/2015	
10.17	Quota Share Reinsurance Agreement between Wyndham Insurance Company (SAC) Limited and Omega General Insurance Company, effective January 1, 2015.	10-K	001-36537	10.15	2/24/2015	
10.18	Quota Share Reinsurance Agreement between Wyndham Insurance Company (SAC) Limited and Omega General Insurance Company, effective January 1, 2018.	10-K	001-36537	10.20	2/14/2018	
10.19	Quota Share Reinsurance Agreement between Wyndham Insurance Company (SAC) Limited and Omega General Insurance Company, effective January 1, 2019.					X
10.20+	Compensation Program for Non-Employee Directors of Trupanion, Inc, as amended on December 27, 2018.					X
10.21+	Compensation Clawback Policy, effective February 11, 2019.					X
10.22+	On-Going Severance Policy for CEO and Key Senior Leaders, effective February 11, 2019.					X
10.23+	Change of Control Policy for Select Officers and Key Leaders effective February 11, 2019.					X
21.1	Subsidiaries of the Registrant.					X
23.1	Consent of independent registered public accounting firm.					X
24.1	Power of Attorney (reference is made to the signature page hereto).					X
31.1	Certification of Principal Executive Officer, pursuant to Rule 13a-14(a)/15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.					X
31.2	Certification of Principal Financial Officer, pursuant to Rule 13a-14(a)/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	XBRL Instance Document - the instance does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.					X

101.SCH	XBRL Taxonomy Extension Schema Document.	X
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.	X
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.	X
101.LAB	XBRL Taxonomy Extension Label Linkbase Document.	X
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document.	X

+ Indicates a management contract or compensatory plan or arrangement.

† Registrant has omitted portions of the referenced exhibit pursuant to a request for confidential treatment under Rule 24b-2 promulgated under the Exchange Act. The omitted portions of this exhibit have been filed separately with the SEC.

* This certification is deemed not filed for purpose of section 18 of the Exchange Act or otherwise subject to the liability of that section, nor shall it be deemed incorporated by reference into any filing under the Securities Act or the Exchange Act.

Schedule I - Condensed Financial Information of Registrant
Trupanion, Inc.
Condensed Statements of Comprehensive Loss
(Parent Company Only, in thousands)

	Year Ended December 31,		
	2018	2017	2016
Expenses:			
Veterinary invoice expense	$571	$354	$269
Other cost of revenue	357	239	41
Technology and development	512	528	531
General and administrative	4,879	4,204	3,627
Sales and marketing	1,355	889	871
Total expenses	7,674	6,214	5,339
Operating loss	(7,674)	(6,214)	(5,339)
Interest expense	1,184	529	218
Other (income) expense, net	(2,557)	(4,101)	23
Loss before equity in undistributed earnings of subsidiaries	(6,301)	(2,642)	(5,580)
Income tax benefit	4,042	5,302	—
Equity (loss) in undistributed earnings of subsidiaries	1,332	(4,163)	(1,316)
Net loss	$(927)	$(1,503)	$(6,896)
Other comprehensive income (loss), net of taxes:			
Other comprehensive income (loss) of subsidiaries	(661)	285	125
Other comprehensive income (loss)	(661)	285	125
Comprehensive loss	$(1,588)	$(1,218)	$(6,771)

Trupanion, Inc.
Condensed Balance Sheets
(Parent Company Only)
(In thousands, except share data)

	December 31,	
	2018	**2017**
Assets		
Current assets:		
Cash and cash equivalents	$2,133	$1,105
Accounts and other receivables	2,094	2,261
Prepaid expenses and other assets	661	295
Total current assets	4,888	3,661
Restricted cash	1,400	600
Property and equipment, net	568	661
Intangible assets, net	5,076	4,795
Other long-term assets	6,515	2,488
Advances to and investments in subsidiaries	125,475	47,209
Total assets	$143,922	$59,414
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable, accrued liabilities, and other current liabilities	$885	$654
Total current liabilities	885	654
Long-term debt	12,862	9,324
Deferred tax liabilities	1,002	1,002
Other liabilities	—	—
Total liabilities	14,749	10,980
Stockholders' equity:		
Common stock: $0.00001 par value per share, 100,000,000 shares authorized at December 31, 2018 and December 31, 2017, 34,781,121 and 34,025,136 shares issued and outstanding at December 31, 2018; 30,778,796 and 30,121,496 shares issued and outstanding at December 31, 2017	—	—
Preferred stock: $0.00001 par value per share, 10,000,000 shares authorized at December 31, 2018 and December 31, 2017, and 0 shares issued and outstanding at December 31, 2018 and December 31, 2017	—	—
Additional paid-in capital	219,838	134,511
Accumulated other comprehensive loss	(753)	(92)
Accumulated deficit	(83,711)	(82,784)
Treasury stock, at cost: 755,985 shares at December 31, 2018 and 657,300 shares at December 31, 2017	(6,201)	(3,201)
Total stockholders' equity	129,173	48,434
Total liabilities and stockholders' equity	$143,922	$59,414

Trupanion, Inc.
Condensed Statements of Cash Flows
(Parent Company Only, in thousands)

	Year Ended December 31,		
	2018	2017	2016
Operating activities			
Net loss	$(927)	$(1,503)	$(6,896)
Adjustments to reconcile net loss to cash provided by (used in) operating activities:			
(Income) loss attributable to investments in subsidiaries	(1,332)	4,163	1,316
Depreciation and amortization	436	697	251
Stock-based compensation expense	4,775	3,419	2,946
Gain on sale of equity method investment	—	(1,036)	—
Other, net	108	(380)	58
Changes in operating assets and liabilities	(97)	743	1,742
Net cash provided by (used in) operating activities	2,963	6,103	(583)
Investing activities			
Proceeds from sale of equity method investment	—	1,402	—
Purchases of property and equipment	(164)	(135)	1
Advances to and investments in subsidiaries	(67,884)	(12,168)	(9,333)
Other investments	(4,237)	(2,668)	—
Net cash used in investing activities	(72,285)	(13,570)	(9,332)
Financing activities			
Proceeds from public offering of common stock, net of offering costs	65,671	—	—
Proceeds from exercise of stock options	3,601	2,545	3,745
Taxes paid related to net share settlement of equity awards	(1,839)	(1,170)	(662)
Proceeds from debt financing, net of financing fees	13,430	4,400	4,988
Repayments of debt financing	(10,000)	—	—
Other financing	287	(604)	(195)
Net cash provided by financing activities	71,150	5,170	7,876
Effect of foreign exchange rate changes on cash, cash equivalents, and restricted cash, net	—	—	—
Net change in cash, cash equivalents, and restricted cash	1,828	(2,297)	(2,039)
Cash, cash equivalents, and restricted cash at beginning of period	1,705	4,001	6,040
Cash, cash equivalents, and restricted cash at end of period	$3,533	$1,705	$4,001
Supplemental disclosures			
Interest paid	1,007	333	153
Noncash investing and financing activities:			
Property and equipment acquired under capital lease	—	471	—
Cashless exercise of common stock warrants	3,000	—	600
Issuance of common stock for acquisition of corporate real estate	9,640	—	—

1. Organization and Presentation

The accompanying condensed financial statements present the financial position, results of operations and cash flows for Trupanion, Inc. These condensed unconsolidated financial statements should be read in conjunction with the consolidated financial statements of Trupanion, Inc. and its subsidiaries and the notes thereto (the Consolidated Financial Statements). Investments in subsidiaries are accounted for using the equity method of accounting.

Trupanion, Inc. received cash dividends from a subsidiary of $2.2 million and $2.7 million for the years ended December 31, 2018 and 2017, respectively. These cash dividends were recorded within Trupanion, Inc.'s other income and were eliminated within the consolidated financial statements of Trupanion, Inc.

Additional information about Trupanion, Inc.’s accounting policies pertaining to intangible assets, commitments and contingencies, debt financing, stock-based compensation, stockholders’ equity, and income taxes are set forth in Notes 4, 8, 10, 11, 13, and 16, respectively, to the Consolidated Financial Statements.