

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

**FORM 10-K
Amendment No. 1**

(Mark One)

- 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**
- 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: 333-191132-02

APX Group Holdings, Inc.
(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

46-1304852
(I.R.S. Employer
Identification No.)

4931 North 300 West
Provo, UT
(Address of principal executive offices)

84604
(Zip Code)

Registrant's telephone number, including area code: (801) 377-9111

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

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

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

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

(Note: Since January 1, 2018 the registrant has been a voluntary filer not subject to the filing requirements of Section 13 or 15(d) of the Exchange Act; as a voluntary filer not subject to the filing requirements of Section 13 or Section 15(d) of the Exchange Act, the registrant filed all reports pursuant to Section 13 or 15(d) of the Exchange Act during the preceding 12 months as if it were subject to such filing requirements.)

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

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

amendment to this Form 10-K.

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

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

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

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

The aggregate market value of voting common stock held by non-affiliates of the registrant as of June 29, 2018, the last business day of the registrant's most recently completed second fiscal quarter, was zero.

As of March 5, 2019, there were 100 shares of the registrant's common stock par value \$0.01 per share, issued and outstanding.

EXPLANATORY NOTE

This Amendment No. 1 to APX Group Holdings, Inc.'s Annual Report on Form 10-K (the "Form 10-K") for the year ended December 31, 2018 is being filed solely for the purpose of (1) filing Exhibits 4.8, 10.18 and 10.31 to the Form 10-K, (2) correcting a clerical error in the disclosure under the heading "Risks Relating to Our Indebtedness" in Part I. Item 1A Risk Factors and (3) correcting a clerical error in Note 5 - Long-Term Debt to the Consolidated Financial Statements of APX Group Holdings, Inc. and Subsidiaries.

This amendment speaks as of the original filing date of the Form 10-K and does not reflect events that may have occurred subsequent to the original filing date.

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CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This annual report on Form 10-K includes forward-looking statements regarding, among other things, our plans, strategies and prospects, both business and financial. These statements are based on the beliefs and assumptions of our management. Although we believe that our plans, intentions and expectations reflected in or suggested by these forward-looking statements are reasonable, we cannot assure you that we will achieve or realize these plans, intentions or expectations. Forward-looking statements are inherently subject to risks, uncertainties and assumptions. Generally, statements that are not historical facts, including statements concerning our possible or assumed future actions, business strategies, events or results of operations, are forward-looking statements. These statements may be preceded by, followed by or include the words “believes,” “estimates,” “expects,” “projects,” “forecasts,” “may,” “will,” “should,” “seeks,” “plans,” “scheduled,” “anticipates” or “intends” or similar expressions. Forward-looking statements contained in this annual report on Form 10-K include, but are not limited to, statements about our ability to:

- accelerate adoption of our smart home solution;
- establish and grow through new subscriber acquisition channels;
- increase brand awareness;
- meet customer expectations and address key friction points for smart home adoption and use;
- expand our ecosystem with third-party and proprietary devices;
- reduce subscriber attrition;
- lower net subscriber acquisition costs;
- improve unit economics and grow subscription revenues per subscriber over time;
- increase new subscriber originations, customer usage, and customer satisfaction;
- develop, design, and sell our own Smart Home Services that are differentiated from those of our competitors;
- attract, train and retain an effective sales force and other key personnel;
- upgrade and maintain our information technology systems;
- acquire and protect intellectual property;
- meet future liquidity requirements and comply with restrictive covenants related to our long-term indebtedness;
- enhance our future operating and financial results;
- comply with laws and regulations applicable to our business; and
- successfully defend litigation brought against us.

Forward-looking statements are not guarantees of performance. You should not put undue reliance on these statements which speak only as of the date hereof. You should understand that the following important factors, in addition to those discussed in “Risk Factors” and elsewhere in this annual report on Form 10-K, could affect our future results and could cause those results or other outcomes to differ materially from those expressed or implied in our forward-looking statements:

- risks of the smart home and security industry, including risks of and publicity surrounding the sales, subscriber origination and retention process;
- the highly competitive nature of the smart home and security industry and product introductions and promotional activity by our competitors;
- litigation, complaints or adverse publicity;
- the impact of changes in consumer spending patterns, consumer preferences, local, regional, and national economic conditions, crime, weather, demographic trends and employee availability;
- adverse publicity and product liability claims;
- increases and/or decreases in utility and other energy costs, increased costs related to utility or governmental requirements;
- cost increases or shortages in smart home and security technology products or components;
- the introduction of unsuccessful new Smart Home Services;
- privacy and data protection laws, privacy or data breaches, or the loss of data; and
- the impact to our business, results of operations, financial condition, regulatory compliance and customer experience of the Vivint Flex Pay plan (as defined in Note 2 - Basis of Presentation in the consolidated financial statements) and our ability to successfully compete in retail sales channels.

In addition, the origination and retention of new subscribers will depend on various factors, including, but not limited to, market availability, subscriber interest, the availability of suitable components, the negotiation of acceptable contract terms with subscribers, local permitting, licensing and regulatory compliance, and our ability to manage anticipated expansion and to hire, train and retain personnel, the financial viability of subscribers and general economic conditions.

These and other factors that could cause actual results to differ from those implied by the forward-looking statements in this annual report on Form 10-K are more fully described in the “Risk Factors” section of this annual report on Form 10-K. The

risks described in the “Risk Factors” are not exhaustive. Other sections of this annual report on Form 10-K describe additional factors that could adversely affect our business, financial condition or results of operations. New risk factors emerge from time to time and it is not possible for us to predict all such risk factors, nor can we assess the impact of all such risk 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. All forward-looking statements attributable to us or persons acting on our behalf are expressly qualified in their entirety by the foregoing cautionary statements. We undertake no obligations to update or revise publicly any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

In addition, statements that “we believe” and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date of this annual report on Form 10-K, and while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain and you are cautioned not to unduly rely upon these statements.

WEBSITE AND SOCIAL MEDIA DISCLOSURE

We use our website (www.vivint.com), our company blog (blog.vivint.com), corporate Twitter and Instagram accounts (@VivintHome), and our corporate Facebook account (VivintHome) as channels of distribution of company information. The information we post through these channels may be deemed material. Accordingly, investors should monitor these channels, in addition to following our press releases, SEC filings and public conference calls and webcasts. In addition, you may automatically receive e-mail alerts and other information about the Company when you enroll your e-mail address by visiting the “Email Alerts” section of our website at www.investors.vivint.com. The contents of our website and social media channels are not, however, a part of this report.

BASIS OF PRESENTATION

As used in this annual report on Form 10-K, unless otherwise noted or the context otherwise requires:

- references to “Vivint,” “we,” “us,” “our” and “the Company” are to APX Group Holdings, Inc. and its consolidated subsidiaries;
- references to “2GIG” are to 2GIG Technologies, Inc., our affiliate;
- references to “Acquisition LLC” are to 313 Acquisition LLC, the Company's indirect parent;
- references to “AMRU” are to average monthly revenue per user, which consists of Total MR (as defined below) divided by average monthly Total Subscribers (as defined below) during a given period;
- references to “APX Group” are to APX Group, Inc., an indirect wholly-owned subsidiary of the Company;
- references to the “Consumer Financing Program” or “CFP” are to the program, launched in the first quarter of 2017 under the Vivint Flex Pay plan, pursuant to which we offer to qualified customers in the United States an opportunity to finance the purchase of Products (as defined below) and installation fees in connection with the services through a third-party financing provider;
- references to “Average Subscriber Lifetime” are to 100% divided by our expected long-term annualized attrition rate multiplied by 12 months;
- references to “DTH” are to our direct to home sales channels;
- references to “Existing Notes” are to the 8.75% Senior Notes due 2020 (“2020 notes”), 8.875% Senior Secured Notes due 2022 (“2022 private placement notes”), 7.875% Senior Secured Notes due 2022 (“2022 notes”) and 7.625% Senior Notes due 2023 (“2023 notes”). See “Management’s Discussion and Analysis of Financial Condition and Results of Operations-Liquidity and Capital Resources”;
- references to “Lifetime Service Revenue per New Subscriber” are to the total monthly Service revenue for New Subscribers divided by the number of New Subscribers, multiplied by Average Subscriber Lifetime;
- references to “Lifetime Service Revenue Multiple” are to Lifetime Service Revenue per New Subscriber divided by Net Subscriber Acquisition Costs per New Subscriber;
- references to “NIS” are to our national inside sales channels;
- references to “Products” are to our offering of smart home equipment including a proprietary control panel, door and window sensors, door locks, security cameras and smoke alarms;
- references to “Revolving Credit Facility” are to the senior secured revolving credit facility. See “Management’s Discussion and Analysis of Financial Condition and Results of Operations- Liquidity and Capital Resources-

- Revolving Credit Facility”;
- references to “RICs” are to retail installment contracts offered under the Vivint Flex Pay plan with respect to the purchase of Products and installation fees to certain of our customers who do not qualify for the CFP but qualify under our historical underwriting criteria;
 - references to “Services” are to our offering of smart home and security services;
 - references to “Smart Home as a Services,” or “SHaaS” are to our business model which generates subscription-based, high margin recurring revenue from customers who sign up for our Smart Home Services;
 - references to “Smart Home Operating System” are to the combination of the software inside our Products and our cloud-based software and mobile apps;
 - references to “Smart Home Pros” or “SHPs” are to our full-time smart home professionals who service our customers;
 - references to “Smart Home Services” are to our offering of smart home services combining Products and related installation, Services and our proprietary back-end cloud platform software;
 - references to “Solar” are to Vivint Solar, Inc., our affiliate;
 - references to “Sponsor” are to certain investment funds affiliated with The Blackstone Group L.P.;
 - references to “Net Subscriber Acquisition Costs per New Subscriber” are to the net cash cost to create new smart home and security subscribers during a given 12 month period divided by New Subscribers for that period. These costs include commissions, Products, installation, marketing, sales support and other allocations (general and administrative and overhead); less upfront payment received from the sale of Products associated with the initial installation, and installation fees. These costs exclude capitalized contract costs and upfront proceeds associated with contract modifications;
 - references to “2024 Term Loan B Agreement” refer to the credit agreement (the “Term Loan Agreement”), dated as of September 6, 2018, among us, certain of our subsidiaries, certain lenders party thereto and Bank of America, N.A., as administrative agent;
 - references to “Total Bookings” are to the total monthly Service revenue for New Subscribers multiplied by Average Subscriber Lifetime, plus total Product revenue to be recognized over the contract term from New Subscribers.
 - references to “Total MR” are to the average monthly total revenue recognized during the period;
 - references to “Total Subscribers” are to the aggregate number of active smart home and security subscribers at the end of a given period, excluding subscribers acquired under pilot programs;
 - references to “Total Subscriber Lifetime Backlog” are to total unrecognized Product revenue plus total Service revenue expected to be recognized over the remaining Subscriber Lifetime for Total Subscribers;
 - references to “Vivint Assist” are to our AI-driven smart home automation and assistance software that uses the data from our devices and partner devices;
 - references to the “Vivint Flex Pay” or “Flex Pay” plan are to the plan, introduced in January 2017, under which we launched the Consumer Financing Program and began to offer RICs as well as the option to pay in full at the time of purchase; and
 - references to “Vivint Smart Home App” or “Smart Home App” are to our application available on both Android and iOS which allows users to automate, control and monitor their smart home experience.

On November 16, 2012, APX Group and two of its affiliates, Solar and 2GIG, were acquired by an investor group comprised of certain investment funds affiliated with our Sponsor, and certain co- investors and management investors (the “Investor Group”). This acquisition was accomplished through certain mergers and related reorganization transactions (collectively, the “Merger” and, together with certain related financing transactions, the “Transactions”) pursuant to which each of APX Group, Solar and 2GIG became indirect wholly-owned subsidiaries of Acquisition LLC, an entity wholly-owned by the Investor Group. Upon the consummation of the Merger, APX Group and 2GIG became consolidated subsidiaries of Holdings, which in turn is wholly owned by the Issuer, which in turn is owned by Acquisition LLC, and Solar became a direct wholly-owned subsidiary of Acquisition LLC. Acquisition LLC, the Issuer and Holdings had no independent operations and were formed for the purpose of facilitating the Merger.

We completed the sale of 2GIG and its subsidiary (the “2GIG Sale”) to Nortek, Inc. on April 1, 2013. In connection with the 2GIG Sale, we entered into a five-year supply agreement with 2GIG, pursuant to which they are the exclusive provider of our control panel requirements, subject to certain exceptions as provided in the supply agreement. Due to our continuing involvement with 2GIG under the supply agreement, it was not considered a discontinued operation. As a result of the Transactions, while Solar was a variable interest entity through the date of Solar’s initial public offering in October 2014, we have not been its primary beneficiary since after the date of the Transactions. Accordingly, Solar has not been required to be included in the consolidated financial statements of the Company in periods following the date of the Transactions.

Unless specified otherwise, amounts in this annual report on Form 10-K are presented in United States (“U.S.”) dollars. Defined terms in the financial statements have the meanings ascribed to them in the financial statements.

PART I

ITEM 1. BUSINESS

Company Overview

We are a smart home technology company. Our mission is to redefine the home experience through intelligently designed cloud-enabled solutions delivered to every home by people who care. Our brand name, Vivint, represents “to live intelligently”, and our solutions help our subscribers do just that.

Creating a true smart home experience requires an end-to-end platform designed to drive broad consumer adoption. Our smart home platform is comprised of the following five pillars: (1) our Smart Home Operating System, (2) our AI-driven smart home automation and assistance software, Vivint Assist, (3) our portfolio of proprietary, internally developed smart devices, (4) our curated yet extensible partner-neutral ecosystem, and (5) our people delivering tech-enabled premium services, including consultative selling, professional installation, and support.

Our leading smart home platform currently has over 1.4 million subscribers and manages over 20 million in-home devices, processing over 1.3 billion home activity events each day, as of December 31, 2018. Using our solution, subscribers are able to interact with all aspects of their home with their voice or any mobile device-anytime, anywhere. They can engage with people at their front door; view live and recorded video inside and outside their home; control thermostats, locks, lights, and garage doors; and proactively manage the comings and goings of family, friends, and strangers. Our subscribers engage with our smart home apps approximately seven times per day on average.

The smart home market is an expanding global opportunity and in the very early stages of broad consumer adoption. We believe the smart home market is experiencing rapid evolution, which can be divided into three phases. The first phase is represented by the proliferation of stand-alone smart devices. The second phase takes those devices and connects them to the home. The third and final phase, which we believe is the most pivotal phase in the market's evolution, takes smart home technology and applies it to create a continually learning, automated, seamlessly integrated smart home experience.

The connected home, the second phase, has a multitude of devices and an operating system to coordinate them all within a single unified system. But integrating numerous different devices from different manufacturers that were not designed to work together is difficult, and often results in an experience that is complex, inconsistent, and unreliable. Moreover, DIY solutions put a large burden on homeowners to accurately and correctly install and support so many devices themselves. And while whole-home automation is possible, it requires users to write individual rules for each and every circumstance. Mass adoption of the connected home by those other than technology enthusiasts has been limited. Our software within the devices, in the cloud, and in our app all work together to help mainstream consumers simply and easily manage their homes.

We believe that we are in a critical transition period from the second phase to the third phase where the key challenges related to the connected home offerings are overcome by a smart home experience, which we enable through our end-to-end smart home platform.

In this third phase, a smart home continuously learns and adapts to user behavior and preferences and delivers a more automated, personalized experience, powered by artificial intelligence technology. To achieve broad consumer adoption, we believe that smart home solutions must deliver a truly intelligent experience, not just a remote control of the home. Our cloud-enabled software solution understands the state of the home and its occupants, interacts with users to enable awareness and control, and takes coordinated action with minimal user effort. We believe that Vivint is best positioned to capitalize on the mass market opportunity of the smart home.

Our technology and people are the foundation of our business model. Our trained professionals educate consumers on the value and affordability of a smart home, customize a solution for their homes and needs, teach them how to use our platform and enhance their experience, and provide ongoing tech-enabled services to manage, monitor, and support their smart home. We have developed proprietary technology that enables our people to provide these consultative sales, installation, and support services to our subscribers more effectively and efficiently, delivering a powerful end-to-end smart home experience.

We have developed and launched over 10 proprietary devices since 2010, all designed to seamlessly integrate into a comprehensive smart home solution. These devices are the critical end points of the smart home experience, and our broad device portfolio enables our subscribers to achieve a comprehensive experience, across the entire home. The software inside these devices, in combination with our cloud-based software and mobile apps, comprises the Smart Home Operating System that knits these elements together to intuitively enable otherwise complex use cases that help address real-world problems. We also allow a select number of third-party stand-alone devices into our ecosystem if doing so enhances the smart home experience for our subscribers. These may be devices that have a large installed base or that have unique capabilities, such as voice assistants. In particular, we will often include competing stand-alone devices in our ecosystem to offer our subscribers with choices. Regardless, we ensure that all partner devices are seamlessly integrated into our Smart Home Operating System, and that we are able to manage and support them as well as our own proprietary devices. Our subscribers trust us to professionally install, monitor, and support our devices. As of December 31, 2018, on average each subscriber had over 14 devices strategically placed in their home. Because our Smart Home Pros install the right devices in the right places in the home, we are able to collect superior data and generate unique insights, to improve the smart home experience for our users. We believe we are able to provide a much more complete picture of home activity than any of our competitors.

Our AI-driven smart home automation and assistance software, Vivint Assist, uses the data from our devices and partner devices to enable our subscribers to have a true smart home experience. We believe that we have the broadest, deepest, and purest home activity dataset, which we use to understand the state of the home in real time. This enables us to intelligently manage the residence on the homeowners' behalf, while still keeping them informed and in full control. Moreover, our software learns from every interaction, enriching our platform and making the smart home experience smarter. We believe that no other company is as well positioned to capitalize on the opportunity to make the true smart home a reality.

The smart home requires an operating system that is always-on, reliable, able to process large streams of incoming data, and protected by enterprise-trade security. Our Smart Home Operating System does all of this, while delivering a seamless and intuitive end-user experience. In addition to dedicated in-home touchscreens and our comprehensive integrations with voice-control devices, we provide apps for Android and iOS mobile devices, as well as a web-based application for access from desktop and laptop computers. Leveraging software running in the home, in the cloud, and on users' mobile devices, our operating system manages real-time communications across the system, executes rule-based actions and notifications, and provides a means for users to interact with their homes anywhere, anytime, and on any device. We deliver new functionality continually, deploying weekly updates to our software. We also push firmware updates to smart home devices throughout the year to deliver new functionality and improve device performance. We believe that continuously improving the smart home experience both increases the lifetime value of our current subscribers and attracts new subscribers.

Our Smart Home as a Service (SHaaS) business model generates subscription-based, high-margin recurring revenue from subscribers who sign up for our smart home services. We continue to focus on technology, service, and business model innovation to provide superior customer experience, from the time of first contact to the day-to-day experience.

In 2017, we made a strategic decision to offer Vivint Flex Pay to consumers as a part of our business model innovation, providing benefits to both our subscribers and our company. Vivint Flex Pay provides greater subscriber accessibility by enabling qualified customers to purchase smart home devices with unsecured financing either through a third party financing partner or through us, in most cases at zero-percent annual percentage rate, or APR. The launch of Vivint Flex Pay has enabled us to accelerate the acquisition of new subscribers and expanded our market opportunity by reducing upfront cash required to acquire new subscribers. Vivint Flex Pay has also improved our unit economics, increased contract length, reduced our balance sheet risk, and improved the capital efficiency of our business. Today, Vivint Flex Pay is a significant driver of our subscriber retention strategy. Our retention improves as our subscribers enter into longer term contracts. Vivint Flex Pay has also improved our subscriber economics with an Average Subscriber Lifetime of 91 months (approximately 8 years), as of December 31, 2018, based on our expected long-term annualized attrition rate of 13%. We continue to focus on the lifetime value of our subscribers which is evident in our Lifetime Service Revenue Multiple that has grown from 2.9x in 2016 to 3.6x in 2018, primarily reflecting efficiency in our subscriber acquisition resulting from the Vivint Flex Pay program. See "Management's Discussion and Analysis of Financial Condition and Results of Operations-Our Business Model."

Our go-to-market strategy is based on directly educating consumers about the value and benefits of a smart home experience. We reach consumers through a variety of highly efficient customer acquisition channels, including our direct-to-home, inside sales, and retail partnerships programs. We continue to scale these efforts through our proprietary operations technology, by launching new and innovative products and services, and by building out our consultative sales channels. Our nationwide sales and service footprint covers 98% of U.S. zip codes. We continue to strengthen our relationships with existing subscribers by offering them the ability to use Vivint Flex Pay to finance upgrades of their existing system and to add new devices and features to their smart homes as our portfolio of offerings expands.

As of December 31, 2018 and 2017, we have over 1.4 million and 1.2 million subscribers, respectively, representing year-over-year growth of 12%. In 2018 and 2017, we generated revenue of \$1.1 billion and \$0.9 billion, respectively along with a net loss of \$468 million and \$410 million, respectively. As of December 31, 2018 and 2017, we had approximately \$3.0 billion and \$2.8 billion of total debt outstanding, respectively.

Our Industry

The smart home market is large and growing rapidly. There are over 160 million households in the United States and Canada in 2018. With over 1.4 million subscribers as of December 31, 2018, our smart home penetration is only 1% of our current total estimated addressable market in the United States and Canada alone. Given the rapid pace of technological development in our industry, we believe it is likely that the total addressable market will continue to expand. The ability to address the cost issue, among other things, can potentially increase smart home penetration in the future.

To date the market has seen some early penetration from stand-alone devices with relatively narrow capabilities. These products have attracted early adopters and technology enthusiasts but have not adequately met the deeper need for a fully integrated smart home experience. These devices generally require do-it-yourself installation, do not integrate well with other devices, and have been designed with a single use case in mind. Generally, each device has its own mobile application, making installation and interoperability difficult for those consumers who do attempt to further their journey and install more devices in their home. As more and more devices have come to market, consumer demand for a central operating system that can better manage and integrate those devices has grown.

The connected home has a multitude of devices and requires an operating system to coordinate them all within a single unified system. But integrating many different devices from different manufacturers that were not designed to work together is difficult, and often results in an experience that is complex, inconsistent, and unreliable. Moreover, DIY solutions put a large burden on homeowners to install and support many devices themselves. And while whole-home automation is possible, it requires users to write individual rules for each and every circumstance. These DIY solutions also often require a high upfront cost, which can be prohibitively expensive for certain customers. For these reasons, mass adoption of the connected home by those other than technology enthusiasts has been limited.

As previously discussed, the next phase of the evolution of the connected home will be the smart home. Just as Apple and iOS enabled entirely new kinds of applications and use cases for the smart phone, we believe that our Smart Home Operating System will be the foundation for the full smart home experience and will enable many new business models that are based on streamlining various experiences in and around the home in innovative ways.

We believe there is a significant opportunity for companies to provide the end-to-end smart home experience. A successful smart home company must be able to provide the following:

- **An end-to-end solution** with a comprehensive integration of technology and people;
- **A cloud-enabled operating system** that provides a seamless and intuitive smart home experience;
- **A portfolio of compelling use cases** orchestrated across multiple devices and leveraging artificial intelligence for adaptive and personalized automation;
- **A broad suite of smart devices** designed to work as part of a comprehensive smart home;
- **An extensible platform** complete with deep partner integrations of popular stand-alone devices;
- **Local professional services** to educate consumers and to install and support devices in every home; and
- **A trusted relationship with consumers**, who expect their sensitive home data to be kept private.

We believe that our fully integrated, end-to-end product, sales and service approach successfully addresses these key points of friction, and positions us to drive broad consumer market adoption.

Our Smart Home Platform

We believe that our integrated, end-to-end approach successfully addresses the above requirements.

End-to-End Platform Built to Drive Broad Market Adoption

Our purpose-built platform has the components required to deliver on the promise of a true smart home experience. Our technology and people are the foundation of our solution.

Our technology seamlessly integrates in-home devices and cloud-enabled services to deliver an experience that addresses real-world problems. From answering the door remotely to automating the temperature settings in a home environment, our smart home technology meets customers' needs for convenience and control.

We believe that our purpose-built end-to-end platform best positions Vivint to deliver on the promise of broad market smart home adoption.

Cloud-Enabled Smart Home Operating System

Our cloud-enabled Smart Home Operating System delivers a seamless, easy-to-use, and intuitive smart home experience. Leveraging software running in the home, in the cloud, and on customers' mobile devices, our operating system securely manages real-time communications across the system, executes rules and notifications triggered by defined home-related events, and provides a means for users to interact with their homes from around the globe. In addition to dedicated in-home touchscreens and our comprehensive integrations with voice-control devices, we provide apps for Android and iOS mobile devices, as well as a web-based application for access from desktop and laptop computers.

Providing a seamless experience covering a multitude of separate devices is of critical importance in moving beyond individual devices to a more comprehensive solution that can help address real-world problems. For instance, when someone comes to the front door, the homeowner may want to let them into the house. This requires a doorbell camera, lighting, locks, the security system, and possibly a garage door controller and interior cameras to all work gracefully together. Our Smart Home Operating System does just this, enabling a multitude of use cases in a simple and intuitive fashion. Moreover, it helps ensure that all of the mundane tasks of device management - security, firmware upgrades, telemetry, diagnostics, and more - are taken care of, so that the system is as reliable as possible.

We began installing comprehensive connected home solutions in 2010, and these quickly became the choice of the majority of our new subscribers and the clear focus of our company. We believe that our experience in this space - understanding consumers and the challenges of making a connected home into something seamless and reliable - sets us apart from our competitors.

Software-Enabled Smart Home Devices

We have developed and launched over 10 proprietary smart home devices since 2010. These devices are the end points of the smart home experience we offer. The software inside these devices, combined with our cloud-based software and mobile apps, enables our Smart Home Operating System to collect and combine end-point data into complex use cases that help consumers to address real-world problems. In particular, our devices are designed to work as part of a comprehensive system, with features and capabilities that only make sense in that context, and which are often not present on devices designed primarily for individual purchase and use.

Using the Smart Hub or the Vivint Smart Home App, our subscribers can connect to and communicate with their in-home devices, either from within the home or on-the-go. The Vivint Element Thermostat makes sure that the home environment is both comfortable and energy efficient, while the Vivint Smart Drive provides users with 24/7 DVR and personalized, local cloud storage. Our range of other devices, including cameras, door and window sensors, motion sensors, tilt sensors, glass break detectors, key fobs, medical pendants, carbon monoxide detectors, flood sensors, and lamp modules extend the smart home experience to every part of the home, connecting users to their environments in new ways.

Our subscribers trust us to professionally install, monitor, and currently support an average of over 14 devices strategically placed in each home. Because our Smart Home Pros install the right devices in the right places, we are able to collect superior data and generate insights, enabling us to provide a much more complete picture of home activity than any of our competitors and to improve the smart home experience for our users.

Our Curated Partner Ecosystem

We allow a limited number of stand-alone devices into our ecosystem if doing so enhances the smart home experience for our subscribers. These may be devices that have a large installed base or that have unique capabilities, such as voice assistants. Using the Google Home and Amazon Alexa integrations for example, subscribers can talk to their Smart Home Operating System, asking the system to play their favorite songs, while making sure that their garage doors are closed, and their locks are secured, along with other system functionality. In particular, we will often include competing stand-alone devices in our ecosystem to offer our subscribers choice.

Every device we support in our ecosystem is seamlessly integrated with both our Smart Home Operating System and our tech-enabled services. This curated, partner-neutral ecosystem is designed to provide our subscribers with a worry-free end-to-end experience from sale to installation through a lifetime of use and support.

Because our platform is the hub for an easy-to-use, end-to-end smart home experience, partners have sought us out and have enjoyed continued success through joint selling efforts. Through our ongoing partnership program, both Amazon and Google have been able to sell a large amount of connected smart home devices. We have found that enabling users to add their preferred devices only enhances their connected home experience. Additionally, adding more devices in each home enables our system to gather and learn from even more data points, leading to a better overall experience for users. Our partnerships with Google and Amazon are examples of the neutral approach we take in building our ecosystem. As both companies create competing voice-control platforms for a variety of tasks, we enable our subscribers to use either, or both, as part of their smart home. As the smart home market develops further, we believe that our platform will form the core of the home ecosystem, whereby businesses get new ways to streamline connections with customers in their living environments. In this regard, we will not only own the system powering the smart home, but we will also form strategic partnerships that will deepen the overall smart home experience. We expect these partnerships will help us protect and gain more market share.

AI-Driven Smart Home Automation and Assistance Software

We believe that our AI-driven smart home automation and assistance software, Vivint Assist, is a key differentiator that improves the customer experience and engagement by predicting and reacting to users' needs, we believe which ultimately accelerates consumer adoption.

Our AI-driven smart home automation and assistance software, Vivint Assist, uses the data from our devices and our partner devices to enable our subscribers to have a true smart home experience. We have a relatively consistent set of devices installed across our subscribers' homes, and are focused on building high-performing models for Vivint Assist to understand the state of the home and to take or suggest action on the customer's behalf. This in turn provides us with the opportunity to use feedback from our customers' response to this interaction to further refine our models.

We believe that we have the broadest, deepest, and purest home activity dataset, which we use to understand the state of the home in real time. That enables us to intelligently manage the residence on the homeowners' behalf, while still keeping them informed and in full control. Vivint Assist processes home events such as interactions with lights, locks, thermostats, touchscreens, voice-control devices, and door and motion sensors; thermodynamic data such as interior and exterior temperature and heating/cooling duty cycles; location data from mobile devices; and users' interactions with Vivint Assist itself.

Moreover, our software learns from every interaction, enriching our platform and making the smart home experience smarter. We believe that no other company is as well positioned as Vivint to capitalize on the opportunity to make the true smart home a reality.

Local Tech-Enabled Services to Educate, Manage and Support the Smart Home

Our trained professionals educate consumers on the value and affordability of a smart home, customize a solution for their homes and needs, teach them how to use our platform and enhance their experience, and provide ongoing tech-enabled services to manage, monitor, and support their smart home. We have developed proprietary technology that enables our people to provide these consultative sales, installation, and support services to our subscribers more effectively and efficiently, delivering a powerful end-to-end smart home experience. Our teams bring significant domain expertise when it comes to troubleshooting and fixing issues that may arise within a smart home across devices and platforms. Our direct relationship gives us a real-time view into their smart home needs, which provides us with a distinct competitive advantage that enhances our agility and responsiveness to consumer needs. Our end-to-end platform allows us to be our customers' trusted support system.

Our People and Culture

We are the company that we are today because of the people that make up our team. We are proud of the culture we have built around innovation and subscriber centricity. Innovation also permeates our subscriber-centric approach.

When it comes to creating a smart home experience, many individuals may want and need the help of professional installation teams to set up the technology and to ensure that it is fully functional, which is why our installation teams are a vital part of Vivint's service. Whether our tech-enabled Smart Home Pros connect with our customers on the phone or in-person, these individuals do their best to inform consumers on how Vivint can help customize their living environments to meet their unique smart home needs. In contrast to DIY programs, we provide a premium experience complete with ongoing tech-enabled service and support.

Many companies can make a sale, but few are able to provide a continuous, end-to-end experience over time. Providing the best possible smart home experience is what drives us as a company, and that is why we are focused on continually educating and supporting our subscribers-for the long-run. Providing a truly comprehensive and customizable smart home experience requires ongoing tech-enabled support, which we provide through our consultative sales, professional installation and customer support teams. These teams exist because we want to ensure that our subscribers are cared for over the duration of their time with Vivint, which is currently approximately 8 years , on average, as of December 31, 2018 .

High-Performing Scalable Economic Model

We believe our end-to-end solution, long-term customer relationships, and subscription-based, high-margin recurring revenues drive significant long-term value.

Our business is driven by the acquisition of new subscribers and by managing our existing subscriber base. The acquisition of new subscribers requires significant upfront investment, which in turn generates predictable, high-margin recurring revenue (with approximately 69% service margins for the year ended December 31, 2018) from our cloud-enabled smart home solutions. This high-visibility, high-margin revenue comes from selling our solution and accompanying smart home devices to our subscribers. Therefore, we focus our investment decisions on acquiring new subscribers in the most cost-effective manner while striving to maximize existing subscriber retention and lifetime.

We drive long-term subscriber retention through our high quality subscriber experience, from the time of first contact to day-to-day use. For example, our subscribers engage with our smart home apps on average seven times per day. To provide even greater subscriber accessibility and affordability to the platform and improve our cash flow economics, we launched Vivint Flex Pay in 2017. Vivint Flex Pay enables qualified subscribers to purchase smart home devices with unsecured financing either through a third party financing partner or through us, in most cases at zero-percent APR. Our Vivint Flex Pay subscribers invest on average approximately \$1,500 in our Products and related installation, further incentivizing long-term retention.

We have made it a primary focus to retain our existing subscribers. Our retention improves as our subscribers enter into longer term contracts. The lifetime value of our subscribers continues to improve, as demonstrated by the growth in our Lifetime Service Revenue Multiple, which increased from 2.9x in 2016 to 3.6x in 2018 , primarily reflecting efficiency in our subscriber acquisition resulting from Vivint Flex Pay. Although there are costs to acquiring new subscribers, because we operate on a recurring revenue-based model, acquiring subscribers results in cumulative value generation that compounds and accrues over time.

We will continue investing in innovative technologies that we believe will make our platform more valuable and engaging for subscribers, and we intend to continue investing in new subscriber acquisition channels to further improve the economics of our business model. We will also continue working to improve the lifetime value of our customers and the unit economics of our business by continually enhancing the smart home experience.

Our Customers

We had approximately 1.4 million subscribers in North America with an average FICO score of 702 at the point of sale, as of December 31, 2018 . Our subscriber base consisted of 91% having FICO scores of 625 or greater and only 3% having sub-600 FICO scores, as of December 31, 2018 .

Our business is not dependent on any single subscriber or a few subscribers, the loss of which would have a material adverse effect on the respective market or on us as a whole. No individual subscriber accounted for more than 1% of our

consolidated 2018 revenue.

Privacy and Security

Our subscribers use our products and services to provide them with peace of mind for the things that matter most to them-their families and homes. This requires our devices to be professionally installed and deployed throughout their homes, and requires our solutions to collect and manage information about our subscribers' home activity. Much of the information that our technology manages on our subscribers' behalf, including sensor data, video, and the insights gleaned by our AI-driven smart home automation and assistance software, Vivint Assist, is sensitive and private, and we take our responsibility to protect this information seriously. Most importantly, we use this data and the insights we generate from it to improve the smart home experience. Our subscribers trust us to help them manage their homes, which we consider a unique relationship that we strive to strengthen.

Subscriber Contracts

We seek to ensure that our subscribers understand our smart home experience, along with the key terms of their contracts by conducting two surveys with every subscriber. The first survey is conducted live via telephone prior to the execution of the contract and professional installation, and the second survey is conducted on-line after the installation is completed. The telephonic survey is recorded and stored, along with the on-line survey in our subscriber relationship management and billing system software, or CRM software, enabling easy access and review.

Types of Contracts

When signing up for our services, subscribers currently have three options to pay for their Products and associated installation: payment-in-full, or consumer financing either through our consumer financing program provided in partnership with Citizens Bank, or the CFP, or under RICs. For those who choose to pay in full at the time of signing, we receive cash (paid by the customer through various means, including check, automated clearing house debit, or credit or debit card) for the full amount of the purchase of Products and related installation, which is deferred and recognized over time. We also receive recurring revenue for Service on a month-to-month basis from these subscribers. In 2018, 58% of new subscribers opted to sign up under our CFP. When a subscriber signs up under this program, we receive cash from Citizens in the full amount of the subscriber's purchase of Products and the related installation costs. Under the CFP revenue, which equals the upfront proceeds we receive from Citizens minus the present value of the fees we expect to pay to Citizens over the contract term, is deferred and recognized over the contract term. We believe that the CFP helps to make the smart home experience more affordable and approachable for qualified customers, and it also helps to preserve the health of our balance sheet. Our last financing option is a RIC, which is available to subscribers who do not qualify for the CFP based on their credit profile. When a customer signs up for a RIC, we record a note receivable from the customer for the purchase of Products and related installation, minus risk-adjusted imputed interest, and this revenue is deferred and recognized over the life of the contract. We are planning to add additional financing partners in order to maximize the number of subscribers who are able to obtain financing through third party partners and to move this risk off our balance sheet.

Term and Termination

Historically, we have generally offered contracts to subscribers that range in length from 36 to 60 months, subject to automatic monthly renewal after the expiration of the initial term. Since the beginning of 2013, a majority of new subscribers have entered into 60 -month contracts. As a result, our average initial contract length has increased over time, reaching an average of 50 months as of December 31, 2018. Subscribers have a right of rescission period prescribed by applicable law during which such subscriber may cancel the contract without penalty or obligation. These rescission periods range from 3 to 15 days, depending on the jurisdiction in which a subscriber resides. As a company policy we provide new subscribers 70 years of age and older a 30 -day right of rescission. If the subscriber rescinds during the applicable rescission period under the terms of the contract, the subscriber is required to return the applicable equipment. Once the applicable rescission period expires, the subscriber is responsible for the monthly services fees under the contract.

Other Terms

We provide our subscribers with maintenance free of charge for the first 120 days. After 120 days, we will repair or replace defective smart home devices without charge, but we typically bill the subscriber a charge for each service visit. If a utility or governmental agency requires a change to our platform or tech-enabled service after installation of the system, the subscriber may be charged for the equipment and labor associated with the required change.

We do not provide insurance or warrant that the system will prevent a burglary, fire, hold-up or any such other event. Our contracts limit our liability to a maximum of \$2,000 per event and, where permissible, provide a one-year statute of limitations to file an action against us. We may cease or suspend tech-enabled monitoring and repair service due to, among other things, work stoppages, weather, phone service interruption, government requirements, subscriber bankruptcy or non-payment by subscribers after we have given notice that their service is being canceled due to such non-payment.

Sales and Marketing

We acquire subscribers primarily through our direct to home, or DTH, and national inside sales, or NIS, channels. We are currently testing out several retail partnerships to determine the optimal format for this channel. Regardless of channel, our tech-enabled sales professionals always take a consultative approach to the sales process, educate potential subscribers on the benefits of smart home technology, and tailor a solution that serves each subscriber's needs. This consultative sales process has enabled us to achieve a high adoption rate of our smart home solutions. We are continually evaluating ways to improve subscriber acquisition efficiency across all of our sales channels. For the year ended December 31, 2018, we acquired over 300,000 new subscribers. Of these new subscribers, 55% joined through our DTH, and 41% were brought on through NIS.

Marketing Strategy

We leverage the Vivint brand across all our channels. We invest in certain marketing strategies which amplify the brand and awareness of our solutions, including through general paid media outlets. Vivint also has exclusive brand naming rights for the Vivint Smart Home Arena, home of the NBA's Utah Jazz.

Direct to Home Sales

Our direct to home tech-enabled sales team is comprised of up to 2,800 representatives at our peak selling season working across select markets throughout North America. DTH representatives visit consumers in their homes, providing interested individuals with an in-depth description of our offerings. They benefit from our recruiting and training programs designed to promote sales productivity. Markets are selected each year based on a number of factors, including demographics, population density and our past experience selling in these markets. Because expenses associated with our direct to home sales channels are directly correlated with new subscriber acquisition, the majority of the costs associated with this channel are variable and can scale with customer acquisition. We also have a program whereby a number of direct-to-home sales representatives reside in certain select markets and sell in those markets on a year round basis. We expect the number of new subscriber contracts generated through this program to continue to increase over time.

Inside Sales

Our inside sales channel provides a consultative experience for consumers who contact us. Driven by increasing brand awareness and marketing effectiveness, the number of new subscribers acquired through this channel in 2018 increased 15% compared to 2017.

The inside sales team utilizes leads generated through multiple sources, both digital and traditional, including paid, organic and local search and display advertising. We believe that we will continue to experience strong growth in this channel as Vivint's brand awareness improves and customers' understanding of the smart home increases. Customers originated through our inside sales channel has grown as a percentage of our total originations from approximately 10% in 2009 to approximately 41% for the year ended December 31, 2018.

Retail

We are currently running several retail partnerships pilot programs, with the goal of adding an additional subscriber acquisition channel that will allow us to offer a consultative sales experience while preserving our unit economics. Our retail partnership pilots are built on a variable-cost model. Through these pilots, we hope to reach additional consumers that have not yet considered purchasing a smart home, those that have already purchased a device that has not met their expectations, and those that want to experience and buy smart home solutions in a traditional retail setting. Given the success of our existing DTH and NIS efforts, our retail pilots are built to provide interested subscribers with a strong understanding of the technology and service components of our smart home experience, in a retail setting, on a scalable, variable-cost basis.

Operations

Our end-to-end solution includes a dedication to providing a smart home experience, complete with tech-enabled service and support. We have structured our organization and our operations in a way that allows us to maximize efficiency and prioritize the subscriber experience, which is why we have built a successful brand and generated high subscriber satisfaction ratings over time.

In-Home Service

We deploy full-time in-home tech-enabled service professionals throughout North America to provide prompt tech-enabled service to our subscribers, on an as-needed basis. Our in-home service professionals are highly trained to address maintenance and service issues. Using our proprietary, in-house sales and service technologies - TechGenie - they are able to schedule service and installation appointments in real-time, thus maximizing subscriber satisfaction and minimizing friction in the subscriber relationship. This dimension of our offering-personalized in-home support-is key to our end-to-end solution, and we believe that providing personalized smart home service will be an integral part of meeting the needs of the broader consumer market.

Customer Service and Monitoring

Our tech-enabled customer service centers are located in Utah and operate around the clock, year-round, without exception. All employees who work in customer service undergo training on billing and service-related questions. Customer service representatives are required to pass background checks and, depending upon their job function, may require licensing by the state of Utah.

Our two central monitoring facilities are located in Utah and Minnesota and are fully able to be primary backups for each other and operate twenty-four hours a day, seven days a week, year-round-including on holidays. All professionals who work in our monitoring facilities undergo comprehensive training and are required to pass background checks and, in certain cases, licensing tests or other checks to obtain the required licensing.

Billing and Collections

Our billing and collections representatives are located in our Utah offices. We cross-train these representatives to also handle general customer service inquiries with the goal of improving the customer experience and to increase personnel flexibility. Billing and collections representatives are also required to pass background checks and, depending upon their job function, may also require licensing by the state of Utah. A majority of our subscribers pay electronically either via ACH, credit or debit card. A subscriber who pays electronically is generally placed on a billing cycle based on their contract origination date and, in certain instances, the subscriber may choose their billing date. Our subscribers billed via direct invoice can be billed on any day of the month, with payment due 15 days subsequent to the invoice date. Subscribers are billed in advance for their monthly services based on their billing cycle and not calendar month. In those jurisdictions where we are entitled to do so by law, we charge late fees to subscribers whose accounts are more than 10 days past due.

Key Systems

We utilize an integrated subscriber relationship management and billing system software, based on a well-established enterprise-scale cloud solution. This CRM allows us to scale our business, providing the flexibility to accommodate the multiple customer support and billing models resulting from the continued expansion in our product and service offerings over time. The CRM enables one-call resolution and allows for operational efficiency by not requiring the entry of data multiple times, thus improving data accuracy. Additionally, the data is replicated to both a reporting and a business intelligence server to reduce processing time, as well as to an offsite server used for disaster recovery purposes.

In 2017, we implemented an enterprise resource planning software, or ERP, primarily to manage financial accounting, inventory and supply chain functions of our business. Similar to the CRM, the ERP allows us to scale our operations to accommodate the continued expansion of our business models and product and service offerings. The ERP also provides improved security and automated system controls.

Suppliers

We provide our services through a panel installed in our subscribers' homes. Since early 2014, nearly all new subscribers are using the Vivint SkyControl panel. From 2010 through 2014, 2GIG Go!Control was our primary panel. As of December 31, 2018, approximately 80% of our subscriber base use SkyControl panels and 19% use 2GIG Go!Control panels.

In 2013, we completed the sale of 2GIG Technologies, Inc., or 2GIG. In connection with the 2GIG sale, 2GIG assigned to us their intellectual property rights in the SkyControl Panel and certain peripheral equipment. This proprietary equipment is a critical component of our current smart home and security offerings, and we expect it to remain a critical component of our future offerings as well. In addition, at the time of the 2GIG sale we entered into a five-year supply agreement with 2GIG, pursuant to which they would be the exclusive provider of our control panel requirements and certain peripheral equipment, subject to certain exceptions, during the term. This agreement was completed in April 2018.

We license certain communications infrastructure, software and services from Alarm.com to support subscribers with the Go!Control panel. These Go!Control panels are connected to Alarm.com's hosted platform. Alarm.com also provides an interface to enable these subscribers to access their systems remotely. We also license certain intellectual property from Alarm.com for our subscribers using the SkyControl panel.

Generally, our hardware device suppliers maintain a stock of devices and key components to cover any minor supply chain disruptions. Where possible we also utilize dual sourcing methods to minimize the risk of a disruption from a single supplier. However, we also rely on a number of sole source and limited source suppliers for critical components of our solution. In particular we rely on Alpha Networks for our indoor cameras. Replacing any of these sole source or limited source suppliers could require the expenditure of significant resources and time to redesign and resource these products.

Research and Development

Our innovation center headquartered in Lehi, Utah, along with recently-opened research and development offices in Santa Clara, California and Boston, Massachusetts, focuses on the research and development of new Products and Services, both within and beyond our existing offerings. Our professionals are trained in our proprietary innovation management process, from subscriber needs assessment to Product and Service launch. Our innovation center includes people with expertise in all aspects of the development process, including hardware development, software development, design, and quality assurance.

By focusing on innovation, and continually enhancing our Product and Service offerings, we believe we can increase new subscriber originations, subscriber usage and subscriber satisfaction, thereby potentially increasing revenue per subscriber and lowering subscriber attrition.

We expect to continue introducing new, innovative devices and software features. We design these new Products and, where appropriate, leverage partnerships for their manufacture.

By vertically integrating the development and design of our Products and Services with our existing sales and customer service activities, we believe we are able to more quickly respond to market needs, and better understand our subscribers' interactions and engagement with our Products and Services. This provides critical data enabling us to improve the power, usability and intelligence of these Products and Services.

Intellectual Property

Patents, trademarks, copyrights, trade secrets, and other proprietary rights are important to our business and we continuously refine our intellectual property strategy to maintain and improve our competitive position. We seek to protect new intellectual property to safeguard our ongoing technological innovations and strengthen our brand, and we believe we take appropriate action against infringements or misappropriations of our intellectual property rights by others. We review third-party intellectual property rights to help avoid infringement, and to identify strategic opportunities. We typically enter into confidentiality agreements to further protect our intellectual property.

We own a portfolio of over 150 issued U.S. patents and over 350 pending U.S. and foreign patent applications that relate to a variety of smart home, security and wireless Internet technologies utilized in our business. We also own a portfolio of trademarks, including domestic and foreign registrations for Vivint, and are a licensee of various patents, from our third-party suppliers and technology partners.

Because of the importance that subscribers place on reputation and trust when making a decision on a smart home provider, our brand is critical to our business. Patents related to individual products or technologies extend for varying periods dependent on the date of patent filing or grant and the legal term for patents in the various countries where we have sought patent protection. Trademark rights may potentially extend for longer periods of time and are dependent upon national laws and use of the marks.

Competition

The smart home industry is highly competitive and fragmented. Our major competitors range from large cap technology companies, who predominantly offer DIY devices to expand their core market opportunity, to companies that are focused on singular smart home experiences (i.e. security focused), to industrial and telecommunications companies that are offering connected home experiences. Historically, the vast majority of companies have not offered comprehensive smart home solutions that meet the growing requirements of households. In many cases, companies have launched DIY or standalone devices to enhance their existing offerings, leading to partial or incomplete smart home experiences. Certain features of our platform compete with companies that fall into the following categories:

- Large Technology companies: Amazon, Apple, Google and Microsoft
- Security based offerings: ADT, Alarm.com, Brinks Home Security, SimpliSafe, Stanley Security Solutions, and Tyco Integrated Security.
- Industrial and Smart Hardware Companies: Arlo, Honeywell, Control4, and Resideo
- Telecommunications Companies: Comcast Corporation, Cox Communications, Rogers Communications, and Time Warner Cable

We believe we compete effectively with each of our competitors listed above. However, we expect competition to intensify in the future. We face increasing competition from competitors who are building their own smart home platforms, such as Amazon, Apple and Google, as well as from companies that offer single-point connected devices. Having installed over 2 million smart home and security systems, we believe we are well positioned to compete with them because we benefit from more than 19 years of experience, our efficient direct-to-home sales channel, innovative products and our award-winning customer service.

In addition, several of our competitors have greater name recognition, much longer operating histories, more and better-established subscriber relationships, larger sales forces, larger marketing and software development budgets, and significantly greater resources than we do. Therefore, it is possible that we may not compete favorably with respect to certain of the foregoing factors.

We also compete with numerous smaller regional and local providers. We also face, or may in the future face, competition from other providers of information and communication products and services, a number of which have significantly greater capital and other resources than we do.

Companies in our industry compete primarily on the basis of price in relation to the quality of the devices and tech-enabled services they provide. The company's brand and reputation, market visibility, service and product capabilities, quality, price, efficient direct-to-home sales channel, and the ability to identify and sell to prospective subscribers, are all factors that contribute to competitive success in the smart home industry. We emphasize the quality of the service we provide, rather than focusing primarily on price competition. We believe we compete effectively against other national, regional and local companies offering smart home and security alarm monitoring services by offering our subscribers an integrated smart home, along with an attractive value proposition, and our proven, award-winning customer service.

Government Regulations

United States

We are subject to a variety of laws, regulations and licensing requirements of federal, state and local authorities.

We are also required to obtain various licenses and permits from state and local authorities in connection with the operation of our businesses. The majority of states regulate in some manner the sale, installation, servicing, monitoring or maintenance of smart home and electronic security systems. In the states that do regulate such activity, our company and our employees are typically required to obtain and maintain licenses, certifications or similar permits from the state as a condition to engaging in the smart home and security services business.

In addition, a number of local governmental authorities have adopted ordinances regulating the activities of security service companies, typically in an effort to reduce the number of false alarms in their jurisdictions. These ordinances attempt to reduce false alarms by, among other things, requiring permits for individual electronic security systems, imposing fines (on

either the subscriber or the company) for false alarms, discontinuing police response to notification of an alarm activation after a subscriber has had a certain number of false alarms, and requiring various types of verification prior to dispatching authorities.

Our sales and marketing practices are regulated by the federal, state and local agencies. These laws and regulations typically place restrictions on the manner in which products and services can be advertised and sold, and to provide residential purchasers with certain rescission rights. In certain circumstances, consumer protection laws also require the disclosure of certain information in the contract with our subscriber and, in addition, may prohibit the inclusion of certain terms or conditions of sale in such contracts. Many local governments regulate direct-to-home sales activities and contract terms and require that salespeople and the company on whose behalf the salesperson is selling obtain licenses to carry on business in that municipality.

In addition, the CFP and RICs are subject to federal and state laws. These laws primarily require that consumer financing contracts include or be accompanied by certain prescribed disclosures, but these laws also may place limitations on particular fees and charges, and require licensing or registration of the party extending consumer credit. Citizens and any other financing partners providing third-party consumer financing under Flex Pay are responsible for compliance with such laws applicable to Flex Pay, and we are responsible for compliance with such federal and state laws regulating RICs.

Canada

Companies operating in the smart home and electronic security service industry in Canada are subject to provincial regulation of their business activities, including the regulation of direct-to-home sales activities and contract terms and the sale, installation and maintenance of smart home and electronic security systems. Most provinces in Canada regulate direct-to-home sales activities and contract terms and require that salespeople and the company on whose behalf the salesperson is selling obtain licenses to carry on business in that province. Consumer protection laws in Canada also require that certain terms and conditions be included in the contract between the service provider and the subscriber.

A number of Canadian municipalities require subscribers to obtain licenses to use electronic security alarms within their jurisdiction. Municipalities also commonly require entities engaged in direct-to-home sales within their municipality to obtain business licenses.

Seasonality

Our DTH sales are seasonal in nature with a substantial majority of our new customer originations occurring during a sales season from April through August. We make investments in the recruitment of our DTH sales force and the inventory prior to each sales season. We experience increases in net subscriber acquisition costs during these time periods.

The management of our sales channels has historically resulted in a consistent sales pattern that enables us to more accurately forecast customer originations.

Employees

As of December 31, 2018, we had approximately 7,500 full-time employees, excluding our seasonal direct to home installation technicians, sales representatives and certain other support professionals. As of December 31, 2018, a very small minority of our employees were represented by a labor union. We believe that we generally have good relationships with our employees. The majority of our employees are located in the Salt Lake City metropolitan area. Employees located outside of the Salt Lake City metropolitan area are comprised primarily of our full-time Smart Home Pros, who service our customers and are located in all states in the United States except Maine and Vermont and all Canadian provinces except Quebec, and the monitoring professionals located at our monitoring station in Minnesota.

Where You Can Find More Information

We file annual, quarterly and current reports, proxy statements and other information with the Securities and Exchange Commission (“SEC”). Our SEC filings are available to the public over the internet at the SEC’s website at <http://www.sec.gov>. In addition, we maintain a website at <http://www.vivint.com>. Our SEC filings are also available on our website at <http://www.vivint.com> as soon as reasonably practicable after they are filed with or furnished to the SEC. We are providing the address to our website solely for the information of investors. The information on our website is not a part of, nor is it incorporated by reference into this report.

ITEM 1A. RISK FACTORS

You should carefully consider the following risk factors and all other information contained in this annual report on Form 10-K. The risks and uncertainties described below are not the only risks facing us. Additional risks and uncertainties that we are unaware of, or those we currently deem immaterial, also may become important factors that affect us. The following risks could materially and adversely affect our business, financial condition, cash flows or results of operations.

Risks Related To Our Business and Industry

Our industry is highly competitive.

We operate in a highly competitive industry. We face, and may in the future face, competition from other providers of information and communication products and services, including cable and telecommunications companies, Internet service providers, large technology companies singular experience companies, industrial and smart hardware companies, and others that may have greater capital and resources than we do. We also face competition from large residential security companies that have or may have greater capital and other resources than us. Competitors that are larger in scale and have greater resources may benefit from greater economies of scale and other lower costs that permit them to offer more favorable terms to consumers (including lower service costs) than we offer, causing such consumers to choose to enter into contracts with such competitors. For instance, cable and telecommunications companies are expanding into the smart home and security industries and are bundling their existing offerings with automation and monitored security services. In some instances, it appears that certain components of such bundled offerings are significantly underpriced and, in effect, subsidized by the rates charged for the other product or services offered by these companies. These bundled pricing alternatives may influence subscribers' desire to subscribe to our services at rates and fees we consider appropriate. These competitors may also benefit from greater name recognition and superior advertising, marketing, promotional and other resources. To the extent that such competitors utilize any competitive advantages in markets where our business is more highly concentrated, the negative impact on our business may increase over time. In addition to potentially reducing the number of new subscribers we are able to originate, increased competition could also result in increased subscriber acquisition costs and higher attrition rates that would negatively impact us over time. The benefit offered to larger competitors from economies of scale and other lower costs may be magnified by an economic downturn in which subscribers put a greater emphasis on lower cost products or services. In addition, we face competition from regional competitors that concentrate their capital and other resources in targeting local markets.

We also face potential competition from do-it-yourself, or DIY, systems, which enable consumers to install their own systems and monitor and control their home over the Internet without the need for a subscription agreement with a service provider. Improvements in these systems may result in more subscribers choosing to take on the responsibility for installation, maintenance, and management of connected home systems themselves. In addition, consumers may prefer individual device solutions that provide more narrowly targeted functionality instead of a more comprehensive integrated smart home solution. Pricing pressure or improvements in technology and shifts in consumer preferences towards DIY and/or individual solutions could adversely impact our subscriber base or pricing structure and have a material and adverse effect on our business, financial condition, results of operations and cash flows.

Cable and telecommunications companies actively targeting the smart home market and expanding into the monitored security space, and large technology companies expanding into the smart home market could result in pricing pressure, a shift in subscriber preferences towards the services of these companies and a reduction in our market share. Continued pricing pressure from these competitors or failure to achieve pricing based on the competitive advantages previously identified above could prevent us from maintaining competitive price points for our products and services resulting in lost subscribers or in our inability to attract new subscribers and have an adverse effect on our business, financial condition, results of operations and cash flows.

We rely on long-term retention of subscribers and subscriber attrition can have a material adverse effect on our results.

We incur significant upfront costs to originate new subscribers. Accordingly, our long-term performance is dependent on our subscribers remaining with us for several years after the initial 36 to 60 month term of their contracts. A significant reason for attrition occurs when subscribers move and do not reconnect. Subscriber moves are impacted by changes in the housing market. See “-Our business is subject to macroeconomic, microeconomic and demographic factors that may negatively impact our results of operations.” Some other factors that can increase subscriber attrition include problems experienced with the quality of our Products or Services, unfavorable general economic conditions, adverse publicity and the preference for lower pricing of competitors' products and services. In addition, we generally experience an increased level of subscriber

cancellations in the months surrounding the expiration of such subscribers' initial contract term. If we fail to retain our subscribers for a sufficient period of time, our profitability, business, financial condition, results of operations and cash flows could be materially and adversely affected. Our inability to retain subscribers for a long term could materially and adversely affect our business, financial condition, cash flows or results of operations.

Litigation, complaints or adverse publicity or unauthorized use of our brand name could negatively impact our business, financial condition and results of operations.

From time to time, we engage in the defense of, and may in the future be subject to, certain investigations, claims and lawsuits arising in the ordinary course of our business. For example, we have been named as defendants in putative class actions alleging violations of wage and hour laws, the Telephone Consumer Protection Act, common law privacy and consumer protection laws. From time to time our subscribers have communicated and may in the future communicate complaints to organizations such as the Better Business Bureau, regulators, law enforcement or the media. Any resulting actions or negative subscriber sentiment or publicity could reduce the volume of our new subscriber originations or increase attrition of existing subscribers. Any of the foregoing may materially and adversely affect our business, financial condition, cash flows or results of operations.

Given our relationship with Vivint Solar and the fact that Vivint Solar uses our registered trademark, "Vivint", in its name pursuant to a licensing agreement, our subscribers and potential subscribers may associate us with any problems experienced with Vivint Solar or adverse publicity related to Vivint Solar's business. We may not be able to take remedial action to cure any issues Vivint Solar has with its subscribers, and our trademark, brand and reputation may be adversely affected.

Unauthorized use of our brand name by third parties may also adversely affect our business and reputation, including the perceived quality and reliability of our Products and Services. We rely on trademark law, internal policies and agreements with our employees, subscribers, business partners and others to protect the value of our brand name. Despite our precautions, we cannot provide assurance that those procedures are sufficiently effective to protect against unauthorized third-party use of our brand name. We may not be successful in investigating, preventing or prosecuting all unauthorized third-party use of our brand name. Future litigation with respect to such unauthorized use could also result in substantial costs and diversion of our resources. These factors could adversely affect our reputation, business, financial condition, results of operations and cash flows.

We are highly dependent on our ability to attract, train and retain an effective sales force and other key personnel.

Our business is highly dependent on our ability to attract, train and retain an effective sales force, especially for our peak April through August sales season. In addition, because sales representatives become more productive as they gain experience, retaining those individuals is very important for our success. If we are unable to attract, train and retain an effective sales force, our business, financial condition, cash flows or results of operations could be adversely affected. In addition, our business is dependent on our ability to attract and retain other key personnel in other critical areas of our business. If we are unable to attract and retain key personnel in our business, it could adversely affect our business, financial condition, cash flows and results of operations.

Our operations depend upon third-party providers of telecommunication technologies and services.

Our operations depend upon third-party cellular and other telecommunications providers to communicate signals to and from our subscribers in a timely, cost-efficient and consistent manner. The failure of one or more of these providers to transmit and communicate signals in a timely manner could affect our ability to provide services to our subscribers. There can be no assurance that third-party telecommunications providers and signal-processing centers will continue to transmit and communicate signals to or from our third-party providers and the monitoring stations without disruption. Any such disruption, particularly one of a prolonged duration, could have a material adverse effect on our business. In addition, failure to renew contracts with existing providers or to contract with other providers on commercially acceptable terms or at all may adversely impact our business.

Certain elements of our operating model have historically relied on our subscribers' continued selection and use of traditional landline telecommunications to transmit signals to and from our subscribers. There is a growing trend for consumers to switch to the exclusive use of cellular, satellite or internet communication technology in their homes, and telecommunication providers may discontinue their landline services in the future. In addition, many of our subscribers who use cellular communication technology for their systems use products that rely on older 2G and 3G technologies, and certain

telecommunication providers have discontinued 2G services in certain markets, and these and other telecommunication providers are expected to discontinue 2G and 3G services in other markets in the future. The discontinuation of landline, 2G, 3G and any other services by telecommunications providers in the future would require our subscriber's system to be upgraded to alternative, and potentially more expensive, technologies. This could increase our subscriber attrition rates and slow our new subscriber originations. To maintain our subscriber base that uses components that are or could become obsolete, we may be required to upgrade or implement new technologies, including by offering to subsidize the replacement of subscribers' outdated systems at our expense. Any such upgrades or implementations could require significant capital expenditures and also divert management's attention and other important resources away from our customer service and new subscriber origination efforts.

We depend on third-party providers of internet access services that may impair, degrade or otherwise block our services that could lead to additional expenses or loss of users.

Our interactive services are accessed through the internet and our security monitoring services are increasingly delivered using internet-based technologies. In addition, our distributed cloud storage solution, including the Vivint Smart Drive, is dependent upon internet services for shared storage. Some providers of broadband access may take measures that affect their subscribers' ability to use these products and services, such as degrading the quality of the data packets we transmit over their lines, giving those packets low priority, giving other packets higher priority than ours, blocking our packets entirely or attempting to charge their subscribers more for using our services or terminating the subscriber's contract.

The Federal Communications Commission ("FCC") released an order that became effective on June 11, 2018, that repeals most of the rules that the agency previously had in place that prevented providers of broadband internet access services from impairing, degrading or blocking services provided by third parties to us. The prior rules prohibiting impairment, degradation and blocking, are commonly referred to as "network neutrality" rules. Numerous parties have appealed the FCC order which is before the U.S. Court of Appeals for the District of Columbia. We cannot predict whether the FCC order will be upheld, reversed or remanded, nor the timing of the appellate court's resolution of the appeal.

Following the adoption of the FCC's order reversing the network neutrality rules, a number of states have passed network neutrality laws. The laws vary by state both in substance and in scope. There is legal uncertainty as to whether states have authority to pass laws that would conflict with the recent FCC order due to the interstate nature of internet communications and for other reasons. We cannot predict whether state laws that are interpreted to conflict with the FCC's order will survive judicial scrutiny if challenged.

The largest providers of broadband internet access services have publicly stated that network neutrality rules are not required as they would not engage in some of the practices that the rules prohibit. While it is difficult to predict what would occur in the absence of such rules, it is possible that as a result of the lack of network neutrality rules, we could incur greater operating expenses which could harm our results of operations. While we think it is unlikely and that other laws may be implicated should broadband internet access providers affirmatively interfere with the delivery of our services that rely on broadband internet connections, interference with our services by broadband internet access service providers for using our products and services could cause us to lose existing subscribers, impair our ability to attract new subscribers and materially and adversely affect our business, financial condition, results of operations and cash flows.

Changes in laws or regulations that impact our underlying providers of telecommunications services could adversely impact our business

Telecommunications service providers are subject to extensive regulation in the markets where we operate or may expand in the future. Changes in the applicable laws or regulations affecting telecommunication services could require us to change the way we operate, which could increase costs or otherwise disrupt our operations, which in turn could adversely affect our business, financial condition, cash flows or results of operations.

We must successfully upgrade and maintain our information technology systems.

We rely on various information technology systems to manage our operations. We are currently implementing modifications and upgrades to these systems, and have replaced certain of our legacy systems with successor systems with new functionality.

There are inherent costs and risks associated with modifying or changing these systems and implementing new systems, including potential disruption of our internal control structure, substantial capital expenditures, additional administration and operating expenses, retention of sufficiently skilled personnel to implement and operate the new systems, demands on management time and other risks and costs of delays or difficulties in transitioning to new systems or of integrating new

systems into our current systems. For example, we encountered issues associated with the implementation of our integrated customer resource management, or CRM, system in 2014, which resulted in an immaterial error in our financial statements for the quarter ended June 30, 2014. This error was corrected during the quarter ended September 30, 2014. As a result of the issues encountered associated with the CRM implementation, we also issued a significant number of billing-related subscriber credits during the year ended December 31, 2014, which reduced our revenue. While management seeks to identify and remediate issues, we can provide no assurance that our identification and remediation efforts will be successful or that we will not encounter additional issues as we complete the implementation of these and other systems. In addition, our information technology system implementations may not result in productivity improvements at a level that outweighs the costs of implementation, or at all. The implementation of new information technology systems may also cause disruptions in our business operations and have an adverse effect on our business, cash flows and operations.

Privacy and data protection concerns, and laws, and regulations relating to privacy, data protection and information security could have a material adverse effect on our business.

In the course of our operations, we gather, process, transmit and store subscriber information, including personal, payment, credit and other confidential and private information. We may use this information for operational and marketing purposes in the course of operating our business.

Our collection, retention, transfer and use of this information are governed by U.S. and foreign laws and regulations relating to privacy, data protection and information security, industry standards and protocols or it may be asserted that such industry standards or protocols apply to us. The regulatory framework for privacy and information security issues worldwide is rapidly evolving and is likely to remain uncertain for the foreseeable future. In North America, federal and various state and provincial governmental bodies and agencies have adopted or are considering adopting laws and regulations limiting, or laws and regulations regarding the collection, distribution, use, disclosure, storage, and security of certain categories of information. Some of these requirements include obligations of companies to notify individuals of security breaches involving particular personal information, which could result from exploitation of a vulnerability in our systems or services or breaches experienced by our service providers and/or partners. For example, the State of California recently enacted the California Consumer Privacy ACT (“CCPA”), which will be effective in January 2020. The CCPA expands the scope of what is considered “personal information” and creates new data access and opt-out rights for consumers, which may create new requirements for us and other companies that operate in California. We are also subject to state and federal laws and regulations regarding telemarketing and other telephonic communications and state and federal laws regarding unsolicited commercial emails, as well as regulations relating to automated telemarketing calls, texts or SMS messages.

Many jurisdictions have established their own data security and privacy legal and regulatory frameworks with which we or our vendors or partners must comply to the extent our operations expand into these geographies or the laws and regulations in these frameworks otherwise may be interpreted to apply to us. Laws and regulations in these jurisdictions apply broadly to the collection, use, storage, disclosure and security of data that identifies or may be used to identify or locate an individual, such as names, email addresses and, in some jurisdictions, Internet Protocol addresses. We also are bound by contractual requirements relating to privacy, data protection and information security, and may agree to additional contractual requirements addressing these matters from time to time.

Our compliance with these various requirements increases our operating costs, and additional laws, regulations, standards or protocols (or new interpretations of existing laws, regulations, standards or protocols) in these areas may further increase our operating costs and adversely affect our ability to effectively market our Products and Services. In view of new or modified legal obligations relating to privacy, data protection or information security, or any changes in their interpretation, we may find it necessary or desirable to fundamentally change our business activities and practices or to expend significant resources to modify our products and services and otherwise adapt to these changes. We may be unable to make such changes and modifications in a commercially reasonable manner or at all, and our ability to develop new services and features could be limited.

Further, our failure or perceived failure to comply with any of these laws, regulations, standards, protocols or other obligations could result in a loss of subscriber data, fines, sanctions and other liabilities and additional restrictions on our collection, transfer or use of subscriber data. In addition, our failure to comply with any of these laws, regulations, standards, protocols or other obligations could result in a material adverse effect on our reputation, subscriber attrition, new subscriber origination, financial condition, cash flows or results of operations.

If our security controls are breached or unauthorized or inadvertent access to subscriber information or other data is otherwise obtained, our services may be perceived as insecure, we may lose existing subscribers or fail to attract new

subscribers, our business may be harmed, and we may incur significant liabilities.

Use of our solutions involves the storage, transmission and processing of personal, payment, credit and other confidential and private information of our subscribers, and may in certain cases permit access to our subscribers' homes or property or help secure them. We also maintain and process other confidential and proprietary information in our business, including our employees' and contractors' personal information and confidential business information. We rely on proprietary and commercially available systems, software, tools and monitoring to protect against unauthorized use or access of the information we process and maintain. Our services and the networks and information systems we utilize in our business are at risk for breaches as a result of third-party action, employee, vendor or partner error, malfeasance, or other factors. For example, we have experienced instances of our employees, contractors and other third parties improperly accessing our and/or our subscribers' systems and information in violation of our internal policies and procedures.

Criminals and other nefarious actors are using increasingly sophisticated methods, including cyber-attacks, phishing, social engineering and other illicit acts to capture, access or alter various types of information, to engage in illegal activities such as fraud and identity theft, and to expose and exploit potential security and privacy vulnerabilities in corporate systems and web sites. Unauthorized intrusion into the portions of our systems and networks and data storage devices that process and store subscriber confidential and private information, the loss of such information or the deployment of malware or other harmful code to our services or our networks or systems, may result in negative consequences including the actual or alleged malfunction of our products or services. In addition, third parties, including our partners and vendors, could also be sources of security risks to us in the event of a failure of their own security systems and infrastructure. The threats we and our partners and vendors face continue to evolve and are difficult to predict due to advances in computer capabilities, new discoveries in the field of cryptography and new and sophisticated methods used by criminals. There can be no assurances that our defensive measures will prevent cyber-attacks or that we will discover network or system intrusions or other breaches on a timely basis or at all. We cannot be certain that we will not suffer a compromise or breach of the technology protecting the systems or networks that house or access our products and services or on which we or our partners or vendors process or store personal information or other sensitive information or data, or that any such incident will not be believed or reported to have occurred. Any such actual or perceived compromises or breaches to systems, or unauthorized access to, or acquisition or loss of, data, whether suffered by us, our partners or vendors, or other third parties, whether as a result of employee error or malfeasance or otherwise, could harm our business. They could, for example, cause interruptions in operations, loss of data, loss of confidence in our services and products, and damage to our reputation, and could limit the adoption of our services and products. They could also subject us to costs, regulatory investigations and orders, litigation, contract damages, indemnity demands and other liabilities and materially and adversely affect our subscriber base, sales, revenues and profits. Any of these could, in turn, have a material adverse impact on our business, financial condition, cash flows or results of operations.

Further, if a high profile security breach occurs with respect to another provider of smart home solutions, our subscribers and potential subscribers may lose trust in the security of our services or in the smart home space generally, which could adversely impact our ability to retain existing subscribers or attract new ones. Even in the absence of any security breach, subscriber concerns about security, privacy or data protection may deter them from using our service. Our errors and omissions insurance policies covering certain security and privacy damages and claim expenses may not be sufficient to compensate for all potential liability. Although we maintain cyber liability insurance, we cannot be certain that our coverage will be adequate for liabilities actually incurred or that insurance will continue to be available to us on economically reasonable terms, or at all.

Our Vivint Flex Pay plan is a new business model that may subject us to additional risks.

In 2017, we introduced a new program that allowed subscribers to finance the purchase of their Products and related installation through our Vivint Flex Pay plan. Under Vivint Flex Pay we offer to our qualified subscribers an opportunity to finance through a third party the purchase of Products and related installation used in connection with our Smart Home Services. We offer certain of our subscribers who do not qualify for third party financing the opportunity to finance their purchase of Products and related installation under a RIC, which is financed by us. Under Vivint Flex Pay, subscribers pay separately for the Products and our Smart Home Services. As an alternative to the financing offered under these programs, subscribers are able to purchase the Products by check, ACH, credit or debit card, and pay in full at the time of installation.

There can be no assurance that the Vivint Flex Pay plan will be successful. If this plan is not favorably received by subscribers or is otherwise not performing as intended by us, it could have an adverse effect on our business, subscriber growth rate, financial condition and results of operations. In addition, reductions in consumer lending and/or the availability of consumer credit under the Vivint Flex Pay plan could limit the number of subscribers with the financial means to purchase the Products and thus limit the number of subscribers who are able to subscribe to our Smart Home Services. There is no assurance that our current provider of installment loans, Citizens Bank, N.A., or any other companies that may in the future offer financing to our subscribers will continue to provide subscribers with access to credit or that credit limits under such

arrangements will be sufficient. In addition, a severe disruption in the global financial markets could impact the providers of installment loans under the Vivint Flex Pay plan and such instability could also affect the ability of subscribers to access financing under the Vivint Flex Pay plan or otherwise. Such restrictions or limitations on the availability of consumer credit or unfavorable reception of the Vivint Flex Pay plan by potential subscribers could have a material adverse impact on our business, results of operations, financial condition and cash flows.

In addition, the Vivint Flex Pay plan subjects us to additional regulatory requirements and compliance obligations. In particular, the Vivint Flex Pay plan may require that we be licensed as a lender in certain jurisdictions in which we operate. We may face the risk of increased consumer complaints, potential supervision, examinations or enforcement actions by federal and state licensing and regulatory agencies and/or penalties for violation of financial services, consumer protections and other applicable laws and regulations. We currently offer RICs in all of the jurisdictions in which we operate and therefore are subject to regulation by state and local authorities for the use of RICs. We provide intensive training to our employees regarding sales practices and the content of our RICs and strive to comply in all material respects with these laws; however, we cannot be certain that our employees will abide by our policies and applicable laws, which violations could have a material and adverse impact on our business. We also offer RICs to our Canadian subscribers, and as a result are subject to additional regulatory requirements in Canada. In the future, we may elect to offer installment loans and other financial services products similar to the Consumer Financing Program directly to qualified subscribers. If we elect to offer such financial services directly, this may further expand our regulatory and compliance obligations. In addition, as Vivint Flex Pay evolves, we may become subject to additional regulatory requirements and compliance obligations.

We are subject to payment related risks.

We accept payments using a variety of methods, including check, credit card, debit card, direct debit from subscriber's bank account and consumer invoicing. For existing and future payment options we offer to our subscribers, we may become subject to additional regulations, compliance requirements and fraud. For certain payment methods, including credit and debit cards, we pay interchange and other fees, which may increase over time and raise our operating costs and lower profitability. We rely on third parties to provide payment-processing services, including the processing of credit cards, debit cards and electronic checks, and it could disrupt our business if these companies become unwilling or unable to provide these services to us. We are also subject to payment card association operating rules, including data security rules, certification requirements and rules governing electronic funds transfers, which could change or be reinterpreted to make it difficult or impossible for us to comply. If we fail to comply with these rules or requirements, or if our data security systems are breached or compromised, we may be liable for card issuing banks' costs, subject to fines and higher transaction fees, and lose our ability to accept credit and debit card payments from our subscribers, process electronic funds transfers, or facilitate other types of online payments, and our business and operating results could be adversely affected. See "- Privacy and data protection concerns, and laws and regulations relating to privacy, data protection and information security, could have a material adverse effect on our business" and "- If our security controls are breached or unauthorized or inadvertent access to subscriber information or other data is otherwise obtained, our services may be perceived as insecure, we may lose existing subscribers or fail to attract new subscribers, our business may be harmed, and we may incur significant liabilities."

We may fail to obtain or maintain necessary licenses or otherwise fail to comply with applicable laws and regulations.

Our business focuses on contracts and transactions with residential subscribers and therefore is subject to a variety of laws, regulations and licensing requirements that govern our interactions with residential consumers, including those pertaining to privacy and data security, consumer financial and credit transactions, home improvements, warranties and door-to-door solicitation. We are a licensed service provider in each market where such licensure is required and we are responsible for every subscriber installation. Our business may become subject to additional such requirements in the future. In certain jurisdictions, we are also required to obtain licenses or permits to comply with standards governing marketing and sales efforts, installation of equipment or servicing of subscribers, monitoring station employee selection and training and to meet certain standards in the conduct of our business. These laws and regulations are dynamic and subject to potentially differing interpretations, and various legislative and regulatory bodies may expand current laws or regulations, or enact new laws and regulations, regarding these matters. We strive to comply with all applicable laws and regulations relating to our interactions with residential subscribers. It is possible, however, that these requirements may be interpreted and applied in a manner that is inconsistent from one jurisdiction to another and may conflict with other rules or our practices. Our non-compliance with any such law or regulations could also expose us to claims, proceedings, litigation and investigations by private parties and regulatory authorities, as well as substantial fines and negative publicity, each of which may materially and adversely affect our business. We have incurred, and will continue to incur, significant expenses to comply with such laws and regulations, and increased regulation of matters relating to our interactions with residential consumers could require us to modify our operations and incur significant additional expenses, which could have an adverse effect on our business, financial condition and results of

operations. If we expand the scope of our products or services, or our operations in new markets, we may be required to obtain additional licenses and otherwise maintain compliance with additional laws, regulations or licensing requirements.

Changes in these laws or regulations or their interpretation, as well as new laws, regulations or licensing requirements which may be enacted, could dramatically affect how we do business, acquire subscribers, and manage and use information we collect from and about current and prospective subscribers and the costs associated therewith. For example, certain U.S. municipalities have adopted, or are considering adopting, laws, regulations or policies aimed at reducing the number of false alarms, including: (1) subjecting companies to fines or penalties for transmitting false alarms, (2) imposing fines on subscribers for false alarms or (3) imposing limitations on law enforcement response. These measures could adversely affect our future operations and business by increasing our costs, reducing subscriber satisfaction or affecting the public perception of the effectiveness of our products and services. In addition, federal, state and local governmental authorities have considered, and may in the future consider, implementing consumer protection rules and regulations, which could impose significant constraints on our sales channels.

Regulations have been issued by the Federal Trade Commission, or FTC, FCC, and Canadian Radio-Television and Telecommunications Commission, or CRTC that place restrictions on direct-to-home marketing, telemarketing, email marketing and general sales practices. These restrictions include, but are not limited to, limitations on methods of communication, requirements to maintain a “do not call” list, cancellation rights and required training for personnel to comply with these restrictions.

The FTC regulates both general sales practices and telemarketing specifically and has broad authority to prohibit a variety of advertising or marketing practices that may constitute “unfair or deceptive acts or practices.” The CRTC has enforcement authority under the Canadian Anti-Spam Law, or CASL, which prohibits the sending of commercial emails without prior consent of the recipient or an existing business relationship and sets forth rules governing the sending of commercial emails. CASL allows for a private right of action for the recovery of damages or provides for enforcement by CRTC permitting the recovery of significant civil penalties, costs and attorneys’ fees in the event that regulations are violated. Similarly, most of the statutes and regulations in the United States allow a private right of action for the recovery of damages or provide for enforcement by the FTC, state attorneys general or state agencies permitting the recovery of significant civil or criminal penalties, costs and attorneys’ fees in the event that regulations are violated. Any new or changed laws, regulations or licensing requirements, or the interpretation of such laws, regulations or licensing requirements could have a material adverse effect on our business, financial condition, cash flows or results of operations. We strive to comply with all such applicable regulations, but cannot assure you that we or third parties that we may rely on for telemarketing, email marketing and other lead generation activities will be in compliance with all applicable regulations at all times. Although our contractual arrangements with such third parties expressly require them to comply with all such regulations and to indemnify us for their failure to do so, we cannot assure you that the FTC, FCC, CRTC, private litigants or others will not attempt to hold us responsible for any unlawful acts conducted by such third parties or that we could successfully enforce or collect upon such indemnities. Additionally, certain FCC rulings and/or FTC enforcement actions may support the legal position that we may be held vicariously liable for the actions of third parties, including any telemarketing violations by our independent, third party authorized dealers that are performed without our authorization or that are otherwise prohibited by our policies. Both the FCC and the FTC have relied on certain actions to support the notion of vicarious liability, including but not limited to, the use of the company brand or trademark, the authorization or approval of telemarketing scripts or the sharing of consumer prospect lists. Changes in such regulations or the interpretation thereof that further restrict such activities could result in a material reduction in the number of leads for our business and could have a material adverse effect on our business, financial condition, results of operations and cash flows.

The policies of the U.S. Government may adversely impact our business, financial condition and results of operations.

Certain changes in U.S. social, political, regulatory and economic conditions or in laws and policies governing foreign trade, manufacturing, development and investment could adversely affect our business. General trade tensions between the U.S. and China escalated in 2018, with three rounds of U.S. tariffs on Chinese goods taking effect in July, August, and September 2018, each followed by a round of retaliatory Chinese tariffs on U.S. goods. If duties on existing tariffs are raised or if additional tariffs are announced, many of our inbound products to the United States would be subject to tariffs assessed in the cost of goods as imported. If these duties are imposed on such products, we may be required to raise our prices, which may result in the loss of subscribers and harm our operating performance. Alternatively, we may seek to shift production outside of China, resulting in additional costs and disruption to our operations. Additionally, the current administration continues to signal that it may alter trade agreements and terms between China and the United States, including limiting trade with China, and may impose additional tariffs on imports from China.

On December 22, 2017, the U.S. President signed into law the “Tax Cuts and Jobs Act” (the “Act”). Among other changes, the Act imposes limitations on the deductibility of interest. Moreover, the effects of the Act are not yet entirely clear and will depend on, among other things, additional regulatory and administrative guidance, as well as any statutory technical corrections that are subsequently enacted, which could have an adverse effect on the U.S. federal income taxation of our and our subsidiaries’ operations.

While there is currently a substantial lack of clarity and uncertainty around the likelihood, timing and details of any such policies and reforms, such policies and reforms may materially and adversely affect our business, financial condition and results of operations and the value of our securities.

Increased adoption of laws purporting to characterize certain charges in our subscriber contracts as unlawful, may adversely affect our operations.

If a subscriber cancels prior to the end of the initial term of the contract, other than in accordance with the contract, we may, under the terms of the subscriber contract, charge the subscriber the amount that would have been paid over the remaining term of the contract. Several states have adopted, or are considering adopting, laws restricting the charges that can be imposed upon contract cancellation prior to the end of the initial contract term. Such initiatives could negatively impact our business and have a material adverse effect on our business, financial condition, cash flows or results of operations. Adverse rulings regarding these matters could increase legal exposure to subscribers against whom such charges have been imposed and the risk that certain subscribers may seek to recover such charges from us through litigation or otherwise. In addition, the costs of defending such litigation and enforcement actions could have an adverse effect on our business, financial condition, cash flows or results of operations.

Our new Products and Services may not be successful.

We launched our first smart home Products and Services beginning in 2010. Since that time we have launched a number of other offerings. We anticipate launching additional Products and Services in the future. These Products and Services and the new Products and Services we may launch in the future may not be well-received by our subscribers, may not help us to generate new subscribers, may adversely affect the attrition rate of existing subscribers, may increase our subscriber acquisition costs and may increase the costs to service our subscribers. For example, during the year ended December 31, 2015 we recorded restructuring and asset impairment charges for our Wireless Internet business totaling \$59.2 million, which resulted in \$52.5 million of asset impairment charges related to write downs of our network assets, subscriber acquisition costs, certain intellectual property and goodwill and \$5.1 million in net restructuring charges related to employee severance and termination benefits as well as write offs of certain vendor contracts. Any profits we may generate from these or other new Products or Services may be lower than profits generated from our other Products and Services and may not be sufficient for us to recoup our development or subscriber acquisition costs incurred. New Products and Services may also have lower gross margins, particularly to the extent that they do not fully utilize our existing infrastructure. In addition, new Products and Services may require increased operational expenses or subscriber acquisition costs and present new and difficult technological and intellectual property challenges that may subject us to claims or complaints if subscribers experience service disruptions or failures or other quality issues. To the extent our new Products and Services are not successful, it could have a material adverse effect on our business, financial condition, cash flows or results of operations.

Our new retail strategy may subject us to additional risks.

Historically, we have primarily originated subscribers through our direct-to-home and inside sales channels. However, in 2017 we developed a new strategy to enter into the retail channel in order to expand our reach to the broad consumer market. For example, on May 4, 2017, we announced the Best Buy Agreement, pursuant to which the parties had agreed to jointly market and sell smart home products and services. In July 2018, as part of certain cost reduction initiatives, the goal of which was to reduce certain of our General and Administrative, Subscriber Service, and Sales Support fixed costs, we agreed in principle to end the co-branded Best Buy Smart Home by Vivint arrangement and in December 2018 we formally terminated our relationship with Best Buy. See “Summary-Recent Developments.” We continue to explore other retail strategy opportunities and may devote significant management attention, significant capital and other resources in connection with such efforts. However, despite these efforts and expenses, we may not be able to establish retail distribution channels for our products and services.

The technology we employ may become obsolete, which could require significant capital expenditures.

Our industry is subject to continual technological innovation. Our Products and Services interact with the hardware and software technology of systems and devices located at our subscribers’ property. We may be required to implement new

technologies or adapt existing technologies in response to changing market conditions, subscriber preferences, industry standards or inability to secure necessary intellectual property licenses, which could require significant capital expenditures. It is also possible that one or more of our competitors could develop a significant technological advantage that allows them to provide additional or superior products or services, or to lower their price for similar products or services, that could put us at a competitive disadvantage. Our inability to adapt to changing technologies, market conditions or subscriber preferences in a timely manner could have a material adverse effect on our business, financial condition, cash flows or results of operations.

Our future operating and financial results are uncertain.

Prior growth rates in revenues and other operating and financial results should not be considered indicative of our future performance. Our future performance and operating results depend on, among other things: (1) our ability to renew and/or upgrade contracts with existing subscribers and maintain subscriber satisfaction with existing subscribers, (2) our ability to generate new subscribers, including our ability to scale the number of new subscribers generated through inside sales and other channels, (3) our ability to increase the density of our subscriber base for existing service locations or continue to expand into new geographic markets, (4) our ability to successfully develop and market new and innovative Products and Services, (5) the level of product, service and price competition, (6) the degree of saturation in, and our ability to further penetrate, existing markets, (7) our ability to manage growth, revenues, origination or acquisition costs of new subscribers and attrition rates, the cost of servicing our existing subscribers and general and administrative costs and (8) our ability to attract, train and retain qualified employees. If our future operating and financial results suffer as a result of any of the other reasons mentioned above, or any other reasons, there could be a material adverse effect on our business, financial condition, cash flows or results of operations.

There can be no assurance that we will be able to achieve or maintain profitability or positive cash flow from operations.

Our ability to generate future positive operating results and cash flows depends, in part, on our ability to generate new subscribers in a cost effective manner, while minimizing attrition of existing subscribers. New subscriber acquisitions play a particularly important role in our financial model as they not only increase our future operating cash flows, but also help to replace the cash flows lost as a result of subscriber attrition. If we are unable to cost-effectively generate new subscribers or retain our existing subscribers, our business, operating results and financial condition would be materially adversely affected. In addition, to drive our growth, we have made significant upfront investments in subscriber acquisition costs, as well as technology and infrastructure to support our growing subscriber base. As a result of these investments, we have incurred losses and used significant amounts of cash to fund operations. As our business scales, we expect recurring revenue to increase due to growth in our total subscribers. If such increase occurs, a greater percentage of our net acquisition costs for new subscribers may be funded through revenues generated by our existing subscriber base. We also expect the number of new subscribers to decrease as a percentage of our total subscribers as our business scales, which we believe, along with the expected growth in recurring revenue, will improve operating results and operating cash flows over time. Our ability to improve our operating results and cash flows, however, is subject to a number of risks and uncertainties and there can be no assurance that we will achieve such improvements. To the extent the number of new subscribers does not decrease as a percentage of our total subscribers or we do not reduce the percentage of our revenue used to support new investments, we will continue to incur losses and require a significant amount of cash to fund our operations, which in turn could have a material adverse effect on our business, cash flows, operating results and financial condition.

Our business is subject to economic and demographic factors that may negatively impact our results of operations.

Our business is generally dependent on national, regional and local economic conditions.

Historically, both the U.S. and worldwide economies have experienced cyclical economic downturns, some of which have been prolonged and severe. These economic downturns have generally coincided with, and contributed to, increased energy costs, concerns about inflation, slower economic activity, decreased consumer confidence and spending, reduced corporate profits and capital spending, adverse business conditions and liquidity concerns. These conditions and concerns result in a decline in business and consumer confidence and increased unemployment.

Where disposable income available for discretionary spending is reduced (due to, for example, higher housing, energy, interest or other costs or where the perceived wealth of subscribers has decreased) and disruptions in the financial markets adversely impact the availability and cost of credit, our business may experience increased attrition rates, a reduced ability to originate new subscribers and reduced consumer demand.

For instance, recoveries in the housing market increase the occurrence of relocations which may lead to subscribers disconnecting service and not contracting with us in their new homes. We cannot predict the timing or duration of any

economic slowdown or the timing or strength of a subsequent economic recovery, worldwide, or in the specific markets where our subscribers are located.

Furthermore, any deterioration in new construction and sales of existing single-family homes could reduce opportunities to originate new subscribers and increase attrition among our existing subscribers. Such downturns in the economy in general, and the housing market in particular may negatively affect our business.

In addition, unfavorable shifts in population and other demographic factors may cause us to lose subscribers as people migrate to markets where we have little or no presence, or if the general population shifts into a less desirable age, geographic or other demographic group from our business perspective.

Our inside sales and retail channels depend on third parties and other sources that we do not control to generate leads that we then convert into subscribers. If our third party partners and lead generators are not successful in generating leads for our inside sales and retail sales channels, if the quality of those leads deteriorates, or if we are unable to generate leads through other sources that are cost effective and successfully convert into subscribers, it could have a material adverse effect on our financial condition, cash flows or results of operations.

Also, our subscribers consist largely of homeowners, who are subject to economic, credit, financial and other risks, as applicable. These risks could materially and adversely affect a subscriber's ability to make required payments to us on a timely basis. Any such decrease or delay in subscriber payments may have a material adverse effect on us. As a result of financial distress, subscribers may apply for relief under bankruptcy and other laws relating to creditors' rights. In addition, subscribers may be subject to involuntary application of such bankruptcy and other laws relating to creditors' rights. The bankruptcy of a subscriber could adversely affect our ability to collect payments, to protect our rights and otherwise realize the value of our contract with the subscriber. This may occur as a result of, among other things, application of the automatic stay, delays and uncertainty in the bankruptcy process and potential rejection of such subscriber contracts. Our subscribers' inability to pay, whether as a result of economic or credit issues, bankruptcy or otherwise, could have a material adverse effect on our financial condition, cash flows or results of operations.

We depend on a limited number of suppliers to provide our Products and Services. Our product suppliers, in turn, rely on a limited number of suppliers to provide significant components and materials used in our products. A change in our existing preferred supply arrangements or a material interruption in supply of products or third party services could increase our costs or prevent or limit our ability to accept and fill orders for our products and services.

We obtain important components of our systems from several suppliers. Should such suppliers cease to manufacture the products we purchase from them or become unable to timely deliver these products in accordance with our requirements, or should such other suppliers choose not to do business with us, we may be required to locate alternative suppliers. We also rely on a number of sole or limited source suppliers for critical components of our solution. In particular we rely on Alpha Networks for our indoor cameras. Replacing this sole source supplier or our limited source suppliers could require the expenditure of significant resources and time to redesign and resource these products. In addition, any financial or other difficulties our suppliers face may have negative effects on our business. We may be unable to locate alternate suppliers on a timely basis or to negotiate the purchase of control panels or other equipment on favorable terms, if at all. In addition, our equipment suppliers, in turn, depend upon a limited number of outside unaffiliated suppliers for key components and materials used in our control panels and other equipment. If any of these suppliers cease to or are unable to provide components and materials in sufficient quantity and of the requisite quality, especially during our summer selling season when a large percentage of our new subscriber originations occur, and if there are not adequate alternative sources of supply, we could experience significant delays in the supply of equipment. Any such delay in the supply of equipment of the requisite quality could adversely affect our ability to originate subscribers and cause our subscribers not to continue, renew or upgrade their contracts or to choose not to purchase such Products or Services from us. This would result in delays in or loss of future revenues and could have a material adverse effect on our business, financial condition, cash flows or results of operations. Also, if previously installed components and materials were found to be defective, we might not be able to recover the costs associated with the recall, repair or replacement of such products, across our installed subscriber base, and the diversion of personnel and other resources to address such issues could have a material adverse effect on our financial condition, cash flows or results of operations.

Currency fluctuations could materially and adversely affect us and we have not hedged this risk.

Historically, a portion of our revenue has been denominated in Canadian Dollars. For the year ended December 31, 2018, before intercompany eliminations, approximately \$72.6 million of our revenues were denominated in Canadian Dollars. As of December 31, 2018, \$232.9 million of our total assets and \$206.5 million of our total liabilities were denominated in Canadian

Dollars. In the future, we expect to continue generating revenue denominated in Canadian Dollars and other foreign currencies. Accordingly, we may be materially and adversely affected by currency fluctuations in the U.S. Dollar versus these currencies. Weaker foreign currencies relative to the U.S. Dollar may result in lower levels of reported revenues with respect to foreign currency-denominated subscriber contracts, net income, assets, liabilities and accumulated other comprehensive income on our U.S. Dollar-denominated financial statements. We have not historically hedged against this exposure. Foreign exchange rates are influenced by many factors outside of our control, including but not limited to: changing supply and demand for a particular currency, monetary policies of governments (including exchange-control programs, restrictions on local exchanges or markets and limitations on foreign investment in a country or on investment by residents of a country in other countries), changes in balances of payments and trade, trade restrictions and currency devaluations and revaluations. Also, governments may from time to time intervene in the currency markets, directly and by regulation, to influence prices directly. As such, these events and actions are unpredictable. The resulting volatility in the exchange rates for the other currencies could have a material adverse effect on our financial condition and results of operations.

We rely on certain third-party providers of licensed software and services integral to the operations of our business.

Certain aspects of the operation of our business depend on third-party software and service providers. We rely on certain software technology that we license from third parties and use in our products and services to perform key functions and provide critical functionality. For example, our subscribers with Go!Control panels utilize technology hosted by Alarm.com to access their systems remotely through a smart phone application or through web interface. With regard to licensed software technology, we are, to a certain extent, dependent upon the ability of third parties to maintain, enhance or develop their software and services on a timely and cost-effective basis, to meet industry technological standards and innovations to deliver software and services that are free of defects or security vulnerabilities, and to ensure their software and services are free from disruptions or interruptions. Further, these third-party services and software licenses may not always be available to us on commercially reasonable terms or at all.

If our agreements with third-party software or services vendors are not renewed or the third-party software or services become obsolete, fail to function properly, are incompatible with future versions of our products or services, are defective or otherwise fail to address our needs, there is no assurance that we would be able to replace the functionality provided by the third-party software or services with software or services from alternative providers. Furthermore, even if we obtain licenses to alternative software or services that provide the functionality we need, we may be required to replace hardware installed at our monitoring stations and at our subscribers' homes, including security system control panels and peripherals, to affect our integration of or migration to alternative software products. Any of these factors could have a material adverse effect on our financial condition, cash flows or results of operations.

We are highly dependent on the proper and efficient functioning of our computer, data back-up, information technology, telecom and processing systems, platform and our redundant monitoring stations.

Our ability to keep our business operating is highly dependent on the proper and efficient operation of our computer systems, information technology systems, telecom systems, data- processing systems and subscriber software platform. Although we have redundant central monitoring facilities, back-up computer and power systems and disaster recovery tests, if there is a catastrophic event, natural disaster, security breach, negligent or intentional act by an employee or other extraordinary event, we may be unable to provide our subscribers with uninterrupted services.

Furthermore, because computer and data back-up and processing systems are susceptible to malfunctions and interruptions, we cannot guarantee that we will not experience service failures in the future. A significant or large-scale malfunction or interruption of any computer or data back-up and processing system could adversely affect our ability to keep our operations running efficiently and respond to alarm system signals. We do not have a backup system for our subscriber software platform. If a malfunction results in a wider or sustained disruption, it could have a material adverse effect on our reputation, business, financial condition, cash flows or results of operations.

We are subject to unionization and labor and employment laws and regulations, which could increase our costs and restrict our operations in the future.

Currently, a very small minority of our employees are represented by a union. As we continue to grow, and enter different regions, unions may make further attempts to organize all or part of our employee base. If more or all of our workforce were to become unionized, and the terms of the collective bargaining agreement were significantly different from our current compensation arrangements, it could increase our costs and adversely impact our profitability. Additionally, responding to such organization attempts distracts our management and results in increased legal and other professional fees; and, labor union contracts could put us at increased risk of labor strikes and disruption of our operations.

Our business is subject to a variety of employment laws and regulations and may become subject to additional such requirements in the future. Although we believe we are in material compliance with applicable employment laws and regulations, in the event of a change in requirements, we may be required to modify our operations or to utilize resources to maintain compliance with such laws and regulations. Moreover, we may be subject to various employment-related claims, such as individual or class actions or government enforcement actions relating to alleged employment discrimination, employee classification and related withholding, wage-hour, labor standards or healthcare and benefit issues. Our failure to comply with applicable employment laws and regulations and related legal actions against us, may affect our ability to compete or have a material adverse effect on our business, financial condition, cash flows or results of operations.

The loss of our senior management could disrupt our business.

Our senior management is important to the success of our business because there is significant competition for executive personnel with experience in the smart home and security industry and our sales channels. As a result of this need and the competition for a limited pool of industry-based executive experience, we may not be able to retain our existing senior management. In addition, we may not be able to fill new positions or vacancies created by expansion or turnover. We do not and do not currently expect to have in the future “key person” insurance on the lives of any member of our senior management. The loss of any member of our senior management team without retaining a suitable replacement could have a material adverse effect on our business, financial condition, cash flows or results of operations.

If we are unable to acquire necessary intellectual property or adequately protect our intellectual property, we could be competitively disadvantaged.

Our intellectual property, including our patents, trademarks, copyrights, trade secrets and other proprietary rights, constitutes a significant part of our value. Our success depends, in part, on our ability to protect our proprietary technology, brands and other intellectual property against dilution, infringement, misappropriation and competitive pressure by defending our intellectual property rights. To protect our intellectual property rights, we rely on a combination of patent, trademark, copyright and trade secret laws of the United States, Canada and other countries and a combination of confidentiality procedures, contractual provisions and other methods, all of which offer only limited protection. In addition, we make efforts to acquire rights to intellectual property necessary for our operations. However, there can be no assurance that these measures will be successful in any given case, particularly in those countries where the laws do not protect our proprietary rights as fully as in the United States.

We own a portfolio of issued U.S. patents and pending U.S. and foreign patent applications that relate to a variety of smart home, security and wireless Internet technologies utilized in our business. We may file additional patent applications in the future in the United States and internationally. The process of obtaining patent protection is expensive and time-consuming, and we may not be able to prosecute all necessary or desirable patent applications at a reasonable cost or in a timely manner all the way through to the successful issuance of a patent. We may choose not to seek patent protection for certain innovations and may choose not to pursue patent protection in certain jurisdictions. In addition, issuance of a patent does not guarantee that we have an absolute right to practice the patented invention.

If we fail to acquire necessary intellectual property rights or adequately protect or assert our intellectual property rights, competitors may dilute our brands or manufacture and market similar products and services or convert our subscribers, which could adversely affect our market share and results of operations. We may not receive patents or trademarks for all our pending patent and trademark applications, and existing or future patents or licenses may not provide competitive advantages for our products and services. Furthermore, it is possible that our patent applications may not issue as granted patents, that the scope of our issued patents will be insufficient or not have the coverage originally sought, and that our issued patents will not provide us with any competitive advantages. Our competitors may challenge, invalidate or avoid the application of our existing or future intellectual property rights that we obtain or license. In addition, patent rights may not prevent our competitors from developing, using or selling products or services that are similar to or address the same market as our products and services. The loss of protection for our intellectual property rights could reduce the market value of our brands and our products and services, reduce new subscriber originations or upgrade sales to existing subscribers, lower our profits, and could have a material adverse effect on our business, financial condition, cash flows or results of operations.

Our policy is to require our employees that were hired to develop material intellectual property included in our products to execute written agreements in which they assign to us their rights in potential inventions and other intellectual property created within the scope of their employment (or, with respect to consultants and service providers, their engagement to develop such intellectual property), but we cannot assure you that we have adequately protected our rights in every such agreement or that we have executed an agreement with every such party. Finally, in order to benefit from the protection of patents and other intellectual property rights, we must monitor and detect infringement, misappropriation or other violations of

our intellectual property rights and pursue infringement, misappropriation or other claims in certain circumstances in relevant jurisdictions, all of which are costly and time-consuming. As a result, we may not be able to obtain adequate protection or to effectively enforce our issued patents or other intellectual property rights.

In addition to patents and registered trademarks, we rely on trade secret rights, copyrights and other rights to protect our unpatented proprietary intellectual property and technology. Despite our efforts to protect our proprietary technologies and our intellectual property rights, unauthorized parties, including our employees, consultants, service providers or subscribers, may attempt to copy aspects of our products or obtain and use our trade secrets or other confidential information. We generally enter into confidentiality agreements with our employees and third parties that have access to our material confidential information, and generally limit access to and distribution of our proprietary information and proprietary technology through certain procedural safeguards. These agreements may not effectively prevent unauthorized use or disclosure of our intellectual property or technology, could be breached or otherwise may not provide meaningful protection for our trade secrets and know-how related to the design, manufacture or operation of our products and may not provide an adequate remedy in the event of unauthorized use or disclosure. We cannot assure you that the steps taken by us will prevent misappropriation of our intellectual property or technology or infringement of our intellectual property rights. Competitors may independently develop technologies or products that are substantially equivalent or superior to our solutions or that inappropriately incorporate our proprietary technology into their products or they may hire our former employees who may misappropriate our proprietary technology or misuse our confidential information. In addition, if we expand the geography of our service offerings, the laws of some foreign countries where we may do business in the future do not protect intellectual property rights and technology to the same extent as the laws of the United States, and these countries may not enforce these laws as diligently as government agencies and private parties in the United States.

From time to time, legal action by us may be necessary to enforce our patents and other intellectual property rights, to protect our trade secrets, to determine the validity and scope of the intellectual property rights of others or to defend against claims of infringement, misappropriation or invalidity. Such litigation could result in substantial costs and diversion of resources and could negatively affect our business, operating results and financial condition. If we are unable to protect our intellectual property and technology, we may find ourselves at a competitive disadvantage to others who need not incur the additional expense, time and effort required to create the innovative products that have enabled us to be successful to date.

From time to time, we are subject to claims for infringing, misappropriating or otherwise violating the intellectual property rights of others, and will be subject to such claims in the future, which could have an adverse effect on our business and operations.

We cannot be certain that our products and services or those of third parties that we incorporate into our offerings do not and will not infringe the intellectual property rights of others. Many of our competitors and others may now and in the future have significantly larger and more mature patent portfolios than we have. We have been in the past, and may be in the future, subject to claims based on allegations of infringement, misappropriation or other violations of the intellectual property rights of others, including litigation brought by special purpose or so-called “non-practicing” entities that focus solely on extracting royalties and settlements by enforcing intellectual property rights and against whom our patents may therefore provide little or no deterrence or protection. Regardless of their merits, intellectual property claims divert the attention of our personnel and are often time-consuming and expensive. In addition, to the extent claims against us are successful, we may have to pay substantial monetary damages (including, for example, treble damages if we are found to have willfully infringed patents and increased statutory damages if we are found to have willfully infringed copyrights) or discontinue or modify certain products or services that are found to infringe another party’s rights or enter into licensing agreements with costly royalty payments. Defending against claims of infringement, misappropriation or other violation or being deemed to be infringing, misappropriating or otherwise violating the intellectual property rights of others could impair our ability to innovate, develop, distribute and sell our current and planned products and services. We have in the past and will continue in the future to seek one or more licenses to continue offering certain products or services, which could have a material adverse effect on our business, financial condition, cash flows or results of operations.

In some cases, we indemnify our channel partners against claims that our products infringe, misappropriate or otherwise violate the intellectual property rights of third parties. Such claims could arise out of our indemnification obligation with our channel partners and end-subscribers, whom we typically indemnify against such claims. Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by the discovery process. Although claims of this kind have not materially affected our business to date, there can be no assurance material claims will not arise in the future.

Although third parties may offer a license to their technology or other intellectual property, the terms of any offered

license may not be acceptable, and the failure to obtain a license or the costs associated with any license could cause our business, financial condition and results of operations to be materially and adversely affected. In addition, some licenses may be non-exclusive, and therefore our competitors may have access to the same technology licensed to us. If a third party does not offer us a license to its technology or other intellectual property on reasonable terms, or at all, we could be enjoined from continued use of such intellectual property. As a result, we may be required to develop alternative, non-infringing technology, which could require significant time (during which we could be unable to continue to offer our affected products, subscriptions or services), effort, and expense and may ultimately not be successful. Furthermore, a successful claimant could secure a judgment or we may agree to a settlement that prevents us from distributing certain products, providing certain subscriptions or performing certain services or that requires us to pay substantial damages, royalties or other fees. Any of these events could harm our business, financial condition and results of operations.

Our solutions contain third-party open source software components, and failure to comply with the terms of the underlying open source software licenses could restrict our ability to sell our products and subscriptions.

Certain of our solutions contain software modules licensed to us by third-party authors under “open source” licenses. The use and distribution of open source software may entail greater risks than the use of third-party commercial software, as open source licensors generally do not provide warranties or other contractual protections regarding infringement claims or the quality of the code.

Some open source licenses contain requirements that we make available source code for modifications or derivative works we create based upon the type of open source software we use. If we combine our proprietary software with open source software in a certain manner, we could, under certain open source licenses, be required to release the source code of our proprietary software to the public. This would allow our competitors to create similar products with lower development effort and time and ultimately could result in a loss of sales for us.

Although we monitor our use of open source software and try to ensure that none is used in a manner that would require us to disclose our proprietary source code or that would otherwise breach the terms of an open source agreement, the terms of many open source licenses have not been interpreted by U.S. courts, and there is a risk that these licenses could be construed in ways that could impose unanticipated conditions or restrictions on our ability to commercialize solutions incorporating such software. Moreover, we cannot assure you that our processes for controlling our use of open source software in our solutions will be effective. From time to time, we may face claims from third parties asserting ownership of, or demanding release of, the open source software or derivative works that we developed using such software (which could include our proprietary source code), or otherwise seeking to enforce the terms of the applicable open source license. These claims could result in litigation. If we are held to have breached the terms of an open source software license, we could be required to seek licenses from third parties to continue offering our products on terms that are not economically feasible, to re-engineer our products, to discontinue the sale of our products if re-engineering could not be accomplished on a timely or cost-effective basis, or to make generally available, in source code form, our proprietary code, any of which could adversely affect our business, results of operations and financial condition.

If we fail to maintain effective internal control over financial reporting at a reasonable assurance level, we may not be able to accurately report our financial results, which could have a material adverse effect on our operations, investor confidence in our business and the trading prices of our securities.

A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting such that there is a reasonable possibility that a material misstatement of a company’s annual or interim financial statements will not be prevented or detected on a timely basis. If material weaknesses in our internal controls are discovered, they may adversely affect our ability to record, process, summarize and report financial information timely and accurately and, as a result, our financial statements may contain material misstatements or omissions.

In addition, it is possible that control deficiencies could be identified by our management or by our independent registered public accounting firm in the future or may occur without being identified. Such a failure could result in regulatory scrutiny, and cause investors to lose confidence in our reported financial condition, lead to a default under our indebtedness and otherwise have a material adverse effect on our business, financial condition, cash flow or results of operations.

Product or Service defects or shortfalls in subscriber service could have an adverse effect on us.

Our inability to provide Products, Services or subscriber service in a timely manner or defects with our Products or Services, including products and services of third parties that we incorporate into our offerings, could adversely affect our

reputation and subject us to claims or litigation. In addition, our inability to meet subscribers' expectations with respect to our Products, Services or subscriber service could increase attrition rates or affect our ability to generate new subscribers and thereby have a material adverse effect on our business, financial condition, cash flow or results of operations.

We are exposed to greater risk of liability for employee acts or omissions or system failure, than may be inherent in other businesses.

The nature of the Products and Services we provide potentially exposes us to greater risks of liability for employee acts or omissions or system failures than may be inherent in other businesses. If subscribers believe that they incurred losses as a result of our action or inaction, the subscribers (or their insurers) have and could in the future bring claims against us. Although our service contracts contain provisions limiting our liability for such claims, no assurance can be given that these limitations will be enforced, and the costs of such litigation or the related settlements or judgments could have a material adverse effect on our financial condition. In addition, there can be no assurance that we are adequately insured for these risks. Certain of our insurance policies and the laws of some states may limit or prohibit insurance coverage for punitive or certain other types of damages or liability arising from gross negligence. If significant uninsured damages are assessed against us, the resulting liability could have a material adverse effect on our business, financial condition, cash flows or results of operations.

Future transactions could pose risks.

We frequently evaluate strategic opportunities both within and outside our existing lines of business. We expect from time to time to pursue additional business opportunities and may decide to eliminate or acquire certain businesses, products or services. For example, in August 2014, we acquired Space Monkey, a distributed cloud storage technology solution company. Such acquisitions or dispositions could be material. There are various risks and uncertainties associated with potential acquisitions and divestitures, including: (1) availability of financing, (2) difficulties related to integrating previously separate businesses into a single unit, including product and service offerings, distribution and operational capabilities and business cultures, (3) general business disruption, (4) managing the integration process, (5) diversion of management's attention from day-to-day operations, (6) assumption of costs and liabilities of an acquired business, including unforeseen or contingent liabilities or liabilities in excess of the amounts estimated, (7) failure to realize anticipated benefits and synergies, such as cost savings and revenue enhancements, (8) potentially substantial costs and expenses associated with acquisitions and dispositions, (9) failure to retain and motivate key employees and (10) difficulties in applying our internal control over financial reporting and disclosure controls and procedures to an acquired business. Any or all of these risks and uncertainties, individually or collectively, could have material adverse effect on our business, financial condition, cash flow or results of operations. We can offer no assurance that any such strategic opportunities will prove to be successful. Among other negative effects, our pursuit of such opportunities could cause our cost of investment in new subscribers to grow at a faster rate than our recurring revenue and fees collected at the time of installation. Additionally, any new product or service offerings could require developmental investments or have higher cost structures than our current arrangements, which could reduce operating margins and require more working capital

Goodwill and other identifiable intangible assets represent a significant portion of our total assets, and we may never realize the full value of our intangible assets.

As of December 31, 2018, we had approximately \$1.1 billion of goodwill and identifiable intangible assets. Goodwill and other identifiable intangible assets are recorded at fair value on the date of acquisition. In addition, as of December 31, 2018, we had \$1.1 billion of capitalized contract costs, net. We review such assets for impairment at least annually. Impairment may result from, among other things, deterioration in performance, adverse market conditions, adverse changes in applicable laws or regulations, including changes that restrict the activities of or affect the Products and Services we offer, challenges to the validity of certain intellectual property, reduced sales of certain products or services incorporating intellectual property, increased attrition and a variety of other factors. The amount of any quantified impairment must be expensed immediately as a charge to results of operations. Depending on future circumstances, it is possible that we may never realize the full value of our intangible assets. Any future determination of impairment of goodwill or other identifiable intangible assets could have a material adverse effect on our financial position and results of operations.

Insurance policies may not cover all of our operating risks and a casualty loss beyond the limits of our coverage could negatively impact our business.

We are subject to all of the operating hazards and risks normally incidental to the provision of our products and services

and business operations. In addition to contractual provisions limiting our liability to subscribers and third parties, we maintain insurance policies in such amounts and with such coverage and deductibles as required by law and that we believe are reasonable and prudent. See “-We are exposed to greater risk of liability for employee acts or omissions or system failure, than may be inherent in other businesses.” Nevertheless, such insurance may not be adequate to protect us from all the liabilities and expenses that may arise from claims for personal injury, death or property damage arising in the ordinary course of our business and current levels of insurance may not be able to be maintained or available at economical prices. If a significant liability claim is brought against us that is not covered by insurance, then we may have to pay the claim with our own funds, which could have a material adverse effect on our business, financial condition, cash flows or results of operations.

Our business is concentrated in certain markets.

Our business is concentrated in certain markets. As of December 31, 2018, subscribers in Texas and California represented approximately 19% and 8%, respectively, of our total subscriber base. Accordingly, our business and results of operations are particularly susceptible to adverse economic, weather and other conditions in such markets and in other markets that may become similarly concentrated.

Catastrophic events may disrupt our business.

Unforeseen events, or the prospect of such events, including war, terrorism and other international conflicts, public health issues including health epidemics or pandemics and natural disasters such as fire, hurricanes, earthquakes, tornados or other adverse weather and climate conditions, whether occurring in the United States, Canada or elsewhere, could disrupt our operations, disrupt the operations of suppliers or subscribers or result in political or economic instability. These events could reduce demand for our products and services, make it difficult or impossible to receive equipment from suppliers or impair our ability to deliver products and services to subscribers on a timely basis. Any such disruption could damage our reputation and cause subscriber attrition. We could be subject to claims or litigation with respect to losses caused by such disruptions. Our property and business interruption insurance may not cover a particular event at all or be sufficient to fully cover our losses.

If the insurance industry changes its practice of providing incentives to homeowners for the use of residential electronic security services, we may experience a reduction in new subscriber growth or an increase in our subscriber attrition rate.

Some insurers provide a reduction in premium rates for insurance policies written on homes that have monitored electronic security systems. There can be no assurance that insurance companies will continue to offer these rate reductions. If these incentives were reduced or eliminated, homeowners who otherwise may not feel the need for our products or services would be removed from our potential subscriber pool, which could hinder the growth of our business, and existing subscribers may choose to cancel or not renew their contracts, which could increase our attrition rates. In either case, our results of operations and growth prospects could be adversely affected.

We have recorded net losses in the past and we may experience net losses in the future.

We have recorded consolidated net losses in each of the previous three years ended December 31, 2018, and we may likely continue to record net losses in future periods.

The nature of our business requires the application of complex revenue and expense recognition rules and the current legislative and regulatory environment affecting generally accepted accounting principles is uncertain. Significant changes in current principles could affect our financial statements going forward and changes in financial accounting standards or practices may cause adverse, unexpected financial reporting fluctuations and harm our operating results.

The accounting rules and regulations that we must comply with are complex and subject to interpretation by the Financial Accounting Standards Board, or FASB, the SEC and various bodies formed to promulgate and interpret appropriate accounting principles. Recent actions and public comments from the FASB and the SEC have focused on the integrity of financial reporting and internal controls. In addition, many companies’ accounting policies are being subject to heightened scrutiny by regulators and the public. Further, the accounting rules and regulations are continually changing in ways that could materially impact our financial statements. For example, in May 2014, the FASB issued ASU No. 2014-09, Revenue from Contracts with Customers (Topic 606), as amended, which superseded nearly all existing revenue recognition guidance. We adopted the new standard effective January 1, 2018 utilizing a modified retrospective approach with the cumulative effect of initially applying the new standard recognized at the date of initial application and providing certain additional disclosures. See Note 2 of our accompanying Consolidated Financial Statements included elsewhere in this annual report on Form 10-K for additional

information.

Risks Relating to Our Indebtedness

Our substantial indebtedness could adversely affect our financial condition.

Net cash interest paid for the years ended December 31, 2018 and 2017 related to our indebtedness (excluding capital leases) totaled \$236.7 million and \$203.4 million, respectively. Our net cash from operating activities for the years ended December 31, 2018 and 2017, before these interest payments, was an inflow of \$16.2 million and an outflow of \$105.9 million, respectively. Accordingly, our net cash from operating activities for the years ended December 31, 2018 and 2017 was insufficient to cover these interest payments.

As of December 31, 2018, we had approximately \$3.0 billion aggregate principal amount of total debt outstanding, approximately \$2.0 billion of which was secured debt, which requires significant interest and principal payments. Subject to the limits contained in the agreements governing our existing indebtedness, we may be able to incur substantial additional debt from time to time to finance working capital, capital expenditures, investments or acquisitions, or for other purposes. If we do so, the risks related to our high level of debt could increase. Specifically, our high level of debt could have important consequences, including the following:

- making it more difficult for us to satisfy our obligations with respect to our debt;
- limiting our ability to obtain additional financing to fund future working capital, capital expenditures, acquisitions or other general corporate requirements;
- requiring a substantial portion of our cash flows to be dedicated to debt service payments instead of other purposes, thereby reducing the amount of cash flows and future borrowings available for working capital, capital expenditures (including subscriber acquisition costs), acquisitions and other general corporate purposes;
- increasing our vulnerability to general adverse economic and industry conditions;
- exposing us to the risk of increased interest rates as certain of our borrowings are at variable rates of interest;
- limiting our flexibility in planning for and reacting to changes in the industry in which we compete;
- placing us at a disadvantage compared to other, less leveraged competitors; and
- increasing our cost of borrowing.

We may be able to incur significant additional indebtedness in the future.

Despite our current level of indebtedness, we may be able to incur substantially more debt and enter into other transactions, which could further exacerbate the risks to our financial condition described above. As of December 31, 2018, we had \$289.8 million of availability under the revolving credit facility (after giving effect to \$13.8 million of letters of credit outstanding and no borrowings). We are still permitted to add, in addition to the revolving credit facility, incremental facilities of up to \$225 million, subject to certain conditions being satisfied. Under both the Term Loan Agreement and revolving credit facility, up to \$60 million may be incurred on the same “superpriority” basis as the revolving credit facility. Moreover, although the debt agreements governing our existing indebtedness contain restrictions on the incurrence of additional indebtedness and entering into certain types of other transactions, these restrictions are subject to a number of qualifications and exceptions. Additional indebtedness incurred in compliance with these restrictions could be substantial. These restrictions also do not prevent us from incurring obligations, such as trade payables, that do not constitute indebtedness as defined under our debt instruments. To the extent new debt is added to our current debt levels, the substantial leverage risks described in the previous risk factor would increase. In addition, the exceptions to the restrictive covenants permit us to enter into certain other transactions.

Accordingly, subject to market conditions, we opportunistically seek to access the credit and capital markets from time to time, whether to refinance or retire our existing indebtedness, for the investment in and operation of our business, or for other general corporate purposes. Such transactions may take the form of new or amended senior secured credit facilities, including term or revolving loans, secured or unsecured notes and/or other instruments or indebtedness. These transactions may result in

an increase in our total indebtedness, secured indebtedness and/or debt service costs.

Our variable rate indebtedness subjects us to interest rate risk, which could cause our indebtedness service obligations to increase significantly.

Borrowings under our revolving credit facility are at variable rates of interest and expose us to interest rate risk. If interest rates increase, our debt service obligations on the variable rate indebtedness would increase even though the amount borrowed remained the same, and our net income and cash flows, including cash available for servicing our indebtedness, would correspondingly decrease.

We may be unable to service our indebtedness.

Our ability to make scheduled payments on and to refinance our indebtedness depends on and is subject to our financial and operating performance, which in turn is affected by general and regional economic, financial, competitive, business and other factors beyond our control, including the availability of financing in the international banking and capital markets. We cannot assure you that our business will generate sufficient cash flow from operations or that future borrowings will be available to us in an amount sufficient to enable us to service our debt, to refinance our debt or to fund our other liquidity needs (including funding subscriber acquisition costs).

If we are unable to meet our debt service obligations or to fund our other liquidity needs, we will need to restructure or refinance all or a portion of our debt, which could cause us to default on our debt obligations and impair our liquidity. Any refinancing of our indebtedness could be at higher interest rates and may require us to comply with more onerous covenants that could further restrict our business operations.

Moreover, in the event of a default, the holders of our indebtedness could elect to declare all the funds borrowed to be due and payable, together with accrued and unpaid interest. The lenders under our revolving credit facility could also elect to terminate their commitments thereunder, cease making further loans, and institute foreclosure proceedings against their collateral, and we could be forced into bankruptcy or liquidation. If we breach our covenants under our revolving credit facility, we would be in default under our revolving credit facility. The lenders could exercise their rights, as described above, and we could be forced into bankruptcy or liquidation.

The debt agreements governing our existing indebtedness impose significant operating and financial restrictions on us and our subsidiaries, which may prevent us from capitalizing on business opportunities.

The debt agreements governing our existing indebtedness impose significant operating and financial restrictions on us. These restrictions limit our ability to, among other things:

- incur or guarantee additional debt or issue disqualified stock or preferred stock;
- pay dividends and make other distributions on, or redeem or repurchase, capital stock;
- make certain investments;
- incur certain liens;
- enter into transactions with affiliates;
- merge or consolidate;
- materially change the nature of our business;
- amend, prepay, redeem or purchase certain subordinated debt;
- enter into agreements that restrict the ability of certain subsidiaries to make dividends or other payments to us; and
- transfer or sell assets.

In addition, our revolving credit facility requires that we maintain a consolidated first lien net leverage ratio of not more than 5.35 to 1.0 on the last day of each applicable test period.

As a result of these restrictions, we are limited as to how we conduct our business and we may be unable to raise additional debt or equity financing to compete effectively or to take advantage of new business opportunities. The terms of any future indebtedness we may incur could include more restrictive covenants. We cannot assure you that we will be able to maintain compliance with these covenants in the future and, if we fail to do so, that we will be able to obtain waivers from the lenders and/or amend the covenants.

Our failure to comply with the restrictive covenants described above as well as other terms of our existing indebtedness and/or the terms of any future indebtedness from time to time could result in an event of default, which, if not cured or waived, could result in our being required to repay these borrowings before their due date. If we are forced to refinance these borrowings on less favorable terms or cannot refinance these borrowings, our results of operations and financial condition could be adversely affected.

Our failure to comply with the agreements relating to our outstanding indebtedness, including as a result of events beyond our control, could result in an event of default that could materially and adversely affect our results of operations and our financial condition.

If there were an event of default under any of the agreements relating to our outstanding indebtedness, the holders of the defaulted debt could cause all amounts outstanding with respect to that debt to be due and payable immediately. We cannot assure you that our assets or cash flows would be sufficient to fully repay borrowings under our outstanding debt instruments if accelerated upon an event of default. Further, if we are unable to repay, refinance or restructure our indebtedness under our secured debt, the holders of such debt could proceed against the collateral securing that indebtedness. In addition, any event of default or declaration of acceleration under one debt instrument could also result in an event of default under one or more of our other debt instruments.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

Our headquarters, and one of our two monitoring facilities, are located in Provo, Utah. These premises are leased under leases expiring between December 2024 and June 2028. Additionally, we lease the premises for a separate monitoring station located in Eagan, Minnesota. We also have facility leases in Lehi, Utah; Logan, Utah; Santa Clara, California, Boston, Massachusetts and various other locations throughout the United States and Canada for research and development, call center, warehousing, recruiting, and training purposes. We believe that these facilities are adequate for our current needs and that suitable additional or substitute space will be available as needed to accommodate any expansion of our operations.

ITEM 3. LEGAL PROCEEDINGS

We are engaged in the defense of certain claims and lawsuits arising out of the ordinary course and conduct of our business and have certain unresolved claims pending, the outcomes of which are not determinable at this time. Our subscriber contracts include exculpatory provisions as described under “Business—Subscriber Contracts—Other Terms” and other liability limitations. We also have insurance policies covering certain potential losses where such coverage is available and cost effective. In our opinion, any liability that might be incurred by us upon the resolution of any claims or lawsuits will not, in the aggregate, have a material adverse effect on our financial condition or results of operations. See Note 13 of our accompanying Consolidated Financial Statements included elsewhere in this annual report on Form 10-K for additional information.

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

We are a wholly owned subsidiary of Vivint Smart Home, Inc., which in turn is wholly owned through intermediate holding companies by the Investor Group. Presently, there is no public trading market for our common stock.

ITEM 6. SELECTED FINANCIAL DATA

The following selected historical consolidated financial information and other data set forth below should be read in conjunction with “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and our historical consolidated financial statements and the related notes thereto contained elsewhere in this annual report on Form 10-K.

The selected historical consolidated financial information and other data presented below for the years ended December 31, 2018 , 2017 and 2016 and the selected consolidated balance sheet data as of December 31, 2018 and 2017 have been derived from our audited consolidated financial statements included in this annual report on Form 10-K. The selected historical consolidated financial information and other data presented below for the years ended December 31, 2015 and 2014 and the selected consolidated balance sheet data as of December 31, 2016 , 2015 and 2014 have been derived from our audited consolidated financial statements which are not included in this annual report on Form 10-K.

	December 31, 2018 (1)	December 31, 2017	December 31, 2016	December 31, 2015	December 31, 2014
(in thousands)					
Statement of Operations Data:					
Total revenue	\$ 1,050,441	\$ 881,983	\$ 757,907	\$ 653,721	\$ 563,677
Total costs and expenses	1,292,500	1,037,476	829,009	762,396	657,546
Loss from operations	(242,059)	(155,493)	(71,102)	(108,675)	(93,869)
Other expenses:					
Interest expense	(245,214)	(225,772)	(197,965)	(161,339)	(147,511)
Interest income	425	130	432	90	1,455
Other income (expenses)	17,323	(27,986)	(7,255)	(8,832)	1,779
Loss from operations before income taxes	(469,525)	(409,121)	(275,890)	(278,756)	(238,146)
Income tax (benefit) expense	(1,611)	1,078	67	351	514
Net loss	<u>\$ (467,914)</u>	<u>\$ (410,199)</u>	<u>\$ (275,957)</u>	<u>\$ (279,107)</u>	<u>\$ (238,660)</u>
Balance Sheet Data (for the year ended):					
Cash	\$ 12,773	\$ 3,872	\$ 43,520	\$ 2,559	\$ 10,807
Working capital	(340,038)	(162,406)	(80,170)	(120,952)	(51,569)
Adjusted working capital deficit (excluding cash and capital lease obligation)	(345,068)	(155,664)	(113,893)	(115,895)	(56,827)
Total assets	2,524,491	2,868,847	2,547,662	2,303,644	2,255,586
Total debt	3,045,195	2,820,297	2,486,700	2,138,112	1,835,068
Total shareholders’ (deficit) equity	\$ (1,396,601)	\$ (653,526)	\$ (245,182)	\$ (76,993)	\$ 224,486

(1) Includes the impact of adopting Topic 606. See Note 3 "Revenue and Capitalized Contract Costs" in the accompanying notes to consolidated financial statements for additional information related to the impact of adopting this standard and a discussion of our updated policies related to revenue recognition and accounting for costs to obtain and fulfill a customer contract.

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

The following discussion and analysis provides information which management believes is relevant to an assessment and understanding of our consolidated results of operations and financial condition. The discussion should be read in conjunction with the "Selected Financial Data" and the consolidated financial statements and notes thereto contained in this annual report on Form 10-K. This discussion contains forward-looking statements and involves numerous risks and uncertainties, including, but not limited to, those described in the "Risk Factors" section of this annual report on Form 10-K. Actual results may differ materially from those contained in any forward-looking statements.

Business Overview

We are a smart home technology company. Our purpose-built platform has all the components required to deliver on the promise of a true smart home experience. Our smart home platform is comprised of the following five pillars: (1) our Smart Home Operating System, (2) our AI-driven smart home automation and assistance software, Vivint Assist, (3) our portfolio of proprietary, internally developed smart devices, (4) our curated yet extensible partner-neutral ecosystem, and (5) our people delivering tech-enabled premium services, including consultative selling, professional installation, and support.

We were founded by our CEO Todd Pedersen in 1999 and have grown to become one of the largest smart home solutions providers in North America with over 1.4 million subscribers as of December 31, 2018, managing over 20 million devices and processing over 1.3 billion home-related events on a daily basis. Our nationwide sales and service footprint covers 98% of U.S. zip codes.

Our culture and our history are characterized by a spirit of continuous innovation, resulting in the development of cutting-edge proprietary smart home devices and tech-enabled services for the smart home. Consistent with our Vivint brand name, which means 'to live intelligently', our solution allows subscribers to live intelligently and to enjoy the benefits of a smart home. Our approach has focused on putting the subscriber experience first, which we do by presenting our subscribers with the right combination of technology and support, delivered by people who care.

Our go-to-market strategy is based on directly educating consumers about the value and benefits of a smart home experience. We reach consumers through a variety of highly efficient customer acquisition channels, including our direct-to-home, inside sales, and retail partnership programs. We continue to scale these efforts through our proprietary operations technology, by launching new and innovative Products and Services, and by building out our consultative sales channels. We continue to strengthen our relationships with existing subscribers by offering them the ability to use Vivint Flex Pay to finance an upgrade of their existing system and to add new devices and features to their smart homes as our portfolio of offerings expands.

As of December 31, 2018 and 2017, we have over 1.4 million and 1.2 million subscribers, respectively, representing year-over-year growth of 12%. In 2018 and 2017, we generated revenue of \$1.1 billion and \$0.9 billion, respectively along with a net loss of \$467.9 million and \$410.2 million, respectively. As of December 31, 2018 and 2017, we had approximately \$3.0 billion and \$2.8 billion of total debt outstanding, respectively.

Recent Developments

Term Loan

On September 6, 2018, APX ("Borrower"), one of our indirect wholly owned subsidiaries, entered into a Credit Agreement (the "Term Loan Agreement"), among the Borrower, the Company, the other guarantors party thereto, each lender from time to time party thereto and Bank of America, N.A., as administrative agent. The Term Loan Agreement provides for total term loans of \$810.0 million.

The net proceeds from the Term Loans were used to redeem in full the entire \$269.5 million outstanding aggregate principal amount of the Borrower's 6.375% Senior Secured Notes due 2019 (the "2019 Notes") and pay the related accrued interest and redemption premium, to repurchase approximately \$250.7 million aggregate principal amount of the Borrower's outstanding 2020 Notes in privately negotiated transactions, to repay the outstanding borrowings under the Borrower's revolving credit facility and to pay fees and expenses related to the Term Loan Agreement and the transactions described above. The remaining net proceeds will be used for general corporate purposes.

Cost Reduction Initiatives

In July 2018, we announced a number of cost reduction initiatives that are expected to reduce certain of our General and Administrative, Customer Service, and Sales Support fixed costs. We completed the majority of these cost reduction initiatives in the second and third quarters of 2018, with the remainder by the end of 2018. In addition to resulting in meaningful cost reductions, our initiatives are expected to streamline operations, focus engineering and innovation and provide a better focus on driving customer satisfaction.

As part of these initiatives, Vivint and Best Buy agreed in principle to end the co-branded Best Buy Smart Home by Vivint arrangement ("Best Buy Agreement"), which resulted in the elimination of over 400 in-store sales positions in the second quarter of 2018. In addition, we eliminated approximately 140 other positions during the second quarter of 2018. These actions resulted in one-time cash employee severance and termination benefits expenses of \$4.7 million during the year ended December 31, 2018. We formally terminated our relationship with Best Buy in December 2018 and agreed to pay a termination fee of \$5.5 million. The difference between the termination fee and all previously recorded liabilities relating to the Best Buy Agreement was recorded as a reduction to capitalized contract costs. We do not expect that any of our current cost reduction initiatives will result in additional material charges or expenses in future periods.

Spectrum Sale

During the year ended December 31, 2016, Vivint Wireless Inc., a wholly owned subsidiary of the Company, entered into leasing agreements with Nextlink Wireless, LLC ("Nextlink") for designated radio frequency spectrum in 40 mid-sized metropolitan markets. The asset was recorded as an indefinite-lived intangible asset, with a corresponding liability within other long-term obligations.

On January 10, 2018, Vivint Wireless and Verizon consummated the transactions contemplated by a termination agreement to which the parties agreed, among other things, to terminate the spectrum leases between Vivint Wireless and Nextlink, a subsidiary of Verizon, in exchange for a cash payment by Verizon to Vivint Wireless. The calculation of the gain recorded included cash proceeds of \$55.0 million, extinguishment of the spectrum license liability of \$27.9 million, offset by the expensing of the spectrum license asset in the amount of \$31.3 million and regulatory costs associated with the sale of \$1.3 million for a total net gain on sale of \$50.4 million which is included in other income, net in the consolidated statement of operations.

Adoption of New Accounting Standard

Effective January 1, 2018, we adopted Accounting Standard Update 2014-09, "Revenue from Contracts with Customers (Topic 606)". Adoption of the new standard resulted in changes to the accounting policies for revenue recognition, deferred revenue, and capitalized contract costs (formerly subscriber acquisition costs) as detailed below in our critical accounting policies and estimates. The cumulative effect of applying the new standard to all contracts with customers that were not completed as of January 1, 2018 was recorded as an adjustment of \$276.9 million to accumulated deficit as of the adoption date. The comparative information for prior periods has not been adjusted and continues to be reported under Topic 605. See Note 2 "Revenue and Capitalized Contract Costs" in the accompanying notes to consolidated financial statements for additional information related to the impact of adopting this standard and a discussion of our updated policies related to revenue recognition and accounting for costs to obtain and fulfill a customer contract.

Our Business Model

Our business is driven by the acquisition of new subscribers and by servicing and growing sales from our existing subscriber base. The acquisition of new subscribers requires significant upfront investment, which in turn generates high-margin recurring revenue from our cloud-enabled smart home solutions. We generate this revenue from selling our solution and accompanying smart home devices to our subscribers. Therefore, we focus our investment decisions on acquiring new subscribers in the most cost-effective manner, while striving to maximize existing subscriber retention and lifetime value.

We have experienced significant historical subscriber growth. For example, our Total Subscribers increased by 82% from December 31, 2013 to December 31, 2018. To drive this growth, we have made significant upfront investments in our various sales channels, as well as technology and infrastructure to support our growing subscriber base. As a result of these investments, we have incurred losses and used significant amounts of cash to fund operations.

As we scale our business a greater percentage of our net acquisition costs for New Subscribers may be funded through revenues generated by our existing subscriber base. Although we anticipate the absolute number of new subscribers to grow over time, we expect the number of new subscribers to decrease as a percentage of our Total Subscribers. We believe this decrease in new subscribers as a percentage of the total, along with the expected growth in revenue, will improve our operating

results and operating cash flows over time. Our ability to improve our operating results and cash flows, however, is subject to a number of risks and uncertainties as described in greater detail elsewhere in this filing and there can be no assurance that we will achieve such improvements. To the extent that we do not scale our business efficiently, we will continue to incur losses and require a significant amount of cash to fund our operations, which in turn could have a material adverse effect on our business, cash flows, operating results and financial condition.

We seek to increase our average monthly revenue per user, or AMRU, by continually innovating and offering new smart home solutions that further leverage the investments made to date in our existing platform and sales channels. Since 2010, we have successfully expanded our smart home platform, which has allowed us to charge higher recurring subscription fees and generate higher smart home device revenue from new subscribers for these additional offerings. For example, the introduction of our proprietary Vivint Smart Hub, Vivint SkyControl Panel, Vivint Glance Display, Vivint Smart Drive, Vivint Doorbell Camera, Vivint Ping Camera, Vivint Outdoor Camera, Vivint Element Thermostat, Vivint Smart Sensor and Vivint Motion Sensor has expanded our smart home platform. Due to the high rate of adoption of additional smart home devices and tech-enabled services, our AMRU has increased from \$56.14 in 2013 to \$63.11 for the year ended December 31, 2018, an increase of 12%.

Our Smart Home as a Service (“SHaaS”) business model generates subscription-based, high-margin recurring revenue from subscribers who contract for our Smart Home Services. We continue to focus on technology, service, and business model innovation to provide superior subscriber experience, from the time of first contact to the day-to-day experience.

In 2017, we made a strategic decision to offer Vivint Flex Pay to the market as a part of our business model innovation, providing benefits to both our subscribers and our company. Vivint Flex Pay provides greater subscriber accessibility and affordability by enabling qualified subscribers to purchase our Products and related installation through unsecured financing provided either by a third party financing partner or by us, in most cases at zero-percent APR. Under the Consumer Financing Program (the “CFP”), qualified subscribers are eligible for installment loans of up to \$4,000 for either 42 or 60 months. These installment loans are between the subscriber and Citizens Bank, N.A., or Citizens, as the exclusive third party provider of the installment loans under Vivint Flex Pay. Customers not eligible for the CFP, but who qualify under the Company’s underwriting criteria, may enter into a RIC directly with Vivint. Because we directly fund Product purchases financed through RICs, the mix of financing methods between CFP and RICs affects the amount of cash we receive at the time of subscriber origination to offset this upfront investment.

Pursuant to the agreement between Citizens (the “CFP Agreement”) and us, we pay a monthly fee to Citizens based on the average daily outstanding balance of the loans provided by Citizens to our subscribers, and we share with Citizens the liability for credit losses, with our company being responsible for between 5% to 100% of lost principal balances, depending on factors specified in the CFP Agreement. Additionally, we are responsible for reimbursing Citizens for the credit card transaction fees associated with these loans. The present value of the estimated total fees owed by us to Citizens, based on current loans outstanding, are recorded as a derivative liability on our consolidated balance sheet. The initial term of the CFP Agreement is five years, subject to automatic, one-year renewals unless terminated by either party in accordance with its terms. Because the Vivint Flex Pay plan separates payments for our smart home devices from payments for our Smart Home Services, under the plan agreements, following the expiration of the term of subscribers’ initial contract term, annual revenues will primarily be limited to fees from our Services. Thus, our revenues and margins are expected to be lower over the life of the subscriber than under our historical service contracts.

The launch of Vivint Flex Pay has enabled us to accelerate the acquisition of new subscribers and expanded our market opportunity by reducing upfront cash requirements associated with new subscriber acquisitions. Vivint Flex Pay has also improved our unit economics, increased contract length, reduced our balance sheet risk, and increased the capital efficiency of our business. Today, Vivint Flex Pay is the significant driver of our subscriber retention strategy. Our retention improves as our subscribers enter into longer term contracts. Vivint Flex Pay has also improved our subscriber economics with an Average Subscriber Lifetime of 91 months (approximately 8 years) as of December 31, 2018. If our expected long-term annualized attrition rate increased by 1% to 14%, Average Subscriber Lifetime would decrease to approximately 85 months. Conversely, if our expected attrition decreased by 1% to 12%, our Average Subscriber Lifetime would increase to approximately 98 months. We continue to focus on the lifetime value of our subscribers, which is evident in the growth in our Lifetime Service Revenue Multiple that has increased from 2.9x in 2016 to 3.6x in 2018, reflecting reduced net subscriber acquisition costs, primarily related to Vivint Flex Pay. Although there are costs to acquiring new subscribers, because we operate on a recurring revenue-based model, acquiring subscribers results in cumulative value generation that compounds and accrues over time.

We expect to continue investing in innovative technologies that will make our platform more valuable and engaging for subscribers, and we expect to continue investing in our subscriber acquisition channels to further improve the economics of our business model.

Recurring services for our subscriber contracts are billed directly to the subscriber in advance, generally monthly, pursuant to the terms of subscriber contracts and recognized ratably over the service period. Because we view the sale of our

subscription and the accompanying devices as a single, combined performance obligation, we recognize these revenues together, ratably, generally over the course of the contract. We operate in a single, reportable segment.

Key Factors Affecting Operating Results

Our future operating results and cash flows are dependent upon a number of opportunities, challenges and other factors, including our ability to efficiently grow our subscriber base, expand our Product and Service offerings to generate increased revenue per user, provide high quality Products and subscriber service to maximize subscriber lifetime value and improve the leverage of our business model.

Key factors affecting our operating results include the following:

Subscriber Lifetime

Our ability to retain subscribers has a significant impact on our financial results, including revenues, operating income, and operating cash flows. Because we operate a business built on recurring revenues, subscriber lifetime is a key determinant of our operating success. A portion of the subscriber base can be expected to cancel its service every year. Subscribers may choose not to renew or may terminate their contracts for a variety of reasons, including, but not limited to, relocation, cost, switching to a competitor's service or service issues. We analyze our retention by tracking the number of subscribers who remain as a percentage of the monthly average number of subscribers at the end of each 12 month period. We caution investors that not all companies, investors and analysts in our industry define retention in this manner.

The table below presents our subscriber data for the years ended December 31, 2018 , 2017 and 2016 :

	Year ended December 31,		
	2018	2017	2016
Beginning balance of subscribers	1,292,698	1,146,746	1,013,917
Net new additions	322,574	279,735	277,241
Subscriber contracts sold (1)	—	—	(7,520)
Attrition	(170,450)	(133,783)	(136,892)
Ending balance of subscribers	1,444,822	1,292,698	1,146,746
Monthly average subscribers	1,380,741	1,214,696	1,082,694
Attrition rate	12.3%	11.0%	12.6%

(1) Represents our New Zealand and Puerto Rico subscriber contracts sold during the year ended December 31, 2016.

Historically, we have experienced an increased level of subscriber cancellations in the months surrounding the expiration of such subscribers' initial contract term. Attrition in any twelve month period may be impacted by the number of subscriber contracts reaching the end of their initial term in such period. Attrition in the twelve months ended December 31, 2018 , reflects the effect of the 2013 60-month and 2014 42-month contracts reaching the end of their initial contract term. We believe this trend in cancellations at the end of the initial contract term is comparable to other companies within our industry.

Our subscribers are the foundation of our recurring revenue-based model. Our operating results are affected by the level of our net acquisition costs to generate those subscribers and the value of Products and Services purchased by them. A reduction in net subscriber acquisition costs or an increase in the total value of Products or Services purchased by a new subscriber increases the life-time value of that subscriber, which in turn, improves our operating results and cash flows over time.

The net upfront cost of adding incremental subscribers is a key factor impacting our ability to scale. Vivint Flex Pay has made it more affordable to accelerate the growth in New Subscribers. Prior to Vivint Flex Pay, we recovered the cost of equipment installed in subscribers' homes over time through their monthly service billings. From the introduction of Vivint Flex Pay in early 2017 through December 31, 2018 , 23% of subscribers have financed their equipment purchases through RICs, which we fund through our balance sheet. We expect the percentage of subscriber contracts financed through RICs to continue decreasing over time. In addition, since the introduction of Vivint Flex Pay in 2017, 100% of new subscribers have either opted to use this program to finance their equipment costs or paid for their equipment themselves at the time of contract origination. This has greatly reduced our net cost per acquisition, as well as the balance sheet impact of acquiring subscribers. Moving forward, we will continue to explore ways to grow our subscriber base in a cost-effective manner through our existing sales and marketing channels, through the growth of our financing programs, as well as through strategic partnerships and new channels, as these opportunities arise.

We believe the Vivint Flex Pay program will result in higher retention, more revenue per user, and thus greater subscriber lifetime values. Existing subscribers are also able to use Vivint Flex Pay to upgrade their systems or to add new Products and Services, which further increases subscriber lifetime value. This positively impacts our operating performance, and we anticipate that adding additional financing partners to the Vivint Flex Pay program, both in the United States and Canada, will generate additional revenue growth and a subsequent increase in subscriber lifetime value.

Sales and Marketing Efficiency

Our continued ability to attract and sign new subscribers in a cost-effective manner across the United States and Canada will be a key determinant of our future operating performance. Because our direct-to-home and inside sales channels are currently our primary means of subscriber acquisition, we have invested heavily in scaling these teams. There is a lag in the productivity of new hires, which we anticipate will improve over the course of their tenure, impacting our subscriber acquisition rates and overall operating success. These Smart Home Pros are instrumental to subscriber growth in the regions we cover, and their continued productivity is vital to our future success.

Generating subscriber growth through these investments in our sales teams depends, in part, on our ability to launch cost-effective marketing campaigns, both online and offline. This is particularly true for our NIS channel, because NIS fields inbound requests from subscribers who find us using online search and submitting our on-site contact form. Our marketing campaigns attract potential subscribers and successfully build awareness of our brand across all our sales channels. We also believe that building brand awareness is important to countering the competition we face from other companies in the geographies we serve, particularly in those markets where our direct-to-home sales representatives are present. We expect to scale our retail channel through several pilot programs. Similar to the delay between the hiring of a Smart Home Pro and the resulting revenue generation, we anticipate that our retail efforts will take time to reach capacity. Once they do, we hope to accelerate subscriber acquisition and revenue growth by scaling this channel, while maintaining our unit economics.

Expansion of Platform Monetization

As smart home technology develops, we will continue expanding the breadth and depth of our offerings to reflect the growing needs of our subscriber base and focus on expanding our platform through the addition of new smart home experiences and use cases. As a result of our investments to date, our smart home platform is active in over 1.4 million households. We will continue to develop our Smart Home Operating System to include new complex automation capabilities, use case scenarios, and comprehensive device integrations. Our platform supports over 20 million connected devices, as of December 31, 2018 .

With each new Product, Service, or feature we add to our platform, we create an opportunity to generate revenue, either through sales to our existing subscribers or through the acquisition of new subscribers. As a result, we anticipate that offering a broader range of smart home experiences will allow us to grow revenue, because it improves our ability to offer tailored service packages to subscribers with different needs. This is the rationale behind our addition of Carguard, a service that expands our smart home experience beyond the four walls of the home. We believe this expansion of our Product and Service offerings will allow us to build our subscriber base, while maintaining or improving margins.

Whether we upsell existing subscribers or acquire new ones, expansion of our platform and corresponding monetization strategies directly impacts our revenue growth and our average revenue per user, and therefore, our operating results.

Subscribers who contract for a smart home are signing up for our combined proprietary smart home devices and tech-enabled service offerings. At the time of signing, subscribers choose the subscription-based service that matches their smart home needs. Because our revenue and operating margins are determined by which package a subscriber signs up for, ensuring that new subscribers choose the appropriate service offering is a major determinant of our operating success. Additionally, because we cover 98% of US zip codes, our service costs greatly impact our operating margins. Over time, as our organization grows, we achieve economies of scale on our service costs. While we anticipate that our service costs per subscriber will decline over time, an unanticipated increase in service costs could negatively impact our profitability moving forward.

Investment in Future Projects

To date, we have made significant investments in the development of our organization, and expect to leverage these investments to continue expanding our Product and Service offerings over time, including integration with third party products to drive future revenue. Our ability to expand our smart home platform and to monetize the platform as it develops will significantly impact our operating performance and profitability in the future.

We believe that the smart home of the future will be an ecosystem in which businesses will seek to deliver products and services to subscribers in a way that addresses the individual subscriber's lifestyle and needs. As the smart home becomes the setting for the delivery of a wide range of these products and services, including healthcare, entertainment, home maintenance, elder care, beauty, and consumer goods, we hope to become the hub of this ecosystem and the strategic partner of choice for the businesses delivering these products and services.

Our success in connecting with business partners who integrate with our Smart Home Operating System in order to reach and interact with our subscriber base will be a key determinant of our continued operating success. We expect that additional partnerships will generate incremental revenue, because we will share in the revenue generated by each partner-provided product or service sale that occurs as a result of integration with our smart home platform. If we are able to continue expanding our curated set of partnerships with influential companies, as we already have with Google, Amazon, and Philips, we believe that this will help us to increase our revenue and resulting profitability.

Our ability to introduce a full suite of high-quality innovative new offerings that further expands our existing smart home platform will affect our ability to retain, grow and further monetize our subscriber base. Furthermore, we believe that by vertically integrating the development and design of our Products and Services with our existing sales and subscriber service activities allows us to more quickly respond to market needs, and better understand our subscribers' interactions and engagement with our Products and Services. This provides critical data that we expect to enable us to continue improving the power, usability and intelligence of these Products and Services. We expect to continue investing in technologies that will make our platform more valuable and engaging for subscribers.

Key Performance Measures

In evaluating our results, we review several key performance measures discussed below. We believe that the presentation of such metrics is useful to our investors and lenders because they are used to measure the value of companies such as ours with recurring revenue streams. In addition, we have introduced certain new performance measures in 2018, primarily to reflect the expected lifetime value of our subscribers. All key performance measures defined below exclude our wireless internet business and sales channel pilot programs.

Total Subscribers

Total subscribers is the aggregate number of active smart home and security subscribers at the end of a given period.

Total Monthly Revenue

Total monthly revenue, or Total MR, is the average monthly total revenue recognized during the period.

Average Monthly Revenue per User

Average monthly revenue per user, or AMRU, is Total MR divided by average monthly Total Subscribers during a given period.

Total Monthly Service Revenue

Total monthly service revenue, or MSR, is the contracted recurring monthly service billings to our smart home and security subscribers, based on the Total Subscribers number as of the end of a given period.

Average Monthly Service Revenue per User

Average monthly service revenue per user, or AMSRU, is Total MSR divided by Total Subscribers at the end of a given period.

Attrition Rate

Attrition rate is the aggregate number of canceled smart home and security subscribers during the prior 12 month period divided by the monthly weighted average number of Total Subscribers based on the Total Subscribers at the beginning and end of each month of a given period. Subscribers are considered canceled when they terminate in accordance with the terms of their contract, are terminated by us or if payment from such subscribers is deemed uncollectible (when at least four monthly billings become past due). If a sale of a service contract to third parties occurs, or a subscriber relocates but continues their service, we do not consider this as a cancellation. If a subscriber transfers their service contract to a new subscriber, we do not consider this as a cancellation.

Average Subscriber Lifetime

Average subscriber lifetime, in number of months, is 100% divided by our expected long-term annualized attrition rate (which is currently estimated at 13%) multiplied by 12 months.

Net Service Cost per Subscriber

Net service cost per subscriber is the average monthly service costs incurred during the period (both period and capitalized service costs), including monitoring, customer service, field service and other service support costs, less total non-recurring Smart Home Services billings for the period divided by average monthly Total Subscribers for the same period.

Net Service Margin

Net service margin is the monthly average MSR for the period, less total average net service costs for the period divided by the monthly average MSR for the period.

New Subscribers

New subscribers is the aggregate number of net new smart home and security subscribers originated during a given period. This metric excludes new subscribers acquired by the transfer of a service contract from one subscriber to another.

Net Subscriber Acquisition Costs per New Subscriber

Net subscriber acquisition costs per New Subscriber is the net cash cost to create new smart home and security subscribers during a given 12 month period divided by New Subscribers for that period. These costs include commissions, Products, installation, marketing, sales support and other allocations (general and administrative and overhead); less upfront payment received from the sale of Products associated with the initial installation, and installation fees. These costs exclude capitalized contract costs and upfront proceeds associated with contract modifications.

Total Bookings

Total bookings is total monthly Service revenue for New Subscribers multiplied by Average Subscriber Lifetime, plus total Product revenue to be recognized over the contract term from New Subscribers.

Total Monthly Service Revenue for New Subscribers

Total Monthly Service Revenue for New Subscribers is the contracted recurring monthly service billings to our New Subscribers during a given period.

Average Monthly Service Revenue per New Subscriber

Average Monthly Service Revenue per New Subscriber is Total Monthly Service Revenue for New Subscribers divided by New Subscribers during a given period.

Lifetime Service Revenue per New Subscriber

Lifetime service revenue per new subscriber is Total Monthly Service Revenue for New Subscribers divided by New Subscribers, multiplied by Average Subscriber Lifetime.

Lifetime Service Revenue Multiple

Lifetime service revenue multiple is Lifetime Service Revenue per New Subscriber divided by Net Subscriber Acquisition Costs per New Subscriber

Total Subscriber Lifetime Backlog

Total subscriber lifetime backlog is total unrecognized Product revenue plus total Service revenue expected to be recognized over the remaining subscriber lifetime for Total Subscribers.

Components of Results of Operations

Total Revenues

Recurring and Other Revenue

Our revenues are generated through the sale and installation of our Smart Home Services contracted for by our subscribers. Recurring Smart Home Services for our subscriber contracts are billed directly to the subscriber in advance, generally monthly, pursuant to the terms of subscriber contracts and recognized ratably over the service period. Revenues from Products are deferred and generally recognized on a straight-line basis over the customer contract term, the amount of which is dependent on the total sales price of Products sold. Imputed interest associated with RIC receivables is recognized over the initial term of the RIC. The amount of revenue from Services is dependent upon which of our service offerings is included in the subscriber contracts. Our smart home and video offerings generally provide higher service revenue than our base smart home service offering. Historically, we have generally offered contracts to subscribers that range in length from 36 to 60 months that are subject to automatic monthly renewal after the expiration of the initial term. In addition, to a lesser extent, we have contracts that are offered as month-to-month at the time of origination. At the end of each monthly period, the portion of recurring fees related to services not yet provided are deferred and recognized as these services are provided. Prior to the adoption of Topic 606, service and other sales revenue and activation fees were separate components of revenues (as defined below).

Service and Other Sales Revenue

Prior to the adoption of Topic 606, service and other sales revenue was recognized as services were provided or when title to the Products sold transferred to the customer. Contract fulfillment revenue, included in service and other sales, were recognized when payment was received from customers who canceled their contract in-term. Revenue from sales of Products that were not part of the service offering (i.e., those Products sold subsequent to the date of the initial installation) were generally recognized upon delivery of Products. Subsequent to the adoption of Topic 606, these service and other sales revenue are included in, and recognized in the same manner as, recurring and other revenue.

Activation Fees

Prior to the adoption of Topic 606, activation fees represented upfront one-time charges billed to subscribers at the time of installation and were deferred. We amortized deferred activation fees over 15 years using a 240% declining balance method, which converted to a straight-line methodology after approximately nine years when the resulting amortization exceeded that from the accelerated method. Beginning in April 2017, we no longer charge activation fees. Prior to this date, activation fees were charged only on initial customer installations. Under Topic 606, activation fees are included in the transaction price in recurring and other revenue and recognized straight-line over the customer's contract term, which is generally three to five years.

Total Costs and Expenses

Operating Expenses

Operating expenses primarily consists of labor associated with monitoring and servicing subscribers and labor and expenses associated with Products used in service repairs. We also incur equipment costs associated with excess and obsolete inventory and rework costs related to Products removed from subscribers' homes. In addition, a portion of general and administrative expenses, comprised of certain human resources, facilities and information technology costs are allocated to operating expenses. This allocation is primarily based on employee headcount and facility square footage occupied. Because our full-time Smart Home Pros perform most subscriber installations related to customer moves, customer upgrades or those generated through our inside sales channels, the costs incurred within field service associated with these installations are allocated to capitalized contract costs. We generally expect our operating expenses to increase in absolute dollars as the total number of subscribers we service continues to grow, but to remain relatively constant in the near to intermediate term as a percentage of our revenue.

Selling Expenses

Selling expenses are primarily comprised of costs associated with housing for our direct-to-home sales representatives, advertising and lead generation, marketing and recruiting, certain portions of sales commissions (residuals), overhead (including allocation of certain general and administrative expenses) and other costs not directly tied to a specific subscriber origination. These costs are expensed as incurred. We generally expect our selling expenses to increase in absolute dollars as the total number of subscriber originations continues to grow, but to remain relatively constant in the near to intermediate term as a percentage of our revenue.

General and Administrative Expenses

General and administrative expenses consist largely of finance, legal, research and development, or R&D, human resources, information technology and executive management expenses, including stock-based compensation expense. Stock-based compensation expense is recorded within various components of our costs and expenses. General and administrative expenses also include the provision for doubtful accounts. We allocate approximately one-third of our gross general and administrative expenses, excluding the provision for doubtful accounts, into operating and selling expenses in order to reflect the overall costs of those components of the business. We generally expect our general and administrative expenses to increase in absolute dollars to support the overall growth in our business, but to decrease in the near to intermediate term as a percentage of our revenue.

Depreciation and Amortization

Depreciation and amortization consists of depreciation from property, plant and equipment, amortization of equipment leased under capital leases, capitalized contract costs and intangible assets. We generally expect our depreciation and amortization expenses to increase in absolute dollars as we grow our business and increase the number of new subscribers originated on an annual basis, but to remain relatively constant in the near to intermediate term as a percentage of our revenue.

Restructuring Expenses

Restructuring expenses are comprised of costs incurred in relation to activities to exit or dispose of portions of our business that do not qualify as discontinued operations. Expenses for related termination benefits are recognized at the date we notify the employee, unless the employee must provide future service, in which case the benefits are expensed ratably over the future service period. Liabilities related to termination of a contract are measured and recognized at fair value when the contract does not have any future economic benefit to the entity and the fair value of the liability is determined based on the present value of the remaining obligation.

Critical Accounting Policies and Estimates

In preparing our consolidated financial statements, we make assumptions, judgments and estimates that can have a significant impact on our revenue, loss from operations and net loss, as well as on the value of certain assets and liabilities on our consolidated balance sheets. We base our assumptions, judgments and estimates on historical experience and various other factors that we believe to be reasonable under the circumstances. Actual results could differ materially from these estimates under different assumptions or conditions. At least quarterly, we evaluate our assumptions, judgments and estimates and make changes accordingly. Historically, our assumptions, judgments and estimates relative to our critical accounting estimates have not differed materially from actual results. We believe that the assumptions, judgments and estimates involved in the accounting for revenue recognition, deferred revenue, capitalized contract costs, retail installment contract receivables, allowance for doubtful accounts, loss contingencies, valuation of intangible assets, fair value and income taxes have the greatest potential impact on our consolidated financial statements; therefore, we consider these to be our critical accounting estimates. For information on our significant accounting policies, see Note 2 to the accompanying audited consolidated financial statements.

Revenue Recognition

We offer our customers smart home services combining Products, including a proprietary control panel, door and window sensors, door locks, security cameras and smoke alarms; installation; and a proprietary back-end cloud platform software and Services. These together create an integrated system that allows our customers to monitor, control and protect their home. Our customers are buying this integrated system that provides them with these Smart Home Services. The number and type of Products purchased by a customer depends on their desired functionality. Because the Products and Services included in the customer's contract are integrated and highly interdependent, and because they must work together to deliver the Smart Home Services, we have concluded that installed Products, related installation and Services contracted for by the customer are generally not distinct within the context of the contract and, therefore, constitute a single, combined performance obligation. Revenues for this single, combined performance obligation are recognized on a straight-line basis over the customer's contract term. We have determined that certain contracts that do not require a long-term commitment for monitoring services by the customer contain a material right to renew the contract, because the customer does not have to purchase Products upon renewal. Proceeds allocated to the material right are recognized over the period of benefit, which is generally three years.

The majority of our subscription contracts are between three and five years in length and are non-cancelable. These contracts with customers generally convert into month-to-month agreements at the end of the initial term, and some customer contracts are month-to-month from inception. Payment for recurring monitoring and other Smart Home Services is generally due in advance on a monthly basis.

Sales of Products and other one-time fees such as service fees or installation fees are invoiced to the customer at the time of sale. Revenues for wireless internet service provided by Vivint Wireless, Inc. and any Products or Services that are considered separate performance obligations are recognized when those Products or Services are delivered. Taxes collected from customers and remitted to governmental authorities are not included in revenue. Payments received or amounts billed in advance of revenue recognition are reported as deferred revenue.

Prior to the adoption of Topic 606, we recognized certain service and other sales revenue when the Services were provided or when title to Products sold transferred to the customer. Revenue from the sale of Products that were not part of the service offering (i.e., those Products sold subsequent to the date of the initial installation) were also generally recognized upon delivery of Products. Under Topic 606, we consider Products, related installation, and our proprietary back-end cloud platform software and services an integrated system that allows our customers to monitor, control and protect their homes. These Smart Home Services are accounted for as a single performance obligation that is recognized over the customer's contract term.

Accordingly, we now defer a larger portion of certain Smart Home Services revenue, as prior to the adoption of Topic 606 certain of this revenue was recognized at the time services were provided or upon delivery.

Deferred Revenue

Our deferred revenues primarily consist of amounts for sales (including upfront proceeds) of Smart Home Services. Deferred revenues are recognized over the term of the related performance obligation.

Prior to the adoption of Topic 606, we amortized deferred revenues related to sales of Products and activation fees on subscriber contracts over the expected life of the customer, which was 15 years using a 240% declining balance method. Under the new standard, the sales of Products and activation fees are included in the transaction price allocated to the single Smart Home Service performance obligation and recognized straight-line over the subscriber's contract term, which is generally three to five years.

Capitalized Contract Costs

Capitalized contract costs represent the costs directly related and incremental to the origination of new contracts, modification of existing contracts or to the fulfillment of the related subscriber contracts. These include commissions, other compensation and related costs paid directly for the origination and installation of new or upgraded subscriber contracts, as well as the cost of Products installed in the subscriber's home at the commencement or modification of the contract. These costs are deferred and amortized on a straight-line basis over the expected period of benefit that we have determined to be five years. Amortization of capitalized contract costs is included in "Depreciation and Amortization" on the consolidated statements of operations. These deferred costs are periodically reviewed for impairment. Contract costs not directly related and incremental to the origination of new contracts, modification of existing contracts or to the fulfillment of the related subscriber contracts are expensed as incurred. These costs include those associated with housing, marketing and recruiting, non-direct lead generation costs, certain portions of sales commissions and residuals, overhead and other costs considered not directly and specifically tied to the origination of a particular subscriber.

Prior to the adoption of Topic 606, we deferred and amortized these costs for new subscriber contracts in a pattern that reflected the estimated life of subscriber relationships and generally expensed all costs associated with modified subscriber contracts. Under the new standard, we defer and amortize these costs for new or modified subscriber contracts on a straight-line basis over the expected period of benefit of five years. During the year ended December 31, 2018, we capitalized contract costs of \$29.9 million associated with modifications of customer contracts.

On the accompanying consolidated statement of cash flows, capitalized contract costs are classified as operating activities and reported as "Capitalized contract costs – deferred contract costs" as these assets represent deferred costs associated with subscriber contracts.

Retail Installment Contract Receivables

For subscribers that enter into a RIC to finance the purchase of Products and related installation, we record a receivable for the amount financed. The RIC receivables are recorded at their present value, net of the imputed interest discount. At the time of installation, we record a long-term note receivable within long-term notes receivables and other assets, net on the consolidated balance sheets for the present value of the receivables that are expected to be collected beyond 12 months of the reporting date. The unbilled receivable amounts that are expected to be collected within 12 months of the reporting date are included as a short-term notes receivable within accounts and notes receivable, net on the consolidated balance sheets. The billed amounts of notes receivables are included in accounts receivable within accounts and notes receivable, net on the consolidated balance sheets.

We impute the interest on the RIC receivable using a risk adjusted market interest rate and record it as an adjustment to deferred revenue and as an adjustment to the face amount of the related receivable. The imputed interest discount considers a number of factors, including collection experience, aging of the remaining RIC receivable portfolios, credit quality of the subscriber base and other qualitative considerations, including macro-economic factors. The imputed interest income is recognized over the term of the RIC contract as recurring and other revenue on the consolidated statement of operations.

When we determine that there are RIC receivables that have become uncollectible, we record an adjustment to the imputed interest discount and reduce the related note receivable balance. Account balances are written-off if collection efforts are unsuccessful and future collection is unlikely based on the length of time from the day accounts become past due.

Accounts Receivable

Accounts receivable consists primarily of amounts due from subscribers for recurring monthly monitoring Services and the billed portion of RIC receivables. The accounts receivable are recorded at invoiced amounts and are non-interest bearing

and are included within accounts and notes receivable, net on the consolidated balance sheets. Accounts receivable totaled \$16.5 million and \$24.3 million and December 31, 2018 and 2017, respectively net of the allowance for doubtful accounts of \$5.6 million and \$5.4 million at December 31, 2018 and 2017, respectively. We estimate this allowance based on historical collection experience and subscriber attrition rates. When we determine that there are accounts receivable that are uncollectible, they are charged off against the allowance for doubtful accounts. The provision for doubtful accounts is included in general and administrative expenses in the accompanying consolidated statements of operations and totaled \$19.4 million and \$22.5 million for the years ended December 31, 2018 and 2017, respectively.

Loss Contingencies

We record accruals for various contingencies including legal proceedings and other claims that arise in the normal course of business. The accruals are based on judgment, the probability of losses and, where applicable, the consideration of opinions of legal counsel. We record an accrual when a loss is deemed probable to occur and is reasonably estimable. Factors that we consider in the determination of the likelihood of a loss and the estimate of the range of that loss in respect of legal matters include the merits of a particular matter, the nature of the litigation, the length of time the matter has been pending, the procedural posture of the matter, whether we intend to defend the matter, the likelihood of settling for an insignificant amount and the likelihood of the plaintiff accepting an amount in this range. However, the outcome of such legal matters is inherently unpredictable and subject to significant uncertainties.

Goodwill and Intangible Assets

Purchase accounting requires that all assets and liabilities acquired in a transaction be recorded at fair value on the acquisition date, including identifiable intangible assets separate from goodwill. For significant acquisitions, we obtain independent appraisals and valuations of the intangible (and certain tangible) assets acquired and certain assumed obligations as well as equity. Identifiable intangible assets include customer relationships, spectrum licenses and other purchased and internally developed technology, which totaled \$255.1 million and \$377.5 million as of December 31, 2018 and 2017, respectively. Goodwill represents the excess of cost over the fair value of net assets acquired and was \$834.9 million and \$837.0 million as of December 31, 2018 and 2017, respectively.

The estimated fair values and useful lives of identified intangible assets are based on many factors, including estimates and assumptions of future operating performance and cash flows of the acquired business, estimates of cost avoidance, the nature of the business acquired, the specific characteristics of the identified intangible assets and our historical experience and that of the acquired business. The estimates and assumptions used to determine the fair values and useful lives of identified intangible assets could change due to numerous factors, including product demand, market conditions, regulations affecting the business model of our operations, technological developments, economic conditions and competition.

We conduct a goodwill impairment analysis annually in the fourth fiscal quarter, as of October 1, and as necessary if changes in facts and circumstances indicate that the fair value of our reporting units may be less than their carrying amounts. When indicators of impairment do not exist and certain accounting criteria are met, we are able to evaluate goodwill impairment using a qualitative approach. When necessary, our quantitative goodwill impairment test consists of two steps. The first step requires that we compare the estimated fair value of our reporting units to the carrying value of the reporting unit's net assets, including goodwill. If the fair value of the reporting unit is greater than the carrying value of its net assets, goodwill is not considered to be impaired and no further testing is required. If the fair value of the reporting unit is less than the carrying value of its net assets, we would be required to complete the second step of the test by analyzing the fair value of its goodwill. If the carrying value of the goodwill exceeds its fair value, an impairment charge is recorded. Our reporting units are determined based on our current reporting structure, which as of December 31, 2018 and 2017 consisted of two reporting units. As of December 31, 2018, there were no changes in facts and circumstances since the most recent annual impairment analysis to indicate impairment existed.

Property, Plant and Equipment and Long-Lived Assets

Property, plant and equipment are stated at cost and depreciated on the straight-line method over the estimated useful lives of the assets or the lease term for assets under capital leases, whichever is shorter. Intangible assets with definite lives are amortized over the remaining estimated economic life of the underlying technology or relationships, which ranges from five to ten years. Definite-lived intangible assets are amortized on the straight-line method over the estimated useful life of the asset or in a pattern in which the economic benefits of the intangible asset are consumed. Amortization expense associated with leased assets is included with depreciation expense. Routine repairs and maintenance are charged to expense as incurred.

We review long-lived assets, including property, plant and equipment, capitalized contract costs, and definite-lived intangibles for impairment when events or changes in circumstances indicate that the carrying amount may not be recoverable.

We consider whether or not indicators of impairment exist on a regular basis and as part of each quarterly and annual financial statement close process. Factors we consider in determining whether or not indicators of impairment exist include market factors and patterns of customer attrition. If indicators of impairment are identified, we estimate the fair value of the assets. An impairment loss is recognized if the carrying amount of a long-lived asset is not recoverable and exceeds its fair value.

We conduct an indefinite-lived intangible impairment analysis annually as of October 1, and as necessary if changes in facts and circumstances indicate that the fair value of our indefinite-lived intangibles may be less than the carrying amount. When indicators of impairment do not exist and certain accounting criteria are met, we are able to evaluate indefinite-lived intangible impairment using a qualitative approach. When necessary, our quantitative impairment test consists of two steps. The first step requires that we compare the estimated fair value of our indefinite-lived intangibles to the carrying value. If the fair value is greater than the carrying value, the intangibles are not considered to be impaired and no further testing is required. If the fair value is less than the carrying value, an impairment loss in an amount equal to the difference is recorded.

Income Taxes

We account for income taxes based on the asset and liability method. Under the asset and liability method, deferred tax assets and deferred tax liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carryforwards. Valuation allowances are established when necessary to reduce deferred tax assets when it is determined that it is more likely than not that some portion, or all, of the deferred tax asset will not be realized.

We recognize the effect of an uncertain income tax position on the income tax return at the largest amount that is more likely than not to be sustained upon audit by the relevant taxing authority. An uncertain income tax position will not be recognized if it has less than a 50% likelihood of being sustained. Our policy for recording interest and penalties is to record such items as a component of the provision for income taxes.

Changes in tax laws and rates could also affect recorded deferred tax assets and liabilities in the future. We record the effect of a tax rate or law change on deferred tax assets and liabilities in the period of enactment. Future tax rate or law changes could have a material effect on our results of operations, financial condition, or cash flows.

Recent Accounting Pronouncements

See Note 2 to our accompanying audited Consolidated Financial Statements.

Basis of Presentation

We conduct business through one operating segment, Vivint. Historically, we primarily operated in three geographic regions: the United States, Canada and New Zealand. In 2016, we sold all our New Zealand and Puerto Rico subscriber contracts, or the 2016 Contract Sales, and ceased operations in these geographical regions. Historically, our operations in both regions were considered immaterial and reported in conjunction with the United States. See Note 15 in the accompanying consolidated financial statements for more information about our geographic segments.

Results of operations

	Year ended December 31,		
	2018	2017	2016
	(in thousands)		
Total revenues	\$ 1,050,441	\$ 881,983	\$ 757,907
Total costs and expenses	1,292,500	1,037,476	829,009
Loss from operations	(242,059)	(155,493)	(71,102)
Other expenses	227,466	253,628	204,788
Loss before taxes	(469,525)	(409,121)	(275,890)
Income tax (benefit) expense	(1,611)	1,078	67
Net loss	<u>\$ (467,914)</u>	<u>\$ (410,199)</u>	<u>\$ (275,957)</u>

Key performance measures

	Year ended December 31,		
	2018	2017	2016
Total Subscribers (in thousands)	1,444.8	1,292.7	1,146.7
Total MSR (in thousands)	\$ 76,103	\$ 70,992	\$ 65,633
AMSRU	\$ 52.67	\$ 54.92	\$ 57.23
Net subscriber acquisition costs per new subscriber	\$ 1,189	\$ 1,594	\$ 1,996
Net service cost per subscriber	\$ 16.27	\$ 15.69	\$ 14.72
Net service margin	69%	72%	74%
Average subscriber lifetime (months)	91	90	87
Total bookings (in millions) (1)	\$ 1,676	\$ 1,524	\$ 1,642
Lifetime service revenue per new subscriber	\$ 4,233	\$ 4,366	\$ 5,809
Lifetime service revenue multiple	3.56x	2.74x	2.91x
Total subscriber lifetime backlog (in millions)	\$ 5,163	\$ 4,758	\$ 4,296

	Year ended December 31,				
	2018		2017		2016
	As Reported	As Adjusted (2)			
Total MR (in thousands)	\$ 87,537	\$ 83,879	\$ 73,499	\$ 63,159	
AMRU	\$ 63.11	\$ 60.47	\$ 60.21	\$ 58.04	

- (1) The decrease in total bookings from 2016 to 2017 is due to the reduction in Average Monthly Service Revenue per New Subscriber resulting from the transition to Vivint Flex Pay in 2017.
- (2) As adjusted excludes the impact of adopting Topic 606 associated with total revenues recognized. See Note 3 "Revenue and Capitalized Contract Costs" in the accompanying notes to consolidated financial statements for additional information related to the impact of adopting this standard and a discussion of our updated policies related to revenue recognition and accounting for costs to obtain and fulfill a customer contract.

Year Ended December 31, 2018 Compared to the Year Ended December 31, 2017

Revenues

The following table provides the significant components of our revenue for the years ended December 31, 2018 and 2017 :

	2018				% Change	
	As Reported	Topic 606 Adjustments	As Adjusted (1)	2017	As Reported	As Adjusted
	(in thousands)					
Recurring and other revenue	\$ 1,050,441	\$ (99,780)	\$ 950,661	\$ 843,420	25%	13 %
Service and other sales revenue	—	46,177	46,177	26,988	NM (2)	71 %
Activation fees	—	9,705	9,705	11,575	NM	(16)%
Total revenues	\$ 1,050,441	\$ (43,898)	\$ 1,006,543	\$ 881,983	19%	14 %

- (1) As adjusted excludes the impact of adopting Topic 606. See Note 3 "Revenue and Capitalized Contract Costs" in the accompanying notes to the consolidated financial statements for additional information related to the impact of adopting this standard and a discussion of our updated policies related to revenue recognition and accounting for costs to obtain and fulfill a customer contract.
- (2) Not Meaningful ("NM")

Total revenues increased \$168.5 million , or 19% , for the year ended December 31, 2018 as compared to the year ended December 31, 2017 , of which \$43.9 million was associated with the adoption of Topic 606 related to the timing of

revenue recognition. The impact of Topic 606 primarily related to the change in timing of revenue recognition associated with customer payments related to Products.

Recurring and other revenue for the year ended December 31, 2018 increased \$207.0 million , or 25% , as compared to the year ended December 31, 2017 , of which \$99.8 million related to the adoption of Topic 606 associated with the timing of revenue recognition and classification of revenue components. The as adjusted recurring and other revenue for the year ended December 31, 2018 totaled \$950.7 million , an increase of \$107.2 million , or 13% . Approximately \$110.1 million of this increase in recurring and other revenue was due to an increase in Total Subscribers. Recognized deferred revenue increased \$46.0 million and recognized RIC imputed interest increased \$7.6 million , due to the increased subscriber base, increases in sales of Products and the company's transition to Vivint Flex Pay in 2017. When compared to the year ended December 31, 2017 , currency translation had an immaterial impact, as computed on a constant currency basis. The increase in recurring and other revenue was partially offset by \$53.7 million from a decrease in the AMSRU of approximately \$3.00 attributable to the Company's transition to Vivint Flex Pay in early 2017 and a decrease of \$2.7 million related to wireless.

Total service and other sales revenue for the year ended December 31, 2017 totaled \$27.0 million . The as adjusted service and other sales revenue for the year ended December 31, 2018 totaled \$46.2 million , which represented an increase of \$19.2 million , or 71% , as compared to the year ended December 31, 2017 , primarily due to upgrade Product sales and increased service related billings.

Revenues recognized related to activation fees for the year ended December 31, 2017 totaled \$11.6 million . The as adjusted revenues recognized related to activation fees for the year ended December 31, 2018 totaled \$9.7 million , which represented a decrease of \$1.9 million , or 16% as compared to the year ended December 31, 2017 . This change was primarily due to activation fees no longer being billed separately to subscribers at the time of installation under Vivint Flex Pay.

Costs and Expenses

The following table provides the significant components of our costs and expenses for the years ended December 31, 2018 and 2017 :

	2018			2017	% Change	
	As Reported	Topic 606 Adjustments	As Adjusted (1)		As Reported	As Adjusted
	(in thousands)					
Operating expenses	\$ 355,813	\$ 29,859	\$ 385,672	\$ 321,476	11%	20%
Selling expenses	213,386	—	213,386	198,348	8%	8%
General and administrative	204,536	—	204,536	188,397	9%	9%
Depreciation and amortization	514,082	(146,203)	367,879	329,255	56%	12%
Restructuring and asset impairment charges	4,683	—	4,683	—	NM	NM
Total costs and expenses	\$ 1,292,500	\$ (116,344)	\$ 1,176,156	\$ 1,037,476	25%	13%

(1) As adjusted excludes the impact of adopting Topic 606. See Note 3 "Revenue and Capitalized Contract Costs" in the accompanying notes to the consolidated financial statements for additional information related to the impact of adopting this standard and a discussion of our updated policies related to revenue recognition and accounting for costs to obtain and fulfill a customer contract.

Operating expenses for the year ended December 31, 2018 increased \$34.3 million , or 11% , as compared to the year ended December 31, 2017 , which excluded \$29.9 million related to certain contract costs previously expensed, but are now included in capitalized contract costs after the adoption of Topic 606. As adjusted operating expenses for the year ended December 31, 2018 increased \$64.2 million , or 20% as compared to the year ended December 31, 2017 . This increase was primarily due to increases of \$62.9 million in personnel and related costs for field service and customer care, an increase of \$11.1 million in non-capitalized equipment and shipping costs, and an increase of \$2.7 million of payment processing and bank fees associated with the increase in Total Subscribers and the Company's transition to Vivint Flex Pay. These increases were offset by decreases of \$6.8 million in costs associated with our retail and other sales pilots, contracted services of \$5.0 million primarily associated with third-party field services and information technology operating expenses of \$2.1 million .

Selling expenses, excluding capitalized contract costs (formerly subscriber acquisition costs), increased by \$15.0 million, or 8%, for the year ended December 31, 2018 as compared to the year ended December 31, 2017, primarily due to increases of \$14.1 million in personnel and related costs, sales-related information technology costs of \$7.9 million, housing and related costs of \$6.0 million and marketing costs of \$4.7 million primarily associated with lead generation. These increases were offset by a decrease of \$18.8 million in costs associated with our retail and other sales pilots.

General and administrative expenses increased \$16.1 million, or 9%, for the year ended December 31, 2018 as compared to the year ended December 31, 2017, primarily due to increases in personnel and related costs of \$25.4 million, including \$6.0 million associated with us offering a 401(k) match beginning in 2018, research and development costs of \$5.3 million, information technology costs of \$4.3 million and an increase in contracted services costs of \$2.3 million. These costs were offset by a decrease of \$10.4 million in costs associated with our retail and other sales pilots and a decrease of \$9.1 million in legal and litigation matters.

Depreciation and amortization for the year ended December 31, 2018 increased \$184.8 million, or 56%, as compared to the year ended December 31, 2017, of which \$146.2 million was associated with the adoption of Topic 606, relating to the timing of amortization of capitalized contract costs. As adjusted depreciation and amortization for the year ended December 31, 2018 increased \$38.6 million, or 12%, as compared to the year ended December 31, 2017 primarily due to increased amortization of capitalized contract costs (formerly subscriber acquisition costs) related to new subscribers.

Restructuring expenses for the year ended December 31, 2018 related to employee severance and termination benefits expenses (See Note 11 to the accompanying Consolidated Financial Statements for further information).

Other Expenses, net

The following table provides the significant components of our other expenses, net, for the years ended December 31, 2018 and 2017 :

	Year ended December 31,		% Change
	2018	2017	
	(in thousands)		
Interest expense	\$ 245,214	\$ 225,772	9 %
Interest income	(425)	(130)	NM
Other (income) loss, net	(17,323)	27,986	NM
Total other expenses, net	<u>\$ 227,466</u>	<u>\$ 253,628</u>	<u>(10)%</u>

Interest expense increased \$19.4 million, or 9%, for the year ended December 31, 2018, as compared with the year ended December 31, 2017, due to a higher principal balance on our debt. See Note 5 to our accompanying Consolidated Financial Statements for further information on our long-term debt.

Other (income) loss, net, represented income of \$17.3 million for the year ended December 31, 2018, as compared to a loss of \$28.0 million for the year ended December 31, 2017. The other income during the year ended December 31, 2018 was primarily due to the \$50.4 million gain associated with the sale of our Spectrum intangible assets (see Note 8 to our accompanying Consolidated Financial Statements for further information), offset by a loss on debt modification and extinguishment of \$14.6 million, a loss on our derivative instrument of \$12.6 million and a foreign currency exchange loss of \$7.1 million. The other loss during the year ended December 31, 2017 was primarily due to a loss of \$23.0 million resulting from our debt modification and extinguishment and a loss on our derivative instrument of \$9.6 million, offset by a foreign currency exchange gain of \$4.9 million.

See Note 5 to our accompanying consolidated financial statements for further information on our long-term debt related to other expenses, net.

Income Taxes

The following table provides the significant components of our income tax (benefit) expense for the years ended December 31, 2018 and 2017 :

	Year ended December 31,		% Change
	2018	2017	
	(in thousands)		
Income tax (benefit) expense	\$ (1,611)	\$ 1,078	NM

Income tax benefit was \$2.7 million for the year ended December 31, 2018, as compared to an income tax expense of \$1.1 million for the year ended December 31, 2017. Our tax benefit and expense for the years ended December 31, 2018 and 2017, respectively, resulted primarily from the loss and earnings in our Canadian subsidiary, as well as U.S. minimum state taxes.

Year Ended December 31, 2017 Compared to the Year Ended December 31, 2016

Revenues

The following table provides the significant components of our revenue for the years ended December 31, 2017 and 2016 :

	Year ended December 31,		% Change
	2017	2016	
	(in thousands)		
Recurring and other revenue	\$ 843,420	\$ 724,478	16%
Service and other sales revenue	26,988	22,855	18%
Activation fees	11,575	10,574	9%
Total revenues	\$ 881,983	\$ 757,907	16%

Total revenues increased \$124.1 million, or 16%, for the year ended December 31, 2017 as compared to the year ended December 31, 2016, primarily due to the growth in recurring and other revenue, which increased \$118.9 million, or 16%. Approximately \$87.0 million of the increase in recurring and other revenue was due to Service revenue associated with the increase in Total Subscribers of approximately 13% and approximately \$4.7 million was due to increases in contracted Services across our subscriber base. Recurring and other revenue for the year ended December 31, 2017 included recognized deferred revenue and RIC imputed interest of \$21.4 million and \$7.3 million, respectively. Recurring and other revenues associated with our wireless internet business decreased \$1.4 million for the year ended December 31, 2017 as compared to the year ended December 31, 2016. Currency translation positively affected total revenues by \$1.4 million, as computed on a constant currency basis.

Total service and other sales revenue increased \$4.1 million, or 18% for the year ended December 31, 2017 as compared to the year ended December 31, 2016, primarily due to due to increased service billings.

The revenue associated with activation fees is deferred upon billing and recognized over the estimated life of the subscriber relationship. Revenues recognized related to activation fees increased \$1.0 million, for the year ended December 31, 2017 as compared to the year ended December 31, 2016, primarily due to the acceleration of recognizing deferred activation fees as a result of a change in the estimated timing related to amortization.

Costs and Expenses

The following table provides the significant components of our costs and expenses for the years ended December 31, 2017 and 2016 :

	Year ended December 31,		% Change
	2017	2016	
	(in thousands)		
Operating expenses	\$ 321,476	\$ 264,865	21%
Selling expenses	198,348	131,421	51%
General and administrative	188,397	143,168	32%
Depreciation and amortization	329,255	288,542	14%
Restructuring and asset impairment charges	—	1,013	NM
Total costs and expenses	\$ 1,037,476	\$ 829,009	25%

Operating expenses increased \$56.6 million, or 21%, for the year ended December 31, 2017 as compared to the year ended December 31, 2016. Excluding the \$16.2 million in operating expenses directly associated with efforts to expand sales channels, operating expense increased \$40.4 million, or 15%. The costs associated with this \$40.4 million increase were primarily driven by an increase in personnel and related costs of \$28.0 million associated primarily with field service and customer care, an increase in equipment and shipping costs of \$8.7 million, an increase in IT related services of \$3.4 million, and a \$1.6 million increase in payment processing and bank fees associated with the increase in Total Subscribers and the Company's introduction of Vivint Flex Pay, which requires a customer to use a credit or debit card as their payment method.

Selling expenses, excluding amortization of capitalized subscriber acquisition costs, increased \$66.9 million, or 51%, for the year ended December 31, 2017 as compared to the year ended December 31, 2016. Selling expenses associated with expanding our sales channels increased by \$47.2 million. We also had increases in personnel and related costs of \$6.2 million, an increase in facility and housing related costs of \$5.7 million, an increase in IT costs of \$3.8 million, and an increase in marketing costs of \$2.7 million primarily associated with lead generation.

General and administrative expenses increased \$45.2 million, or 32%, for the year ended December 31, 2017 as compared to the year ended December 31, 2016. Increases were primarily related to an increase in personnel and associated costs of \$15.8 million, an increase of \$10.9 million in costs to support the Company's expansion of new sales channels, an increase in contracted services of \$2.3 million and an increase in advertising costs of \$2.2 million, all to support the growth in our business. In addition, we recorded \$10.0 million in 2017 related to the settlement of litigation with ADT and bad debt increased by \$2.9 million, primarily due to the growth in our customer base.

Depreciation and amortization increased \$40.7 million, or 14%, for the year ended December 31, 2017 as compared to the year ended December 31, 2016. The increase was primarily due to increased amortization of subscriber acquisition costs arising from the growth in our subscriber base and a change in the timing of recognizing capitalized subscriber acquisition costs as a result of the estimate relating to amortization.

Restructuring and asset impairment charges for the year ended December 31, 2016 primarily related to the net loss of \$2.6 million associated with the 2016 Contract Sales, offset by \$1.5 million of wireless restructuring and asset impairment recoveries. (See Note 10 to the accompanying consolidated financial statements).

Other Expenses, net

The following table provides the significant components of our other expenses, net, for the years ended December 31, 2017 and 2016 :

	Year ended December 31,		% Change
	2017	2016	
	(in thousands)		
Interest expense	\$ 225,772	\$ 197,965	14%
Interest income	(130)	(432)	NM
Other loss (income), net	27,986	7,255	286%
Total other expenses, net	\$ 253,628	\$ 204,788	24%

Interest expense increased \$27.8 million, or 14%, for the year ended December 31, 2017, as compared with the year ended December 31, 2016, due to a higher principal balance on our debt. See Note 4 to our accompanying Consolidated Financial Statements for further information on our long-term debt.

Other loss, net, increased by \$20.7 million, for the year ended December 31, 2017, as compared with the year ended December 31, 2016. The primary component of other loss, net was from the loss and expenses of \$23.0 million and \$10.1 million resulting from our debt modification and extinguishments during the years ended December 31, 2017 and 2016, respectively. Other loss, net for the year ended December 31, 2017 also included the loss on our derivative liability of \$9.6 million. In addition, the foreign currency exchange gain increased \$2.8 million for the year ended December 31, 2017, as compared with the year ended December 31, 2016.

Income Taxes

The following table provides the significant components of our income tax expense for the years ended December 31, 2017 and 2016 :

	Year ended December 31,		% Change
	2017	2016	
	(in thousands)		
Income tax expense	\$ 1,078	\$ 67	NM

Income tax expense increased \$1.0 million for the year ended December 31, 2017, as compared with the year ended December 31, 2016. Our tax expense for the years ended December 31, 2017 and 2016 resulted primarily from earnings in our Canadian subsidiary, as well as U.S. minimum state taxes.

Unaudited Quarterly Results of Operations

The following tables present our unaudited quarterly consolidated results of operations for the four quarters ended December 31, 2018 and 2017. This unaudited quarterly consolidated information has been prepared on the same basis as our audited consolidated financial statements and, in the opinion of management, the statement of operations data includes all adjustments, consisting of normal recurring adjustments, necessary for the fair presentation of the results of operations for these periods. You should read these tables in conjunction with our audited consolidated financial statements and related notes located elsewhere in this annual report on Form 10-K. The results of operations for any quarter are not necessarily indicative of the results of operations for a full year or any future periods.

	Three Months Ended			
	December 31, 2018	September 30, 2018	June 30, 2018	March 31, 2018
	(in thousands)			
Statement of operations data				
Revenue	\$ 276,542	\$ 272,335	\$ 254,967	\$ 246,597
Loss from operations	(46,137)	(44,058)	(80,233)	(71,631)
Net loss	(118,586)	(120,226)	(144,385)	(84,717)

	Three Months Ended			
	December 31, 2017	September 30, 2017	June 30, 2017	March 31, 2015 (1)
	(in thousands)			
Statement of operations data				
Revenue	\$ 235,846	\$ 228,658	\$ 212,126	\$ 205,353
Loss from operations	(68,356)	(40,147)	(30,463)	(16,527)
Net loss	(135,406)	(107,920)	(84,237)	(82,636)

Liquidity and Capital Resources

Our primary source of liquidity has historically been cash from operations, proceeds from the issuance of debt securities (including pursuant to the 2024 Term Loan B), borrowing availability under our revolving credit facility and, to a lesser extent, capital contributions. As of December 31, 2018, we had \$12.8 million of cash and cash equivalents and \$289.8 million of availability under our revolving credit facility (after giving effect to \$13.8 million of letters of credit outstanding and no borrowings).

As market conditions warrant, we and our equity holders, including the Sponsor, its affiliates and members of our management, may from time to time, seek to purchase our outstanding debt securities or loans, in privately negotiated or open market transactions, by tender offer or otherwise. Subject to any applicable limitations contained in the agreements governing our indebtedness, any purchases made by us may be funded by the use of cash on our balance sheet or the incurrence of new secured or unsecured debt, including additional borrowings under our revolving credit facility. The amounts involved in any such purchase transactions, individually or in the aggregate, may be material. Any such purchases may be with respect to a substantial amount of a particular class or series of debt, with the attendant reduction in the trading liquidity of such class or series. In addition, any such purchases made at prices below the “adjusted issue price” (as defined for U.S. federal income tax purposes) may result in taxable cancellation of indebtedness income to us, which amounts may be material, and in related adverse tax consequences to us. Depending on conditions in the credit and capital markets and other factors, we will, from time to time, consider various financing transactions, the proceeds of which could be used to refinance our indebtedness or for other purposes. For example, we recently entered into the following financing transactions:

- In February 2017 we issued an additional \$300.0 million aggregate principal amount of the 2022 notes at a price of 108.250%, which we used the net proceeds from to redeem \$300.0 million aggregate principal amount of the existing 2019 notes and pay the related redemption premium, and to pay all fees and expenses related thereto and used any remaining proceeds for general corporate purposes;
- In August 2017, we issued \$400 million aggregate principal amount of the 2023 notes, which we used the net proceeds from to redeem \$150 million aggregate principal amount of the existing 2019 notes and pay the related redemption premium and accrued and unpaid interest thereon, and to pay all fees and expenses related thereto and used any remaining proceeds for general corporate purposes; and
- In September 2018, we borrowed \$810 million under the 2024 Term Loan B (the “2024 Term Loan B”). We used a portion of the net proceeds from the borrowings under the 2024 Term Loan B to redeem in full the entire \$269.5 million outstanding aggregate principal amount of the existing 2019 notes and pay the related accrued interest and redemption premium, to repurchase approximately \$250.7 million aggregate principal amount of the 2020 notes, and to pay fees and expenses related to the Term Loan Agreement.

Capital Contribution

In April 2016, Vivint Smart Home, Inc. (“Parent”) completed the first installment of an issuance and sale to certain investors of a series of preferred stock for \$69.8 million, net of issuance costs, and contributed such proceeds to us as an equity contribution. In June 2016, Parent completed the final installment of the issuance and sale to certain investors of such series of preferred stock for \$30.6 million, net of issuance costs, and contributed such proceeds to us as an equity contribution. Both issuances were private placements exempt from registration under the Securities Act of 1933, as amended (the “Securities Act”).

In September 2018, Parent contributed \$4.7 million to us as an equity contribution.

Cash Flow and Liquidity Analysis

Our cash flows provided by operating activities include recurring monthly billings, cash received from the sale of Products to our customers that either pay-in-full at the time of installation or finance their purchase of Products under the Consumer Financing Program and other fees received from the customers we service. Cash used in operating activities includes the cash costs to monitor and service our subscribers, a portion of subscriber acquisition costs, interest associated with our debt and general and administrative costs. Historically, we financed subscriber acquisition costs through our operating cash flows, the issuance of debt and, to a lesser extent, through the issuance of equity and sale of contracts to third parties. Currently, the upfront proceeds under Vivint Flex Pay, and those that are paid-in-full at the time of the sale of Products, offset a portion of the upfront investment associated with subscriber acquisition costs.

Sales from our direct-to-home channel are seasonal in nature. We make investments in the recruitment of our direct-to-home sales representatives, inventory and other support costs for the April through August sales period prior to each sales season. We experience increases in capitalized contract costs, as well as costs to support the sales force throughout North America, prior to and during this time period. The incremental inventory purchased to support the direct-to-home sales season

is generally consumed prior to the end of the calendar year in which it is purchased.

The following table provides a summary of cash flow data (in thousands):

	Year ended December 31,		
	2018	2017	2016
Net cash used in operating activities	\$ (220,499)	\$ (309,332)	\$ (365,706)
Net cash provided by (used in) investing activities	32,922	(21,661)	(15,147)
Net cash provided by financing activities	196,407	291,213	422,280

Cash Flows from Operating Activities

We generally reinvest the cash flows from our recurring monthly billings and cash received from Product sales associated with the initial installation into our business, primarily to (1) maintain and grow our subscriber base, (2) expand our infrastructure to support this growth, (3) enhance our existing Product and Service offerings, (4) develop new Product and Service offerings and (5) expand into new sales channels. These investments are focused on generating new subscribers, increasing the revenue from our existing subscriber base, enhancing the overall quality of service provided to our subscribers, and increasing the productivity and efficiency of our workforce and back-office functions necessary to scale our business.

For the year ended December 31, 2018, net cash used in operating activities was \$220.5 million. This cash used was primarily from a net loss of \$467.9 million, adjusted for:

- \$521.7 million in non-cash amortization, depreciation, and stock-based compensation,
- a \$49.8 million net gain on sale of disposal of assets primarily associated with the sale of our spectrum intangible assets,
- a \$14.6 million loss on early extinguishment of debt,
- a \$19.4 million provision for doubtful accounts, and
- a \$0.5 million unrealized gain on equity securities.

Cash used in operating activities also resulted from changes in operating assets and liabilities, including:

- a \$499.3 million increase in capitalized contract costs,
- \$34.0 million increase in accounts receivable driven primarily by the increase in billed RIC receivables,
- a \$29.1 million increase in other assets primarily due to increases in notes receivables associated with RICs, and
- a \$27.0 million decrease in accounts payable due primarily to decreases in inventory purchases.

These uses of operating cash were partially offset by:

- a \$172.9 million increase in deferred revenue due to the increased subscriber base and the increase of deferred revenues associated with Product sales under Vivint Flex Pay,
- a \$91.5 million increase in accrued expenses and other liabilities due primarily from increases in accrued interest on our long term debt,
- a \$64.4 million decrease in inventories primarily associated with the decrease in inventory on hand associated with our retail sales channel, and
- a \$4.7 million decrease in prepaid expenses and other current assets.

For the year ended December 31, 2017, net cash used in operating activities was \$309.3 million. This cash used was primarily from a net loss of \$410.2 million, adjusted for:

- \$337.4 million in non-cash amortization, depreciation, and stock-based compensation,
- a \$23.1 million loss on early extinguishment of debt, and
- a \$22.5 million provision for doubtful accounts.

Cash used in operating activities also resulted from changes in operating assets and liabilities, including:

- a \$457.7 million increase in subscriber acquisition costs,

- a \$75.6 million increase in inventories to support our Best Buy relationship and the anticipated sales generated by our inside sales channel,
- a \$74.8 million increase in other assets primarily due to increases in notes receivables associated with RICs,
- a \$49.6 million increase in accounts receivable driven primarily by the recognition of billed RIC receivables, and
- a \$6.0 million increase in prepaid expenses and other current assets.

These uses of operating cash were partially offset by:

- a \$247.5 million increase in deferred revenue due to the increased subscriber base and the generation of deferred revenues associated with Product sales under Vivint Flex Pay,
- a \$70.5 million increase in accounts payable due primarily to increases in inventory purchases, and
- a \$62.2 million increase in accrued expenses and other liabilities due primarily from increases in accrued interest on our long term debt.

For the year ended December 31, 2016, net cash used in operating activities was \$365.7 million. This cash used was primarily from a net loss of \$276.0 million, adjusted for:

- \$302.9 million in non-cash amortization, depreciation, and stock-based compensation,
- a \$19.6 million provision for doubtful accounts,
- a \$10.1 million loss on early extinguishment of debt, and
- \$7.1 million in non-cash restructuring and asset impairment charges

Cash used in operating activities also resulted from changes in operating assets and liabilities, including:

- a \$419.5 million increase in subscriber acquisition costs,
- a \$24.3 million increase in accounts receivable,
- a \$11.8 million increase in inventories,
- a \$3.0 million decrease in accounts payable due primarily to the timing of inventory purchases, and
- a \$5.2 million increase in prepaid expenses and other current assets, and
- a \$2.8 million decrease in the restructuring liability.

These uses of operating cash were partially offset by:

- a \$24.6 million increase in deferred revenue due to the increased subscriber base, and
- a \$12.7 million increase in accrued expenses and other liabilities due primarily from increases in accrued interest on our long term debt.

Our outstanding debt as of December 31, 2018 was approximately \$3.0 billion . Net cash interest paid for the years ended December 31, 2018 , 2017 and 2016 related to our indebtedness (excluding capital leases) totaled \$236.7 million , \$203.4 million and \$188.2 million , respectively. Our net cash from operating activities for the years ended December 31, 2018 , 2017 and 2016 , before these interest payments, was an inflow of \$16.2 million , an outflow of \$105.9 million and an outflow of \$177.5 million , respectively. Accordingly, our net cash from operating activities for the years ended December 31, 2018 , 2017 and 2016 was insufficient to cover these interest payments. For additional information regarding our outstanding indebtedness see “—Long-Term Debt” below.

Cash Flows from Investing Activities

Historically, our investing activities have primarily consisted of capital expenditures, business combinations and technology acquisitions. Capital expenditures primarily consist of periodic additions to property and equipment to support the growth in our business.

For the year ended December 31, 2018 , net cash provided by investing activities was \$32.9 million . This cash provided primarily consisted of net proceeds of \$53.7 million primarily from the sale of our spectrum intangible assets, offset by capital expenditures of \$19.4 million and acquisition of intangible assets of \$1.5 million .

For the year ended December 31, 2017, net cash used in investing activities was \$21.7 million. This cash used primarily consisted of capital expenditures of \$20.4 million.

For the year ended December 31, 2016, net cash used in investing activities was \$15.1 million. This cash used primarily consisted of capital expenditures of \$11.6 million and capitalized subscriber acquisition costs of \$5.2 million, partially offset by proceeds from the sales of capital assets of \$3.1 million.

Cash Flows from Financing Activities

Historically, our cash flows provided by financing activities primarily related to the issuance of debt, all to fund the portion of upfront costs associated with generating new subscribers that are not covered through our operating cash flows or through our Vivint Flex Pay program. Uses of cash for financing activities are generally associated with the return of capital to our stockholders, the repayment of debt and the payment of financing costs associated with the issuance of debt.

For the year ended December 31, 2018, net cash provided by financing activities was \$196.4 million, consisting primarily of \$810.0 million in borrowings on notes, \$201.0 million in borrowings on the revolving credit facility and \$4.7 million from a capital contribution. This was offset with \$522.2 million of repayments on notes, \$261.0 million of repayments on the revolving credit facility, \$20.6 million in financing costs, \$12.4 million of repayments under our capital lease obligations and \$3.1 million in returns of capital.

For the year ended December 31, 2017, net cash provided by financing activities was \$291.2 million, consisting primarily of \$724.8 million in borrowings on notes and \$196.9 million in borrowings on the revolving credit facility. This was offset with \$450.0 million of repayments on notes, \$136.9 million of repayments on the revolving credit facility, \$29.4 million in financing costs and \$10.0 million of repayments under our capital lease obligations.

For the year ended December 31, 2016, net cash provided by financing activities was \$422.3 million, consisting primarily of \$604.0 million in borrowings on notes, \$100 million of proceeds from capital contributions from Parent, and \$57.0 million in borrowings on the revolving credit facility. This was offset with \$235.5 million of repayments on notes, \$77.0 million of repayments on the revolving credit facility, \$18.3 million in financing costs and \$8.3 million of repayments under our capital lease obligations.

Long-Term Debt

We are a highly leveraged company with significant debt service requirements. As of December 31, 2018, we had \$3,049.2 million of aggregate principal total debt outstanding, consisting of \$679.3 million of outstanding 2020 notes, \$270 million of outstanding 2022 private placement notes, \$900.0 million of outstanding 2022 notes, \$400.0 million of outstanding 2023 notes, and \$808.0 million of outstanding 2024 Term Loan B with \$289.8 million of availability under our revolving credit facility (after giving effect to \$13.8 million of outstanding letters of credit and no borrowings).

Revolving Credit Facility

On November 16, 2012, our subsidiary, APX Group, entered into a \$200 million senior secured revolving credit facility, with a five year maturity. In addition, we may request one or more term loan facilities, increased commitments under the revolving credit facility or new revolving credit commitments, in an aggregate amount not to exceed \$225 million. Availability of such incremental facilities and/or increased or new commitments will be subject to certain customary conditions.

On June 28, 2013, we amended and restated the credit agreement to provide for a new repriced tranche of revolving credit commitments with a lower interest rate. Nearly all of the existing tranches of revolving credit commitments was terminated and converted into the repriced tranche, with the untermiated portion of the existing tranche continuing to accrue interest at the original higher rate.

On March 6, 2015, we amended and restated the credit agreement to provide for, among other things, (1) an increase in the aggregate commitments previously available to us from \$200 million to \$289.4 million and (2) the extension of the maturity date with respect to certain of the previously available commitments.

On August 10, 2017, we amended and restated the credit agreement to provide for, among other things, (1) an increase in the aggregate commitments previously available to us from \$289.4 million to \$324.3 million and (2) the extension of the maturity date with respect to certain of the previously available commitments. In November 2017, \$20.8 million of available commitments expired pursuant to the amended and restated credit agreement.

As of December 31, 2018 we had \$289.8 million of availability under our revolving credit facility (after giving effect to \$13.8 million of letters of credit outstanding and no borrowings).

Borrowings under the amended and restated revolving credit facility bear interest at a rate per annum equal to an applicable margin plus, at our option, either (1) the base rate determined by reference to the highest of (a) the Federal Funds rate plus 0.50% , (b) the prime rate of Bank of America, N.A. and (c) the LIBOR rate determined by reference to the costs of funds for U.S. dollar deposits for an interest period of one month, plus 1.00% or (2) the LIBOR rate determined by reference to the London interbank offered rate for dollars for the interest period relevant to such borrowing. The applicable margin for base rate-based borrowings (1)(a) under the Series A Revolving Commitments of approximately \$267.0 million and Series D Revolving Commitments of \$15.4 million is currently 2.0% per annum and (b) under the Series B Revolving Commitments of approximately \$21.2 million is currently 3.0% and (2) the applicable margin for LIBOR rate-based borrowings (a) under the Series A Revolving Commitments and Series D Revolving Commitments is currently 3.0% per annum and (b) under the Series B Revolving Commitments is currently 4.0% . The applicable margin for borrowings under the revolving credit facility is subject to one step-down of 25 basis points based on our meeting a consolidated first lien net leverage ratio test at the end of each fiscal quarter. Outstanding borrowings under the amended and restated revolving credit facility are allocated on a pro-rata basis between each Series based on the total Revolving Commitments.

In addition to paying interest on outstanding principal under the revolving credit facility, we are required to pay a quarterly commitment fee (which will be subject to one interest rate step-down of 12.5 basis points, based on our meeting a consolidated first lien net leverage ratio test) to the lenders under the revolving credit facility in respect of the unutilized commitments thereunder. We also pay customary letter of credit and agency fees.

We are not required to make any scheduled amortization payments under the revolving credit facility. The principal amount outstanding under the revolving credit facility will be due and payable in full on March 31, 2021.

2020 Notes

On November 16, 2012, our subsidiary, APX Group issued \$380 million aggregate principal amount of our 2020 notes (the “2020 notes”). Interest on the 2020 notes is payable semi-annually in arrears on each June 1 and December 1. During the year ended December 31, 2013, our subsidiary, APX Group issued an additional \$450 million aggregate principal amount of the 2020 notes and on July 1, 2014, we issued an additional \$100 million aggregate principal amount of the 2020 notes, each under the indenture dated as of November 16, 2012. In September 2018, we repurchased \$250.7 million outstanding aggregate principal amount of the 2020 notes.

From and after December 1, 2015, we may, at our option, redeem at any time and from time to time some or all of the 2020 notes at 106.563%, declining ratably on each anniversary thereafter to par from and after December 1, 2018, in each case, plus any accrued and unpaid interest to the date of redemption.

The 2020 notes mature on December 1, 2020.

2022 Private Placement Notes

On October 19, 2015, we issued \$300.0 million aggregate principal amount of our 2022 private placement notes. Interest on the 2022 private placement notes will be payable semi-annually in arrears on June 1 and December 1 of each year, commencing on June 1, 2016. In May 2016, we repurchased \$30 million in principal amounts of the 2022 private placement notes in conjunction with the issuance of the 2022 notes.

We may, at our option, redeem at any time and from time to time prior to December 1, 2018, some or all of the 2022 private placement notes at 100% of their principal amount thereof plus accrued and unpaid interest to the redemption date plus a “make-whole premium.” From and after December 1, 2018, we may, at our option, redeem at any time and from time to time some or all of the 2022 private placement notes at 104.5%, declining to par from and after December 1, 2019, in each case, plus any accrued and unpaid interest to the date of redemption. In addition, on or prior to December 1, 2018, we may, at our option, redeem up to 35% of the aggregate principal amount of the 2022 private placement notes with the proceeds from certain equity offerings at 108.875%, plus accrued and unpaid interest to the date of redemption. At any time and from time to time prior to December 1, 2018, we may at our option redeem during each 12-month period commencing with the issue date on October 19, 2015 up to 10% of the aggregate principal amount of the 2022 private placement notes at a redemption price equal to 103% of the aggregate principal amount of the 2022 private placement notes redeemed, plus accrued and unpaid interest, to the redemption date.

The 2022 private placement notes mature on December 1, 2022 unless on September 1, 2020 (i.e. the 91st day prior to the maturity of the 2020 notes) more than an aggregate principal amount of \$190 million of the 2020 notes remain outstanding or have not been refinanced as permitted under the terms of the 2022 private placement notes, in which case the private placement notes mature on September 1, 2020.

2022 Notes

On May 26, 2016, we issued \$500.0 million aggregate principal amount of our 2022 notes. On August 17, 2016 and February 1, 2017 we issued an additional \$100 million and \$300 million of our 2022 notes, respectively. Interest on the 2022 notes will be payable semi-annually in arrears on June 1 and December 1 of each year, commencing on December 1, 2016.

We may, at our option, redeem at any time and from time to time prior to December 1, 2018, some or all of the 2022 notes at 100% of their principal amount thereof plus accrued and unpaid interest to the redemption date plus a “make-whole premium.” From and after December 1, 2018, we may, at our option, redeem at any time and from time to time some or all of the 2022 notes at 103.938%, declining to par from and after December 1, 2020, in each case, plus any accrued and unpaid interest to the date of redemption. In addition, on or prior to December 1, 2018, we may, at our option, redeem up to 35% of the aggregate principal amount of the 2022 notes with the proceeds from certain equity offerings at 107.875%, plus accrued and unpaid interest to the date of redemption. At any time and from time to time prior to December 1, 2018, we may at our option redeem during each 12-month period commencing on the issue date of May 26, 2016 up to 10% of the aggregate principal amount of the 2022 notes at a redemption price equal to 103% of the aggregate principal amount of the 2022 notes redeemed, plus accrued and unpaid interest, to the redemption date.

The 2022 notes mature on December 1, 2022, or on such earlier date when any outstanding pari passu lien indebtedness matures as a result of the operation of any “Springing Maturity” provision set forth in the agreements governing such pari passu lien indebtedness.

2023 Notes

On August 10, 2017, we issued \$400 million aggregate principal amount of our 7.625% Senior Notes due 2023. Interest on the 2023 notes will be payable semi-annually in arrears on September 1 and March 1 of each year, commencing on March 1, 2018.

We may, at our option, redeem at any time and from time to time prior to September 1, 2019, some or all of the 2023 notes at 100% of their principal amount thereof plus accrued and unpaid interest to the redemption date plus a “make-whole premium.” From and after September 1, 2019, we may, at our option, redeem at any time and from time to time some or all of the 2023 notes at 105.719%, declining to par from and after September 1, 2022, in each case, plus any accrued and unpaid interest to the date of redemption. In addition, on or prior to September 1, 2019, we may, at our option, redeem up to 35% of the aggregate principal amount of the 2023 notes with the proceeds from certain equity offerings at 107.625%, plus accrued and unpaid interest to the date of redemption.

The 2023 notes mature on September 1, 2023.

2024 Term Loan B

On September 6, 2018, our subsidiary, APX Group incurred \$810 million of term loans. Pursuant to the terms of the 2024 Term Loan B, quarterly amortization payments are due in an amount equal to 0.25% of the aggregate principal amount of the 2024 Term Loan B outstanding on the closing date.

The remaining principal amount outstanding under the 2024 Term Loan B will be due and payable in full on (x) if the Springing Maturity Condition (as defined below) does not apply, March 31, 2024 and (y) if the Springing Maturity Condition does apply, either the Springing Maturity Date for the 2020 Notes (as defined below) or the Springing Maturity Date for the 2023 Notes (as defined below), as applicable.

The Springing Maturity Condition applies if either (i) on the Springing Maturity Date for the 2020 Notes, an aggregate principal amount of 2020 Notes in excess of \$275.0 million are either outstanding or have not been repaid or redeemed or (ii) on the Springing Maturity Date for the 2023 Notes, an aggregate principal amount of the 2023 Notes in excess of \$125.0 million are either outstanding or have not been repaid or redeemed. The “Springing Maturity Date for the 2020 Notes” means

the date that is 91 days before the maturity date with respect to the 2020 Notes and the “Springing Maturity Date for the 2023 Notes means the date that is 91 days before the maturity date with respect to the 2023 Notes.

Guarantees and Security

All of the obligations under the credit agreement governing the revolving credit facility, the credit agreement governing the 2024 Term Loan B and the debt agreements governing the Existing Notes are guaranteed by APX Group Holdings, Inc. and each of APX Group, Inc.'s existing and future material wholly-owned U.S. restricted subsidiaries (subject to customary exclusions and qualifications). However, such subsidiaries shall only be required to guarantee the obligations under the debt agreements governing the Existing Notes for so long as such entities guarantee the obligations under the revolving credit facility, the credit agreement governing the 2024 Term Loan B or our other indebtedness. See Note 17 of our accompanying consolidated financial statements included elsewhere in this report for additional financial information regarding guarantors and non-guarantors.

The obligations under the revolving credit facility, 2024 Term Loan B and the existing senior secured notes are secured by a security interest in (1) substantially all of the present and future tangible and intangible assets of APX Group, Inc., and the guarantors, including without limitation equipment, subscriber contracts and communication paths, intellectual property, fee-owned real property, general intangibles, investment property, material intercompany notes and proceeds of the foregoing, subject to permitted liens and other customary exceptions, (2) substantially all personal property of APX Group, Inc. and the guarantors consisting of accounts receivable arising from the sale of inventory and other goods and services (including related contracts and contract rights, inventory, cash, deposit accounts, other bank accounts and securities accounts), inventory and intangible assets to the extent attached to the foregoing books and records of APX Group, Inc. and the guarantors, and the proceeds thereof, subject to permitted liens and other customary exceptions, in each case held by APX Group, Inc. and the guarantors and (3) a pledge of all of the capital stock of APX Group, Inc., each of its subsidiary guarantors and each restricted subsidiary of APX Group, Inc. and its subsidiary guarantors, in each case other than excluded assets and subject to the limitations and exclusions provided in the applicable collateral documents.

Under the terms of the applicable security documents and intercreditor agreement, the proceeds of any collection or other realization of collateral received in connection with the exercise of remedies will be applied first to repay amounts due under the revolving credit facility, and up to an additional \$60 million of “superpriority” obligations that APX Group, Inc. may incur in the future, before the holders of the existing senior secured notes or 2024 Term Loan B receive any such proceeds.

Debt Covenants

The credit agreement governing the revolving credit facility, the credit agreement governing the 2024 Term Loan B and the debt agreements governing the Existing Notes contain a number of covenants that, among other things, restrict, subject to certain exceptions, APX Group, Inc. and its restricted subsidiaries' ability to:

- incur or guarantee additional debt or issue disqualified stock or preferred stock;
- pay dividends and make other distributions on, or redeem or repurchase, capital stock;
- make certain investments;
- incur certain liens;
- enter into transactions with affiliates;
- merge or consolidate;
- materially change the nature of their business;
- enter into agreements that restrict the ability of restricted subsidiaries to make dividends or other payments to APX Group, Inc.;
- designate restricted subsidiaries as unrestricted subsidiaries
- amend, prepay, redeem or purchase certain subordinated debt; and
- transfer or sell certain assets.

The credit agreement governing the revolving credit facility, the credit agreement governing the 2024 Term Loan B and the debt agreements governing the Existing Notes contain change of control provisions and certain customary affirmative covenants and events of default. As of December 31, 2018, APX Group, Inc. was in compliance with all covenants related to its long-term obligations.

Subject to certain exceptions, the credit agreement governing the revolving credit facility, the credit agreement governing the 2024 Term Loan B and the debt agreements governing the Existing Notes permit APX Group, Inc. and its restricted subsidiaries to incur additional indebtedness, including secured indebtedness.

Our future liquidity requirements will be significant, primarily due to debt service requirements. The actual amounts of borrowings under the revolving credit facility will fluctuate from time to time. We believe that our existing cash, together with cash provided by operations and amounts available through the revolving credit facility and incremental facilities will be sufficient to meet our operating needs for the next 12 months, including working capital requirements, capital expenditures, debt service obligations and potential new acquisitions.

Our liquidity and our ability to fund our capital requirements is dependent on our future financial performance, which is subject to general economic, financial and other factors that are beyond our control and many of which are described under “Item 1A—Risk Factors” in this report. If those factors significantly change or other unexpected factors adversely affect us, our business may not generate sufficient cash flow from operations or we may not be able to obtain future financings to meet our liquidity needs. We anticipate that to the extent additional liquidity is necessary to fund our operations, it would be funded through borrowings under the revolving credit facility, incurring other indebtedness, additional equity or other financings or a combination of these potential sources of liquidity. We may not be able to obtain this additional liquidity on terms acceptable to us or at all.

Covenant Compliance

Under the credit agreement governing the revolving credit facility, the credit agreement governing the 2024 Term Loan B and the debt agreements governing the Existing Notes, our subsidiary, APX Group's ability to engage in activities such as incurring additional indebtedness, making investments, refinancing certain indebtedness, paying dividends and entering into certain merger transactions is governed, in part, by its ability to satisfy tests based on 12 months ended Adjusted EBITDA. Such tests include an incurrence-based maximum consolidated secured debt ratio and consolidated total debt ratio of 4.00 to 1.0, an incurrence-based minimum fixed charge coverage ratio of 2.00 to 1.0, and, solely in the case of the credit agreement governing the revolving credit facility, a maintenance-based maximum consolidated first lien secured debt ratio of 5.35 to 1.0, each as determined in accordance with the credit agreement governing the revolving credit facility, the credit agreement governing the 2024 Term Loan B and the debt agreements governing the Existing Notes. Non-compliance with these covenants could restrict our ability to undertake certain activities or result in a default under the credit agreement governing the revolving credit facility, the credit agreement governing the 2024 Term Loan B and the debt agreements governing the Existing Notes.

“Adjusted EBITDA” is defined as net income (loss) before interest expense (net of interest income), income and franchise taxes and depreciation and amortization (including amortization of capitalized subscriber acquisition costs), further adjusted to exclude the effects of certain contract sales to third parties, non-capitalized subscriber acquisition costs, stock based compensation and certain unusual, non-cash, non-recurring and other items permitted in certain covenant calculations under the agreements governing our Existing Notes, the credit agreement governing the 2024 Term Loan B and the credit agreement governing our revolving credit facility.

We believe that the presentation of Adjusted EBITDA is appropriate to provide additional information to investors about the calculation of, and compliance with, certain financial covenants contained in the agreements governing the Existing Notes, the credit agreements governing the revolving credit facility and the 2024 Term Loan B. We caution investors that amounts presented in accordance with our definition of Adjusted EBITDA may not be comparable to similar measures disclosed by other issuers, because not all issuers and analysts calculate Adjusted EBITDA in the same manner.

Adjusted EBITDA is not a measurement of our financial performance under GAAP and should not be considered as an alternative to net loss or any other performance measures derived in accordance with GAAP or as an alternative to cash flows from operating activities as a measure of our liquidity.

The following table sets forth a reconciliation of net loss to Adjusted EBITDA (in thousands):

	Year ended December 31,		
	2018	2017	2016
Net loss	\$ (467,914)	\$ (410,199)	\$ (275,957)
Interest expense, net	244,789	225,642	197,533
Non-capitalized subscriber acquisition costs (1)	276,437	255,456	175,948
Amortization of capitalized subscriber acquisition costs	398,174	206,153	154,877
Depreciation and amortization (2)	115,908	123,102	133,666
Gain on sale of spectrum (3)	(50,389)	—	—
Other expense	33,066	27,986	7,255
Non-cash compensation (4)	2,217	1,377	3,999
Restructuring and asset impairment charge (5)	4,683	—	1,013
Income tax (benefit) expense	(1,611)	1,078	67
Other adjustments (6)	59,519	59,733	45,697
Adjustment for a change in accounting principle (Topic 606) (7)	(73,757)	—	—
Adjusted EBITDA	\$ 541,122	\$ 490,328	\$ 444,098

- (1) Reflects subscriber acquisition costs that are expensed as incurred because they are not directly related to the acquisition of specific subscribers. Certain other industry participants purchase subscribers through subscriber contract purchases, and as a result, may capitalize the full cost to purchase these subscriber contracts, as compared to our organic generation of new subscribers, which requires us to expense a portion of our subscriber acquisition costs under GAAP.
- (2) Excludes loan amortization costs that are included in interest expense.
- (3) Gain on sale of spectrum intangible assets in 2018. (See Note 8 to the accompanying consolidated financial statements).
- (4) Reflects non-cash compensation costs related to employee and director stock and stock option plans. Excludes non-cash compensation costs included in non-capitalized subscriber acquisition costs.
- (5) Restructuring employee severance and termination benefits expenses. (See Note 10 to the accompanying consolidated financial statements).
- (6) Other adjustments represent primarily the following items (in thousands):

	Year ended December 31,		
	2018	2017	2016
Product development (a)	\$ 22,253	\$ 26,767	\$ 24,189
Litigation settlement (b)	—	10,012	—
Certain legal and professional fees (c)	8,965	4,986	6,399
Monitoring fee (d)	4,068	3,506	3,746
Start-up of new strategic initiatives (e)	—	3,486	—
Purchase accounting deferred revenue fair value adjustment (f)	1,336	3,280	4,410
Information technology implementation (g)	—	3,188	3,745
Hiring and termination payments (h)	9,373	386	1,017
Projected run-rate restructuring cost savings (i)	5,756	—	—
All other adjustments (j)	7,768	4,122	2,191
Total other adjustments	\$ 59,519	\$ 59,733	\$ 45,697

- (a) Costs related to the development of control panels, including associated software, peripheral devices and Wireless Internet Technology.
- (b) ADT litigation settlement.
- (c) Legal and related professional fees associated with strategic initiatives and financing transactions.
- (d) Blackstone Management Partners L.L.C. monitoring fee (See Note 14 to the accompanying consolidated financial statements).
- (e) Costs related to the start-up of potential new service offerings and sales channels.
- (f) Add back revenue reduction directly related to purchase accounting deferred revenue adjustments.
- (g) Costs related to the implementation of new information technologies.
- (h) Expenses associated with retention bonus, relocation and severance payments to management.

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- (i) Projected run-rate savings related to June 2018 reduction-in-force.
 - (j) Other adjustments primarily reflect costs associated with payments to third parties related to various strategic and financing activities, including the monthly financing fee paid under the Consumer Financing Program, and costs to implement Sarbanes-Oxley Section 404.
- (7) The adjustments to eliminate the impact of the Company's adoption of Topic 606, are as follows (in thousands):

	Year ended December 31,		
	2018	2017	2016
Net loss	\$ 70,029	\$ —	\$ —
Amortization of capitalized contract costs	(398,174)	—	—
Amortization of subscriber acquisition costs	251,971	—	—
Income tax (benefit) expense	2,417	—	—
Topic 606 adjustments	\$ (73,757)	\$ —	\$ —

See Note 3 "Revenue and Capitalized Contract Costs" in the accompanying notes to the consolidated financial statements for additional information related to the impact of adopting this standard and a discussion of our updated policies related to revenue recognition and accounting for costs to obtain and fulfill a customer contract.

Other Factors Affecting Liquidity and Capital Resources

Vehicle Leases. Since 2010, we have leased, and expect to continue leasing, vehicles primarily for use by our Smart Home Pros. For the most part, these leases have 36 month durations and we account for them as capital leases. At the end of the lease term for each vehicle we have the option to either (1) purchase it for the estimated end-of-lease fair market value established at the beginning of the lease term; or (2) return the vehicle to the lessor to be sold by them and in the event the sale price is less than the estimated end-of-lease fair market value we are responsible for such deficiency. As of December 31, 2018, our total capital lease obligations were \$13.3 million, of which \$7.7 million is due within the next 12 months.

Aircraft Lease. In December 2012, we entered into an aircraft lease agreement for the use of a corporate aircraft, which is accounted for as an operating lease. Upon execution of the lease, we paid a \$5.9 million security deposit which is refundable at the end of the lease term. Beginning January 2013, we are required to make 156 monthly rental payments of approximately \$83,000 each. In January 2015, an amendment to the agreement was made which, among other changes, increased the required monthly rental payments to approximately \$87,000 each. We also have the option to extend the lease for an additional 36 months upon expiration of the initial term. The lease agreement also provides us the option to purchase the aircraft on certain specified dates for a stated dollar amount, which represents the current estimated fair value as of the purchase date.

Off-Balance Sheet Arrangements

Currently we do not engage in off-balance sheet financing arrangements, as defined in Item 303(a)(4)(ii) of Regulation S-K.

Contractual Obligations

The following table summarizes our contractual obligations as of December 31, 2018. Certain contractual obligations are reflected on our consolidated balance sheet, while others are disclosed as future obligations under GAAP.

	Payments Due by Period				
	Total	Less than 1 Year	1 - 3 Years	3 - 5 Years	More than 5 Years
	(dollars in thousands)				
Long-term debt obligations (1)	\$ 3,057,274	\$ 8,100	\$ 695,499	\$ 1,586,200	\$ 767,475
Interest on long-term debt (2)	1,146,390	324,520	530,128	276,799	14,943
Capital lease obligations	13,772	8,193	5,572	7	—
Operating lease obligations	103,293	16,709	30,404	27,356	28,824
Purchase obligations (3)	59,459	17,996	15,192	13,541	12,730
Other long-term obligations	42,846	9,077	11,982	7,618	14,169
Total contractual obligations	\$ 4,423,034	\$ 384,595	\$ 1,288,777	\$ 1,911,521	\$ 838,141

- (1) As of December 31, 2018, we had no borrowings under our revolving credit facility. The principal amount outstanding under the revolving credit facility will be due and payable in full on March 31, 2021. As of December 31, 2018, there was approximately \$289.8 million of availability under our revolving credit facility (after giving effect to \$13.8 million of outstanding letters of credit and no borrowings).
- (2) Represents aggregate interest payments on aggregate principal amounts of \$679.3 million of outstanding 2020 notes, \$270.0 million of the outstanding 2022 private placement notes, \$900.0 million of the outstanding 2022 notes, \$400.0 million of the outstanding 2023 notes, and \$808.0 million of the 2024 Term Loan B as well as letter of credit and commitment fees for the unused portion of our revolving credit facility. Does not reflect interest payments on future borrowings under our revolving credit facility.
- (3) Purchase obligations consist of commitments for purchases of goods and services that are not already included in our consolidated balance sheet as of December 31, 2018. We have contingent liabilities related to legal proceedings and other matters arising in the ordinary course of business. Although it is reasonably possible we may incur losses upon conclusion of such matters, an estimate of any loss or range of loss cannot be made at this time. In the opinion of management, it is expected that amounts, if any, which may be required to satisfy such contingencies will not be material in relation to the accompanying consolidated financial statements.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Our operations include activities in the United States and Canada. Historically, we had immaterial operations in New Zealand. These operations expose us to a variety of market risks, including the effects of changes in interest rates and foreign currency exchange rates. We monitor and manage these financial exposures as an integral part of our overall risk management program.

Interest Rate Risk

Our revolving credit facility and our term loan facility bear interest at a floating rate. As a result, we may be exposed to fluctuations in interest rates to the extent of our borrowings under these credit facilities. To help manage borrowing costs, we may from time to time enter into interest rate swap transactions with financial institutions acting as principal counterparties. We consider changes in the 30-day LIBOR rate to be most indicative of our interest rate exposure as it is a function of the base rate for our credit facilities and is reasonably correlated to changes in our earnings rate on our cash investments. Assuming the borrowing of all amounts available under our revolving credit facility, if the 30-day LIBOR rate increases by 1% due to normal market conditions, our interest expense will increase by approximately \$11.1 million per annum. We had no borrowings under the revolving credit facility as of December 31, 2018.

Foreign Currency Risk

We have exposure to the effects of foreign currency exchange rate fluctuations on the results of our Canadian operations. Our Canadian operations use the Canadian dollar to conduct business but our results are reported in U.S. dollars. Historically, our operations in New Zealand were immaterial to our overall operating results and we ceased operations in the geographical region during the year ended December 31, 2018. We are exposed periodically to the foreign currency rate fluctuations that affect transactions not denominated in the functional currency of our U.S. and Canadian operations. Based on our results of our Canadian operations for the year ended December 31, 2018, if foreign currency exchange rates had decreased 10% throughout the year, our revenues would have decreased by approximately \$7.3 million, our total assets would have decreased by \$23.3 million and our total liabilities would have decreased by \$20.6 million. We do not currently use derivative financial instruments.

to hedge investments in foreign subsidiaries. For the year ended December 31, 2018 , before intercompany eliminations, approximately \$72.6 million of our revenues, \$232.9 million of our total assets and \$206.5 million of our total liabilities were denominated in Canadian Dollars.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

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Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of APX Group Holdings, Inc. and Subsidiaries

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of APX Group Holdings, Inc. and Subsidiaries (the Company) as of December 31, 2018 and 2017, the related consolidated statements of operations, comprehensive loss, changes in equity (deficit) and cash flows for each of the three years in the period ended December 31, 2018, and the related notes (collectively referred to as the “consolidated financial statements”). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company 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.

Adoption of Accounting Standards Update (ASU) No. 2014-09

As discussed in Note 2 and Note 3 to the consolidated financial statements, the Company has changed its method for recognizing revenue from contracts with customers and its accounting for contract acquisition costs due to the adoption of ASU No. 2014-09, Revenue from Contracts with Customers (Topic 606), as amended.

Basis for Opinion

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

We conducted our audit for the year ended December 31, 2018 in accordance with the standards of the PCAOB and in accordance with auditing standards generally accepted in the United States of America. We conducted our audits of the years ended December 31, 2017 and 2016 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. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 2011.

Salt Lake City, Utah
March 5, 2019

APX Group Holdings, Inc. and Subsidiaries
Consolidated Balance Sheets
(In thousands, except share and per-share amounts)

	December 31,	
	2018	2017
ASSETS		
Current Assets:		
Cash and cash equivalents	\$ 12,773	\$ 3,872
Accounts and notes receivable, net	48,724	40,721
Inventories	50,552	115,222
Prepaid expenses and other current assets	11,449	16,150
Total current assets	123,498	175,965
Property, plant and equipment, net	73,401	78,081
Capitalized contract costs, net	1,115,775	—
Subscriber acquisition costs, net	—	1,308,558
Deferred financing costs, net	2,058	3,099
Intangible assets, net	255,085	377,451
Goodwill	834,855	836,970
Long-term notes receivables and other assets, net	119,819	88,723
Total assets	\$ 2,524,491	\$ 2,868,847
LIABILITIES AND STOCKHOLDERS' (DEFICIT) EQUITY		
Current Liabilities:		
Accounts payable	\$ 66,646	\$ 107,347
Accrued payroll and commissions	65,479	57,752
Accrued expenses and other current liabilities	136,715	74,321
Deferred revenue	186,953	88,337
Current portion of capital lease obligations	7,743	10,614
Total current liabilities	463,536	338,371
Notes payable, net	2,961,947	2,760,297
Notes payable, net - related party	75,148	—
Revolving line of credit	—	60,000
Capital lease obligations, net of current portion	5,571	11,089
Deferred revenue, net of current portion	323,585	264,555
Other long-term obligations	90,209	79,020
Deferred income tax liabilities	1,096	9,041
Total liabilities	3,921,092	3,522,373
Commitments and contingencies (See Note 13)		
Stockholders' deficit:		
Common stock, \$0.01 par value, 100 shares authorized; 100 shares issued and outstanding	—	—
Additional paid-in capital	736,333	732,346
Accumulated deficit	(2,104,097)	(1,358,571)
Accumulated other comprehensive loss	(28,837)	(27,301)
Total stockholders' deficit	(1,396,601)	(653,526)
Total liabilities and stockholders' deficit	\$ 2,524,491	\$ 2,868,847

See accompanying notes to consolidated financial statements

APX Group Holdings, Inc. and Subsidiaries
Consolidated Statements of Operations
(In thousands)

	Year ended December 31,		
	2018	2017	2016
Revenues:			
Recurring and other revenue	\$ 1,050,441	\$ 843,420	\$ 724,478
Service and other sales revenue	—	26,988	22,855
Activation fees	—	11,575	10,574
Total revenues	1,050,441	881,983	757,907
Costs and expenses:			
Operating expenses (exclusive of depreciation and amortization shown separately below)	355,813	321,476	264,865
Selling expenses (exclusive of amortization of deferred commissions of \$165,797, \$84,152 and \$64,007, respectively, which are included in depreciation and amortization shown separately below)	213,386	198,348	131,421
General and administrative expenses	204,536	188,397	143,168
Depreciation and amortization	514,082	329,255	288,542
Restructuring and asset impairment charges	4,683	—	1,013
Total costs and expenses	1,292,500	1,037,476	829,009
Loss from operations	(242,059)	(155,493)	(71,102)
Other expenses (income):			
Interest expense	245,214	225,772	197,965
Interest income	(425)	(130)	(432)
Other (income) loss, net	(17,323)	27,986	7,255
Loss before income taxes	(469,525)	(409,121)	(275,890)
Income tax (benefit) expense	(1,611)	1,078	67
Net loss	\$ (467,914)	\$ (410,199)	\$ (275,957)

See accompanying notes to consolidated financial statements

APX Group Holdings, Inc. and Subsidiaries
Consolidated Statements of Comprehensive Loss
(In thousands)

	Year ended December 31,		
	2018	2017	2016
Net loss	\$ (467,914)	\$ (410,199)	\$ (275,957)
Other comprehensive (loss) income, net of tax effects:			
Foreign currency translation adjustment	(2,218)	3,155	2,482
Unrealized (loss) gain on marketable securities	—	(1,693)	1,011
Total other comprehensive (loss) income	(2,218)	1,462	3,493
Comprehensive loss	\$ (470,132)	\$ (408,737)	\$ (272,464)

See accompanying notes to consolidated financial statements

APX Group Holdings, Inc. and Subsidiaries
Consolidated Statements of Changes in Equity (Deficit)
(In thousands)

	Common Stock	Additional paid-in capital	Accumulated deficit	Accumulated other comprehensive loss	Total
Balance, December 31, 2015	\$ —	\$ 627,645	\$ (672,382)	\$ (32,256)	\$ (76,993)
Net Loss	—	—	(275,957)	—	(275,957)
Foreign currency translation adjustment	—	—	—	2,482	2,482
Unrealized gain on marketable securities	—	—	—	1,011	1,011
Stock-based compensation	—	3,868	—	—	3,868
Capital contribution	—	100,407	—	—	100,407
Balance, December 31, 2016	—	731,920	(948,339)	(28,763)	(245,182)
Net Loss	—	—	(410,199)	—	(410,199)
Foreign currency translation adjustment	—	—	—	3,155	3,155
Unrealized loss on marketable securities	—	—	—	(1,693)	(1,693)
Stock-based compensation	—	1,577	(33)	—	1,544
Return of capital to Vivint Smart Home, Inc.	—	(1,151)	—	—	(1,151)
Balance, December 31, 2017	—	732,346	(1,358,571)	(27,301)	(653,526)
Net Loss	—	—	(467,914)	—	(467,914)
Foreign currency translation adjustment	—	—	—	(2,218)	(2,218)
Stock-based compensation	—	2,416	—	—	2,416
Return of capital to Vivint Smart Home, Inc.	—	(3,129)	—	—	(3,129)
ASU 2014-09 adoption	—	—	(276,930)	—	(276,930)
ASU 2016-01 adoption	—	—	(680)	680	—
Capital contribution	—	4,700	—	—	4,700
Balance, December 31, 2018	\$ —	\$ 736,333	\$ (2,104,095)	\$ (28,839)	\$ (1,396,601)

See accompanying notes to consolidated financial statements

APX Group Holdings, Inc. and Subsidiaries
Consolidated Statements of Cash Flows
(In thousands)

	Year ended December 31,		
	2018	2017	2016
Cash flows from operating activities:			
Net loss from operations	\$ (467,914)	\$ (410,199)	\$ (275,957)
Adjustments to reconcile net loss to net cash used in operating activities of operations:			
Amortization of capitalized contract costs	398,174	—	—
Amortization of subscriber acquisition costs	—	206,153	154,877
Amortization of customer relationships	84,174	94,863	108,178
Gain on fair value changes of equity securities	(477)	—	—
Depreciation and amortization of property, plant and equipment and other intangible assets	31,734	28,239	25,488
Amortization of deferred financing costs and bond premiums and discounts	5,152	6,586	10,447
(Gain) loss on sale or disposal of assets	(49,762)	458	(33)
Loss on early extinguishment of debt	14,571	23,062	10,085
Stock-based compensation	2,505	1,595	3,868
Provision for doubtful accounts	19,405	22,465	19,624
Deferred income taxes	(2,149)	929	(478)
Restructuring and asset impairment charges	—	—	7,126
Changes in operating assets and liabilities, net of acquisitions:			
Accounts and notes receivable, net	(34,008)	(49,590)	(24,338)
Inventories	64,442	(75,580)	(11,827)
Prepaid expenses and other current assets	4,695	(5,975)	(5,165)
Capitalized contract costs, net	(499,252)	—	—
Subscriber acquisition costs, net	—	(457,679)	(419,509)
Long-term notes receivables and other assets, net	(29,118)	(74,801)	368
Accounts payable	(27,045)	70,525	(2,978)
Accrued payroll and commissions, expenses and other current and long-term liabilities	91,469	62,208	12,702
Restructuring liability	—	(91)	(2,797)
Deferred revenue	172,905	247,500	24,613
Net cash used in operating activities	(220,499)	(309,332)	(365,706)
Cash flows from investing activities:			
Subscriber acquisition costs – company owned equipment	—	—	(5,243)
Capital expenditures	(19,412)	(20,391)	(11,642)
Proceeds from the sale of intangible assets	53,693	—	—
Proceeds from the sale of capital assets	127	776	3,123
Acquisition of intangible assets	(1,486)	(1,745)	(1,385)
Acquisition of other assets	—	(301)	—
Net cash provided by (used in) investing activities	32,922	(21,661)	(15,147)

See accompanying notes to consolidated financial statements

APX Group Holdings, Inc. and Subsidiaries
Consolidated Statements of Cash Flows Continued
(In thousands)

	Year ended December 31,		
	2018	2017	2016
Cash flows from financing activities:			
Proceeds from notes payable	759,000	724,750	604,000
Proceeds from notes payable - related party	51,000	—	—
Repayments of notes payable	(522,191)	(450,000)	(235,535)
Borrowings from revolving line of credit	201,000	196,895	57,000
Repayments on revolving line of credit	(261,000)	(136,895)	(77,000)
Repayments of capital lease obligations	(12,354)	(10,007)	(8,315)
Payments of other long-term obligations	—	(2,983)	—
Financing costs	(11,317)	(18,277)	(9,036)
Deferred financing costs	(9,302)	(11,119)	(9,241)
Return of capital	(3,129)	(1,151)	—
Proceeds from capital contributions	4,700	—	100,407
Net cash provided by financing activities	196,407	291,213	422,280
Effect of exchange rate changes on cash	71	132	(466)
Net increase (decrease) in cash and cash equivalents	8,901	(39,648)	40,961
Cash and cash equivalents:			
Beginning of period	3,872	43,520	2,559
End of period	\$ 12,773	\$ 3,872	\$ 43,520
Supplemental cash flow disclosures:			
Income tax paid	\$ 330	\$ 219	\$ 435
Interest paid	\$ 239,441	\$ 207,433	\$ 189,170
Supplemental non-cash investing and financing activities:			
Capital lease additions	\$ 4,569	\$ 14,633	\$ 8,411
Intangible asset acquisitions included within accounts payable, accrued expenses and other current liabilities and other long-term obligations	\$ 974	\$ 557	\$ 31,283
Capital expenditures included within accounts payable, accrued expenses and other current liabilities	\$ 128	\$ 2,531	\$ 2,345
Change in fair value of equity securities	\$ —	\$ 1,314	\$ 1,011
Property acquired under build-to-suit agreements included within other long-term obligations	\$ —	\$ 2,300	\$ 4,619

See accompanying notes to consolidated financial statements

APX Group Holdings, Inc. and Subsidiaries
Notes to Consolidated Financial Statements

1 . Description of Business

APX Group Holdings, Inc. (“Holdings” or “Parent”), and its wholly-owned subsidiaries, (collectively the “Company”), is one of the largest smart home companies in North America. The Company is engaged in the sale, installation, servicing and monitoring of smart home and security systems, primarily in the United States and Canada. Holdings is wholly-owned by Vivint Smart Home, Inc., which is majority owned by 313 Acquisition, LLC. Vivint Smart Home, Inc. and APX Group Holdings, Inc. have no operations.

2 . Significant Accounting Policies

Basis of Presentation

The Company has prepared the accompanying consolidated financial statements pursuant to generally accepted accounting principles in the United States (“GAAP”). Preparing financial statements requires the Company to make estimates and assumptions that affect the amounts that are reported in the consolidated financial statements and accompanying disclosures. Although these estimates are based on the Company’s best knowledge of current events and actions that the Company may undertake in the future, actual results may be different from the Company’s estimates. The results of operations presented herein are not necessarily indicative of the Company’s results for any future period.

Vivint Flex Pay

In January 2017, the Company announced the introduction of the Vivint Flex Pay plan (“Vivint Flex Pay”), which became the Company’s primary sales model beginning in March 2017. Under Vivint Flex Pay, customers pay separately for the products (including control panel, security peripheral equipment, smart home equipment, and related installation) (“Products”) and Vivint’s smart home and security services (“Services”). The customer has the following three options to pay for the Products: (1) qualified customers in the United States may finance the purchase of Products through a third-party financing provider (“Consumer Financing Program”) (2) customers not eligible for the Consumer Financing Program, but who qualify under the Company’s underwriting criteria, may enter into a retail installment contract (“RIC”) directly with Vivint, or (3) customers may purchase the Products at the outset of the service contract by check, automatic clearing house payments (“ACH”), credit or debit card.

Although customers pay separately for the Products and Services under the Vivint Flex Pay plan, the Company has determined that the shift in its sales model does not change the Company’s conclusion that the sale of Products and Services are one single performance obligation. As a result, all forms of transactions under Vivint Flex Pay create deferred revenue for the gross amount of Products sold. Gross deferred revenues are reduced by imputed interest on the RICs and the present value of expected payments due to the third-party financing provider under the Consumer Financing Program.

Under the Consumer Financing Program, qualified customers are eligible for installment loans provided by a third-party financing provider of up to \$4,000 for either 42 or 60 months. The Company pays a monthly fee to the third-party financing provider based on the average daily outstanding balance of the installment loans. Additionally, the Company shares liability for credit losses depending on the credit quality of the customer. Because of the nature of these provisions under the Consumer Financing Program, the Company records a derivative liability at its fair value when the third-party financing provider originates installment loans to customers, which reduces the amount of estimated revenue recognized on the provision of the services. The derivative liability is reduced as payments are made from the Company to the third-party financing provider. Subsequent changes to the fair value of the derivative liability are realized through other loss/(income), net in the Consolidated Statement of Operations. (See Note 9).

Retail Installment Contract Receivables

For customers that enter into a RIC under the Vivint Flex Pay plan, the Company records a receivable for the amount financed. The RIC receivables are recorded at their present value, net of the imputed interest discount. At the time of installation, the Company records a long-term note receivable within long-term notes receivables and other assets, net on the consolidated balance sheets for the present value of the receivables that are expected to be collected beyond 12 months of the reporting date. The unbilled receivable amounts that are expected to be collected within 12 months of the reporting date are included as a short-term notes receivable within accounts and notes receivable, net on the consolidated balance sheets. The billed amounts of notes receivables are included in accounts receivable within accounts and notes receivable, net on the

consolidated balance sheets.

The Company imputes the interest on the RIC receivable using a risk adjusted market interest rate and records it as an adjustment to deferred revenue and as an adjustment to the face amount of the related receivable. The imputed interest discount considers a number of factors, including collection experience, aging of the remaining RIC receivable portfolios, credit quality of the subscriber base and other qualitative considerations, including macro-economic factors. The imputed interest income is recognized over the term of the RIC contract as recurring and other revenue on the consolidated statement of operations.

When the Company determines that there are RIC receivables that have become uncollectible, it records an adjustment to the imputed interest discount and reduces the related note receivable balance. Account balances are written-off if collection efforts are unsuccessful and future collection is unlikely based on the length of time from the day accounts become past due. (See Note 4).

Revenue Recognition

The Company offers its customers smart home services combining Products, including a proprietary control panel, door and window sensors, door locks, security cameras and smoke alarms; installation; and a proprietary back-end cloud platform software and Services. These together create an integrated system that allows the Company's customers to monitor, control and protect their home ("Smart Home Services"). The Company's customers are buying this integrated system that provides them with these Smart Home Services. The number and type of Products purchased by a customer depends on their desired functionality. Because the Products and Services included in the customer's contract are integrated and highly interdependent, and because they must work together to deliver the Smart Home Services, the Company has concluded that installed Products, related installation and Services contracted for by the customer are generally not distinct within the context of the contract and, therefore, constitute a single, combined performance obligation. Revenues for this single, combined performance obligation are recognized on a straight-line basis over the customer's contract term. The Company has determined that certain contracts that do not require a long-term commitment for monitoring services by the customer contain a material right to renew the contract, because the customer does not have to purchase Products upon renewal. Proceeds allocated to the material right are recognized over the period benefit, which is generally three years.

The majority of the Company's subscription contracts are between three and five years in length and are non-cancelable. These contracts with customers generally convert into month-to-month agreements at the end of the initial term, and some customer contracts are month-to-month from inception. Payment for recurring monitoring and other Smart Home Services is generally due in advance on a monthly basis.

Sales of Products and other one-time fees such as service fees or installation fees are invoiced to the customer at the time of sale. Revenues for wireless internet service provided by Vivint Wireless Inc. ("Wireless Internet" or "Wireless") and any Products or Services that are considered separate performance obligations are recognized when those Products or Services are delivered. Taxes collected from customers and remitted to governmental authorities are not included in revenue. Payments received or amounts billed in advance of revenue recognition are reported as deferred revenue.

Deferred Revenue

The Company's deferred revenues primarily consist of amounts for sales (including upfront proceeds) of Smart Home Services. Deferred revenues are recognized over the term of the related performance obligation.

Accounts Receivable

Accounts receivable consists primarily of amounts due from customers for recurring monthly monitoring Services and the billed portion of RIC receivables. The accounts receivable are recorded at invoiced amounts and are non-interest bearing and are included within accounts and notes receivable, net on the consolidated balance sheets. Accounts receivable totaled \$16.5 million and \$24.3 million and December 31, 2018 and 2017 , respectively net of the allowance for doubtful accounts of \$5.6 million and \$5.4 million at December 31, 2018 and 2017 , respectively. The Company estimates this allowance based on historical collection experience and subscriber attrition rates. When the Company determines that there are accounts receivable that are uncollectible, they are charged off against the allowance for doubtful accounts. The provision for doubtful accounts is included in general and administrative expenses in the accompanying consolidated statements of operations and totaled \$19.4 million and \$22.5 million for the years ended December 31, 2018 and 2017 , respectively.

The changes in the Company's allowance for accounts receivable were as follows for the periods ended (in thousands):

	Year ended December 31,		
	2018	2017	2016
Beginning balance	\$ 5,356	\$ 4,138	\$ 3,541
Provision for doubtful accounts	19,405	22,465	19,624
Write-offs and adjustments	(19,167)	(21,247)	(19,027)
Balance at end of period	\$ 5,594	\$ 5,356	\$ 4,138

Restructuring and Asset Impairment Charges

Restructuring and asset impairment charges represent expenses incurred in relation to activities to exit or dispose of portions of the Company's business that do not qualify as discontinued operations. Liabilities associated with restructuring are measured at their fair value when the liability is incurred. Expenses for related termination benefits are recognized at the date the Company notifies the employee, unless the employee must provide future service, in which case the benefits are expensed ratably over the future service period. Liabilities related to termination of a contract are measured and recognized at fair value when the contract does not have any future economic benefit to the entity and the fair value of the liability is determined based on the present value of the remaining obligation. The Company expenses all other costs related to an exit or disposal activity as incurred (See Note 10).

Principles of Consolidation

The accompanying consolidated financial statements include the accounts of APX Group Holdings, Inc. and its subsidiaries. All significant intercompany balances and transactions have been eliminated in consolidation.

Capitalized Contract Costs

Capitalized contract costs represent the costs directly related and incremental to the origination of new contracts, modification of existing contracts or to the fulfillment of the related customer contracts. These include commissions, other compensation and related costs incurred directly for the origination and installation of new or upgraded customer contracts, as well as the cost of Products installed in the customer home at the commencement or modification of the contract. These costs are deferred and amortized on a straight-line basis over the expected period of benefit that the Company has determined to be five years. Amortization of capitalized contract costs is included in "Depreciation and Amortization" on the consolidated statements of operations. These deferred costs are periodically reviewed for impairment. Contract costs not directly related and incremental to the origination of new contracts, modification of existing contracts or to the fulfillment of the related customer contracts are expensed as incurred. These costs include those associated with housing, marketing and recruiting, non-direct lead generation costs, certain portions of sales commissions and residuals, overhead and other costs considered not directly and specifically tied to the origination of a particular subscriber.

On the consolidated statement of cash flows, capitalized contract costs are classified as operating activities and reported as "Capitalized contract costs - deferred contract costs" as these assets represent deferred costs associated with customer contracts.

Cash and Cash Equivalents

Cash and cash equivalents consists of highly liquid investments with remaining maturities when purchased of three months or less.

Inventories

Inventories, which are comprised of smart home and security system equipment and parts are stated at the lower of cost or market with cost determined under the first-in, first-out (FIFO) method. The Company adjusts the inventory balance based on anticipated obsolescence, usage and historical write-offs.

Property, Plant and Equipment and Long-lived Assets

Property, plant and equipment are stated at cost and depreciated on the straight-line method over the estimated useful lives of the assets or the lease term for assets under capital leases, whichever is shorter. Intangible assets with definite lives are amortized over the remaining estimated economic life of the underlying technology or relationships, which ranges from 5 to 10 years. Definite-lived intangible assets are amortized on the straight-line method over the estimated useful life of the asset or in a pattern in which the economic benefits of the intangible asset are consumed. Amortization expense associated with leased assets is included with depreciation expense. Routine repairs and maintenance are charged to expense as incurred.

The Company reviews long-lived assets, including property, plant and equipment, capitalized contract costs, and definite-lived intangibles for impairment when events or changes in circumstances indicate that the carrying amount may not be recoverable. The Company considers whether or not indicators of impairment exist on a regular basis and as part of each quarterly and annual financial statement close process. Factors the Company considers in determining whether or not indicators of impairment exist include market factors and patterns of customer attrition. If indicators of impairment are identified, the Company estimates the fair value of the assets. An impairment loss is recognized if the carrying amount of a long-lived asset is not recoverable and exceeds its fair value.

The Company conducts an indefinite-lived intangible impairment analysis annually as of October 1, and as necessary if changes in facts and circumstances indicate that the fair value of the Company's indefinite-lived intangibles may be less than the carrying amount. When indicators of impairment do not exist and certain accounting criteria are met, the Company is able to evaluate indefinite-lived intangible impairment using a qualitative approach. When necessary, the Company's quantitative impairment test consists of two steps. The first step requires that the Company compare the estimated fair value of its indefinite-lived intangibles to the carrying value. If the fair value is greater than the carrying value, the intangibles are not considered to be impaired and no further testing is required. If the fair value is less than the carrying value, an impairment loss in an amount equal to the difference is recorded.

During the years ended December 31, 2018, 2017 and 2016, no impairments to long-lived assets or intangibles were recorded.

The Company's depreciation and amortization included in the consolidated statements of operations consisted of the following (in thousands):

	Year ended December 31,		
	2018	2017	2016
Amortization of capitalized contract costs	\$ 398,174	\$ —	\$ —
Amortization of subscriber acquisition costs	—	206,153	154,877
Amortization of definite-lived intangibles	90,945	101,827	116,865
Depreciation of property, plant and equipment	24,963	21,275	16,800
Total depreciation and amortization	\$ 514,082	\$ 329,255	\$ 288,542

Wireless Spectrum Licenses

The Company had capitalized as an intangible asset wireless spectrum licenses that were acquired from third parties. The cost basis of the wireless spectrum asset includes the purchase price paid for the licenses at the time of acquisition, plus costs incurred to acquire the licenses. The asset and related liability were recorded at the net present value of future cash outflows using the Company's incremental borrowing rate at the time of acquisition.

The Company determined that the wireless spectrum licenses met the definition of indefinite-lived intangible assets because the licenses were able to be renewed periodically for a nominal fee, provided that the Company continued to meet the service and geographic coverage provisions. In January 2018, the Company terminated the wireless spectrum licenses for cash consideration. See Note 8 for further discussion.

Long-term Investments

The Company's long-term investments are composed of equity securities in both privately held and public companies. As of December 31, 2018 and 2017, the Company's equity investments totaled \$3.9 million and \$3.4 million, respectively.

Management determines the appropriate fair value measurement of its investments at the time of purchase and reevaluates the fair value measurement at each balance sheet date. Equity securities, are classified as either short-term or long-term, based on the nature of each security and its availability for use in current operations. The Company's equity securities are carried at fair value, with gains and losses, reported in other income or loss within the statement of operations

The Company's equity investments without readily determinable fair values as of both December 31, 2018 and 2017 totaled \$0.7 million . The Company performs impairment analyzes of its cost based investments when events occur or circumstances change that would, more likely than not, reduce the fair value of the investment below its carrying value. When indicators of impairment do not exist, the Company evaluates impairment using a qualitative approach. Additionally, increases or decreases in the carrying amount resulting from observable price changes in orderly transactions for the identical or a similar investment of the same issuer are adjusted through the statement of operations as needed. As of December 31, 2018 , no indicators of impairment or changes in observable prices existed associated with investments without readily determinable fair values.

Deferred Financing Costs

Certain costs incurred in connection with obtaining debt financing are deferred and amortized utilizing the straight-line method, which approximates the effective-interest method, over the life of the related financing. Deferred financing costs associated with obtaining APX's revolving credit facility are amortized over the amended maturity dates discussed in Note 5 . If such financing is paid off or replaced prior to maturity with debt instruments that have substantially different terms, the unamortized costs are charged to expense. Deferred financing costs included in the accompanying consolidated balance sheets within deferred financing costs, net at December 31, 2018 and 2017 were \$2.1 million and \$3.1 million , net of accumulated amortization of \$9.6 million and \$8.6 million , respectively. Deferred financing costs included in the accompanying consolidated balance sheets within notes payable, net at December 31, 2018 and 2017 were \$32.4 million and \$35.7 million , net of accumulated amortization of \$54.6 million and \$45.2 million , respectively. Amortization expense on deferred financing costs recognized and included in interest expense in the accompanying consolidated statements of operations totaled \$10.4 million , \$11.4 million and \$11.6 million for the years ended December 31, 2018 , 2017 and 2016 , respectively.

Residual Income Plans

The Company has a program that allows certain third-party sales channel partners to receive additional compensation based on the performance of the underlying contracts they create (the "Channel Partner Plan"). In addition, in 2018, the Company introduced a new residual sales compensation plan (the "Residual Plan"). Under the Residual Plan, the Company's sales personnel (each, a "Plan Participant") have the option to convert up to a specified portion of their earnings (as defined in the Residual Plan) into the right to receive monthly residual compensation payable over the life of the subscriber accounts sold by such Plan Participant.

For both the Channel Partner Plan and Residual Plan, the Company calculates the present value of the expected future residual payments and records a liability for this amount in the period the subscriber account is originated. These costs are recorded to capitalized contract costs. The Company monitors actual payments and customer attrition on a periodic basis and, when necessary, makes adjustments to the liability. The amount included in accrued payroll and commissions was \$4.5 million and \$3.3 million as of December 31, 2018 and 2017 , respectively, and the amount included in other long-term obligations was \$13.0 million and \$18.5 million at December 31, 2018 and 2017 , respectively, representing the present value of the estimated amounts owed to third-party sales channel partners.

Stock-Based Compensation

The Company measures compensation cost based on the grant-date fair value of the award and recognizes that cost over the requisite service period of the awards (See Note 12).

Advertising Expense

Advertising costs are expensed as incurred. Advertising costs were approximately \$47.2 million , \$42.5 million and \$33.0 million for the years ended December 31, 2018 , 2017 and 2016 , respectively.

Income Taxes

The Company accounts for income taxes based on the asset and liability method. Under the asset and liability method, deferred tax assets and deferred tax liabilities are recognized for the future tax consequences attributable to differences between

the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carryforwards. Valuation allowances are established when necessary to reduce deferred tax assets when it is determined that it is more likely than not that some portion, or all, of the deferred tax asset will not be realized.

The Company recognizes the effect of an uncertain income tax position on the income tax return at the largest amount that is more likely than not to be sustained upon audit by the relevant taxing authority. An uncertain income tax position will not be recognized if it has less than a 50% likelihood of being sustained. The Company's policy for recording interest and penalties is to record such items as a component of the provision for income taxes.

Changes in tax laws and rates could also affect recorded deferred tax assets and liabilities in the future. The Company records the effect of a tax rate or law change on the Company's deferred tax assets and liabilities in the period of enactment. Future tax rate or law changes could have a material effect on the Company's results of operations, financial condition, or cash flows (See Note 11).

Contracts Sold

During the year ended December 31, 2016, the Company sold all of its New Zealand and Puerto Rico subscriber contracts and ceased operations in these geographical regions ("2016 Contract Sales"). As a result, during the year ended December 31, 2016 the Company recorded the impact of these transactions in restructuring and asset impairment (See Note 10).

Concentrations of Credit Risk

Financial instruments that potentially subject the Company to concentration of credit risk consist principally of receivables and cash. At times during the year, the Company maintains cash balances in excess of insured limits. The Company is not dependent on any single customer or geographic location. The loss of a customer would not adversely impact the Company's operating results or financial position.

Concentrations of Supply Risk

As of December 31, 2018 , approximately 80% of the Company's installed panels were SkyControl panels and 19% were 2GIG Go!Control panels. During the three months ended March 31, 2018 the Company transitioned to a new panel supplier. The loss of the Company's panel supplier could potentially impact its operating results or financial position.

Fair Value Measurement

Fair value is based on the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Assets and liabilities subject to on-going fair value measurement are categorized and disclosed into one of three categories depending on observable or unobservable inputs employed in the measurement. These two types of inputs have created the following fair value hierarchy:

Level 1: Quoted prices in active markets that are accessible at the measurement date for assets and liabilities.

Level 2: Observable prices that are based on inputs not quoted in active markets, but corroborated by market data.

Level 3: Unobservable inputs are used when little or no market data is available.

This hierarchy requires the Company to minimize the use of unobservable inputs and to use observable market data, if available, when determining fair value. The Company recognizes transfers between levels of the hierarchy based on the fair values of the respective financial measurements at the end of the reporting period in which the transfer occurred. There were no transfers between levels of the fair value hierarchy during the years ended December 31, 2018 and 2017 .

The carrying amounts of the Company's accounts receivable, accounts payable and accrued and other liabilities approximate their fair values due to their short maturities.

Goodwill

The Company conducts a goodwill impairment analysis annually in the fourth fiscal quarter, as of October 1, and as necessary if changes in facts and circumstances indicate that the fair value of the Company's reporting units may be less than

their carrying amounts. When indicators of impairment do not exist and certain accounting criteria are met, the Company is able to evaluate goodwill impairment using a qualitative approach. When necessary, the Company's quantitative goodwill impairment test consists of two steps. The first step requires that the Company compare the estimated fair value of its reporting units to the carrying value of the reporting unit's net assets, including goodwill. If the fair value of the reporting unit is greater than the carrying value of its net assets, goodwill is not considered to be impaired and no further testing is required. If the fair value of the reporting unit is less than the carrying value of its net assets, the Company would be required to complete the second step of the test by analyzing the fair value of its goodwill. If the carrying value of the goodwill exceeds its fair value, an impairment charge is recorded. The Company's reporting units are determined based on its current reporting structure, which as of December 31, 2018 consisted of two reporting units. The Company found that no indicators of goodwill impairment existed during the year ended December 31, 2018, thus a qualitative approach was used and it was determined that no impairment existed for goodwill.

During the years ended December 31, 2018, 2017 and 2016, no impairments to goodwill were recorded.

Foreign Currency Translation and Other Comprehensive Income

The functional currencies of Vivint Canada, Inc. and Vivint New Zealand, Ltd. are the Canadian and New Zealand dollars, respectively. Accordingly, assets and liabilities are translated from their respective functional currencies into U.S. dollars at period-end rates and revenue and expenses are translated at the weighted-average exchange rates for the period. Adjustments resulting from this translation process are classified as other comprehensive (loss) income and shown as a separate component of equity. During the year ended December 31, 2016, the Company completed the 2016 Contract Sales which included all contracts in the New Zealand, Ltd. entity. (See Note 10)

When intercompany foreign currency transactions between entities included in the consolidated financial statements are of a long term investment nature (i.e., those for which settlement is not planned or anticipated in the foreseeable future) foreign currency translation adjustments resulting from those transactions are included in stockholders' (deficit) equity as accumulated other comprehensive loss or income. When intercompany transactions are deemed to be of a short term nature, translation adjustments are required to be included in the consolidated statement of operations. The Company has determined that settlement of Vivint Canada, Inc. and Vivint New Zealand, Ltd. intercompany balances are anticipated and therefore such balances are deemed to be of a short-term nature. Translation activity included in the statements of operations in other loss, net related to intercompany balances was a loss of \$7.1 million for the year ended December 31, 2018, a gain of \$4.9 million for the year ended December 31, 2017, and a gain of \$2.1 million for the year ended December 31, 2016.

Letters of Credit

As of December 31, 2018 and 2017, the Company had \$13.8 million and \$9.5 million, respectively, of letters of credit issued in the ordinary course of business, all of which are undrawn.

Recent Accounting Pronouncements

In June 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standard Update ("ASU") 2016-13, "Financial Instruments—Credit Losses (Topic 326)," which modifies the measurement of expected credit losses of certain financial instruments. This update is effective for fiscal years, and interim periods within those years, beginning after December 15, 2019 and must be applied using a modified-retrospective approach, with early adoption permitted. The Company is evaluating the adoption of ASU 2016-13 and plans to provide additional information about its expected impact at a future date.

In February 2016, the FASB issued ASU 2016-02, "Leases (Topic 842)" to increase transparency and comparability among organizations as it relates to lease assets and lease liabilities. The update requires that lease assets and lease liabilities be recognized on the balance sheet, and that key information about leasing arrangements be disclosed. Prior to this update, GAAP did not require operating leases to be recognized as lease assets and lease liabilities on the balance sheet. This update is effective for fiscal years, and interim periods within those years, beginning after December 15, 2018, with early adoption permitted. In July 2018, the FASB issued ASU 2018-11 which provides companies the option to adopt using a modified retrospective approach or a prospective adoption approach.

The Company is continuing its evaluation of the impact of ASU 2016-02 on its accounting policies. The Company's current operating lease portfolio is primarily comprised of network, real estate, and equipment leases. Upon adoption of this standard, the Company expects to record a right of use asset and liability related to all operating lease arrangements. The

Company has assigned internal resources to perform the evaluation. Furthermore, the Company has made and will continue to make investments in systems to enable timely and accurate reporting under the new standard.

The Company expects the standard will have a material impact on the Company's consolidated balance sheets but will not have a material impact on the consolidated statements of operations. The most significant impact will be the recognition of right of use assets and lease liabilities for operating leases. In connection with the adoption of the new lease accounting standard, the Company has completed scoping reviews and continues to make progress implementing new processes, systems, accounting policies and internal controls relevant to the standard. The Company will adopt this standard on January 1, 2019 using the prospective adoption approach and has elected to use the practical expedients allowed under the standard.

Recently Adopted Accounting Standards

ASU 2016-01

In January 2016, the FASB issued ASU 2016-01, "Financial Instruments-Overall (Subtopic 825-10)," which enhances the reporting model for financial instruments by addressing certain aspects of the recognition, measurement, presentation and disclosure of financial instruments. Key provisions require equity investments (except those accounted for under the equity method of accounting) to be measured at fair value with changes in fair value recognized in net income (loss). In addition, the exit price notion must be used when measuring the fair value of financial instruments for disclosure purposes. The Company adopted ASU 2016-01 on January 1, 2018, with a cumulative-effect adjustment to increase accumulated deficit by \$0.7 million for the net unrealized losses within accumulated other comprehensive income related to equity investments. During the year ended December 31, 2018, the Company recorded a net loss of \$0.3 million, respectively, to other income associated with the change in fair value of equity investments.

ASU 2014-09

In May 2014, the FASB issued ASU 2014-09, "Revenue from Contracts with Customers (Topic 606)," which supersedes the revenue recognition requirements in "Revenue Recognition (Topic 605)." Under Topic 606, revenue is recognized when a customer obtains control of promised goods or services and is recognized in an amount that reflects the consideration which the entity expects to receive in exchange for those goods or services. In addition, Topic 606 requires enhanced disclosures, including disclosure of the nature, amount, timing, and uncertainty of revenue and cash flows arising from contracts with customers. Topic 606 also includes Subtopic 340-40, Other Assets and Deferred Costs - Contracts with Customers, which requires the deferral of incremental costs of obtaining a contract with a customer. Collectively, the Company refers to Topic 606 and Subtopic 340-40 as the "new standard".

The Company adopted the new standard as of January 1, 2018, utilizing the modified retrospective method of transition (the cumulative catch-up transition method). Adoption of the new standard resulted in changes to the accounting policies for revenue recognition, deferred revenue, and capitalized contract costs (formerly subscriber acquisition costs). The cumulative effect of applying the new standard to all contracts with customers that were not completed as of January 1, 2018 was recorded as an adjustment to accumulated deficit as of the adoption date. The comparative information has not been adjusted and continues to be reported under Topic 605. See Note 3 "Revenue and Capitalized Contract Costs" for additional information related to the impact of adopting this standard and a discussion of the Company's updated policies related to revenue recognition and accounting for costs to obtain and fulfill a customer contract.

3 . Revenue and Capitalized Contract Costs

Subscribers are typically invoiced for Smart Home Services monthly in advance or at the time the Company delivers the related Smart Home Services. The majority of subscribers pay at the time of invoice via credit card, debit card or ACH. The Company does not generally record any contract assets. The Company records deferred revenues when cash payments (or other consideration) are received or due in advance of performance of the Company's obligations, including amounts which are refundable.

The increase in the deferred revenue balance during the year ended December 31, 2018 was primarily driven by cash payments received or due in advance of satisfying the Company's performance obligations, offset by \$144.1 million of revenues recognized that were included in the deferred revenue balance as of December 31, 2017 .

Transaction Price Allocated to the Remaining Performance Obligations

As of December 31, 2018 , approximately \$2.2 billion of revenue is expected to be recognized from remaining performance obligations for existing subscription contracts over the remaining contract term and excludes the effect of any cancellations. The Company expects to recognize approximately 62.5% of the revenue related to these remaining performance obligations over the next 24 months, with the remaining balance recognized over an additional 36 months.

Financial Statement Impact of Adopting Topic 606

The Company adopted Topic 606 using the modified retrospective method. The cumulative effect of applying the new standard to all contracts with subscribers that were not completed as of January 1, 2018 was recorded as an adjustment to accumulated deficit as of the adoption date. As a result of applying the modified retrospective method to adopt the new revenue guidance, the following cumulative catch-up adjustments were made to select consolidated balance sheet line items as of January 1, 2018 (in thousands):

Consolidated Balance Sheets

	As Reported December 31, 2017	Adjustments	Adjusted January 1, 2018
Assets			
Capitalized contract costs, net	\$ —	\$ 1,020,408	\$ 1,020,408
Subscriber acquisition costs, net	1,308,558	(1,308,558)	—
Long-term notes receivables and other assets, net	88,723	2,713	91,436
Liabilities and Stockholders' Deficit			
Accrued expenses and other current liabilities	74,321	10,329	84,650
Deferred revenue	88,337	39,868	128,205
Deferred revenue, net of current portion	264,555	(53,062)	211,493
Deferred income tax liabilities	9,041	(5,641)	3,400
Accumulated deficit	(1,358,571)	(276,931)	(1,635,502)

The following tables compare the select reported consolidated balance sheets, statements of operations and cash flows line items to the amounts had the previous guidance been in effect (in thousands):

Consolidated Balance Sheets

	December 31, 2018		
	As Reported	Balances Without Adoption of Topic 606	Effect of Change Higher/(Lower)
Assets			
Capitalized contract costs, net	\$ 1,115,775	\$ —	\$ 1,115,775
Subscriber acquisition costs, net	—	1,518,188	(1,518,188)
Liabilities and Stockholders' Deficit			
Accrued expenses and other current liabilities	136,715	126,900	9,815
Deferred revenue	186,953	126,582	60,371
Deferred revenue, net of current portion	323,585	440,474	(116,889)
Deferred income tax liabilities	1,096	8,682	(7,586)
Accumulated deficit	(2,104,097)	(1,754,426)	(349,671)
Accumulated other comprehensive loss	(28,837)	(30,384)	1,547

Consolidated Statements of Operations and Comprehensive Loss

	Year ended December 31, 2018		
	As Reported	Balances Without Adoption of Topic 606	Effect of Change Higher/(Lower)
Revenues:			
Recurring and other revenue	\$ 1,050,441	\$ 950,661	\$ 99,780
Service and other sales revenue	—	46,177	(46,177)
Activation fees	—	9,705	(9,705)
Total revenues	1,050,441	1,006,543	43,898
Costs and expenses:			
Operating expenses	355,813	385,672	(29,859)
Depreciation and amortization	514,082	367,879	146,203
Loss from operations	(242,059)	(169,613)	(72,446)
Income tax (benefit) expense	(1,611)	806	(2,417)
Net loss	(467,914)	(397,885)	(70,029)
Other comprehensive loss, net of tax effects:			
Foreign currency translation adjustment	(2,218)	(3,765)	1,547
Total other comprehensive (loss) income	(2,218)	(3,765)	1,547
Comprehensive loss	(470,132)	(401,650)	(68,482)

Consolidated Statements of Cashflows

	Year ended December 31, 2018		
	As Reported	Balances Without Adoption of Topic 606	Effect of Change Higher/(Lower)
Cash flows from operating activities:			
Net loss	\$ (467,914)	\$ (397,885)	\$ (70,029)
Adjustments to reconcile net loss to net cash used in operating activities:			
Amortization of capitalized contract costs	398,174	—	398,174
Amortization of subscriber acquisition costs	—	251,971	(251,971)
Changes in operating assets and liabilities:			
Capitalized contract costs – deferred contract costs	(499,252)	—	(499,252)
Subscriber acquisition costs – deferred contract costs	—	(469,393)	469,393
Accrued expenses and other current liabilities	91,469	93,886	(2,417)
Deferred revenue	172,905	216,803	(43,898)
Net cash used in operating activities	(220,499)	(220,499)	—

Timing of Revenue Recognition

The Company previously recognized certain service and other sales revenue when the Services were provided or when title to Products sold transferred to the subscriber. Revenue from the sale of Products that were not part of the service offering (i.e., those Products sold subsequent to the date of the initial installation) were also generally recognized upon delivery of Products. Under the new standard, the Company considers Products, related installation, and its proprietary back-end cloud platform software and services an integrated system that allows the Company's subscribers to monitor, control and protect their homes. These Smart Home Services are accounted for as a single performance obligation that is recognized over the subscriber's contract term. Accordingly, the Company now defers a larger portion of certain Smart Home Services revenue, as prior to the adoption of Topic 606 certain of this revenue was recognized at the time services were provided or upon delivery.

The Company previously amortized deferred revenues related to sales of Products and activation fees on subscriber contracts over the expected life of the customer, which was 15 years using a 240% declining balance method. Under the new standard, revenues related to sales of Products and activation fees are included in the transaction price allocated to the single Smart Home Service performance obligation and recognized straight-line over the subscriber's contract term, which is generally three to five years.

Capitalized Contract Costs

Capitalized contract costs generally include commissions, other compensation and related costs incurred directly for the generation and installation of new or modified subscriber contracts, as well as the cost of Products installed in the subscriber's home at the commencement or modification of the contract. The Company previously deferred and amortized these costs for new subscriber contracts in the same manner as deferred revenue and generally expensed all costs associated with modified subscriber contracts. Under the new standard, the Company defers and amortizes these costs for new or modified subscriber contracts on a straight-line basis over the expected period of benefit of five years.

4 . Retail Installment Contract Receivables

Certain subscribers have the option to purchase Products under a RIC, payable over either 42 or 60 months. Short-term RIC receivables are recorded in accounts and notes receivable, net and long-term RIC receivables are recorded in long-term notes receivables and other assets, net in the consolidated balance sheets.

The following table summarizes the installment receivables (in thousands):

	<u>December 31, 2018</u>	<u>December 31, 2017</u>
RIC receivables, gross	\$ 175,250	\$ 131,024
Deferred interest	(34,163)	(36,048)
RIC receivables, net of deferred interest	<u>\$ 141,087</u>	<u>\$ 94,976</u>

Classified on the consolidated balance sheets as:

Accounts and notes receivable, net	\$ 32,185	\$ 16,469
Long-term notes receivables and other assets, net	108,902	78,507
RIC receivables, net	<u>\$ 141,087</u>	<u>\$ 94,976</u>

Activity in the deferred interest for the RIC receivables was as follows (in thousands):

	For the Years Ended	
	<u>December 31, 2018</u>	<u>December 31, 2017</u>
Deferred interest, beginning of period	\$ 36,048	\$ —
Write-offs, net of recoveries	(26,360)	(6,055)
Change in deferred interest on short-term and long-term RIC receivables	24,475	42,103
Deferred interest, end of period	<u>\$ 34,163</u>	<u>\$ 36,048</u>

During year ended December 31, 2018 and 2017 , the amount of RIC imputed interest income recognized in recurring and other revenue was \$14.9 million and \$7.3 million , respectively.

5. Long-Term Debt

Notes Payable

2019 Notes

On November 16, 2012, APX issued \$925.0 million aggregate principal amount of 6.375% senior secured notes due 2019 (the “2019 notes”) with a maturity date of December 1, 2019 which were secured on a first-priority lien basis by substantially all of the tangible and intangible assets whether now owned or hereafter acquired by the Company, subject to permitted liens and exceptions.

The Company repurchased \$205.5 million, \$300.0 million and \$150.0 million aggregate principal amount of the outstanding 2019 notes in May 2016, February 2017, and August 2017, respectively. In September 2018, the Company redeemed in full the entire remaining \$269.5 million outstanding aggregate principal amount of the 2019 notes.

2020 Notes

On November 16, 2012, APX issued \$380.0 million aggregate principal amount of 8.75% senior notes due 2020 (the “2020 notes”) with a maturity date of December 1, 2020.

During 2013, APX completed two offerings of additional 2020 notes under the indenture dated November 16, 2012. On May 31, 2013, APX issued \$200.0 million of 2020 notes at a price of 101.75% and on December 13, 2013, APX issued an additional \$250.0 million of 2020 notes at a price of 101.50%.

During 2014, APX issued an additional \$100.0 million of 2020 notes at a price of 102.00%.

In September 2018, the Company repurchased \$250.7 million outstanding aggregate principal amount of the 2020 notes.

2022 Private Placement Notes

In October 2015, APX issued \$300.0 million aggregate principal amount of 8.875% senior secured notes due 2022 (the “2022 private placement notes”), pursuant to a note purchase agreement dated as of October 19, 2015 in a private placement exempt from registration under the Securities Act. The 2022 private placement notes will mature on December 1, 2022, unless on September 1, 2020 (the 91st day prior to the maturity of the 2020 notes) more than an aggregate principal amount of \$190.0 million of such 2020 notes remain outstanding or have not been refinanced as permitted under the note purchase agreement for the 2022 private placement notes, in which case the 2022 private placement notes will mature on September 1, 2020. The 2022 private placement notes are secured, on a pari passu basis, by the collateral securing obligations under the 2019 notes, the 2022 private placement notes, the 2022 notes (as defined below), and the 2023 notes (as defined below), and the revolving credit facilities and the Term Loan (as defined below), in each case, subject to certain exceptions and permitted liens.

In May 2016, the Company repurchased \$29.5 million outstanding aggregate principal amount of the 2022 private placement notes.

2022 Notes

In May 2016, APX issued \$500.0 million aggregate principal amount of 7.875% senior secured notes due 2022 (the “2022 notes”), pursuant to an indenture dated as of May 26, 2016 among APX, the guarantors party thereto and Wilmington Trust, National Association, as trustee and collateral agent. The 2022 notes will mature on December 1, 2022, or on such earlier date when any outstanding pari passu lien indebtedness matures as a result of the operation of any “Springing Maturity” provision set forth in the agreements governing such pari passu lien indebtedness. The 2022 notes are secured, on a pari passu basis, by the collateral securing obligations under the 2019 notes and 2022 private placement notes, the revolving credit facilities and the Term Loan, in all cases, subject to certain exceptions and permitted liens. APX used a portion of the net proceeds from the issuance of the 2022 notes to repurchase approximately \$235 million aggregate principal amount of the outstanding 2019 notes and 2022 private placement notes in privately negotiated transactions and repaid borrowings under the existing revolving credit facility.

In August 2016, APX issued an additional \$100.0 million aggregate principal amount of the 2022 notes at a price of 104.00%.

In February 2017, APX issued an additional \$300.0 million aggregate principal amount of the 2022 notes at a price of 108.25% (“February 2017 issuance”). A portion of the net proceeds from the offering of these 2022 notes were used to redeem

\$300.0 million aggregate principal amount of the existing 2019 notes and pay the related accrued interest and redemption premium, and to pay all fees and expenses related thereto and any remaining proceeds will be used for general corporate purposes.

2023 Notes

In August 2017, APX issued \$400.0 million aggregate principal amount of the 7.625% senior notes due 2023 (the “2023 notes” and, together with the 2019 notes, the 2020 notes and the 2022 private placement notes, the “Notes”) (“August 2017 issuance”). The proceeds from the outstanding 2023 notes offering were used to redeem \$150.0 million aggregate principal amount of the outstanding 2019 notes and pay the related accrued interest and redemption premium, and to pay all fees and expenses related thereto. Any remaining net proceeds have been or will be used for general corporate purposes, which may include the repayment of outstanding borrowings under the revolving credit facility.

All of the obligations under the credit agreement governing the revolving credit facility, the credit agreement governing the Term Loan (defined below) and the debt agreements governing the Existing Notes are guaranteed by APX Group Holdings, Inc. and each of APX Group, Inc.'s existing and future material wholly-owned U.S. restricted subsidiaries. However, such subsidiaries shall only be required to guarantee the obligations under the debt agreements governing the Existing Notes for so long as such entities guarantee the obligations under the revolving credit facility, the credit agreement governing the Term Loan or the Company's other indebtedness. Interest accrues at the rate of 8.75% per annum for the 2020 notes, 8.875% per annum for the 2022 private placement notes, 7.875% per annum for the 2022 notes and 7.625% per annum for the 2023 notes. Interest on the 2020 notes, 2022 private placement notes and 2022 notes is payable semiannually in arrears on each June 1 and December 1. Interest on the 2023 notes is payable semiannually in arrears on each March 1 and September 1. APX may redeem the Existing Notes at the prices and on the terms specified in the applicable indenture, note purchase agreement or credit agreement.

Term Loan

In September 2018, APX entered into a credit agreement (the “September 2018 issuance”) for total term loans of \$810.0 million (the “Term Loan”). The Company is required to make quarterly amortization payments under the Term Loan in an amount equal to 0.25% of the aggregate principal amount of Term Loan outstanding on the closing date thereof. The remaining principal amount outstanding under the Term Loan will be due and payable in full on March 31, 2024, or earlier if certain springing maturity conditions apply. The net proceeds from the Term Loan were used in-part to redeem in full the entire \$269.5 million outstanding aggregate principal amount of the 2019 Notes and pay the related accrued interest and redemption premium, to repurchase approximately \$250.7 million aggregate principal amount of the outstanding 2020 Notes, to repay the outstanding borrowings under the revolving credit facility and to pay fees and expenses related to the Term Loan and the transactions described above.

Borrowings under the Term Loan bear interest at a rate per annum equal to an applicable margin plus, at the Company's option, either (1) the base rate determined by reference to the highest of (a) the federal funds rate plus 0.50%, (b) the prime rate of Bank of America, N.A. and (c) the LIBOR rate determined by reference to the costs of funds for U.S. dollar deposits for an interest period of one month, plus 1.00% or (2) the LIBOR rate determined by reference to the London interbank offered rate for dollars for the interest period relevant to such borrowing. The applicable margin for base rate-based borrowings is 4.0% per annum and the applicable margin for LIBOR rate-based borrowings is 5.0% per annum. APX may prepay the Term Loan at the prices and on the terms specified in the credit agreement covering the Term Loan.

Debt Modifications and Extinguishments

In accordance with ASC 470-50 Debt – Modifications and Extinguishments, the Company performed analyses for the September 2018, August 2017 and February 2017 issuances to determine if the notes repurchased with the proceeds from those issuances were substantially different than the notes issued to determine the appropriate accounting treatment of associated issuance fees. As a result of these analyses, the Company recorded the following amounts of other expense and loss on extinguishment and deferred financing costs during the years ended December 31, 2018, 2017 and 2016 (in thousands):

Issuance	Other expense and loss on extinguishment				Deferred financing costs		
	Original premium extinguished	Previously deferred financing costs extinguished	New financing costs	Total other expense and loss on extinguishment	Previously deferred financing rolled over	New deferred financing costs	Total deferred financing costs
For the year ended December 31, 2018							
September 2018 issuance	\$ (953)	\$ 4,207	\$ 11,317	\$ 14,571	\$ —	\$ 10,275	\$ 10,275
For the year ended December 31, 2017							
August 2017 issuance	\$ —	\$ 1,408	\$ 8,881	\$ 10,289	\$ 473	\$ 4,569	\$ 5,042
February 2017 issuance	—	3,259	9,491	12,750	1,476	6,076	7,552
Total	\$ —	\$ 4,667	\$ 18,372	\$ 23,039	\$ 1,949	\$ 10,645	\$ 12,594
For the year ended December 31, 2016							
May 2016 issuance	\$ 355	\$ 695	\$ 9,036	\$ 10,086	\$ 3,423	\$ 6,628	\$ 10,051

Deferred financing costs are amortized to interest expense over the life of the issued debt. The following table presents deferred financing activity for the year ended December 31, 2018 and 2017 (in thousands):

	Unamortized Deferred Financing Costs					
	Balance 12/31/2017	Additions	Refinances	Early Extinguishment	Amortized	Balance 12/31/2018
Revolving Credit Facility	\$ 3,099	\$ —	\$ —	\$ —	\$ (1,041)	\$ 2,058
2019 Notes	2,877	—	—	(1,877)	(1,000)	—
2020 Notes	11,209	—	—	(2,330)	(3,499)	5,380
2022 Private Placement Notes	752	—	—	—	(150)	602
2022 Notes	16,067	—	—	—	(3,268)	12,799
2023 Notes	4,762	—	—	—	(840)	3,922
Term Loan	—	10,275	—	—	(613)	9,662
Total Deferred Financing Costs	\$ 38,766	\$ 10,275	\$ —	\$ (4,207)	\$ (10,411)	\$ 34,423

	Unamortized Deferred Financing Costs					
	Balance 12/31/2016	Additions	Refinances	Early Extinguishment	Amortized	Balance 12/31/2017
Revolving Credit Facility	\$ 4,420	\$ 399	\$ —	\$ —	\$ (1,720)	\$ 3,099
2019 Notes	11,693	—	(1,949)	(4,667)	(2,200)	2,877
2020 Notes	15,053	—	—	—	(3,844)	11,209
2022 Private Placement Notes	903	—	—	—	(151)	752
2022 Notes	11,714	6,076	1,476	—	(3,199)	16,067
2023 Notes	—	4,569	473	—	(280)	4,762
Total Deferred Financing Costs	\$ 43,783	\$ 11,044	\$ —	\$ (4,667)	\$ (11,394)	\$ 38,766

Revolving Credit Facility

On November 16, 2012, APX entered into a \$200.0 million senior secured revolving credit facility, with a five year maturity. On March 6, 2015, APX amended and restated the credit agreement governing the revolving credit facility to provide for, among other things, (1) an increase in the aggregate commitments previously available to APX thereunder from \$200.0 million to \$289.4 million (“Revolving Commitments”) and (2) the extension of the maturity date with respect to certain of the previously available commitments. On August 10, 2017, APX further amended and restated the credit agreement governing the revolving credit facility to provide for, among other things, (1) an increase in the aggregate commitments previously available to the Company from \$289.4 million to \$324.3 million and (2) the extension of the maturity date with respect to certain of the previously available commitments.

Borrowings under the amended and restated revolving credit facility bear interest at a rate per annum equal to an applicable margin plus, at APX’s option, either (1) the base rate determined by reference to the highest of (a) the Federal Funds rate plus 0.50% , (b) the prime rate of Bank of America, N.A. and (c) the LIBOR rate determined by reference to the costs of funds for U.S. dollar deposits for an interest period of one month, plus 1.00% or (2) the LIBOR rate determined by reference to the London interbank offered rate for dollars for the interest period relevant to such borrowing. The applicable margin for base rate-based borrowings (1)(a) under the Series A Revolving Commitments of approximately \$267.0 million and Series D Revolving Commitments of approximately \$15.4 million is currently 2.0% per annum and (b) under the Series B Revolving Commitments of approximately \$21.2 million is currently 3.0% and (2)(a) the applicable margin for LIBOR rate-based borrowings (a) under the Series A Revolving Commitments, Series C Revolving Commitments, and Series D Revolving Commitments is currently 3.0% per annum and (b) under the Series B Revolving Commitments is currently 4.0% . The applicable margin for borrowings under the revolving credit facility is subject to one step-down of 25 basis points based on APX meeting a consolidated first lien net leverage ratio test at the end of each fiscal quarter. In November 2017, previous commitments of \$20.8 million under the Series C Revolving Commitments had expired. Outstanding borrowings under the amended and restated revolving credit facility are allocated on a pro-rata basis between each Series based on the total Revolving Commitments.

In addition to paying interest on outstanding principal under the revolving credit facility, APX is required to pay a quarterly commitment fee (which will be subject to one interest rate step-down of 12.5 basis points, based on APX meeting a consolidated first lien net leverage ratio test) to the lenders under the revolving credit facility in respect of the unutilized commitments thereunder. APX also pays customary letter of credit and agency fees.

APX is not required to make any scheduled amortization payments under the revolving credit facility. The principal amount outstanding under the revolving credit facility will be due and payable in full on March 31, 2021.

As of December 31, 2018 there was no outstanding borrowings under the revolving credit facility. As of December 31, 2017 , there was \$3.0 million outstanding borrowings under the revolving credit facility. As of December 31, 2018 , the Company had \$289.8 million of availability under the revolving credit facility (after giving effect to \$13.8 million of outstanding letters of credit and no borrowings).

The Company’s debt at December 31, 2018 and 2017 consisted of the following (in thousands):

	December 31, 2018			
	Outstanding Principal	Unamortized Premium (Discount)	Unamortized Deferred Financing Costs (1)	Net Carrying Amount
8.75% Senior Notes due 2020	\$ 679,299	\$ 2,230	\$ (5,380)	\$ 676,149
8.875% Senior Secured Notes Due 2022	270,000	(2,122)	(602)	267,276
7.875% Senior Secured Notes Due 2022	900,000	20,178	(12,799)	907,379
7.625% Senior Notes Due 2023	400,000	—	(3,922)	396,078
Term Loan - noncurrent	799,875	—	(9,662)	790,213
Total Long-Term Debt	3,049,174	20,286	(32,365)	3,037,095
Term Loan - current	8,100	—	—	8,100
Total Debt	\$ 3,057,274	\$ 20,286	\$ (32,365)	\$ 3,045,195

	December 31, 2017			
	Outstanding Principal	Unamortized Premium (Discount)	Unamortized Deferred Financing Costs (1)	Net Carrying Amount
Series D Revolving Credit Facility due 2019	\$ 3,000	\$ —	\$ —	\$ 3,000
Series A, B Revolving Credit Facilities due 2021	57,000	—	—	57,000
6.375% Senior Secured Notes due 2019	269,465	—	(2,877)	266,588
8.75% Senior Notes due 2020	930,000	4,465	(11,209)	923,256
8.875% Senior Secured Notes Due 2022	270,000	(2,559)	(752)	266,689
7.875% Senior Secured Notes Due 2022	900,000	24,593	(16,067)	908,526
7.625% Senior Notes Due 2023	400,000	—	(4,762)	395,238
Total Debt	<u>\$ 2,829,465</u>	<u>\$ 26,499</u>	<u>\$ (35,667)</u>	<u>\$ 2,820,297</u>

(1) Unamortized deferred financing costs related to the revolving credit facilities included in deferred financing costs, net on the consolidated balance sheets at December 31, 2018 and 2017 was \$2.1 million and \$3.1 million , respectively.

6 . Balance Sheet Components

The following table presents material balance sheet component balances as of December 31, 2018 and December 31, 2017 (in thousands):

	December 31,	
	2018	2017
Prepaid expenses and other current assets		
Prepaid expenses	\$ 7,183	\$ 8,000
Deposits	904	1,596
Other	3,362	6,554
Total prepaid expenses and other current assets	\$ 11,449	\$ 16,150
Capitalized contract costs		
Capitalized contract costs	\$ 2,361,795	\$ —
Accumulated amortization	(1,246,020)	—
Capitalized contract costs, net	\$ 1,115,775	\$ —
Subscriber acquisition costs		
Subscriber acquisition costs	\$ —	\$ 1,837,388
Accumulated amortization	—	(528,830)
Subscriber acquisition costs, net	\$ —	\$ 1,308,558
Long-term notes receivables and other assets		
RIC receivables, gross	\$ 143,065	\$ 114,556
RIC deferred interest	(34,164)	(36,049)
Security deposits	6,586	6,427
Investments	3,865	3,429
Other	467	360
Total long-term notes receivables and other assets, net	\$ 119,819	\$ 88,723
Accrued payroll and commissions		
Accrued payroll	\$ 36,753	\$ 30,267
Accrued commissions	28,726	27,485
Total accrued payroll and commissions	\$ 65,479	\$ 57,752
Accrued expenses and other current liabilities		
Accrued interest payable	\$ 28,885	\$ 28,737
Current portion of derivative liability	67,710	25,473
Service warranty accrual	8,813	—
Current portion of notes payable	8,100	—
Blackstone monitoring fee, a related party	4,793	933
Accrued taxes	5,351	4,585
Spectrum license obligation	—	3,861
Accrued payroll taxes and withholdings	5,097	3,185
Loss contingencies	3,131	2,156
Other	4,835	5,391
Total accrued expenses and other current liabilities	\$ 136,715	\$ 74,321

7. Property Plant and Equipment

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

	December 31,		Estimated Useful Lives
	2018	2017	
Vehicles	\$ 45,050	\$ 42,008	3-5 years
Computer equipment and software	53,891	46,651	3-5 years
Leasehold improvements	26,401	20,783	2-15 years
Office furniture, fixtures and equipment	19,532	17,202	7 years
Build-to-suit lease building	8,247	8,268	10.5 years
Construction in process	2,975	4,299	
Property, plant and equipment, gross	156,096	139,211	
Accumulated depreciation and amortization	(82,695)	(61,130)	
Property, plant and equipment, net	\$ 73,401	\$ 78,081	

Property plant and equipment includes approximately \$23.7 million and \$26.2 million of assets under capital lease obligations, net of accumulated amortization of \$22.2 million and \$16.6 million at December 31, 2018 and 2017, respectively. Depreciation and amortization expense on all property plant and equipment was \$25.0 million, \$21.275 million and \$16.8 million for the years ended December 31, 2018, 2017 and 2016, respectively. Amortization expense relates to assets under capital leases as included in depreciation and amortization expense.

In June 2016, the Company entered into a non-cancellable lease to occupy a new building constructed in Logan, UT as a location to further sales recruitment and training, as well as conduct research and development (the "Logan Facility"). Because of its involvement in certain aspects of the construction of the Logan Facility, per the terms of the lease, the Company was deemed the owner of the building for accounting purposes during the construction period. Accordingly, the Company recorded a build-to-suit lease asset and a corresponding build-to-suit lease liability during the construction period.

In April 2017, construction on the Logan Facility was completed and the Company commenced occupancy. In accordance with ASC 840-40 Sale-Leaseback Transactions, the building did not qualify for sale-leaseback treatment. As such, the Company retains the building asset and corresponding lease obligation on the balance sheet.

8 . Goodwill and Intangible Assets

Goodwill

The changes in the carrying amount of goodwill for the years ended December 31, 2018 and 2017 , were as follows (in thousands):

Balance as of January 1, 2017	\$ 835,233
Effect of Foreign Currency Translation	1,737
Balance as of December 31, 2017	836,970
Effect of Foreign Currency Translation	(2,115)
Balance as of December 31, 2018	\$ 834,855

Intangible assets, net

The following table presents intangible asset balances as of December 31, 2018 and 2017 (in thousands):

	December 31, 2018			December 31, 2017			Estimated Useful Lives
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	
<u>Definite-lived intangible assets:</u>							
Customer contracts	\$ 964,100	\$ (717,648)	\$ 246,452	\$ 970,147	\$ (637,780)	\$ 332,367	10 years
2GIG 2.0 technology	17,000	(15,292)	1,708	17,000	(13,274)	3,726	8 years
Other technology	2,917	(1,667)	1,250	2,917	(1,250)	1,667	5 - 7 years
Space Monkey technology	7,100	(5,756)	1,344	7,100	(4,066)	3,034	6 years
Patents	12,123	(8,415)	3,708	10,616	(5,835)	4,781	5 years
Total definite-lived intangible assets:	1,003,240	(748,778)	254,462	1,007,780	(662,205)	345,575	
<u>Indefinite-lived intangible assets:</u>							
Spectrum licenses	—	—	—	31,253	—	31,253	
IP addresses	564	—	564	564	—	564	
Domain names	59	—	59	59	—	59	
Total Indefinite-lived intangible assets	623	—	623	31,876	—	31,876	
Total intangible assets, net	\$ 1,003,863	\$ (748,778)	\$ 255,085	\$ 1,039,656	\$ (662,205)	\$ 377,451	

During the year ended December 31, 2016, Vivint Wireless entered into leasing agreements with Nextlink Wireless, LLC (“Nextlink”) for designated radio frequency spectrum in 40 mid-sized metropolitan markets. The lease term was for seven years, with an option to become the licensor of record with the Federal Communications Commission (“FCC”) with respect to the applicable spectrum licenses at the end of this initial term for a nominal fee. The Company acquired \$31.3 million of spectrum licenses, measured using the present value of the lease payments, and recorded an intangible asset and a corresponding liability within other long-term obligations. While licenses are issued for only a fixed time, such licenses are subject to renewal by the FCC.

On January 10, 2018, Vivint Wireless and Verizon consummated the transactions contemplated by a termination agreement to which the parties agreed, among other things, to terminate the spectrum leases between Vivint Wireless and Nextlink, a subsidiary of Verizon, in exchange for a cash payment by Verizon to Vivint Wireless. The calculation of the gain

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recorded included cash proceeds of \$55.0 million , extinguishment of the spectrum license liability of \$27.9 million , offset by the write-off of the spectrum license asset in the amount of \$31.3 million and regulatory costs associated with the sale of \$1.3 million for a total net gain on sale of \$50.4 million which is included in other income, net in the consolidated statement of operations.

During the year ended December 31, 2018 and 2017 , the Company added \$1.7 million and \$2.0 million of intangibles related to patents, respectively. Amortization expense related to intangible assets was approximately \$90.9 million , \$101.8 million and \$116.9 million for the years ended December 31, 2018 , 2017 , and 2016 , respectively.

As of December 31, 2018 , the remaining weighted-average amortization period for definite-lived intangible assets was 3.9 years. Estimated future amortization expense of intangible assets, excluding approximately \$0.3 million in patents currently in process, is as follows as of December 31, 2018 (in thousands):

2019	\$	79,062
2020		67,807
2021		58,578
2022		48,674
2023		47
Thereafter		11
Total estimated amortization expense	\$	<u>254,179</u>

9 . Financial Instruments

Cash, Cash Equivalents and Equity Securities

Cash equivalents and equity securities with readily available determinable fair values (“Corporate Securities”) are classified as level 1 assets, as they have readily available market prices in an active market.

The following tables set forth the Company’s cash and cash equivalents and Corporate Securities’ adjusted cost, gross unrealized gains, gross unrealized losses, gross realized gains, gross realized losses and fair value by significant investment category recorded as cash and cash equivalents or long-term notes receivables and other assets, net as of December 31, 2018 and 2017 (in thousands):

	December 31, 2018					
	Adjusted Cost	Unrealized Gains	Unrealized Losses	Fair Value	Cash and Cash Equivalents	Long-Term Notes Receivables and Other Assets, net
Cash	\$ 6,681	\$ —	\$ —	\$ 6,681	\$ 6,681	\$ —
Level 1:						
Money market funds	6,092	—	—	6,092	6,092	—
Corporate securities	3,485	—	(304)	3,181	—	3,181
Subtotal	9,577	—	(304)	9,273	6,092	3,181
Total	<u>\$ 16,258</u>	<u>\$ —</u>	<u>\$ (304)</u>	<u>\$ 15,954</u>	<u>\$ 12,773</u>	<u>\$ 3,181</u>

	December 31, 2017					
	Adjusted Cost	Unrealized Gains	Unrealized Losses	Fair Value	Cash and Cash Equivalents	Long-Term Notes Receivables and Other Assets, net
Cash	\$ 3,866	\$ —	\$ —	\$ 3,866	\$ 3,866	—
Level 1:						
Money market funds	6	—	—	6	6	—
Corporate securities	4,018	—	(1,315)	2,703	—	2,703
Subtotal	4,024	—	(1,315)	2,709	6	2,703
Total	<u>\$ 7,890</u>	<u>\$ —</u>	<u>\$ (1,315)</u>	<u>\$ 6,575</u>	<u>\$ 3,872</u>	<u>\$ 2,703</u>

The Corporate Securities represents the Company’s investment of \$3.0 million in publicly traded common stock of a nonaffiliated company (“investee”). During the years ended December 31, 2018 , 2017 and 2016 the Company recorded an unrealized loss of \$0.3 million , an unrealized loss of \$1.3 million and an unrealized gain of \$1.0 million , respectively associated with the change in fair value of the investee’s stock. As of December 31, 2018 the Company had no accumulated other comprehensive income associated with unrealized gains and losses for the change in fair value of the investment as a result of the adoption of ASU 2016-01. The balance of accumulated other comprehensive income associated with unrealized gains and losses for the change in fair value totaled net losses of \$0.3 million at December 31, 2017 .

The carrying amounts of the Company’s accounts and notes receivable, accounts payable and accrued and other liabilities approximate their fair values.

Components of the Company’s debt including the associated interest rates and related fair values (in thousands, except interest rates) are as follows:

Issuance	December 31, 2018		December 31, 2017		Stated Interest Rate
	Face Value	Estimated Fair Value	Face Value	Estimated Fair Value	
2019 Notes	\$ —	\$ —	\$ 269,465	\$ 273,507	6.375%
2020 Notes	679,299	643,568	930,000	952,134	8.75%
2022 Notes Private Placement Notes	270,000	257,073	270,000	276,486	8.875%
2022 Notes	900,000	855,000	900,000	966,420	7.875%
2023 Notes	400,000	326,000	400,000	425,000	7.625%
Term Loan	807,975	807,975	—	—	N/A
Total	\$ 3,057,274	\$ 2,889,616	\$ 2,769,465	\$ 2,893,547	

The fair value of the 2019 notes, 2020 notes, 2022 private placement notes, 2022 notes and the 2023 notes are fixed-rate debt and are considered Level 2 measurements as the value was determined using observable market inputs, such as current interest rates as well as prices observable from less active markets. The Term Loan is floating-rate debt and approximates the carrying value as interest accrues at floating rates based on market rates.

Derivative Financial Instruments

Under the Consumer Financing Program, the Company pays a monthly fee to a third-party financing provider based on the average daily outstanding balance of the installment loans and shares the liability for credit losses, depending on the credit quality of the customer. Because of the nature of certain provisions under the Consumer Financing Program, the Company records a derivative liability that is not designated as a hedging instrument and is adjusted to fair value, measured using the present value of the estimated future payments. Changes to the fair value are recorded through other (income) loss, net in the Consolidated Statement of Operations. The following represent the contractual obligations with the third-party financing provider under the Consumer Financing Program that are components of the derivative:

- The Company pays a monthly fee based on the average daily outstanding balance of the installment loans
- The Company shares the liability for credit losses depending on the credit quality of the customer
- The Company pays transactional fees associated with customer payment processing

The derivative is classified as a Level 3 instrument. The derivative positions are valued using a discounted cash flow model, with inputs consisting of available market data, such as market yield discount rates, as well as unobservable internally derived assumptions, such as collateral prepayment rates, collateral default rates and loss severity rates. These derivatives are priced quarterly using a credit valuation adjustment methodology. In summary, the fair value represents an estimate of the present value of the cash flows the Company will be obligated to pay to the third-party financing provider for each component of the derivative.

The following table summarizes the fair value and the notional amount of the Company's outstanding derivative instrument as of December 31, 2018 and 2017 (in thousands):

	December 31,	
	2018	2017
Consumer Financing Program Contractual Obligations:		
Fair value	\$ 117,620	\$ 46,496
Notional amount	368,708	163,032
Classified on the consolidated balance sheets as:		
Accrued expenses and other current liabilities	67,710	25,473
Other long-term obligations	49,910	21,023
Total Consumer Financing Program Contractual Obligation	\$ 117,620	\$ 46,496

Changes in Level 3 Fair Value Measurements

The following table summarizes the change in the fair value of the Level 3 outstanding derivative instrument for the years ended December 31, 2018 and 2017 (in thousands):

	December 31,	
	2018	2017
Balance, beginning of period	\$ 46,496	\$ —
Additions	93,095	44,913
Settlements	(34,587)	(7,972)
Losses included in earnings	12,616	9,555
Balance, end of period	<u>\$ 117,620</u>	<u>\$ 46,496</u>

10 . Restructuring and Asset Impairment Charges***Restructuring***

During the year ended December 31, 2018, the Company announced a number of cost reduction initiatives that are expected to reduce certain of the Company's General and Administrative, Customer Service, and Sales Support fixed costs. The Company completed the majority of these cost reduction initiatives in the second and third quarters of 2018, with the remainder by the end of 2018. In addition to resulting in meaningful cost reductions, the Company's initiatives are expected to streamline operations, focus engineering and innovation and provide a better focus on driving customer satisfaction.

As part of these initiatives, the Company and Best Buy agreed in principle to end the co-branded Best Buy Smart Home by Vivint arrangement ("Best Buy Agreement"), which resulted in the elimination of in-store sales positions. In addition, the Company eliminated other general and administrative positions. These actions resulted in one-time cash employee severance and termination benefits expenses of \$4.7 million during the year ended December 31, 2018. The Company formally terminated its relationship with Best Buy in December 2018 and agreed to pay a termination fee of \$5.5 million . The difference between the termination fee and all previously recorded liabilities relating to the Company's Best Buy Agreement was recorded as a reduction to capitalized contract costs.

During the year ended December 31, 2016, the Company sold all of its New Zealand and Puerto Rico contracts and recorded the impact of these transactions in restructuring and asset impairment. The calculation of the net loss recorded related to the 2016 Contract Sales included the expensing of all unamortized deferred subscriber acquisition costs associated with these subscriber accounts in the amount of \$7.6 million , the realization of outstanding amounts of accumulated other comprehensive loss associated with the New Zealand foreign currency translation process of \$1.1 million upon the substantial sale of the subsidiary, offset by cash proceeds of \$6.2 million for a total net loss on the 2016 Contract Sales of \$2.6 million .

Restructuring and asset impairment charges were as follows (in thousands):

	<u>Year ended December 31,</u>		
	<u>2018</u>	<u>2017</u>	<u>2016</u>
Wireless restructuring recoveries:			
Asset recoveries	\$ —	\$ —	\$ (710)
Contract termination recoveries	—	—	(751)
Employee severance and termination benefits recoveries	—	—	(77)
Total wireless restructuring recoveries	—	—	(1,538)
Loss on subscriber contract sales	—	—	2,551
Employee severance and termination benefits charges	4,683	—	—
Total restructuring and asset impairment charges	<u>\$ 4,683</u>	<u>\$ —</u>	<u>\$ 1,013</u>

The following table presents accrued restructuring activity for the years ended December 31, 2018 and 2017 .

	Asset impairments	Contract termination costs	Employee severance and termination benefits	Total
Accrued restructuring balance as of December 31, 2015	\$ —	\$ 3,954	\$ 321	\$ 4,275
Restructuring and impairment recoveries	(710)	(751)	(77)	(1,538)
Cash payments	—	(2,554)	(244)	(2,798)
Non-cash settlements	710	—	—	710
Accrued restructuring balance as of December 31, 2016	—	649	—	649
Cash payments	—	(91)	—	(91)
Accrued restructuring balance as of December 31, 2017	—	558	—	558
Restructuring expenses	—	—	4,683	4,683
Cash payments	—	(91)	(4,341)	(4,432)
Accrued restructuring balance as of December 31, 2018	\$ —	\$ 467	\$ 342	\$ 809

Accrued restructuring at December 31, 2018 is included in current liabilities within accrued expenses and other current liabilities of \$0.4 million and in long-term liabilities within other long-term obligations of \$0.4 million .

Contract termination costs represent ongoing contractual commitments related to the 2015 restructuring of the Company's Wireless Internet Business. Additional charges may be incurred in the future for facility-related or other restructuring activities as the Company continues to align resources to meet the needs of the business.

11 . Income Taxes

The Company files a consolidated federal income tax return with its wholly-owned subsidiaries.

The income tax (benefit) expense consisted of the following (in thousands):

	Year ended December 31,		
	2018	2017	2016
Current income tax:			
Federal	\$ —	\$ —	\$ —
State	512	151	545
Foreign	(52)	(24)	95
Total	460	127	640
Deferred income tax:			
Federal	—	(326)	—
State	—	(53)	—
Foreign	(2,071)	1,330	(573)
Total	(2,071)	951	(573)
Income tax (benefit) expense	\$ (1,611)	\$ 1,078	\$ 67

The following reconciles the tax expense computed at the statutory federal rate and the Company's tax expense (in thousands):

	Year ended December 31,		
	2018	2017	2016
Computed expected tax expense	\$ (98,598)	\$ (139,100)	\$ (93,770)
State income taxes, net of federal tax effect	404	65	360
Foreign income taxes	(690)	(299)	(949)
Other reconciling items	—	(344)	666
Permanent differences	4,406	2,008	1,688
Effect of Federal law change	—	166,876	—
Change in valuation allowance	92,867	(28,128)	92,072
Income tax (benefit) expense	\$ (1,611)	\$ 1,078	\$ 67

The tax effects of temporary differences that give rise to significant portions of the deferred tax assets and liabilities were as follows (in thousands)

	December 31,	
	2018	2017
Gross deferred tax assets:		
Net operating loss carryforwards	\$ 591,244	\$ 591,619
Deferred subscriber income	113,103	72,389
Interest expense limitation	56,381	—
Accrued expenses and allowances	18,766	17,633
Purchased intangibles and deferred financing costs	17,788	15,191
Inventory reserves	4,688	6,662
Property and equipment	—	1,176
Research and development credits	41	41
Valuation allowance	(467,705)	(304,509)
Total	334,306	400,202
Gross deferred tax liabilities:		
Deferred capitalized contract costs	(332,547)	(408,610)
Property and equipment	(2,242)	—
Prepaid expenses	(613)	(633)
Total	(335,402)	(409,243)
Net deferred tax liabilities	\$ (1,096)	\$ (9,041)

The Company had net operating loss carryforwards as follows (in thousands):

	December 31,	
	2018	2017
Net operating loss carryforwards:		
Federal	\$ 2,405,380	\$ 2,355,153
States	1,656,333	1,715,004
Canada	19,753	27,326
Total	\$ 4,081,466	\$ 4,097,483

U.S. federal net operating loss carryforwards will begin to expire in 2026 , if not used. State net operating loss carryforwards expire over different periods and some have already begun to expire. The Company had United States research and development credits of approximately \$41,000 at December 31, 2018 , and December 31, 2017 , which begin to expire in 2030 .

Canadian net operating loss carryforwards will begin to expire in 2029 .

Realization of the Company's federal and state net operating loss carryforwards and tax credits is dependent on generating sufficient taxable income prior to their expiration. Although a portion of these net operating loss carryforwards are subject to the provisions of Internal Revenue Code Section 382, the Company has not performed a formal study to determine the amount of any limitation. The use of the net operating loss carryforwards may have additional limitations resulting from future ownership changes or other factors under Section 382 of the Internal Revenue Code.

In December 2017, the SEC issued Staff Accounting Bulletin No. 118, Income Tax Accounting Implications of the Tax Cuts and Jobs Act ("SAB 118"), which provides guidance on accounting for the tax effects of Tax Reform. SAB 118 provides a measurement period that should not extend beyond one year from the enactment date for companies to complete the accounting relating to Tax Reform under ASC Topic 740. In accordance with SAB 118, to the extent that a company's accounting for certain income tax effects of Tax Reform is incomplete, but it is able to determine a reasonable estimate, the company should report a provisional estimate in its financial statements. Where a reasonable estimate cannot be determined, a company should

continue to apply ASC Topic 740 based on the provisions of the tax laws that were in effect immediately before the enactment of Tax Reform.

The SAB 118 period has closed and, based on its analysis of Tax Reform, the Company did not change its recorded provisional tax expense of \$166.9 million for the year ended December 31, 2017, resulting from the remeasurement of its deferred tax balances due to the reduction in the U.S. corporate income tax rate from 35% to 21% . This expense was offset by a corresponding change in the valuation allowance, resulting in no change in net tax expense or benefit.

Additionally, the Company's analysis of the new requirement that certain income (i.e., GILTI) earned by foreign subsidiaries must be included currently in the gross income of the U.S. resulted in an inclusion amount of approximately \$7.7 million in 2018. The Company has elected to treat taxes due on future inclusions in U.S. taxable income related to GILTI as a current-period expense when incurred.

At December 31, 2018 and 2017 , the Company recorded a valuation allowance against its U.S. federal and state net deferred tax assets as it believes it is more likely than not that these benefits will not be realized. Significant judgment is required in determining the Company's provision for income taxes, recording valuation allowances against net deferred tax assets and evaluating the Company's uncertain tax positions. The Company has considered and weighed the available evidence, both positive and negative, to determine whether it is more likely than not that some portion, or all, of the deferred tax assets will not be realized. Based on available information, management does not believe it is more likely than not that all of its deferred tax assets will be utilized. The Company recorded a valuation allowance for U.S. net deferred tax assets of approximately \$467.7 million and \$304.5 million at December 31, 2018 and 2017 , respectively.

As of December 31, 2018 , the Company's income tax returns for the tax years 2014 and later, remain subject to examination by the Internal Revenue Service and various state taxing authorities.

12 . Stock-Based Compensation and Equity

313 Incentive Units

The Company's indirect parent, 313 Acquisition LLC ("313"), which is wholly owned by the Investors, has authorized the award of profits interests, representing the right to share a portion of the value appreciation on the initial capital contributions to 313 ("Incentive Units"). As of December 31, 2018, a total of 85,362,836 Incentive Units had been awarded, and were outstanding, to current and former members of senior management and a board member, of which 42,169,456 were issued to the Company's Chief Executive Officer and President. In June 2018, the Incentive Units and SARs (defined below) vesting terms were modified ("Modification"). Prior to the Modification, the Incentive Units were subject to time-based and performance-based vesting conditions, with (1) one-third subject to ratable time-based vesting over a five year period from the applicable vesting reference date and (2) two-thirds subject to the achievement of certain investment return thresholds by The Blackstone Group, L.P. and its affiliates ("Blackstone"). Pursuant to the Modification the Incentive Units are subject to time-based and performance-based vesting conditions, with (1) one-third subject to ratable time-based vesting over a five year period from the applicable vesting reference date, (2) one-third subject to the achievement of certain investment return thresholds by Blackstone and (3) one-third subject to ratable time-based vesting over a five year period from the applicable vesting reference date or June 2018 for those granted prior to the modification. The Company has not recorded any expense related to the performance-based portion of the awards, as the achievement of the vesting condition is not yet deemed probable. The fair value of stock-based awards is measured at the grant date, or the Modification date, and is recognized as expense over the employee's requisite service period. The grant date fair value was determined using a Monte Carlo simulation valuation approach with the following assumptions: expected volatility varies from 55% to 125% ; expected exercise term between 3.96 and 6.00 years; and risk-free rate between 0.61% and 2.61% .

A summary of the Incentive Unit activity for the years ended December 31, 2018 and 2017 is presented below:

	Incentive Units	Weighted Average Exercise Price Per Share	Weighted Average Remaining Contractual Life (Years)	Aggregate Intrinsic Value
Outstanding, December 31, 2016	85,882,836	\$ 1.19	6.81	\$ —
Forfeited	(70,000)	1.30		
Outstanding, December 31, 2017	85,812,836	1.19	5.81	—
Forfeited	(450,000)	1.93		
Outstanding, December 31, 2018	85,362,836	1.18	4.81	—
Unvested shares expected to vest after December 31, 2018	59,663,659	1.22	4.93	—
Exercisable at December 31, 2018	25,699,177	\$ 1.11	4.50	\$ —

As of December 31, 2018, there was \$10.7 million of unrecognized compensation expense related to outstanding Incentive Units, which will be recognized over a weighted-average period of 4.29 years. As of December 31, 2018 and 2017, the weighted average grant date fair value per share of the outstanding incentive units was \$0.36 and \$0.30, respectively.

Stock Appreciation Rights

The Company's subsidiary, Vivint Group, Inc. ("Vivint Group"), has awarded Stock Appreciation Rights ("SARs") to various levels of key employees and board members, pursuant to an omnibus incentive plan. The purpose of the SARs is to attract and retain personnel and provide an opportunity to acquire an equity interest of Vivint Group. Prior to the Modification in June 2018, the SARs were subject to time-based and performance-based vesting conditions, with (1) one-third subject to ratable time-based vesting over a five year period from the applicable vesting reference date and (2) two-thirds subject to the achievement of certain investment return thresholds by Blackstone. Pursuant to the Modification the Incentive Units are subject to time-based and performance-based vesting conditions, with (1) one-third subject to ratable time-based vesting over a five year period from the applicable vesting reference date, (2) one-third subject to the achievement of certain investment return thresholds by Blackstone and (3) one-third subject to ratable time-based vesting over a five year period from the applicable vesting reference date or June 2018 for those granted prior to the modification. The Company has not recorded any expense related to the performance-based portion of the awards, as the achievement of the vesting condition is not yet deemed probable. In connection with this plan, 38,011,879 SARs were outstanding as of December 31, 2018. In addition, 53,621,891 SARs have been set aside for funding incentive compensation pools pursuant to long-term sales and installation employee incentive plans established by the Company.

The fair value of the Vivint Group awards is measured at the grant date, or the Modification date, and is recognized as expense over the employee's requisite service period. The fair value is determined using a Black-Scholes option valuation model with the following assumptions: expected volatility varies from 55% to 125% , expected dividends of 0% ; expected exercise term between 6.00 and 6.50 years ; and risk-free rates between 0.61% and 2.61% . Due to the lack of historical exercise data, the Company used the simplified method in determining the estimated exercise term, for all Vivint Group awards.

A summary of the Vivint Group SAR activity for the years ended December 31, 2018 and 2017 is presented below:

	Stock Appreciation Rights	Weighted Average Exercise Price Per Share	Weighted Average Remaining Contractual Life (Years)	Aggregate Intrinsic Value
Outstanding, December 31, 2016	21,993,158	\$ 0.96	8.23	\$ —
Granted	13,250,640	1.74		
Forfeited	(2,374,864)	1.12		
Exercised	(114,644)	0.72		
Outstanding, December 31, 2017	32,754,290	1.26	9.21	—
Granted	14,630,000	1.79		
Forfeited	(9,255,137)	1.31		
Exercised	(117,274)	0.89		
Outstanding, December 31, 2018	38,011,879	1.46	8.07	—
Unvested shares expected to vest after December 31, 2018	33,813,668	1.51	8.28	—
Exercisable at December 31, 2018	4,198,211	\$ 1.02	6.30	\$ —

As of December 31, 2018 , there was \$4.6 million of unrecognized compensation expense related to outstanding Vivint awards, which will be recognized over a weighted-average period of 4.40 years . As of December 31, 2018 and 2017 , the weighted average grant date fair value per share of the outstanding SARs was \$0.23 and \$0.19 , respectively.

The Company's subsidiary, Vivint Wireless, has also awarded an immaterial amount of Wireless SARs to various employees. There were no Wireless SARs outstanding as of December 31, 2018 and the Company does not intend to issue any additional Wireless SARs.

Restricted Stock Units

In June 2018, the Company's subsidiary, Vivint Group, awarded 360,000 Restricted Stock Units ("RSUs") to certain board members, pursuant to an omnibus incentive plan. The purpose of the RSUs is to compensate board members for their board service and align their interests of those of the Company's shareholders. The RSUs are subject to a three year time-based ratable vesting period. All RSUs are expected to vest after December 31, 2018 and none are exercisable at December 31, 2018 .

The fair value of the RSU awards is measured at the grant date, and is recognized as expense over the requisite service period. The fair value was determined using a Black-Scholes valuation model with the following assumptions: expected volatility of 95% , expected dividends of 0% ; expected exercise term of 3 years ; and a risk-free rate of 2.61% . As of December 31, 2018 , there was \$0.1 million of unrecognized compensation expense related to outstanding RSUs, which will be recognized over a period of 2.44 years . The grant date fair value per share of the outstanding SARs was \$0.48 .

Stock-based compensation expense in connection with all stock-based awards for the years ended December 31, 2018 , 2017 and 2016 is allocated as follows (in thousands):

	Year ended December 31,		
	2018	2017	2016
Operating expenses	\$ 129	\$ 65	\$ 68
Selling expenses	285	217	(127)
General and administrative expenses	2,091	1,313	3,927
Total stock-based compensation	\$ 2,505	\$ 1,595	\$ 3,868

Total stock-based compensation increased in 2018, partially as a result of the Modification. Stock-based compensation expense presented in selling expenses was negative for the year ended December 31, 2016 due to a retrospective adjustment in the grant-date fair value of a series of stock-based awards. Stock-based compensation expense included in general and administrative expenses for the year ended December 31, 2016 included \$2.2 million of compensation related to an equity repurchase by 313 from one of the Company's executives.

Capital Contribution

In April 2016, Parent completed the first installment of an issuance and sale to certain investors of a series of preferred stock and contributed the net proceeds from such issuance of \$69.8 million to the Company as an equity contribution. In July 2016, Parent completed the final installment of the issuance and sale to certain investors of such series of preferred stock and, in August 2016, contributed the net proceeds from such issuance of \$30.6 million to the Company as an equity contribution. Both issuances were private placements exempt from registration under the Securities Act.

During the year ended December 31, 2018, Parent contributed \$4.7 million to the Company as a capital contribution. During the years ended December 31, 2018 and 2017, the Company returned capital to Parent of \$3.1 million and \$1.2 million, respectively.

13 . Commitments and Contingencies

Indemnification

Subject to certain limitations, the Company is obligated to indemnify its current and former directors, officers and employees with respect to certain litigation matters and investigations that arise in connection with their service to the Company. These obligations arise under the terms of its certificate of incorporation, its bylaws, applicable contracts, and Delaware and California law. The obligation to indemnify generally means that the Company is required to pay or reimburse these individuals' reasonable legal expenses and possibly damages and other liabilities incurred in connection with these matters.

Legal

The Company is named from time to time as a party to lawsuits arising in the ordinary course of business related to its sales, marketing, and the provision of its services and equipment claims. Actions filed against the Company include commercial, intellectual property, customer, and labor and employment related claims, including complaints of alleged wrongful termination and potential class action lawsuits regarding alleged violations of federal and state wage and hour and other laws. In general, litigation can be expensive and disruptive to normal business operations. Moreover, the results of legal proceedings are difficult to predict and the costs incurred in litigation can be substantial. The Company believes the amounts provided in its financial statements are adequate in light of the probable and estimated liabilities. Factors that the Company considers in the determination of the likelihood of a loss and the estimate of the range of that loss in respect of legal matters include the merits of a particular matter, the nature of the matter, the length of time the matter has been pending, the procedural posture of the matter, how the Company intends to defend the matter, the likelihood of settling the matter and the anticipated range of a possible settlement. Because such matters are subject to many uncertainties, the ultimate outcomes are not predictable and there can be no assurances that the actual amounts required to satisfy alleged liabilities from the matters described above will not exceed the amounts reflected in the Company's financial statements or that the matters will not have a material adverse effect on the Company's results of operations, financial condition or cash flows.

The Company regularly reviews outstanding legal claims and actions to determine if reserves for expected negative outcomes of such claims and actions are necessary. The Company had reserves for all such matters of approximately \$2.5 million and \$2.2 million as of December 31, 2018 and 2017 , respectively.

During the year ended December 31, 2017 the Company accrued \$10.0 million related to the settlement of litigation with ADT Inc. included in accounts payable on the consolidated balance sheets. The Company paid the full amount in early 2018.

Operating Leases

The Company leases office and warehouse space, certain equipment, towers, wireless spectrum, software and an aircraft under operating leases with related and unrelated parties expiring in various years through 2028 . The leases require the Company to pay additional rent for increases in operating expenses and real estate taxes and contain renewal options. Total rent expense for all operating leases for the years ended December 31, 2018 , 2017 and 2016 was \$16.5 million , \$17.0 million and \$16.0 million , respectively.

Capital Leases

The Company also enters into certain capital leases with expiration dates through May 2022 . On an ongoing basis, the Company enters into vehicle lease agreements under a Fleet Lease Agreement. The lease agreements are typically 36 months leases for each vehicle and the average remaining life for the fleet is 19 months as of December 31, 2018 . As of December 31, 2018 and 2017 , the capital lease obligation balance was \$13.3 million and \$21.7 million , respectively.

Spectrum Licenses

During the year ended December 31, 2016, Vivint Wireless, Inc. ("Vivint Wireless"), an indirect wholly owned subsidiary of the Company, entered into leasing agreements with Nextlink Wireless, LLC ("Nextlink") for designated radio frequency spectrum in 40 mid-sized metropolitan markets. In December 2017, Vivint Wireless entered into a Termination Agreement with Verizon Communications Inc. ("Verizon") pursuant to which the parties agreed, among other things, to terminate certain spectrum leases, including the 40 aforementioned leasing agreements, between Vivint Wireless and Nextlink, a subsidiary of Verizon, in exchange for cash consideration. Subsequent to the year ended December 31, 2018 , the Company consummated the transactions contemplated by the Termination Agreement with Verizon. See Note 18 for further discussion.

As of December 31, 2018 , future minimum lease payments were as follows (in thousands):

	Operating	Capital	Total
2019	\$ 16,709	\$ 8,193	\$ 24,902
2020	15,478	5,209	20,687
2021	14,926	363	15,289
2022	13,655	7	13,662
2023	13,701	—	13,701
Thereafter	28,824	—	28,824
Amounts representing interest	—	(459)	(459)
Total lease payments	<u>\$ 103,293</u>	<u>\$ 13,313</u>	<u>\$ 116,606</u>

In addition to the commitments mentioned above, the Company had other purchase obligations of \$59.5 million as of December 31, 2018 that consisted of commitments related to software licenses, marketing activities, and other goods and services.

14 . Related Party Transactions

Transactions with Vivint Solar

The Company and Vivint Solar, Inc. (“Solar”) have entered into agreements under which the Company provided certain ongoing administrative services to Solar through September 2017 and the Sales Dealer Agreement (as defined below). During the year ended December 31, 2018 , 2017 and 2016 the Company charged \$17.3 million , \$2.8 million and \$4.6 million , respectively of net expenses to Solar in connection with these agreements. The balance due from Solar in connection with these agreements and other expenses paid on Solar’s behalf was immaterial at both December 31, 2018 and 2017 .

Also in connection with Solar’s initial public offering in 2014 , the Company entered into a number of agreements with Solar related to services and other support that it has provided and will provide to Solar including:

- A Master Intercompany Framework Agreement which established a framework for the ongoing relationship between the Company and Solar and contains master terms regarding the protection of each other’s confidential information, and master procedural terms, such as notice procedures, restrictions on assignment, interpretive provisions, governing law and dispute resolution;
- A Non-Competition Agreement in which the Company and Solar each defined their current areas of business and their competitors, and agreed not to directly or indirectly engage in the other’s business for three years;
- A Transition Services Agreement pursuant to which the Company agreed to provide to Solar various enterprise services, including services relating to information technology and infrastructure, human resources and employee benefits, administration services and facilities-related services;
- A Product Development and Supply Agreement pursuant to which one of Solar’s wholly owned subsidiaries would, for an initial term of three years, subject to automatic renewal for successive one -year periods unless either party elects otherwise, collaborate with the Company to develop certain monitoring and communications equipment that will be compatible with other equipment used in Solar’s energy systems and will replace equipment Solar currently procures from third parties;
- A Marketing and Customer Relations Agreement which governs various cross-marketing initiatives between the Company and Solar, in particularly the provision of sales leads from each company to the other; and
- A Trademark License Agreement pursuant to which the licensor, a special purpose subsidiary majority-owned by the Company and minority-owned by Solar, will grant Solar a royalty-free exclusive license to the trademark “VIVINT SOLAR” in the field of selling renewable energy or energy storage products and services.

In 2016, the Company and Solar amended the Marketing and Customer Relations Agreement to update certain terms and conditions governing existing cross-marketing initiatives and to implement new cross-marketing initiatives including a pilot program with the purpose of exploring potential opportunities for each company to offer, sell and integrate the other company’s respective products and services with its standard product offering.

In 2017, the Company and Solar entered into a Sales Dealer Agreement (the “Sales Dealer Agreement”), pursuant to which each party will act as a non-exclusive dealer for the other party to market, promote and sell each other’s products. The agreement has an initial two -year term, which will be automatically renewed for successive one -year terms unless written notice of termination is provided by one of the parties to the other no less than 90 days prior to the end of the then current term. The products, territories and consideration that is payable by each party to the other will be determined in accordance with the agreement. The Sales Dealer Agreement governs and replaces substantially all of the activities that were previously undertaken under the Marketing and Customer Relations Agreement described above, including the pilot program. The Company and Solar also agreed to extend the term of the non-solicitation provisions under the existing Non-Competition Agreement to match the term of the Sales Dealer Agreement.

Other Related-party Transactions

The Company incurred additional expenses during the years ended December 31, 2018 , 2017 and 2016 of approximately \$2.7 million , \$3.5 million , \$4.2 million , respectively, for other related-party transactions including contributions to the charitable organization Vivint Gives Back, legal fees, and other services. Accrued expenses and other current liabilities at December 31, 2018 and 2017 included net payables associated with these related-party transactions of \$0.2 million and \$1.4 million , respectively.

On November 16, 2012, the Company was acquired by an investor group comprised of certain investment funds affiliated with Blackstone Capital Partners VI L.P., and certain co-investors and management investors through certain mergers and related reorganization transactions (collectively, the “Merger”).

In connection with the Merger, the Company engaged Blackstone Management Partners L.L.C. (“BMP”) to provide monitoring, advisory and consulting services on an ongoing basis. In consideration for these services, the Company agreed to pay an annual monitoring fee equal to the greater of (i) a minimum base fee of \$2.7 million subject to adjustments if the Company engages in a business combination or disposition that is deemed significant and (ii) the amount of the monitoring fee paid in respect of the immediately preceding fiscal year, without regard to any post-fiscal year “true-up” adjustments as determined by the agreement. The Company incurred expenses for such services of approximately \$4.1 million, \$3.5 million and \$3.7 million during the years ended December 31, 2018, 2017 and 2016, respectively. Accrued expenses and other current liabilities at December 31, 2018 and 2017 included a liability of \$4.8 million and \$0.9 million, respectively, to BMP in regards to the monitoring fee.

Under the support and services agreement, the Company also engaged BMP to arrange for Blackstone’s portfolio operations group to provide support services customarily provided by Blackstone’s portfolio operations group to Blackstone’s private equity portfolio companies of a type and amount determined by such portfolio services group to be warranted and appropriate. BMP will invoice the Company for such services based on the time spent by the relevant personnel providing such services during the applicable period but in no event shall the Company be obligated to pay more than \$1.5 million during any calendar year. During the years ended December 31, 2018, 2017 and 2016 the Company incurred no costs associated with such services.

During the year ended December 31, 2018, Blackstone Advisory Partners L.P. (“BAP”), an affiliate of Blackstone, participated as one of the initial purchasers of the Term Loan in September 2018 and received fees at the time of closing of such issuances aggregating approximately \$0.9 million.

During the year ended December 31, 2017, BAP participated as one of the initial purchasers of the 2022 notes in the February 2017 issuance and the 2023 notes in the August 2017 issuance and received fees at the time of closing of such issuances aggregating approximately \$0.6 million.

During the year ended December 31, 2016, BAP participated as one of the initial purchasers of the 2022 notes in each of the May 2016 and August 2016 offerings and received fees at the time of closing of such issuances aggregating approximately \$0.5 million.

In addition, GSO Capital Partners, an affiliate of Blackstone, is a participating lender in the Term Loan and as of December 31, 2018 had received in aggregate interest payments of approximately \$0.9 million. As of December 31, 2018, GSO Capital Partners holds \$75.1 million of outstanding aggregate principal of the Term Loan.

In September 2018, Vivint Smart Home, Inc. contributed \$4.7 million to the Company as a capital contribution.

In April 2016, Parent completed the first installment of an issuance and sale to certain investors of a series of preferred stock and contributed the net proceeds from such issuance of \$69.8 million to the Company as an equity contribution. In July 2016, Parent completed the final installment of the issuance and sale to certain investors of such series of preferred stock and, in August 2016, contributed the net proceeds from such issuance of \$30.6 million to the Company as an equity contribution. Both issuances were private placements exempt from registration under the Securities Act.

The company incurred stock-based compensation expense of \$2.2 million included in general and administrative expenses for the year ended December 31, 2016 related to an equity repurchase by 313 from one of the Company's executives.

Long-term notes receivables and other assets, includes amounts due for non-interest bearing advances made to employees that are expected to be repaid in excess of one year. Amounts due from employees as of both December 31, 2018 and 2017, amounted to approximately \$0.3 million. As of December 31, 2018 and 2017, this amount was fully reserved.

Prepaid expenses and other current assets at December 31, 2018 and 2017 included a receivable for \$1.8 million and \$0.5 million, respectively, from certain members of management in regards to their personal use of the corporate jet.

From time to time, the Company does business with a number of other companies affiliated with Blackstone.

Transactions involving related parties cannot be presumed to be carried out at an arm’s-length basis.

15 . Segment Reporting and Business Concentrations

For the years ended December 31, 2018 , 2017 and 2016 , the Company conducted business through one operating segment, Vivint. Historically, the Company primarily operated in three geographic regions: United States, Canada and New Zealand. During the year ended December 31, 2016, the Company completed the 2016 Contract Sales and ceased operations in New Zealand. Historically, the Company's operations in New Zealand were considered immaterial and reported in conjunction with the United States. Revenues by geographic region were as follows (in thousands):

	United States	Canada	Total
Revenue from external customers			
Year ended December 31, 2018	\$ 977,877	\$ 72,564	\$ 1,050,441
Year ended December 31, 2017	\$ 816,026	\$ 65,957	\$ 881,983
Year ended December 31, 2016	\$ 700,471	\$ 57,436	\$ 757,907

16 . Employee Benefit Plan

The Company offers eligible employees the opportunity to defer a percentage of their earned income into company-sponsored 401(k) plans.

The Company offers eligible employees the opportunity to contribute a percentage of their earned income into company-sponsored 401(k) plans.

Beginning in January 2018, participants in the 401(k) plans are eligible for the Company's matching program. Under this new matching program, the Company matches an employee's contributions to the 401(k) savings plan dollar-for-dollar up to 1% of such employee's eligible earnings and \$0.50 for every \$1.00 for the next 5% of such employee's eligible earnings. The maximum match available under the 401(k) plan is 3.5% of the employee's eligible earnings. For employees who have been employed by the Company for less than two years, matching contributions vest on the second anniversary of their date of hire. The Company's matching contributions to employees who have been employed by the Company for two years or more are fully vested.

Matching contributions that were made to the plans during the year ended December 31, 2018 totaled \$6.0 million . No matching contributions were made to the plans for the years ended December 31, 2017 and 2016.

17 . Guarantor and Non-Guarantor Supplemental Financial Information

The Notes were issued by APX and are fully and unconditionally guaranteed, jointly and severally by Holdings and each of APX’s existing and future material wholly-owned U.S. restricted subsidiaries. APX’s existing and future foreign subsidiaries are not expected to guarantee the Notes.

Presented below is the consolidating financial information of APX, subsidiaries of APX that are guarantors (the “Guarantor Subsidiaries”), and APX’s subsidiaries that are not guarantors (the “Non-Guarantor Subsidiaries”) as of December 31, 2018 and 2017 and for the years ended December 31, 2018 , 2017 and 2016 . The audited consolidating financial information reflects the investments of APX in the Guarantor Subsidiaries and the Non-Guarantor Subsidiaries using the equity method of accounting.

Condensed Consolidating Balance Sheet
December 31, 2018
(In thousands)

	Parent	APX Group, Inc.	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Assets						
Current assets	\$ —	\$ 12,951	\$ 269,770	\$ 103,451	\$ (262,674)	\$ 123,498
Property and equipment, net	—	—	72,937	464	—	73,401
Capitalized contract costs, net	—	—	1,047,532	68,243	—	1,115,775
Deferred financing costs, net	—	2,058	—	—	—	2,058
Investment in subsidiaries	—	1,662,367	—	—	(1,662,367)	—
Intercompany receivable	—	—	6,303	—	(6,303)	—
Intangible assets, net	—	—	236,677	18,408	—	255,085
Goodwill	—	—	809,678	25,177	—	834,855
Long-term notes receivables and other assets, net	—	106	102,695	17,124	(106)	119,819
Total Assets	\$ —	\$ 1,677,482	\$ 2,545,592	\$ 232,867	\$ (1,931,450)	\$ 2,524,491
Liabilities and Stockholders' (Deficit) Equity						
Current liabilities	\$ —	\$ 36,988	\$ 507,063	\$ 182,159	\$ (262,674)	\$ 463,536
Intercompany payable	—	—	—	6,303	(6,303)	—
Notes payable and revolving line of credit, net of current portion	—	3,037,095	—	—	—	3,037,095
Capital lease obligations, net of current portion	—	—	5,570	1	—	5,571
Deferred revenue, net of current portion	—	—	306,653	16,932	—	323,585
Accumulated losses of investee	1,396,601	—	—	—	(1,396,601)	—
Other long-term obligations	—	—	90,209	—	—	90,209
Deferred income tax liability	—	—	106	1,096	(106)	1,096
Total (deficit) equity	(1,396,601)	(1,396,601)	1,635,991	26,376	(265,766)	(1,396,601)
Total liabilities and stockholders' (deficit) equity	\$ —	\$ 1,677,482	\$ 2,545,592	\$ 232,867	\$ (1,931,450)	\$ 2,524,491

Condensed Consolidating Balance Sheet
December 31, 2017
(In thousands)

	Parent	APX Group, Inc.	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Assets						
Current assets	\$ —	\$ 4,150	\$ 284,293	\$ 49,935	\$ (162,413)	\$ 175,965
Property and equipment, net	—	—	77,345	736	—	78,081
Subscriber acquisition costs, net	—	—	1,214,678	93,880	—	1,308,558
Deferred financing costs, net	—	3,099	—	—	—	3,099
Investment in subsidiaries	—	2,188,221	—	—	(2,188,221)	—
Intercompany receivable	—	—	6,303	—	(6,303)	—
Intangible assets, net	—	—	350,710	26,741	—	377,451
Goodwill	—	—	809,678	27,292	—	836,970
Long-term notes receivables and other assets, net	—	106	78,173	10,550	(106)	88,723
Total Assets	\$ —	\$ 2,195,576	\$ 2,821,180	\$ 209,134	\$ (2,357,043)	\$ 2,868,847
Liabilities and Stockholders' (Deficit) Equity						
Current liabilities	\$ —	\$ 28,805	\$ 343,398	\$ 128,581	\$ (162,413)	\$ 338,371
Intercompany payable	—	—	—	6,303	(6,303)	—
Notes payable and revolving line of credit, net of current portion	—	2,820,297	—	—	—	2,820,297
Capital lease obligations, net of current portion	—	—	10,791	298	—	11,089
Deferred revenue, net of current portion	—	—	248,643	15,912	—	264,555
Accumulated losses of investee	653,526	—	—	—	(653,526)	—
Other long-term obligations	—	—	79,020	—	—	79,020
Deferred income tax liability	—	—	106	9,041	(106)	9,041
Total (deficit) equity	(653,526)	(653,526)	2,139,222	48,999	(1,534,695)	(653,526)
Total liabilities and stockholders' (deficit) equity	\$ —	\$ 2,195,576	\$ 2,821,180	\$ 209,134	\$ (2,357,043)	\$ 2,868,847

Condensed Consolidating Statements of Operations and Comprehensive Loss
For the Year ended December 31, 2018
(In thousands)

	Parent	APX Group, Inc.	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Revenues	\$ —	\$ —	\$ 998,190	\$ 54,818	\$ (2,567)	\$ 1,050,441
Costs and expenses	—	—	1,240,570	54,497	(2,567)	1,292,500
(Loss) income from operations	—	—	(242,380)	321	—	(242,059)
Loss from subsidiaries	(467,914)	(211,665)	—	—	679,579	—
Other expense (income), net	—	256,249	(35,936)	7,153	—	227,466
Loss before income taxes	(467,914)	(467,914)	(206,444)	(6,832)	679,579	(469,525)
Income tax expense (benefit)	—	—	512	(2,123)	—	(1,611)
Net loss	\$ (467,914)	\$ (467,914)	\$ (206,956)	\$ (4,709)	\$ 679,579	\$ (467,914)
Other comprehensive loss, net of tax effects:						
Foreign currency translation adjustment	(2,218)	(2,218)	—	(2,218)	4,436	(2,218)
Total other comprehensive loss, net of tax effects	(2,218)	(2,218)	—	(2,218)	4,436	(2,218)
Comprehensive loss	\$ (470,132)	\$ (470,132)	\$ (206,956)	\$ (6,927)	\$ 684,015	\$ (470,132)

Condensed Consolidating Statements of Operations and Comprehensive Loss
For the Year ended December 31, 2017
(In thousands)

	Parent	APX Group, Inc.	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Revenues	\$ —	\$ —	\$ 841,658	\$ 43,015	\$ (2,690)	\$ 881,983
Costs and expenses	—	—	997,247	42,919	(2,690)	1,037,476
(Loss) income from operations	—	—	(155,589)	96	—	(155,493)
Loss from subsidiaries	(410,199)	(165,497)	—	—	575,696	—
Other expense (income), net	—	244,702	13,545	(4,619)	—	253,628
(Loss) income before income taxes	(410,199)	(410,199)	(169,134)	4,715	575,696	(409,121)
Income tax expense (benefit)	—	—	(228)	1,306	—	1,078
Net (loss) income	\$ (410,199)	\$ (410,199)	\$ (168,906)	\$ 3,409	\$ 575,696	\$ (410,199)
Other comprehensive income (loss), net of tax effects:						
Foreign currency translation adjustment	3,155	3,155	—	3,155	(6,310)	3,155
Unrealized gain on marketable securities	(1,693)	(1,693)	(1,693)	—	3,386	(1,693)
Total other comprehensive income (loss), net of tax effects	1,462	1,462	(1,693)	3,155	(2,924)	1,462
Comprehensive (loss) income	\$ (408,737)	\$ (408,737)	\$ (170,599)	\$ 6,564	\$ 572,772	\$ (408,737)

Condensed Consolidating Statements of Operations and Comprehensive Loss
For the Year ended December 31, 2016
(In thousands)

	Parent	APX Group, Inc.	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Revenues	\$ —	\$ —	\$ 715,072	\$ 45,539	\$ (2,704)	\$ 757,907
Costs and expenses	—	—	787,138	44,575	(2,704)	829,009
(Loss) income from operations	—	—	(72,066)	964	—	(71,102)
Loss from subsidiaries	(275,957)	(69,637)	—	—	345,594	—
Other expense (income), net	—	206,320	(1,207)	(325)	—	204,788
Loss before income taxes	(275,957)	(275,957)	(70,859)	1,289	345,594	(275,890)
Income tax expense (benefit)	—	—	545	(478)	—	67
Net (loss) income	\$ (275,957)	\$ (275,957)	\$ (71,404)	\$ 1,767	\$ 345,594	\$ (275,957)
Other comprehensive income, net of tax effects:						
Foreign currency translation adjustment	2,482	2,482	—	2,482	(4,964)	2,482
Unrealized gain on marketable securities	1,011	1,011	1,011	—	(2,022)	1,011
Total other comprehensive income, net of tax effects	3,493	3,493	1,011	2,482	(6,986)	3,493
Comprehensive loss	\$ (272,464)	\$ (272,464)	\$ (70,393)	\$ 4,249	\$ 338,608	\$ (272,464)

Condensed Consolidating Statements of Cash Flows
For the Year ended December 31, 2018
(In thousands)

	Parent	APX Group, Inc.	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Cash flows from operating activities:						
Net cash (used in) provided by operating activities	\$ —	\$ —	\$ (220,952)	\$ 453	\$ —	\$ (220,499)
Cash flows from investing activities:						
Capital expenditures	—	—	(19,409)	(3)	—	(19,412)
Proceeds from sale of intangibles	—	—	53,693	—	—	53,693
Proceeds from sale of capital assets	—	—	127	—	—	127
Investment in subsidiary	(1,571)	(201,292)	—	—	202,863	—
Acquisition of intangible assets	—	—	(1,486)	—	—	(1,486)
Net cash (used in) provided by investing activities	(1,571)	(201,292)	32,925	(3)	202,863	32,922
Cash flows from financing activities:						
Proceeds from notes payable	—	810,000	—	—	—	810,000
Repayment on notes payable	—	(522,191)	—	—	—	(522,191)
Borrowings from revolving line of credit	—	201,000	—	—	—	201,000
Repayment of revolving line of credit	—	(261,000)	—	—	—	(261,000)
Proceeds from capital contribution	4,700	4,700	204,421	—	(209,121)	4,700
Repayments of capital lease obligations	—	—	(12,011)	(343)	—	(12,354)
Financing costs	—	(11,317)	—	—	—	(11,317)
Deferred financing costs	—	(9,302)	—	—	—	(9,302)
Return of capital	(3,129)	(3,129)	(3,129)	—	6,258	(3,129)
Net cash provided by (used in) financing activities	1,571	208,761	189,281	(343)	(202,863)	196,407
Effect of exchange rate changes on cash	—	—	—	71	—	71
Net increase in cash	—	7,469	1,254	178	—	8,901
Cash:						
Beginning of period	—	3,661	(572)	783	—	3,872
End of period	\$ —	\$ 11,130	\$ 682	\$ 961	\$ —	\$ 12,773

Condensed Consolidating Statements of Cash Flows
For the Year ended December 31, 2017
(In thousands)

	Parent	APX Group, Inc.	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Cash flows from operating activities:						
Net cash (used in) provided by operating activities	\$ —	\$ —	\$ (313,290)	\$ 3,958	\$ —	\$ (309,332)
Cash flows from investing activities:						
Capital expenditures	—	—	(20,391)	—	—	(20,391)
Proceeds from sale of capital assets	—	—	776	—	—	776
Investment in subsidiary	1,151	(325,222)	—	—	324,071	—
Acquisition of intangible assets	—	—	(1,745)	—	—	(1,745)
Other assets	—	—	(301)	—	—	(301)
Net cash provided by (used in) investing activities	1,151	(325,222)	(21,661)	—	324,071	(21,661)
Cash flows from financing activities:						
Proceeds from notes payable	—	724,750	—	—	—	724,750
Repayment on notes payable	—	(450,000)	—	—	—	(450,000)
Borrowings from revolving line of credit	—	196,895	—	—	—	196,895
Repayment of revolving line of credit	—	(136,895)	—	—	—	(136,895)
Proceeds from capital contribution	—	—	326,373	—	(326,373)	—
Payment of intercompany settlement	—	—	(2,983)	—	—	(2,983)
Intercompany receivable	—	—	3,621	—	(3,621)	—
Intercompany payable	—	—	—	(3,621)	3,621	—
Repayments of capital lease obligations	—	—	(9,667)	(340)	—	(10,007)
Financing costs	—	(18,277)	—	—	—	(18,277)
Deferred financing costs	—	(11,119)	—	—	—	(11,119)
Return of capital	(1,151)	(1,151)	(1,151)	—	2,302	(1,151)
Net cash (used in) provided by financing activities	(1,151)	304,203	316,193	(3,961)	(324,071)	291,213
Effect of exchange rate changes on cash	—	—	—	132	—	132
Net increase (decrease) in cash	—	(21,019)	(18,758)	129	—	(39,648)
Cash:						
Beginning of period	—	24,680	18,186	654	—	43,520
End of period	\$ —	\$ 3,661	\$ (572)	\$ 783	\$ —	\$ 3,872

Condensed Consolidating Statements of Cash Flows
For the Year ended December 31, 2016
(In thousands)

	Parent	APX Group, Inc.	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Cash flows from operating activities:						
Net cash (used in) provided by operating activities	\$ —	\$ —	\$ (380,508)	\$ 14,802	\$ —	\$ (365,706)
Cash flows from investing activities:						
Subscriber acquisition costs – company owned equipment	—	—	(5,243)	—	—	(5,243)
Capital expenditures	—	—	(11,642)	—	—	(11,642)
Proceeds from sale of capital assets	—	—	3,080	43	—	3,123
Investment in subsidiary	(100,407)	(408,214)	—	—	508,621	—
Acquisition of intangible assets	—	—	(1,385)	—	—	(1,385)
Net cash used in investing activities	(100,407)	(408,214)	(15,190)	43	508,621	(15,147)
Cash flows from financing activities:						
Proceeds from notes payable	—	604,000	—	—	—	604,000
Repayment on notes payable	—	(235,535)	—	—	—	(235,535)
Borrowings from revolving line of credit	—	57,000	—	—	—	57,000
Repayment of revolving line of credit	—	(77,000)	—	—	—	(77,000)
Proceeds from capital contribution	100,407	100,407	—	—	(100,407)	100,407
Payment of intercompany settlement	—	—	3,000	(3,000)	—	—
Intercompany receivable	—	—	12,906	—	(12,906)	—
Intercompany payable	—	—	408,214	(12,906)	(395,308)	—
Repayments of capital lease obligations	—	—	(8,295)	(20)	—	(8,315)
Financing costs	—	(9,036)	—	—	—	(9,036)
Deferred financing costs	—	(9,241)	—	—	—	(9,241)
Net cash provided by (used in) financing activities	100,407	430,595	415,825	(15,926)	(508,621)	422,280
Effect of exchange rate changes on cash	—	—	—	(466)	—	(466)
Net increase (decrease) in cash	—	22,381	20,127	(1,547)	—	40,961
Cash:						
Beginning of period	—	2,299	(1,941)	2,201	—	2,559
End of period	\$ —	\$ 24,680	\$ 18,186	\$ 654	\$ —	\$ 43,520

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

We maintain disclosure controls and procedures (as that term is defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the “Exchange Act”)) that are designed to ensure that information required to be disclosed in our reports under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC’s rules and forms, and that such information is accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate, to allow timely decisions regarding required disclosures. Any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives. Our management, with the participation of our principal executive officer and principal financial officer, has evaluated the effectiveness of the design and operation of our disclosure controls and procedures as of December 31, 2018, the end of the period covered by this report. Based upon that evaluation, our principal executive officer and principal financial officer concluded that, as of the end of the period covered by this report, the design and operation of our disclosure controls and procedures were effective at the reasonable assurance level.

Internal Control Over Financial Reporting

Management’s Annual Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over our financial reporting. Our internal control over financial reporting is designed to provide reasonable assurances regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with U.S. generally accepted accounting principles. Our internal control over financial reporting includes those policies and procedures that:

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

Our internal control systems include the controls themselves, actions taken to correct deficiencies as identified, an organizational structure providing for division of responsibilities, careful selection and training of qualified financial personnel and a program of internal audits.

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.

Our management has assessed the effectiveness of our internal control over financial reporting as of December 31, 2018. In making this assessment, management used the criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) (2013 framework).

Based on this assessment, our management concluded that our internal control over financial reporting was effective as of December 31, 2018.

Changes in Internal Control Over Financial Reporting

There have been no changes in our internal control over financial reporting (as defined in Rule 13a-15(f) and 15d-15(f) under the Exchange Act) during the fiscal quarter ended December 31, 2018 that have materially affected, or that are reasonably likely to materially affect, our internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

Employment Agreements with Messrs. Pedersen and Dunn

On March 4, 2019, we amended and restated the employment agreements with our Chief Executive Officer (CEO), Todd Pedersen, and our President, Alex Dunn. The amended and restated employment agreements with Messrs. Pedersen and Dunn contain substantially similar terms. The principal terms of each of the amended and restated employment agreements are summarized below.

Each amended and restated employment agreement provides for a term ending on March 4, 2022 and extends automatically for additional one-year periods unless either party elects not to extend the term. Under the amended and restated employment agreements, each executive is eligible to receive a minimum base salary, specified below, and an annual bonus based on the achievement of specified financial goals as determined by the Board of Directors. If these goals are achieved, the executive may receive an annual incentive cash bonus as provided below.

Mr. Pedersen's amended and restated employment agreement provides that he is to serve as CEO and is eligible to receive a base salary originally set at \$1,021,200, subject to periodic adjustments as may be approved by our Board of Directors. Mr. Pedersen is also eligible to receive a target bonus equal to the sum of (x) 100% of his annual base salary at the end of the fiscal year minus (y) \$300,000, if targets established by the Board of Directors are achieved.

Mr. Dunn's amended and restated employment agreement provides that he is to serve as President and is eligible to receive a base salary originally set at \$1,021,200, subject to periodic adjustments as may be approved by our Board of Directors. Mr. Dunn is also eligible to receive a target bonus equal to the sum of (x) 100% of his annual base salary at the end of the fiscal year minus (y) \$300,000 if targets established by the Board of Directors are achieved.

In addition, each amended and restated employment agreement provides Messrs. Pedersen and Dunn with annual reimbursements of up to \$125,000 in respect of expenses incurred by the executive related to the engagement of a financial advisor by the executive to provide the executive with customary financial advice. Any such reimbursements to the executive will be considered taxable income to the executive and the executive will be entitled to tax "gross up" payments in respect thereof.

Each executive officer is also entitled to participate in all employee benefit plans, programs and arrangements made available to other executive officers generally.

Each of the amended and restated employment agreements also contains restrictive covenants, including an indefinite covenant on confidentiality of information, and covenants related to non-competition and non-solicitation of our employees and customers and affiliates at all times during employment, and for two years after any termination of employment. These covenants are substantially the same as the covenants Messrs. Pedersen and Dunn agreed to in connection with their receipt of Class B Units summarized below in Part III. Item 11. Executive Compensation under the heading "Narrative Disclosure to Summary Compensation Table and Grants of Plan-Based Awards-Equity Awards-Restrictive Covenants."

Pursuant to their respective amended and restated employment agreements, if Mr. Pedersen's or Mr. Dunn's employment terminates for any reason, the executive is entitled to receive: (1) any base salary accrued through the date of termination; (2) any annual bonus earned, but unpaid, as of the date of termination; (3) reimbursement of any unreimbursed business expenses properly incurred by the executive; and (4) such employee benefits, if any, as to which the executive may be entitled under our employee benefit plans (the payments and benefits described in (1) through (4) being "accrued rights").

If the employment of Messrs. Pedersen and Dunn is terminated by us without "cause" (as defined below) (other than by reason of death or while he is disabled) or if either executive resigns with "good reason" (as defined below) (any such termination, a "qualifying termination"), such executive is entitled to the accrued rights and, conditioned upon execution and non-revocation of a release and waiver of claims in favor of us and our affiliates, and continued compliance with the non-compete, non-solicitation, non-disparagement, and confidentiality provisions set forth in the employment agreements and described above under "Narrative Disclosure to Summary Compensation Table and Grants of Plan-Based Awards":

- a pro rata portion of his target annual bonus based upon the portion of the fiscal year during which the executive was employed (the "pro rata bonus");
- a lump-sum cash payment equal to 200% of the executive's then-current base salary plus 200% of the actual bonus the executive received in respect of the immediately preceding fiscal year; and
- a lump-sum cash payment equal to the monthly cost of the health and welfare benefits for the executive and his dependents, at the levels at which the executive received benefits on the date of termination, times twenty four (the "COBRA payment").

For purposes of the amended and restated employment agreements of each of Messrs. Pedersen and Dunn, the term “cause” means the executive’s continued failure to substantially perform his employment duties for a period of ten (10) days; any dishonesty in the performance of the executive’s employment duties that is materially injurious to us; act(s) on the executive’s part constituting either a felony or a misdemeanor involving moral turpitude; the executive’s willful malfeasance or misconduct in connection with his employment duties that causes substantial injury to us; or the executive’s material breach of any covenants set forth in the amended and restated employment agreements, including the restrictive covenants set forth therein. A termination for “good reason” is deemed to occur upon specified events, including: a material reduction in the executive’s base salary; a material reduction in the executive’s authority or responsibilities; specified relocation events; or our breach of any of the provisions of the amended and restated employment agreements. Each of the foregoing events is subject to specified notice and cure periods.

In the event of the executive’s termination of employment due to death or disability, he will only be entitled to the accrued rights, the pro rata bonus payment, and the COBRA payment.

Incentive Compensation Plan

On March 4, 2019, our board of directors adopted an Incentive Compensation Plan, which we refer to as our Cash Bonus Plan. Our Cash Bonus Plan will allow our compensation committee to provide annual cash incentive awards to selected employees, including our named executive officers, based upon performance goals established by the compensation committee of our board of directors. Pursuant to the Cash Bonus Plan, our compensation committee, in its sole discretion, will establish a target award for each participant and a bonus pool, with actual awards payable from such bonus pool, with respect to the applicable performance period.

Under the Cash Bonus Plan, our compensation committee, in its sole discretion, will determine the performance goals applicable to awards, which goals may include, without limitation: attainment of research, development and launch milestones, bookings, business divestitures and acquisitions, cash flow, cash position, contract awards or backlog, customer renewals, (viii) customer attrition rates or customer retention rates from an acquired company, subsidiary, business unit or division, (ix) earnings (which may include earnings before interest, tax, depreciation and amortization (“EBITDA”), adjusted EBITDA, EBITDA and adjusted EBITDA lifetime value, earnings before interest and taxes, earnings before taxes and net earnings, and other metrics), earnings per share, expenses, gross margin, growth in stockholder value, internal rate of return, inventory turns, inventory levels, market share, net income, net profit, net sales, new product development, new product invention or innovation, number of customers, operating cash flow, operating expenses, operating income, operating margin, overhead or other expense reduction, product defect measures, product development and launch and product release timelines, productivity, profit, return on assets, return on capital, return on equity, return on investment, return on sales, revenue, revenue growth, sales results or selling efforts, sales growth and other growth initiatives, stock price, time to market, total stockholder return, working capital, financial management and operational improvement, product innovation and strategy, installation base lifetime value, service costs, onboard key employees, such other metrics as may be set forth in the Company’s filings with the U.S. Securities Exchange Commission from time to time and individual objectives such as peer reviews or other subjective or objective criteria, each as may be adjusted. As determined by our compensation committee, performance goals that include our financial results may be determined in accordance with GAAP, or such financial results may consist of non-GAAP financial measures and any actual results may be adjusted by our compensation committee for one-time items or unbudgeted or unexpected items and/or payments when determining whether the performance goals have been met. The goals may be on the basis of any factors our compensation committee determines relevant, and may be on an individual, divisional, business unit or enterprise basis. The performance goals may differ from participant to participant and from award to award.

Our compensation committee may, in its sole discretion and at any time, increase, reduce or eliminate a participant’s actual award, or increase, reduce or eliminate the amount allocated to the bonus pool for a particular performance period. The actual award may be below, at or above a participant’s target award, in our compensation committee’s discretion. Our compensation committee may determine the amount of any reduction on the basis of such factors as it deems relevant, and it is not required to establish any allocation or weighting with respect to the factors it considers.

Actual awards are paid in cash (or its equivalent) in a single lump sum as soon as practicable after the end of the performance period during which they are earned and after they are approved by our compensation committee, but in no event later than the 15th day of the third month of the fiscal year following the date the award has been earned. Unless otherwise determined by our compensation committee, to earn an actual award, a participant must be employed by us (or an affiliate of ours) through the date the bonus is paid.

Our board of directors, in its sole discretion, may alter, suspend or terminate the Cash Bonus Plan provided such action does not, without the consent of the participant, alter or impair the rights or obligations under any award theretofore earned by such participant.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The following table sets forth, as of March 5, 2019, certain information regarding our directors and executive officers who are responsible for overseeing the management of our business.

Name	Age	Position
Executive officers:		
Todd R. Pedersen	50	Chief Executive Officer and Director
Alex J. Dunn	47	President and Director
Mark J. Davies	58	Chief Financial Officer
Matthew J. Eyring	49	Executive Vice President, General Manager of Inside Sales
Scott R. Hardy	41	Chief Operating Officer
Patrick E. Kelliher	55	Chief Accounting Officer
Shawn J. Lindquist	49	Chief Legal Officer
Todd M. Santiago	46	Executive Vice President, General Manager of Retail
Jeremy B. Warren	44	Chief Technology Officer
Non-employee directors:		
David F. D'Alessandro	68	Director
Paul S. Galant	51	Director
Bruce McEvoy	41	Director
Jay D. Pauley	41	Director
Joseph S. Tibbetts, Jr.	66	Director
Peter F. Wallace	43	Director

Executive Officers

Todd R. Pedersen. Mr. Pederson founded our company in 1999 and served as our President, Chief Executive Officer and Director. In February 2013, Mr. Pedersen relinquished his title as our President and remained our Chief Executive Officer and Director. In 2011, Mr. Pedersen founded our sister company, Vivint Solar, and served as its Chief Executive Officer from August 2011 through January 2013. Mr. Pedersen currently serves as a member of Vivint Solar's board of directors, a position he has held since November 2012. Mr. Pedersen was named the Ernst & Young Entrepreneur of the Year in 2010 in the services category for the Utah Region. Mr. Pedersen attended Brigham Young University.

Alex J. Dunn. Mr. Dunn was named our President in February 2013. Prior to this, he served as our Chief Operating Officer and Director from July 2005 through January 2013. Prior to joining us, Mr. Dunn served as Deputy Chief of Staff and Chief Operating Officer to Governor Mitt Romney in Massachusetts. Before joining Governor Romney's staff, Mr. Dunn served as entrepreneur-in-residence at the venture capital firm General Catalyst. There, he helped start m-Qube, a mobile media management company. Prior to that, he co-founded LavaStorm Technologies, an international telecommunications software company, where he served as Chief Executive Officer. Mr. Dunn is also a founder of our sister company, Vivint Solar, where he served as the Interim Chief Executive Officer from April 2013 through September 2013 and as the Chief Operating Officer from August 2011 through January 2013. Mr. Dunn currently serves on the board of directors of Vivint Solar, a position he has held since November 2012. Mr. Dunn holds a B.S. in Sociology from Brigham Young University.

Mark J. Davies. Mr. Davies has served as our Chief Financial Officer since November 2013. Prior to joining us, Mr. Davies served two years as Executive Vice President of Alcoa, as President of the company's Global Business Services unit and member of the Alcoa Executive Council. Prior to Alcoa, Mr. Davies worked at Dell Inc. for 12 years, most recently as the Managing Vice President of Strategic Programs, reporting to Chairman, Michael Dell. Prior to that, Mr. Davies served as Chief Financial Officer of the Global Consumer Group. Mr. Davies holds a B.S. in Accounting from Western Washington University and an MBA from Arizona State University.

Matthew J. Eyring. Mr. Eyring has served as our Executive Vice President, General Manager of Inside Sales since November 2018, which includes managing the company's call center operations, new business development, and strategy functions. Prior to this, he served as Chief Strategy and Innovation Officer from November 2012 to November 2018. Prior to Vivint, Mr. Eyring worked at Innosight, a global strategy and innovation consulting firm, from 2001 to 2012. He held many senior positions at the firm, most recently serving as Managing Partner with responsibility for all global strategy and operations. Prior to Innosight, Mr. Eyring was a Vice President and General Manager at LavaStorm Technologies, an Internet professional services company, where he ran the company's Boston office. Prior to that, Mr. Eyring was a Product Manager at

Medtronic, Inc. Mr. Eyring previously served on the board of directors of Virgin Pulse. Mr. Eyring holds a B.A. in Economics from the University of Utah and an MBA from the Harvard Business School, and is the co-author of a number of articles published in the Harvard Business Review.

Scott R. Hardy. Mr. Hardy has served as our Chief Operating Officer since December 2016. Prior to this, he served as our Senior Vice President, Inside Sales from February 2014 to December 2016. He joined Vivint as Vice President, Business Analytics in 2013. Prior to joining us, Mr. Hardy served as Principal at the Cicero Group, LP, a consulting and market research firm, from 2011 to 2013, where he led the firm's strategy consulting practice. Mr. Hardy also served in senior consulting roles at McKinsey and Company from 2006 to 2009 and Monitor Group from 2000 to 2002, where he focused on growth strategy and sales and marketing projects. From 2009 to 2011, Mr. Hardy held senior roles at Cisco, an information technology company, including Director of Cisco's Telepresence Cloud business unit and Director of Product Management, and starting in 2009 until their acquisition by Cisco in the same year, he led strategy and business development for TANDBERG, a provider of video conferencing systems. Mr. Hardy holds a B.S. in Economics from Brigham Young University and an MBA from the Harvard Business School.

Patrick E. Kelliher. Mr. Kelliher has served as our Chief Accounting Officer since February 2014. Prior to this, he served as our Vice President of Finance and Corporate Controller from March 2012 to February 2014. Prior to joining us, Mr. Kelliher served as Senior Director of Finance and Business Unit Controller of Adobe from November 2009 to March 2012. Prior to Adobe, Mr. Kelliher was the Vice President of Finance and Controller for Omniture, Inc. Before that he has served in various senior finance roles at other high growth technology companies. Mr. Kelliher holds a B.S. in Accounting and Finance from Northern Illinois University and an MBA from the University of Chicago Graduate School of Business.

Shawn J. Lindquist. Mr. Lindquist has served as our Chief Legal Officer and Secretary since May 2016. From February 2014 to May 2016, Mr. Lindquist served as Chief Legal Officer, Executive Vice President and Secretary of our sister company, Vivint Solar. From February 2010 to February 2014, Mr. Lindquist served as Chief Legal Officer, Executive Vice President and Secretary of Fusion-io, Inc., a leading provider of flash memory solutions for application acceleration, which was acquired by Sandisk Corporation in 2014. From 2005 to 2010, Mr. Lindquist served as Chief Legal Officer, Senior Vice President and Secretary of Omniture, Inc., through the completion and integration of its merger with Adobe Systems Incorporated. Prior to Omniture, Mr. Lindquist was a corporate and securities attorney at Wilson Sonsini Goodrich & Rosati, P.C., the leading legal advisor to technology, life sciences and other growth enterprises worldwide. Mr. Lindquist has also served as in-house corporate and mergers and acquisitions counsel for Novell, Inc., a software and services company, and as Vice President and General Counsel of a privately held, venture-backed company. Mr. Lindquist has also served as an adjunct professor of law at the J. Reuben Clark Law School at Brigham Young University. Mr. Lindquist holds a B.S. in Business Management and J.D. from Brigham Young University.

Todd M. Santiago. Mr. Santiago has served as our Executive Vice President, General Manager of Retail since November 2018, which includes managing the company's retail relationships, home builder initiatives and direct sales platforms. Prior to this, he served as Chief Revenue Officer from February 2013 to November 2018. Prior to joining us, Mr. Santiago was President of 2GIG from December 2008 to March 2013 where he coordinated the successful launch of Go!Control. Prior to joining 2GIG, Mr. Santiago was Partner and General Manager of Signature Academies in Boise, ID and VP and General Manager at NCH Corporation in Irving, TX. Mr. Santiago is the brother-in-law of Mr. Pedersen. Mr. Santiago holds a B.A. in English from Brigham Young University and an MBA from the Harvard Business School.

Jeremy B. Warren. Mr. Warren has served as our Chief Technology Officer since December 2014. Prior to this, he served as Vice President of Innovation from November 2012 to December 2014. Prior to joining us, Mr. Warren was Chief Technology Officer at 2GIG Technologies where he was responsible for the engineering and mass production of 2GIG's product line. Prior to joining 2GIG, Mr. Warren was Chief Technology Officer of the U.S. Department of Justice and Chief Architect of Lavastorm Technologies. Mr. Warren attended the Massachusetts Institute of Technology.

Non-Employee Directors

David F. D'Alessandro. Mr. D'Alessandro has served as a Director of our company since July 2013. Mr. D'Alessandro serves on the boards of directors of several private companies as well as our publicly traded sister company, Vivint Solar. From 2010 to September 2017, Mr. D'Alessandro also served as chairman of the board of directors of SeaWorld Entertainment, Inc. He served as chairman, president and chief executive officer of John Hancock Financial Services, Inc. from 2000 to 2004, having served as president and chief operating officer of the same entity from 1996 to 2000, and guided it through a merger with ManuLife Financial Corporation in 2004. Mr. D'Alessandro served as president and chief operating officer of ManuLife in 2004. He is a former partner of the Boston Red Sox. A graduate of Syracuse University, he holds honorary doctorates from three colleges and served as vice chairman and a trustee of Boston University.

Paul S. Galant. Mr. Galant has served as a Director of our company since October 2015. Since September 2018, Mr. Galant has served as Chief Executive Officer of Brightstar Corp., a leading mobile services company for managing devices and accessories and subsidiary of SoftBank Group Corp., and he has served as an Operating Partner of SoftBank. Prior to joining

Brightstar, Mr. Galant was the Chief Executive Officer of VeriFone Systems, Inc., and a member of VeriFone's Board of Directors, since October 2013. Prior to joining Verifone, Mr. Galant served as the CEO of Citigroup Inc.'s Enterprise Payments business since 2010. In this role, Mr. Galant oversaw the design, marketing and implementation of global business-to-consumer and consumer-to-business digital payments solutions. From 2009 to 2010, Mr. Galant served as CEO of Citi Cards, heading Citigroup's North American and International Credit Cards business. From 2007 to 2009, Mr. Galant served as CEO of Citi Transaction Services, a division of Citi's Institutional Clients Group. From 2002 to 2007, Mr. Galant was the Global Head of the Cash Management business, one of the largest processors of payments globally. Mr. Galant joined Citigroup, a multinational financial services corporation, in 2000. Prior to joining Citigroup, Mr. Galant held positions at Donaldson, Lufkin & Jenrette, Smith Barney, and Credit Suisse. Mr. Galant also brings broad financial industry experience from his time as chairman of the NY Federal Reserve Bank Payments Risk Committee and chairman of The Clearing House Secure Digital Payments LLC. Mr. Galant currently serves on the board of directors of Conduent Incorporated, a leading provider of diversified business services with leading capabilities in transaction processing, automation and analytics. Mr. Galant holds a B.S. in Economics from Cornell University where he graduated a Phillip Merrill Scholar.

Bruce McEvoy. Mr. McEvoy has served as a Director of our company since November 2012. Mr. McEvoy is a Senior Managing Director at Blackstone in the Private Equity Group. Before joining Blackstone in 2006, Mr. McEvoy worked at General Atlantic from 2002 to 2004, and was a consultant at McKinsey & Company from 1999 to 2002. Mr. McEvoy currently serves on the board of directors of Center for Autism and Related Disorders, MB Aerospace, RGIS Inventory Specialists, TeamHealth and our publicly traded sister company, Vivint Solar. Mr. McEvoy was formerly a director of Performance Food Group Company, Catalent, Inc., GCA Services Group, Inc., SeaWorld Entertainment, Inc. and Vistar Corporation. Mr. McEvoy holds an A.B. in History from Princeton University and an MBA from the Harvard Business School.

Jay D. Pauley. Mr. Pauley has served as a Director of the company since October 2015. Mr. Pauley is a Managing Director at Summit Partners, which he joined in 2010. Prior to joining Summit Partners, Mr. Pauley was Vice President at GTCR, a private equity firm, and an associate at Apax Partners, a private equity and venture capital firm. Before that, he worked for GE Capital. Mr. Pauley currently serves on the boards of directors of numerous private companies, including our publicly traded sister company, Vivint Solar. Mr. Pauley holds a B.S. from the Ohio State University and an MBA from the Wharton School at the University of Pennsylvania.

Joseph S. Tibbetts, Jr. Mr. Tibbetts has served as a Director of our company since October 2015. From March 2017 to March 2018, Mr. Tibbetts served as the interim chief financial officer of Acquia Corporation, a private company that is a leading provider of cloud-based, digital experience management solutions. Prior to that Mr. Tibbetts served as the senior vice president and chief financial officer of Publicis.Sapient, part of Publicis Group SA, from February 2015, when Publicis acquired Sapient Corporation, to September 2015. Prior to that Mr. Tibbetts served as senior vice president and global chief financial officer of Sapient Corporation from October 2006 to February 2015. He began serving as Sapient Corporation's treasurer in December 2012 and was reappointed as Sapient Corporation's chief accounting officer in June 2013, a role he previously held from 2009 to 2012. In addition to being Sapient Corporation's chief financial officer, Mr. Tibbetts also served as Sapient Corporation's managing director- SapientNitro Asia Pacific. Prior to joining Sapient Corporation, Mr. Tibbetts was the chief financial officer of Novell, Inc. from February 2003 to June 2006 and, prior to that, he held a variety of senior financial management positions at Charles River Ventures, Lightbridge, Inc., and SeaChange International, Inc. Mr. Tibbetts was also formerly a partner with Price Waterhouse LLP. Mr. Tibbetts currently serves on the board of directors of our publicly traded sister company, Vivint Solar, as well as Carbon Black, Inc. and Casa Systems, Inc. Mr. Tibbetts holds a B.S. in business administration from the University of New Hampshire.

Peter F. Wallace. Mr. Wallace has served as a Director of our company since November 2012. Mr. Wallace is a Senior Managing Director at Blackstone in the Private Equity Group, which he joined in 1997. Mr. Wallace has served on the board of directors of our publicly traded sister company, Vivint Solar, Inc., since November 2012 and as Chairman of the Board since March 2014. Mr. Wallace also serves on the board of directors of Alight Solutions, Inc., Michaels Stores, Inc., Outerstuff, Service King, Tradesmen International and The Weather Channel Companies. Mr. Wallace was formerly a director of AlliedBarton Security Services, GCA Services, New Skies Satellites Holdings Ltd. and SeaWorld Entertainment. Mr. Wallace holds a B.A. in Government from Harvard College.

Corporate Governance

Background and Experience of Directors

When considering whether directors have the experiences, qualifications, attributes or skills, taken as a whole, to enable our board of directors to satisfy its oversight responsibilities effectively in light of our business and structure, our board of directors focused on, among other things, each person's background and experience as reflected in the information discussed in each of the directors' individual biographies set forth above. We believe that our directors provide an appropriate mix of experience and skills relevant to the size and nature of our business. The members of our board of directors considered, among

other things, the following important characteristics which make each director a valuable member of our board of directors:

- Mr. Pedersen's extensive knowledge of our industry and significant experience, as well as his insights as the original founder of our firm. Mr. Pedersen has played a critical role in our firm's successful growth since its founding and has developed a unique and unparalleled understanding of our business.
- Mr. Dunn's extensive knowledge of our industry and significant leadership experience.
- Mr. D'Alessandro's extensive business and leadership experience, including as Chairman, President and Chief Executive Officer of John Hancock Financial Services, as well as his familiarity with board responsibilities, oversight and control resulting from serving on the boards of directors of public companies.
- Mr. McEvoy's significant financial and investment experience, including as a Senior Managing Director in the Private Equity Group at Blackstone, as well as his familiarity with board responsibilities, oversight and control resulting from serving on the boards of directors of public companies.
- Mr. Wallace's significant financial expertise and business experience, including as a Senior Managing Director in the Private Equity Group at Blackstone, as well as his familiarity with board responsibilities, oversight and control resulting from serving on the boards of directors of public companies.
- Mr. Galant's significant business and leadership experience, including as the Chief Executive Officer of Citigroup's Enterprise Payments business, as well as his familiarity with board responsibilities, oversight and control resulting from serving on the board of directors of VeriFone Systems.
- Mr. Pauley's significant financial expertise and business experience, including as a managing director at Summit Partners, as well as his familiarity with board responsibilities, oversight and control resulting from serving on the boards of directors of public companies.
- Mr. Tibbetts' significant financial expertise and business experience, including as Senior Vice President and Chief Financial Officer of Sapiient Corporation and 20 years at Price Waterhouse LLP (now PricewaterhouseCoopers LLP) including his experience as an Audit Partner and National Director of the firm's Software Services Group, as well as his familiarity with board responsibilities, oversight and control resulting from serving on the boards of directors of public companies.

Independence of Directors

We are not a listed issuer whose securities are listed on a national securities exchange or in an inter-dealer quotation system which has requirements that a majority of the board of directors be independent. However, if we were a listed issuer whose securities were traded on the New York Stock Exchange and subject to such requirements, we would be entitled to rely on the controlled company exception contained in Section 303A of the NYSE Listed Company Manual from the requirements that a majority of our Board of Directors consist of independent directors, that our Board of Directors have a compensation committee that is comprised entirely of independent directors and that our Board of Directors have a Nominating Committee that is comprised entirely of independent directors. Pursuant to Section 303A of the NYSE Listed Company Manual, a company of which more than 50% of the voting power is held by an individual, a group of another company is exempt from the requirements that its board of directors consist of a majority of independent directors. At December 31, 2018, Blackstone beneficially owns greater than 50% of the voting power of the Company which would qualify the Company as a controlled company eligible for exemption under the rule.

Role of Board in Risk Oversight

The board of directors has extensive involvement in the oversight of risk management related to us and our business and accomplishes this oversight through the regular reporting to the board of directors by the audit committee. The audit committee represents the board of directors by periodically reviewing our accounting, reporting and financial practices, including the integrity of our financial statements, the surveillance of administrative and financial controls and our compliance with legal and regulatory requirements. Through its regular meetings with management, including the finance, legal, internal audit and information technology functions, the audit committee reviews and discusses all significant areas of our business and summarizes for the board of directors all areas of risk and the appropriate mitigating factors. In addition, our board of directors receives periodic detailed operating performance reviews from management.

Committees of the Board

Our Board of Directors has an Audit Committee and a Compensation Committee. Our Board of Directors may also establish from time to time any other committees that it deems necessary and advisable.

Audit Committee

Our Audit Committee consists of Messrs. McEvoy, Tibbetts and Wallace. The Audit Committee is responsible for assisting our Board of Directors with its oversight responsibilities regarding: (i) the integrity of our financial statements; (ii) our compliance with legal and regulatory requirements; (iii) our independent registered public accounting firm’s qualifications and independence; and (iv) the performance of our internal audit function and independent registered public accounting firm. While our Board of Directors has not designated any of its members as an audit committee financial expert, we believe that each of the current Audit Committee members is fully qualified to address any accounting, financial reporting or audit issues that may come before it.

Compensation Committee

Our Compensation Committee consists of Messrs. D’Alessandro, McEvoy and Wallace. The Compensation Committee is responsible for determining, reviewing, approving and overseeing our executive compensation program.

Code of Ethics

We are not required to adopt a code of ethics because our securities are not listed on a national securities exchange and we do not have a code of ethics that applies to our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions. Although we do not have a code of ethics, our other compliance procedures are sufficient to ensure that we carry out our responsibilities in accordance with applicable laws and regulations.

Compensation Committee Interlocks and Insider Participation

No member of the Compensation Committee was at any time during fiscal year 2018 , or at any other time, one of our officers or employees. We are parties to certain transactions with our Sponsor described in “Certain Relationships and Related Transactions, and Director Independence.” None of our executive officers has served as a director or member of a compensation committee (or other committee serving an equivalent function) of any entity, one of whose executive officers served as a director of our Board or member of our Compensation Committee.

ITEM 11. EXECUTIVE COMPENSATION

Compensation Committee Report

The Compensation Committee has reviewed and discussed with management the following Compensation Discussion and Analysis. Based on such review and discussions, the Compensation Committee approved the inclusion of the following Compensation Discussion and Analysis in this annual report on Form 10-K for the fiscal year ended December 31, 2018 .

Submitted by the Compensation Committee:

David F. D'Alessandro, Chair
Bruce McEvoy
Peter F. Wallace

Compensation Discussion and Analysis

Introduction

Our executive compensation program is designed to attract and retain individuals with the qualifications to manage and lead the Company as well as to motivate them to develop professionally and contribute to the achievement of our financial goals and ultimately create and grow our overall enterprise value.

Our named executive officers, or NEOs, for 2018 were:

- Todd R. Pedersen, our Chief Executive Officer;
- Mark J. Davies, our Chief Financial Officer;
- Alex J. Dunn, our President;
- Matthew J. Eyring, our Executive Vice President, General Manager of Inside Sales; and
- Todd M. Santiago, our Executive Vice President, General Manager of Retail.

Executive Compensation Objectives and Philosophy

Our primary executive compensation objectives are to:

- attract, retain and motivate senior management leaders who are capable of advancing our mission and strategy and ultimately, creating and maintaining our long-term equity value. Such leaders must engage in a collaborative approach and possess the ability to execute our business strategy in an industry characterized by competitiveness and growth;
- reward senior management in a manner aligned with our financial performance; and
- align senior management's interests with our equity owners' long-term interests through equity participation and ownership.

To achieve our objectives, we deliver executive compensation through a combination of the following components:

- Base salary;
- Cash bonus opportunities;
- Long-term incentive compensation;
- Broad-based employee benefits;
- Supplemental executive perquisites; and
- Severance benefits.

Base salaries, broad-based employee benefits, supplemental executive perquisites and severance benefits are designed to attract and retain senior management talent. We also use annual cash bonuses and long-term equity awards to promote performance-based pay that aligns the interests of our named executive officers with the long-term interests of our equity-owners and to enhance executive retention.

Compensation Determination Process

The compensation committee of our Board of Directors (the "Committee") assists the Board of Directors in overseeing our executive compensation program; however, in 2018, all executive compensation determinations were made by the Board of Directors.

Messrs. Pedersen and Dunn generally participate in discussions and deliberations with our Committee and the Board of Directors regarding the determinations of annual cash incentive awards for our executive officers. Specifically, they make recommendations to our Committee and/or the Board of Directors regarding the performance factors to be used under our annual bonus plan and the amounts of annual cash incentive awards. Messrs. Pedersen and Dunn do not participate in discussions or determinations regarding their individual compensation.

Role of Compensation Consultants

We did not engage any compensation consultant to assist in making recommendations with respect to our 2018 compensation program. However, in December 2018 we engaged FW Cook & Co., Inc. (“FW Cook”) to advise the Committee in 2019 with respect to the compensation of Messrs. Pedersen and Dunn and make recommendations to the Committee on the selection of companies for inclusion in a compensation peer group for 2019.

Use of Competitive Data

We do not target a specific market percentile when making executive compensation decisions; however, we believe that information regarding compensation practices at similar companies is a useful tool to help maintain practices that accomplish our executive compensation objectives. While we have done so in the past, we did not review or consider any peer group or survey data in connection with compensation decisions in 2018 .

Employment Agreements

On August 7, 2014, Messrs. Pedersen and Dunn entered into employment agreements with us. These employment agreements contained the same material terms as, and superseded, those they had entered into previously with our indirect parent, 313 Acquisition LLC (“Parent”). On March 4, 2019, we entered into amended and restated employment agreements with Messrs. Pedersen and Dunn. See “Employment Agreements with Messrs. Pedersen and Dunn” in Part II. Item 9B. above for a description of these amended and restated employment agreements. On March 8, 2016, Messrs. Davies, Eyring and Santiago entered into employment agreements with us. A full description of the material terms of each of these employment agreements as in effect during 2018 is discussed below under “Narrative Disclosure to Summary Compensation Table and 2018 Grants of Plan-Based Awards.”

Compensation Elements

The following is a discussion and analysis of each component of our executive compensation program:

Base Salary

Annual base salaries compensate our executive officers for fulfilling the requirements of their respective positions and provide them with a predictable and stable level of cash income relative to their total compensation.

Our Committee believes that the level of an executive officer’s base salary should reflect such executive’s performance, experience and breadth of responsibilities, salaries for similar positions within our industry and any other factors relevant to that particular job. The Committee, with the assistance of our Human Resources Department, also used the experience, market knowledge and insight of its members in evaluating the competitiveness of current salary levels.

In the sole discretion of our Committee, base salaries for our executive officers may be periodically adjusted to take into account changes in job responsibilities or competitive pressures.

In consideration of the above, the Board of Directors determined to increase each named executive officer's base salary by 3% , effective as of April 1, 2018 , as shown below:

<u>Name</u>	<u>Base Salary prior to April 1, 2018 (\$)</u>	<u>Base Salary Effective as of April 1, 2018 (\$)</u>
Todd R. Pedersen	679,800	700,194
Mark J. Davies	618,000	636,540
Alex J. Dunn	679,800	700,194
Matthew J. Eyring	618,000	636,540
Todd M. Santiago	618,000	636,540

The “Summary Compensation Table” and corresponding footnotes to the table show the base salary earned by each named executive officer during fiscal 2018 as well as the base salary adjustments for each of our named executive officers made during fiscal 2018 .

Bonuses

Cash bonus opportunities are available to various managers, directors and executives, including our named executive officers, to motivate their achievement of short-term performance goals and tie a portion of their cash compensation to performance.

Fiscal 2018 Management Bonus - Messrs. Pedersen and Dunn

In fiscal 2018, Messrs. Pedersen and Dunn participated in a formalized annual cash incentive compensation plan pursuant to which they are eligible to receive an annual cash incentive award based on the achievement of company-wide performance objectives. As provided in their respective employment agreements, the target bonus amounts for each of Messrs. Pedersen and Dunn are 100% of their respective base salaries.

The actual bonus amounts to be paid to Messrs. Pedersen and Dunn for fiscal 2018 performance are calculated by multiplying each named executive officer's bonus potential target (which is equal to 100% of his base salary at the end of the performance period) by an achievement factor based on our actual achievement relative to company-wide performance objectives.

The achievement factor was determined by calculating our actual achievement against the company-wide performance targets based on the pre-established scale set forth in the following table:

% Attainment of Performance Target	Achievement Factor
Less than 90%	0
90%	50%
100%	100%
110%	200%
130% or greater	250%

Based on the pre-established scale set forth above, no cash incentive award would be paid to Messrs. Pedersen and Dunn unless our actual performance for 2018 was at or above 90% of the performance target(s). If our actual performance was 100% of target, then Messrs. Pedersen and Dunn would be entitled to their respective bonus potential target amounts. If performance was 110% of target, then they would be eligible for a cash incentive award equal to 200% of their respective bonus potential target amounts. If performance was 130% or more of target, then they would be eligible for a maximum cash incentive equal to 250% of their respective bonus potential target amounts. For performance percentages between these levels, the resulting achievement factor would be adjusted on a linear basis. The performance target for 2018 for Messrs. Pedersen and Dunn was Adjusted EBITDA (as that term is defined elsewhere in this annual report on Form 10-K under the heading "Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources—Covenant Compliance") of \$532.6 million for the Company.

For fiscal 2018, the Company's actual Adjusted EBITDA achieved was \$541.1 million, or 101.6% of target, which results in an achievement factor of 116% of their respective base salaries under the annual cash incentive plan. The Compensation Committee, in its discretion and in consideration of the achievement of other objectives in 2018, including but not limited to a record number of new subscriber originations and the reorganization of the Company to position it for future growth by expanding the existing sales channels and developing new sales channels, determined to further adjust the Adjusted EBITDA metric to remove the effect of certain compensation items that the Compensation Committee determined were not indicative of the Company's performance in fiscal 2018. This resulted in the payment to Messrs. Pedersen and Dunn of award amounts equal to 125% of their base salaries.

The following table illustrates the calculation of the annual cash incentive awards earned by each of Messrs. Pedersen and Dunn in light of these performance results, including the exercise by our Board of Directors of its positive discretion. The portion of the actual amount earned by Messrs. Pedersen and Dunn due to the Board of Director's exercise of its positive discretion is disclosed in the "Bonus" column of the Summary Compensation Table under the "2018" designation, while the remaining amounts earned by Messrs. Pedersen and Dunn are disclosed in the "Non-Equity Incentive Plan Compensation" column.

Name	Salary (1) (\$)	Target Bonus %	Target Bonus Amount (\$)	Achievement Factor	Bonus Paid (2) (\$)
Todd R. Pedersen	700,194	100%	700,194	116%	875,243
Alex J. Dunn	700,194	100%	700,194	116%	875,243

(1) The annual base salaries of Messrs. Pedersen and Dunn were increased from \$679,800 to \$700,194 , effective as of April 1, 2018 .

(2) As discussed above, the bonus amounts paid to Messrs. Pedersen and Dunn represented 125% of their annual base salaries.

Fiscal 2018 Management Bonus – Messrs. Davies, Eyring and Santiago

For fiscal 2018 , Messrs. Davies, Eyring and Santiago are eligible to receive a discretionary bonus based on a percentage of such executive’s base salary, which bonuses we expect will be paid in March 2019. Each of Messrs. Davies, Eyring and Santiago are eligible to receive a target bonus opportunity of 60% of their respective base salaries. Based on Mr. Davies’ contribution to financial management and operational improvement, Mr. Eyring’s contribution to our product innovation and strategy, and Mr. Santiago’s contribution to the success of our 2018 selling efforts, the Compensation Committee determined to pay bonuses for fiscal 2018 to these named executive officers at 125% of target, as shown in the table below.

Named Executive Officer	Salary (1) (\$)	Target Bonus %	Target Bonus Amount (\$)	Bonus Amount Payable (\$)
Mark J. Davies	636,540	60%	381,924	477,405
Matthew J. Eyring	636,540	60%	381,924	477,405
Todd M. Santiago	636,540	60%	381,924	477,405

(1) The annual base salaries of Messrs. Davies, Eyring and Santiago were increased from \$618,000 to \$636,540 , effective as of April 1, 2018 .

Sign-On Bonuses

From time to time, we may award sign-on bonuses in connection with the commencement of an NEO’s employment with us. Sign-on bonuses are used only when necessary to attract highly skilled individuals to the Company. Generally, sign-on bonuses are used to incentivize candidates to leave their current employers or may be used to offset the loss of unvested compensation they may forfeit as a result of leaving their current employers.

Long-Term Incentive Compensation

Equity Awards

313 Acquisition LLC (“Parent”), an entity controlled by investment funds or vehicles affiliated with Blackstone, grants long-term equity incentive awards designed to promote our interest by providing these executives with the opportunity to acquire equity interests as an incentive for their remaining in our service and aligning the executives’ interests with those of the Company’s ultimate equity holders. The long-term equity incentive awards are in the form of Class B Units in Parent.

The Class B Units are profits interests having economic characteristics similar to stock appreciation rights and represent the right to share in any increase in the equity value of Parent. Therefore, the Class B Units only have value to the extent there is an appreciation in the value of our business from and after the applicable date of grant. In addition, the vesting of two-thirds of the Class B Units is subject to Blackstone achieving minimum internal rates of return on its investment in Class A Units, as described further below.

The Class B Units granted to our named executive officers are designed to motivate them to focus on efforts that will increase the value of our equity while enhancing their retention. The specific sizes of the equity grants made are

determined in light of Blackstone's practices with respect to management equity programs at other private companies in its portfolio and the executive officer's position and level of responsibility with us.

The Class B Units were initially divided into a time-vesting portion (one-third of the Class B Units granted), a 2.0x exit-vesting portion (one-third of the Class B Units granted), and a 3.0x exit-vesting portion (one-third of the Class B Units granted). In June 2018, our board of directors approved a modification to the vesting terms of the Class B Units, designed to motivate and retain our employees and align their interests with the interests of the Company. Following such modification, the Class B Units were divided into two time-vesting portions (each one-third of the Class B Units granted) and a 2.0x exit-vesting portion (one-third of the Class B Units granted). Unvested Class B units are not entitled to distributions from the Company. The incremental fair value in connection with this modification is reflected in the "Stock Awards" column of the Summary Compensation Table. For additional information regarding our Class B Units, see "Narrative Disclosure to Summary Compensation Table and Grants of Plan-Based Awards-Equity Awards."

The initial award of Class B Units granted to Mr. Davies in connection with the commencement of his employment in 2013 contain the following different economic terms: Mr. Davies's Class B Units will not entitle him to receive any distributions in respect of such units unless and until the cumulative value of such foregone distributions attributable to each Class B Unit equals the fair market value of a Class B Unit on the date of the grant of such Class B Unit (such foregone amount, the "Delayed Amount Per Class B Unit"). At that point, Mr. Davies (together with the other holders of Class B Units subject to similar foregone distributions) will become entitled to receive pro rata distributions of all subsequent amounts (to the exclusion of other holders who do not have similar rights) until he has received distributions per Class B Unit equal to the Delayed Amount Per Class B Unit. Thereafter, Mr. Davies will become entitled to receive the same amounts with respect to his Class B Units as other holders of Class B Units receive with respect to their Class B Units.

Another key component of our long-term equity incentive program is that at the time of the Transactions certain of our NEOs and other eligible employees were provided with the opportunity to invest in Class A Units of Parent on the same general terms as Blackstone and other co-investors. The Class A Units are equity interests, have economic characteristics that are similar to those of shares of common stock in a corporation and have no vesting schedule. We consider this investment opportunity an important part of our long-term equity incentive program because it encourages equity ownership and aligns the NEOs' financial interests with those of our ultimate equity holders. Each of Messrs. Pedersen, Dunn and Santiago, when presented with the opportunity, chose to invest in Class A Units of Parent.

2018 Retention Awards

In 2018, we approved a retention program designed to motivate and retain our employees. Pursuant to this program, in July 2018, the Committee approved the grant of retention awards to Messrs. Davies, Eyring and Santiago.

Each of Messrs. Davies, Eyring and Santiago was granted a retention award in the amount of \$2.5 million, payable as follows: (i) \$833,333.33 payable in August 2018; (ii) \$833,333.33 payable in August 2019; and (iii) \$833,333.34 payable in August 2020, subject to continued employment and good standing with the Company or its subsidiaries through each payment date.

If Messrs. Davies', Eyring's or Santiago's employment is terminated by the Company other than for Cause (as defined in his employment agreement), including due to death or disability, prior to any remaining payment date, he will receive the full remaining amount of the retention award, payable within two and one half months following his termination date subject to his (or his estate's, as applicable), execution of an effective release of claims in favor of the Company. He will not be entitled to receive any remaining amount of his retention award if (i) he terminates his employment with the Company for any reason, or (ii) his employment is terminated by the Company for Cause, in either case at any time prior to the applicable eligibility date set forth above.

Benefits and Perquisites

We provide to all of our employees, including our named executive officers, employee benefits that are intended to attract and retain employees while providing them with retirement and health and welfare security. Broad-based employee benefits include:

- a 401(k) savings plan;
- paid vacation, sick leave and holidays;

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- medical, dental, vision and life insurance coverage; and
- employee assistance program benefits.

Beginning in January 2018, all 2018 participants became eligible for matching under our 401(k) savings plan. Under this new matching program, we match an employee's contributions to the 401(k) savings plan dollar-for-dollar up to 1% of such employee's eligible earnings and \$0.50 for every \$1.00 for the next 5% of such employee's eligible earnings. The maximum match available under the 401(k) plan is 3.5% of the employee's eligible earnings. For employees who have been employed by us for less than two years, matching contributions vest on the second anniversary of their date of hire. Our matching contributions to our employees who have been employed by us for two years or more are always fully vested.

At no cost to the employee, we provide an amount of basic life insurance valued at \$50,000.

We also provide our named executive officers with specified perquisites and personal benefits that are not generally available to all employees, such as personal use of our Company leased aircraft (subject to the terms and limits set forth in our corporate aircraft policy), use of a company vehicle, financial advisory services, reimbursement for health insurance premiums, enhanced employee cafeteria benefits, country club memberships, excess liability insurance premiums, alarm system fees, event tickets, fuel expenses, relocation assistance and, in certain circumstances, reimbursement for personal travel. In addition, as to Messrs. Pedersen and Dunn, perquisites have included personal use of Company personnel, however Messrs. Pedersen and Dunn reimburses the Company for the full costs of such personal use. Each of Messrs. Pedersen and Dunn has also been provided with an annual fringe benefit allowance of \$300,000 under the terms of their employment agreements. We also reimburse our named executive officers for taxes incurred in connection with certain of these perquisites. In addition, we have entered into time-sharing agreements with Messrs. Pedersen and Dunn, governing their personal use of the Company leased aircraft. Messrs. Pedersen and Dunn pay for personal flights an amount equal to the aggregate variable cost to the Company for such flights, up to the maximum authorized by Federal Aviation Regulations. The aggregate variable cost for this purpose includes fuel costs, out-of-town hangar costs, landing fees, airport taxes and fees, customs fees, travel expenses of the crew, any "deadhead" segments of flights to reposition corporate aircraft and other related rental fees. In addition, family members of our named executive officers have, in limited circumstances, accompanied the named executive officers on business travel on the Company leased aircraft for which we incurred *de minimis* incremental costs.

We provide these perquisites and personal benefits in order to further our goal of attracting and retaining our executive officers. These benefits and perquisites are reflected in the "All Other Compensation" column of the "Summary Compensation Table" and the accompanying footnote in accordance with the SEC rules.

Severance Arrangements

Our Board of Directors believes that providing severance benefits to our named executive officers is critical to our long-term success, because severance benefits act as a retention device that helps secure an executive's continued employment and dedication to the Company. Each of our named executive officers have severance arrangements, which are included in their employment agreements. Messrs. Pedersen and Dunn are eligible to receive severance benefits if their employment is terminated for any reason other than voluntary resignation or willful misconduct. The severance payments to our named executive officers are contingent upon the affected executive's execution of a release and waiver of claims, which contains non-compete, non-solicitation and confidentiality provisions. See "Potential Payments Upon Termination or Change in Control" for descriptions of these arrangements.

Messrs. Davies, Eyring and Santiago are eligible to receive severance benefits if their employment is terminated by us without "cause" (as defined below under "Narrative Disclosure to Summary Compensation Table and Grants of Plan-Based Awards—Employment Agreements") and other than by reason of death or while he is disabled. See "Potential Payments Upon Termination or Change in Control" for descriptions of these arrangements."

Compensation Actions Taken in 2019

On March 4, 2019, we amended and restated the employment agreements with our Messrs. Pedersen and Dunn. The amended and restated employment agreements with Messrs. Pedersen and Dunn contain substantially similar terms. The principal terms of each of the amended and restated employment agreements are summarized above in Part II. Item 9B. Other Information under the heading "Employment Agreements with Messrs. Pedersen and Dunn" and such description is incorporated herein by reference.

On March 4, 2019, we adopted an incentive compensation plan, which we refer to as our cash bonus plan. The material terms of the new plan are described above in Part II. Item 9B. Other Information under the heading “Incentive Compensation Plan” and such description is incorporated herein by reference.

Summary Compensation Table

The following table provides summary information concerning compensation paid or accrued by us to or on behalf of our named executive officers.

Name and Principal Position	Year	Salary (\$ (1))	Bonus (\$ (2))	Stock Awards (\$ (3))	Non-Equity Incentive Plan Compensation (\$ (4))	Declined Non-Equity Incentive Plan Compensation (\$)	All Other Compensation (\$ (5))	Total (\$)
Todd R. Pedersen, Chief Executive Officer and Director	2018	695,096	63,018	2,670,732	812,225	—	1,272,564	5,513,635
	2017	674,469	—	—	822,558	—	1,066,105	2,563,132
	2016	582,115	—	—	660,000	—	869,823	2,111,938
Mark J. Davies, Chief Financial Officer	2018	631,905	1,310,738	455,167	—	—	170,520	2,568,330
	2017	613,154	370,800	—	—	—	143,949	1,127,903
	2016	550,962	360,000	6,667	—	—	89,992	1,007,621
Alex J. Dunn, President and Director	2018	695,096	63,018	2,670,732	812,225	—	939,177	5,180,248
	2017	674,469	—	—	822,558	—	937,079	2,434,106
	2016	582,115	—	—	660,000	—	2,926,862	4,168,977
Matthew J. Eyring, Executive Vice President, General Manager of Inside Sales	2018	631,905	1,310,738	596,000	—	—	116,376	2,655,019
	2017	613,154	370,800	—	—	—	114,616	1,098,570
	2016	550,962	360,000	14,167	—	—	63,736	988,865
Todd M. Santiago, Executive Vice President, General Manager of Retail	2018	631,905	1,310,738	596,000	—	—	174,459	2,713,102
	2017	613,154	370,800	—	—	—	148,460	1,132,414
	2016	559,875	360,000	14,167	—	—	142,412	1,076,454

- (1) Effective April 1, 2018, the base salaries of Messrs. Pedersen, Davies, Dunn, Eyring and Santiago were increased as follows: for Messrs. Pedersen and Dunn, from \$679,800 to \$700,194; for Messrs. Davies, Eyring and Santiago, from \$618,000 to \$636,540.
- (2) The amounts reported in this column for Messrs. Pedersen and Dunn for fiscal 2018 reflect the discretionary portion of their respective annual cash incentive awards. The amounts reported in this column for Messrs. Davies, Eyring and Santiago represent their annual discretionary bonuses earned for each respective fiscal year. Additionally, amounts reported in this column for Messrs. Davies, Eyring and Santiago for fiscal 2018 each include \$833,333 of retention bonuses paid.
- (3) We did not grant any new stock awards to the named executive officers in fiscal 2018. The amounts reported in this column for fiscal 2018 reflect the incremental fair value, calculated in accordance with Financial Accounting Standards Board Accounting Standards Codification Topic 718-Stock Compensation (“Topic 718”) and using the assumptions contained in Note 12 - Stock Based Compensation and Equity in the Consolidated Financial Statements included elsewhere in this report, in connection with the June 2018 modification of their previously granted long-term equity incentive awards of Class B Units. See “Compensation Discussion and Analysis-Long-Term Incentive Compensation-

Equity Awards” and “Narrative Disclosure to Summary Compensation Table and Grants of Plan-Based Awards-Equity Awards-Vesting Terms.”

- (4) Amounts reported in this column for Messrs. Pedersen and Dunn reflect amounts earned under the annual cash incentive plan. See “Compensation Discussion and Analysis-Compensation Elements-Bonuses.”
- (5) Amounts reported under All Other Compensation for fiscal 2018 reflect the following:
- (a) as to Mr. Pedersen, \$300,000 additional cash compensation paid to Mr. Pedersen pursuant to his employment agreement (see “Narrative Disclosure to Summary Compensation Table and Grants of Plan Based Awards-Employment Agreements”), reimbursement for health insurance premiums, excess liability insurance premiums, \$21,951 in country club membership fees, \$42,431 in actual Company expenditures for use, including business use, of a Company car, alarm system fees, \$237,112 in the value of event tickets, fuel expenses, \$125,000 in actual Company expenditures for financial advisory services provided to Mr. Pedersen, other miscellaneous personal benefits and \$358,020 reimbursed for taxes with respect to perquisites. In addition, Mr. Pedersen reimburses the Company for the aggregate variable costs associated with his personal use of the Company leased aircraft in accordance with the time-sharing agreement described under “Compensation Discussion and Analysis-Compensation Elements-Benefits and Perquisites.” While maintenance costs are not included in the reimbursement amount under the time-sharing agreement, the Company has determined it is appropriate to allocate a portion of the maintenance costs when calculating the aggregate incremental cost associated with personal use of the Company aircraft for purposes of SEC disclosure. Therefore, amounts reported also reflect \$159,786 in maintenance costs allocated on the basis of the proportion of personal use. In addition, family members of Mr. Pedersen have, in limited circumstances, accompanied him on business travel on the Company leased aircraft for which we incurred *de minimis* incremental costs;
 - (b) as to Mr. Davies, \$42,365 in actual Company expenditures for use, including business use, of a Company car, reimbursement for health insurance premiums, country club membership fees, \$32,016 in the value of event tickets, excess liability insurance premiums, fuel expenses and \$74,685 reimbursed for taxes owed with respect to perquisites. In addition, family members of Mr. Davies have, in limited circumstances, accompanied him on business travel on the Company leased aircraft for which we incurred *de minimis* incremental costs;
 - (c) as to Mr. Dunn, \$300,000 additional cash compensation paid to Mr. Dunn pursuant to his employment agreement (see “Narrative Disclosure to Summary Compensation Table and Grants of Plan Based Awards-Employment Agreements”), reimbursement for health insurance premiums, excess liability insurance premiums, the value of meals in the Company cafeteria, country club membership fees, \$35,639 in actual Company expenditures for use, including business use, of a Company car, alarm system fees, \$49,872 in the value of event tickets and Company paid personal travel, \$125,000 in actual Company expenditures for financial advisory services provided to Mr. Dunn, other miscellaneous personal benefits and \$216,136 reimbursed for taxes with respect to perquisites. In addition, Mr. Dunn reimburses the Company for the aggregate variable costs associated with his personal use of the Company leased aircraft in accordance with the time-sharing agreement described under “Compensation Discussion and Analysis-Compensation Elements-Benefits and Perquisites.” As discussed in footnote 6(a) above, amounts reported reflect a similar allocation of \$146,674 in maintenance costs associated with Mr. Dunn’s personal use of the Company leased aircraft. In addition, family members of Mr. Dunn have, in limited circumstances, accompanied him on business travel on the Company leased aircraft for which we incurred \$34,690 of incremental costs;
 - (d) as to Mr. Eyring, \$32,482 in actual Company expenditures for use, including business use, of a Company car, reimbursement for health insurance premiums, country club membership fees, the value of event tickets, the value of meals in the Company cafeteria, excess liability insurance premiums, fuel expenses, alarm system fees and \$50,009 reimbursed for taxes owed with respect to perquisites; and
 - (e) as to Mr. Santiago, \$24,436 in actual Company expenditures for use, including business use, of a Company car, alarm system fees, reimbursement for health insurance premiums, country club membership fees, \$29,872 in the value of event tickets, Company paid personal travel, the value of meals in the Company cafeteria, excess liability insurance premiums, fuel expenses, and \$75,212 reimbursed for taxes owed with respect to perquisites. In addition, family members of Mr. Santiago have, in limited circumstances, accompanied him on business travel on the Company leased aircraft for which we incurred *de minimis* incremental costs.

Grants of Plan-Based Awards in 2018

The following table provides supplemental information relating to grants of plan-based awards made to our named executive officers during 2018 .

Name	Grant Date	Estimated Future Payouts Under Non-Equity Incentive Plan Awards(1)			Estimated Future Payouts Under Equity Incentive Plan Awards (2)			All Other Stock Awards: Number of Shares of Stock or Units (#) (2)	Grant Date Fair Value of Stock and Option Awards (\$) (3)
		Threshold (\$)	Target (\$)	Maximum (\$)	Threshold (#)	Target (#)	Maximum (#)		
Todd R. Pedersen	—	350,097	700,194	1,750,485	—	—	—	—	
	—	—	—	—	—	—	—	7,028,243	
Mark J. Davies	—	—	—	—	—	—	—	1,575,000	
Alex Dunn	—	350,097	700,194	1,750,485	—	—	—	—	
	—	—	—	—	—	—	—	7,028,243	
Matthew J. Eyring	—	—	—	—	—	—	—	1,725,000	
Todd M. Santiago	—	—	—	—	—	—	—	1,725,000	

- (1) Reflects the possible payouts of cash incentive compensation to Messrs. Pedersen and Dunn under the fiscal 2018 management bonus. The actual amounts paid are reflected in the “Non-Equity Incentive Plan Compensation” column of the “Summary Compensation Table” and described in “Compensation Discussion and Analysis—Compensation Elements—Bonuses—Fiscal 2018 Management Bonus – Messrs. Pedersen and Dunn” above.
- (2) Represents Class B Units, the vesting terms of which were modified in 2018, and does not reflect new awards.
- (3) The amounts reported in this column reflect the incremental fair value, calculated in accordance with Topic 718, in connection with the modification of the Class B Units. See “Compensation Discussion and Analysis-Long-Term Incentive Compensation-Equity Awards” and “Narrative Disclosure to Summary Compensation Table and Grants of Plan-Based Awards-Equity Awards-Vesting Terms.”

Narrative Disclosure to Summary Compensation Table and Grants of Plan-Based Awards

Employment Agreements

Employment Agreements with Messrs. Pedersen and Dunn

The employment agreements in effect in 2018 with our Chief Executive Officer (CEO), Todd Pedersen, and our President, Alex Dunn, contain substantially similar terms. The principal terms of each of these agreements are summarized below, except with respect to potential payments and other benefits upon specified terminations, which are summarized below under “Potential Payments Upon Termination or Change in Control.” As described above under “Compensation Discussion and Analysis-Compensation Actions Taken in 2019,” we amended and restated these employment agreements on March 4, 2019.

Each employment agreement was entered into on August 7, 2014, provides for a term ending on November 16, 2017 and extends automatically for additional one-year periods unless either party elects not to extend the term. Under the employment agreements, each executive is eligible to receive a minimum base salary, specified below, and an annual bonus based on the achievement of specified financial goals for fiscal years 2013 and beyond. If these goals are achieved, the executive may receive an annual incentive cash bonus equal to a percentage of his base salary as provided below.

Mr. Pedersen’s employment agreement provides that he is to serve as CEO and is eligible to receive a base salary originally set at \$500,000, subject to periodic adjustments as may be approved by our Board of Directors. Mr. Dunn’s employment agreement provides that he is to serve as President and is eligible to receive a base salary originally set at \$500,000, subject to periodic adjustments as may be approved by our Board of Directors. Messrs. Pedersen's and Dunn's base salaries were adjusted as follows:

Prior to January 1, 2015 (\$)	Effective as of January 1, 2015 (\$)	Effective as of July 25, 2016 (\$)	Effective as of April 1, 2017 (\$)	Effective as of April 1, 2018 (\$)
500,000	525,000	660,000	679,800	700,194

Messrs. Pedersen and Dunn are also eligible to receive a target bonus of 100% of his annual base salary at the end of the fiscal year if targets established by the Board of Directors are achieved.

The employment agreements contain the method for determining the bonus of Messrs. Pedersen and Dunn for any given year. The agreements provide that the calculation of any bonus will be determined based on the achievement of performance objectives, with targets for “threshold,” “target,” and “high” achievement of the specified objectives as further described under “Compensation Discussion and Analysis—Compensation Elements—Bonuses.”

In addition, each employment agreement provides for the following:

- Reasonable personal use of the company airplane, subject to reimbursement by the executive of an amount determined on a basis consistent with IRS guidelines;
- An annual payment equal to \$300,000 per year, subject to all applicable taxes and withholdings, intended to be used to reimburse the Company for the costs of the executive’s personal use of the company airplane; and
- Access to a financial advisor to provide the executive with customary financial advice, subject to a combined aggregate cap of \$250,000 on such professional fees for Messrs. Pedersen and Dunn.

Each executive officer is also entitled to participate in all employee benefit plans, programs and arrangements made available to other executive officers generally.

Each of the employment agreements also contains restrictive covenants, including an indefinite covenant on confidentiality of information, and covenants related to non-competition and non-solicitation of our employees and customers and affiliates at all times during employment, and for two years after any termination of employment. These covenants are substantially the same as the covenants Messrs. Pedersen and Dunn agreed to in connection with their receipt of Class B Units summarized below under “Narrative Disclosure to Summary Compensation Table and Grants of Plan-Based Awards—Equity Awards—Restrictive Covenants.”

Employment Agreements with Messrs. Davies, Eyring and Santiago

On March 8, 2016, we entered into employment agreements with certain of our officers, including Messrs. Davies, Eyring and Santiago. The employment agreements with Messrs. Davies, Eyring and Santiago contain substantially similar terms. The principal terms of each of these agreements are summarized below.

The employment agreement with each of these named executive officers provides for a term ending on March 8, 2019, which extends automatically for additional one-year periods unless either party elects not to extend the term. Under the employment agreements, each executive is eligible to receive a minimum base salary, and an annual bonus award with a target amount equal to a percentage of his base salary. The current annual base salary of each of Messrs. Davies, Eyring and Santiago is \$618,000, and each of them is eligible to earn an annual bonus award with a target amount equal to 60% of their base salary at the end of the performance period. If the employment of Messrs. Davies, Eyring or Santiago terminates for any reason, the executive is entitled to receive: (1) any base salary accrued through the date of termination; (2) reimbursement of any unreimbursed business expenses properly incurred by the executive; and (3) such employee benefits, if any, as to which the executive may be entitled under the Company’s employee benefit plans (the payments and benefits described in (1) through (3) being “accrued rights”).

If the employment of Messrs. Davies, Eyring or Santiago is terminated by us without “cause” (as defined below) and other than by reason of death or while he is disabled (any such termination, a “qualifying termination”), such executive is entitled to the accrued rights and, conditioned upon execution and non-revocation of a release and waiver of claims in favor of the Company and its affiliates, and continued compliance with the non-compete, non-solicitation, non-disparagement, and confidentiality provisions set forth in the employment agreements:

- a pro rata portion of his target annual bonus based upon the portion of the fiscal year during which the executive was employed (the “pro rata bonus”);
- a lump-sum cash payment equal to 150% of the executive’s then-current base salary plus 150% of the actual bonus the executive received in respect of the immediately preceding fiscal year (or, if a termination of employment occurs prior to any annual bonus becoming payable under his employment agreement, the target bonus for the immediately preceding fiscal year); and

- a lump-sum cash payment equal to the cost of the health and welfare benefits for the executive and his dependents, at the levels at which the executive received benefits on the date of termination, for 18 months (the “COBRA payment”).

For purposes of their respective employment agreements, the term "cause" means the executive's continued failure to substantially perform his employment duties for a period of 10 days following written notice from the Company; any dishonesty in the performance of the executive's employment duties that is materially injurious to the Company; act(s) on the executive's part constituting either a felony or a misdemeanor involving moral turpitude; the executive's willful malfeasance or misconduct in connection with his employment duties that causes substantial injury to us; or the executive's material breach of the restrictive covenants set forth in the employment agreements. Each of the foregoing events is subject to specified notice and cure periods.

In the event of the executive's termination of employment due to death or disability, he will only be entitled to the accrued rights, the pro rata bonus payment, and the COBRA payment.

Each executive officer is also entitled to participate in all employee benefit plans, programs and arrangements made available to other executive officers generally.

Each of the employment agreements also contains restrictive covenants, including an indefinite covenant on confidentiality of information, and covenants related to non-competition and non-solicitation of the Company's employees and customers and affiliates at all times during employment, and for 18 months after any termination of employment.

Equity Awards

As a condition to receiving his Class B Units, each named executive officer was required to enter into a subscription agreement with us and Parent and to become a party to the limited liability company agreement of Parent as well as a securityholders agreement. These agreements generally govern the named executive officer's rights with respect to the Class B units and contain certain rights and obligations of the parties thereto with respect to vesting, governance, distributions, indemnification, voting, transfer restrictions and rights, including put and call rights, tag-along rights, drag-along rights, registration rights and rights of first refusal, and certain other matters.

Vesting Terms

Only vested Class B units are entitled to distributions. Prior to the modification we approved to their terms in June 2018 (the “Modification”), the Class B units were divided into a time-vesting portion (1/3 of the Class B Units granted), a 2.0x exit-vesting portion (1/3 of the Class B Units granted), and a 3.0x exit-vesting portion (1/3 of the Class B Units granted). Prior to the Modification, the time-vesting Class B Units, 2.0 exit-vesting Class B Units and 3.0x exit-vesting Class B Units had the following vesting terms:

- **Time-Vesting Units:** Twelve months after the initial “vesting reference date,” as defined in the applicable subscription agreement, 20% of the named executive officer's time-vesting Employee Units will vest, subject to continued employment through such date. The “vesting reference date” for Messrs. Pedersen and Dunn is November 16, 2012, the date of the grant of their Class B Units. The “vesting reference” date for the Class B Units granted to Messrs. Eyring and Santiago on August 12, 2013 is also November 16, 2012 and the “vesting reference date” for the Class B Units granted to Mr. Davies is November 4, 2013, which is the date he commenced employment with us. Thereafter, an additional 20% of the named executive officer's time-vesting Class B Units will vest every year until he is fully vested, subject to his continued employment through each vesting date. Notwithstanding the foregoing, the time-vesting Class B Units will become fully vested upon a change of control (as defined in the securityholders agreement) that occurs while the named executive officer is still employed by us. In addition, as to Messrs. Pedersen and Dunn, the time-vesting Class B Units will also continue to vest for one year following a termination by Parent without “cause” (excluding by reason of death or disability) or resignation by the executive for “good reason,” each as defined in the executive's employment agreement (any such termination, a “qualifying termination”).
- **2.0x Exit-Vesting Units:** The 2.0x exit-vesting Class B Units vest if the named executive officer is employed by us when and if Blackstone receives cash proceeds in respect of its Class A units in the Company equal to (x) a return equal to 2.0x Blackstone's cumulative invested capital in respect of the Class A Units and (y) an annual internal rate of return of at least 20% on Blackstone's cumulative invested capital in respect of its Class A Units (the “IRR Hurdle”). In addition, as to Messrs. Pedersen and Dunn, the 2.0x exit-vesting Class B Units will remain eligible to vest for one year following a qualifying termination if a change of control occurs during such one-year period and, as a result of such change of control, the 2.0x exit-vesting conditions are met. As to Messrs. Davies, Eyring and Santiago, the 2.0x exit-

vesting Class B Units will remain eligible to vest for six months following a termination by us without “cause” (as defined for the purposes of the employment agreement) and other than by reason of death or while he is disabled if the applicable vesting criteria are satisfied during the six-month period. If the exit-vesting units do not become vested following the end of the six-month period, they will be forfeited without consideration.

- 3.0 Exit-Vesting Units: The 3.0x exit-vesting Class B Units vest if the named executive officer is employed by us when and if Blackstone receives cash proceeds in respect of its Class A units in the Company equal to (x) a return equal to 3.0x Blackstone’s cumulative invested capital in respect of the Class A Units and (y) an annual internal rate of return of at least 25% on Blackstone’s cumulative invested capital in respect of its Class A Units. In addition, as to Messrs. Pedersen and Dunn, the 3.0x exit-vesting Class B Units will remain eligible to vest for one year following a qualifying termination if a change of control occurs during such one-year period and, as a result of such change of control, the 3.0x exit-vesting conditions are met. As to Messrs. Davies, Eyring and Santiago, the 3.0x exit-vesting Class B Units will remain eligible to vest for six months following a termination by us without “cause” (as defined for the purposes of the employment agreement) and other than by reason of death or while he is disabled if the applicable vesting criteria are satisfied during the six-month period. If the exit-vesting units do not become vested following the end of the six-month period, they will be forfeited without consideration.

Pursuant to the Modification, the management subscription agreement of each Class B Unit participant was amended to provide that (i) the 2.0x exit-vesting Class B Units shall instead become vested at such time, subject to the existing conditions related to continued employment with the Company or its subsidiaries, that Blackstone shall have received cash proceeds in respect of Blackstone’s Class A Units in 313 Acquisition in an amount necessary to ensure a return equal to 2.0 times Blackstone’s cumulative invested capital in respect of the Class A Units in 313 Acquisition and there shall be no IRR Hurdle and (ii) the 3.0x exit-vesting Class B Units shall no longer be subject to any performance criteria and instead become vested, subject to the applicable participant’s continued employment with the Company or its subsidiaries through the applicable vesting date, with respect to 20% of the 3.0x Class B Units on each of the first five anniversaries of June 12, 2018; provided, that in the event of a change of control during the applicable participant’s continued employment with the Company or its subsidiaries, the 3.0x exit-vesting Class B Units shall, to the extent not then vested or previously forfeited or cancelled, become fully vested. The terms of the time-vesting Class B Units remain unchanged and the terms of the 2.0x exit-vesting Class B Units and 3.0x exit-vesting Class B Units remained unchanged other than as set forth above. The incremental fair value in connection with the modification of the Class B Units is reflected in the “Stock Awards” column of the Summary Compensation Table and in the “Grants of Plan-Based Awards in 2018” table.

Put Rights

Prior to an initial public offering, if an executive officer’s employment is terminated due to death or disability, such executive has the right, subject to specified limitations and for a specified period following the termination date, to cause the Company to purchase on one occasion all, but not less than all, of such executive’s vested Class B Units, in either case, at the fair market value of such units.

Call Rights Regarding Messrs. Pedersen’s and Dunn’s Class B Units

If Messrs. Pedersen or Dunn are terminated for any reason, or in the event of a restrictive covenant violation, the Company has the right, for a specified period following the termination of such executive’s employment, to purchase all of such executive’s vested Class B units as follows:

Triggering Event	Call Price	Put Price
Death or Disability	fair market value	fair market value
Termination With Cause or Voluntary Resignation When Grounds Exist for Cause	lesser of (a) fair market value and (b) cost	N/A
Termination Without Cause or Resignation For Good Reason	fair market value	N/A
Voluntary Resignation Without Good Reason Prior to November 16, 2014	lesser of (a) fair market value and (b) cost	N/A
Voluntary Resignation on or After November 16, 2014	fair market value	N/A
Restrictive Covenant Violation	lesser of (a) fair market value and (b) cost	N/A

Call Rights Regarding Other Executive Officers’ Class B Units

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With respect to our other executive officers, if the executive officer is terminated for any reason, in the event of a restrictive covenant violation or if the executive engages in any conduct that would be a violation of a restrictive covenant set forth in the executive's management unit subscription agreement but for the fact that the conduct occurred outside the relevant periods (any such conduct a "Competitive Activity"), then the Company has the right, for a specified period following the termination of such executive's employment, to purchase all of such executive's vested Class B units as follows:

Triggering Event	Call Price	Put Price
Death or Disability	fair market value	fair market value
Termination With Cause or Voluntary Resignation When Grounds Exist for Cause	lesser of (a) fair market value and (b) cost	N/A
Termination Without Cause	fair market value	N/A
Voluntary Resignation Prior to November 16, 2014, or, if Later, the Second Anniversary of Date of Hire	lesser of (a) fair market value and (b) cost	N/A
Voluntary Resignation on or After November 16, 2014, or, if Later, the Second Anniversary of Date of Hire	fair market value	N/A
Restrictive Covenant Violation	lesser of (a) fair market value and (b) cost	N/A
Competitive Activity Not Constituting a Restrictive Covenant Violation	fair market value	N/A

Restrictive Covenants

In addition, as a condition of receiving their units in Parent, our executive officers have agreed to specified restrictive covenants, including an indefinite covenant on confidentiality of information, and covenants related to non-disparagement, non-competition and non-solicitation of our employees and customers and affiliates at all times during the named executive officer's employment, and for specified periods after any termination of employment as set forth in the subscription agreement (two years for Messrs. Pedersen and Dunn and one-year non-compete and non-solicit periods and a three-year non-disparagement period for each of our other named executive officers).

Additional terms regarding the equity awards are summarized above under "Compensation Discussion and Analysis—Compensation Elements—Long-Term Equity Compensation" and under "Potential Payments Upon Termination or Change in Control" below.

Outstanding Equity Awards at 2018 Fiscal Year-End

The following table provides information regarding outstanding equity awards for our named executive officers as of December 31, 2018. The equity awards held by the named executive officers are Class B Units, which represent an equity interest in Parent.

Stock Awards					
Name	Grant Date	Number of Shares or Units of Stock That Have Not Vested (#) (1)	Market Value of Shares or Units of Stock That Have Not Vested (\$)	Equity Incentive Plan Awards: Number of Unearned Shares, Units or Rights That Have Not Vested (#) (3)	Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Units or Other Rights That Have Not Vested (\$)
Todd R. Pedersen	11/16/2012	7,028,243	(2)	7,028,243	(2)
Mark J. Davies	9/20/2016	213,333	(2)	133,333	(2)
	3/3/2014	1,441,667	(2)	1,441,667	(2)
Alex J. Dunn	11/16/2012	7,028,243	(2)	7,028,243	(2)
Matthew J. Eyring	9/20/2016	453,333	(2)	283,333	(2)
	7/12/2013	1,441,667	(2)	1,441,667	(2)
Todd M. Santiago	9/20/2016	453,333	(2)	283,333	(2)
	7/12/2013	1,441,667	(2)	1,441,667	(2)

- (1) Consists of time-vesting Class B Units of Parent. The following provides information with respect to the vesting schedules of the time-vesting Class B Units of Parent held by our NEOs:
- *Mr. Pedersen* - of these outstanding time-vesting Class B Units of Parent, all vest 20% over a five-year period on each anniversary of June 12, 2018.
 - *Mr. Davies* - of these outstanding time-vesting Class B Units of Parent, 80,000 of the Class B Units granted on September 20, 2016 vest 20% over a five-year period on each anniversary of September 20, 2016, 133,333 of the Class B Units granted on September 20, 2016 vest 20% over a five-year period on each anniversary of June 12, 2018, and all of the Class B Units granted on March 3, 2014 vest 20% over a five-year period on each anniversary of June 12, 2018.
 - *Mr. Dunn* - of these outstanding time-vesting Class B Units of Parent, all vest 20% over a five-year period on each anniversary of June 12, 2018.
 - *Mr. Eyring* - of these outstanding time-vesting Class B Units of Parent, 170,000 of the Class B Units granted on September 20, 2016 vest 20% over a five-year period on each anniversary of September 20, 2016, 283,333 of the Class B Units granted on September 20, 2016 vest 20% over a five-year period on each anniversary of June 12, 2018, and all of the Class B Units granted on July 12, 2013 vest 20% over a five-year period on each anniversary of June 12, 2018.
 - *Mr. Santiago* - of these outstanding time-vesting Class B Units of Parent, 170,000 of the Class B Units granted on September 20, 2016 vest 20% over a five-year period on each anniversary of September 20, 2016, 283,333 of the Class B Units granted on September 20, 2016 vest 20% over a five-year period on each anniversary of June 12, 2018, and all of the Class B Units granted on July 12, 2013 vest 20% over a five-year period on each anniversary of June 12, 2018.

Additional terms of these time-vesting units are summarized under “Compensation Discussion and Analysis—Compensation Elements—Long-Term Equity Compensation,” “Narrative Disclosure to Summary Compensation Table and Grants of Plan Based Awards Table—Equity Awards” and “Potential Payments Upon Termination or Change in Control.” Vesting of the time-vesting Class B Units will be accelerated upon a change of control that occurs while the executive is still employed by us and, as to Messrs. Pedersen and Dunn, will also continue to vest for one year

following a qualifying termination, each as described under “Narrative Disclosure to Summary Compensation Table and Grants of Plan-Based Awards—Equity Awards.”

- (2) Because there was no public market for the Class B Units of Parent as of December 31, 2018 , the market value of such units was not determinable as of such date.
- (3) Reflects exit-vesting Class B Units. Unvested exit-vesting Class B units vest as described under the “Narrative Disclosure to Summary Compensation Table and Grants of Plan-Based Awards—Equity Awards” section above. As to (i) Messrs. Pedersen and Dunn, the 2.0x exit-vesting Class B Units will remain eligible to vest for one year following a qualifying termination if a change of control occurs during such one-year period and, as a result of such change of control, the respective exit-vesting conditions are met, and (ii) as to Messrs. Davies, Eyring and Santiago, 2.0x exit-vesting Class B Units will remain outstanding and eligible to vest for a six-month period following a termination by us without “cause” (as defined for the purposes of his employment agreement) and other than by reason of death or while he is disabled if the applicable vesting criteria are satisfied during the six-month period, each as described under “Narrative Disclosure to Summary Compensation Table and Grants of Plan-Based Awards—Equity Awards.”

Option Exercises and Stock Vested in 2018

The following table provides information regarding the equity held by our named executive officers that vested during 2018 .

<u>Name</u>	<u>Stock Awards</u>	
	<u>Number of Shares or Units Acquired on Vesting (#)</u>	<u>Value Realized on Vesting (\$)</u>
Todd R. Pedersen	—	(1)
Mark J. Davies	315,000	(1)
Alex J. Dunn	—	(1)
Matt J. Eyring	56,667	(1)
Todd M. Santiago	56,667	(1)

(1) Because there was no public market for the Class B Units of Parent as of the applicable vesting date, the market value of such units on the vesting date was not determinable.

Pension Benefits

We have no pension benefits for our executive officers.

Nonqualified Deferred Compensation

We have no nonqualified defined contribution or other nonqualified deferred compensation plans for our executive officers.

Potential Payments Upon Termination or Change in Control

The following section describes the potential payments and benefits that would have been payable to our named executive officers under existing plans and contractual arrangements assuming (1) a termination of employment or (2) a change of control occurred, in each case, on December 31, 2018 , the last business day of fiscal 2018 . The amounts shown in the table do not include payments and benefits to the extent they are provided generally to all salaried employees upon termination of employment and do not discriminate in scope, terms or operation in favor of the named executive officers. These include distributions of plan balances under our 401(k) savings plan and similar items.

Messrs. Pedersen and Dunn

Pursuant to their respective employment agreements, if Mr. Pedersen’s or Mr. Dunn’s employment terminates for any reason, the executive is entitled to receive: (1) any base salary accrued through the date of termination; (2) any annual bonus earned, but unpaid, as of the date of termination; (3) reimbursement of any unreimbursed business expenses properly incurred by the executive; and (4) such employee benefits, if any, as to which the executive may be entitled under our employee benefit plans (the payments and benefits described in (1) through (4) being “accrued rights”).

If the employment of Messrs. Pedersen and Dunn is terminated by us without “cause” (as defined below) (other than by reason of death or while he is disabled) or if either executive resigns with “good reason” (as defined below) (any such termination, a “qualifying termination”), such executive is entitled to the accrued rights and, conditioned upon execution and non-revocation of a release and waiver of claims in favor of us and our affiliates, and continued compliance with the non-compete, non-solicitation, non-disparagement, and confidentiality provisions set forth in the employment agreements and described above under “Narrative Disclosure to Summary Compensation Table and Grants of Plan-Based Awards”:

- a pro rata portion of his target annual bonus based upon the portion of the fiscal year during which the executive was employed (the “pro rata bonus”);
- a lump-sum cash payment equal to 200% of the executive’s then-current base salary plus 200% of the actual bonus the executive received in respect of the immediately preceding fiscal year (or, if a termination of employment occurs prior

- to any annual bonus becoming payable under his employment agreement, the target bonus for the immediately preceding fiscal year); and
- a lump-sum cash payment equal to the cost of the health and welfare benefits for the executive and his dependents, at the levels at which the executive received benefits on the date of termination, for two years (the “COBRA payment”).

For purposes of the employment agreements of each of Messrs. Pedersen and Dunn, the term “cause” means the executive’s continued failure to substantially perform his employment duties for a period of ten (10) days; any dishonesty in the performance of the executive’s employment duties that is materially injurious to us; act(s) on the executive’s part constituting either a felony or a misdemeanor involving moral turpitude; the executive’s willful malfeasance or misconduct in connection with his employment duties that causes substantial injury to us; or the executive’s material breach of any covenants set forth in the employment agreements, including the restrictive covenants set forth therein. A termination for “good reason” is deemed to occur upon specified events, including: a material reduction in the executive’s base salary; a material reduction in the executive’s authority or responsibilities; specified relocation events; or our breach of any of the provisions of the employment agreements. Each of the foregoing events is subject to specified notice and cure periods.

In the event of the executive’s termination of employment due to death or disability, he will only be entitled to the accrued rights, the pro rata bonus payment, and the COBRA payment.

On March 4, 2019, we amended and restated the employment agreements of Messrs. Pedersen and Dunn. The provisions relating to a termination of employment under such amended and restated employment agreements are summarized under above in Part II. Item 9B. Other Information under the heading “Employment Agreements with Messrs. Pedersen and Dunn” and such description is incorporated herein by reference.

Messrs. Davies, Eyring and Santiago

Pursuant to their respective employment agreements, if the employment of Messrs. Davies, Eyring or Santiago terminates for any reason, the executive is entitled to receive: (1) any base salary accrued through the date of termination; (2) reimbursement of any unreimbursed business expenses properly incurred by the executive; and (3) such employee benefits, if any, as to which the executive may be entitled under the Company’s employee benefit plans (the payments and benefits described in (1) through (3) being “accrued rights”).

If the employment of Messrs. Davies, Eyring or Santiago is terminated by us without “cause” (as defined below) and other than by reason of death or while he is disabled (any such termination, a “qualifying termination”), such executive is entitled to the accrued rights and, conditioned upon execution and non-revocation of a release and waiver of claims in favor of the Company and its affiliates, and continued compliance with the non-compete, non-solicitation, non-disparagement, and confidentiality provisions set forth in the employment agreements:

- a pro rata portion of his target annual bonus based upon the portion of the fiscal year during which the executive was employed (the “pro rata bonus”);
- a lump-sum cash payment equal to 150% of the executive’s then-current base salary plus 150% of the actual bonus the executive received in respect of the immediately preceding fiscal year (or, if a termination of employment occurs prior to any annual bonus becoming payable under his employment agreement, the target bonus for the immediately preceding fiscal year); and
- a lump-sum cash payment equal to the cost of the health and welfare benefits for the executive and his dependents, at the levels at which the executive received benefits on the date of termination, for 18 months (the “COBRA payment”).

Under the employment agreements for Messrs. Davies, Eyring, and Santiago, “cause” means the executive’s continued failure to substantially perform his employment duties for a period of ten (10) days following written notice from the Company; any dishonesty in the performance of the executive’s employment duties that is materially injurious to the Company; act(s) on the executive’s part constituting either a felony or a misdemeanor involving moral turpitude; the executive’s willful malfeasance or misconduct in connection with his employment duties that causes substantial injury to us; or the executive’s material breach of the restrictive covenants set forth in the employment agreements. Each of the foregoing events is subject to specified notice and cure periods.

In the event of the executive’s termination of employment due to death or disability, he will only be entitled to the accrued rights, the pro rata bonus payment, and the COBRA payment.

The following table lists the payments and benefits that would have been triggered for Messrs. Pedersen, Davies, Dunn Eyring and Santiago under the circumstances described below assuming that the applicable triggering event occurred on December 31, 2018 .

Name	Cash Severance (\$)(1)	Prorated Bonus (\$)(2)	Continuation of Health Benefits (\$)(3)	Accrued But Unused Vacation (\$)	Value of Accelerated Equity (\$)(4)	Total (\$)
Todd R. Pedersen						
Termination Without Cause or for Good Reason	3,045,504	700,194	27,785	—	—	3,773,483
Change of Control	—	—	—	—	—	—
Death or Disability	—	700,194	27,785	—	—	727,979
Mark J. Davies						
Termination Without Cause or for Good Reason	1,511,010	381,924	20,839	—	—	1,913,773
Change of Control	—	—	—	—	—	—
Death or Disability	—	381,924	—	—	—	381,924
Alex J. Dunn						
Termination Without Cause or for Good Reason	3,045,504	700,194	27,785	—	—	3,773,483
Change of Control	—	—	—	—	—	—
Death or Disability	—	700,194	27,785	—	—	727,979
Matthew J. Eyring						
Termination Without Cause or for Good Reason	1,511,010	381,924	20,839	—	—	1,913,773
Change of Control	—	—	—	—	—	—
Death or Disability	—	381,924	—	—	—	381,924
Todd M. Santiago						
Termination Without Cause or for Good Reason	1,511,010	381,924	20,839	—	—	1,913,773
Change of Control	—	—	—	—	—	—
Death or Disability	—	381,924	—	—	—	381,924

(1) Messrs. Pedersen and Dunn's cash severance reflects a lump sum cash payment equal to the sum of (x) 200% of the executive's base salary of \$679,800 and (y) 200% of the executive's respective actual annual bonus paid for the preceding fiscal year. For fiscal 2016, Messrs. Pedersen and Dunn each received an annual bonus of \$660,000. Messrs. Davies, Eyring and Santiago's cash severance reflects a lump sum cash payment equal to the sum of (x) 150% of the executive's base salary of \$618,000 and (y) 150% of the executive's respective actual annual bonus paid for the preceding fiscal year. For fiscal 2016, Messrs. Davies, Eyring and Santiago each received an annual bonus of \$360,000.

(2) Reflects the executive's target bonus for the 12 completed months of employment for the 2018 fiscal year.

(3) For Messrs. Pedersen and Dunn reflects the cost of providing the executive officer with continued health and welfare benefits for the executive and his dependents under COBRA for two years and assuming 2018 rates. For Messrs. Davies, Eyring and Santiago reflects the cost of providing the executive officer with continued health and welfare benefits for the executive and his dependents under COBRA for 18 months and assuming 2018 rates.

(4) Upon a change of control each of Messrs. Pedersen's, Davies', Dunn's, Eyring's and Santiago's unvested time-vesting Class B Units would become immediately vested. However, because there was no public market for the Class B Units as of December 31, 2018, the market value of such Class B Units was not determinable. In addition, the unvested 2.0x and 3.0x exit-vesting Class B Units would vest upon a change of control if the applicable exit-vesting hurdles were met. Amounts reported assume that the exit-vesting Class B Units do not vest upon a change of control.

Messrs. Davies, Eyring and Santiago

In addition, as described above under “Narrative Disclosure to Summary Compensation Table and Grants of Plan-Based Awards—Equity Awards—Restrictive Covenants,” as a condition of receiving their units in Parent, Messrs. Davies, Eyring and Santiago agreed to specified restrictive covenants for specified periods upon a termination of employment, including an indefinite covenant on confidentiality of information, and one-year non-competition and non-solicitation covenants and a three-year non-disparagement covenant.

Director Compensation

The members of our Board of Directors other than David D’Alessandro, who was elected to the Board of Directors in fiscal 2013, and Paul Galant and Joseph S. Tibbetts, Jr., who were elected to the Board of Directors in October 2015, received no additional compensation for serving on the Board of Directors or our Audit or Compensation Committees during 2018.

In connection with the election of each of Messrs. D’Alessandro, Galant and Tibbetts, the Company entered into a letter agreement setting forth the compensation terms related to his service on the Board of Directors. Pursuant to their respective letter agreements, the Company will pay each of them an annual retainer of \$150,000 per year, and Messrs. D’Alessandro, Galant and Tibbetts will not be eligible for any bonus amounts or be eligible to participate in any of the Company’s employee benefit plans.

In addition, in 2013, an affiliate of Mr. D’Alessandro was granted 500,000 Class B Units, which are similar to the Class B Units granted to the named executive officers. The Class B Units were initially divided into a time-vesting portion (one-third of the Class B Units granted), a 2.0x exit-vesting portion (one-third of the Class B Units granted), and a 3.0x exit-vesting portion (one-third of the Class B Units granted). The vesting terms of these units, which have a "vesting reference date" of July 18, 2013, are substantially similar to the Class B Units previously granted to our named executive officers, were modified in 2018 in the same manner the Class B Units previously granted to our named executive officers were modified, and are described under “Narrative to Summary Compensation Table and Grants of Plan-Based Awards—Equity Awards.” Subsequently, in March 2019, 313 Acquisition entered into an agreement with the affiliate of Mr. D’Alessandro which provided that the 2.0x exit-vesting portion of the Class B Units and 3.0x exit portion of the Class B Units would be further modified such that (i) the 2.0x exit-vesting portion will instead vest on the earlier to occur of (x) March 4, 2020, and (y) a change of control and (ii) the 3.0x exit-vesting portion will instead vest on the earlier to occur of (x) March 4, 2021, and (y) a change of control, subject, in each case, to Mr. D’Alessandro continuing to serve on the Board of Directors as of such date.

On September 20, 2016, each of Messrs. Galant and Tibbetts was granted an award of stock appreciation rights pursuant to the Vivint Group, Inc. Amended and Restated 2013 Omnibus Incentive Plan covering 84,034 shares of common stock of Vivint Group, Inc., with a strike price of \$1.19 per share, which became vested and exercisable on July 1, 2017. Upon exercise of a vested SAR, Vivint shall pay the holder an amount equal to the number of shares subject to such vested SAR which are being exercised, multiplied by the excess of the fair market value of one share over the applicable strike price, and reduced by the aggregate amount of all applicable income and employment taxes required to be withheld.

In addition, on June 8, 2018, each of Messrs. Galant and Tibbetts was granted an award of 180,000 restricted stock units and on March 4, 2019, an affiliate of Mr. D’Alessandro was granted an award of 236,111 restricted stock units, in each case covering an equivalent number of shares of Vivint Group, Inc. common stock and pursuant to the Vivint Group, Inc. Amended and Restated 2013 Omnibus Incentive Plan (the “Vivint Group Plan”). The restricted stock units granted to Messrs. Galant and Tibbetts become vested on each of the first three anniversaries of June 8, 2018. The restricted stock units granted to the affiliate of Mr. D’Alessandro become vested on each of the first three anniversaries of September 20, 2018. Vested restricted stock units will be settled as soon as reasonably practicable (and, in any event, within two and one-half months) following the earliest to occur of (x) the termination of a director’s service other than (1) a removal of such director for Cause (as defined in the Vivint Group Plan) or (2) a resignation of such director at a time when grounds exist for a removal for Cause, (y) a Change of Control (as defined in the Vivint Group Plan) and (z) the fifth anniversary of the grant date. Upon settlement of a vested restricted stock unit, Vivint shall pay the holder an amount equal to one share of common stock of Vivint Group, Inc. in cash, shares of common stock of Vivint Group, Inc., shares or units of capital stock of Parent or one of Parent’s majority-owned subsidiaries that beneficially owns, directly or indirectly, a majority of the voting power of Vivint Group, Inc.’s capital stock valued at fair market value or any combination thereof. Prior to an initial public offering, if a director’s service is terminated due to death or disability, such director has the right, subject to specified limitations and for a specified period following the termination date, to cause the Company to purchase on one occasion all, but not less than all, of such director’s vested restricted stock units, in either case, at the fair market value of such units. In addition, if the director’s service is terminated for any reason other than cause or a restrictive covenant violation, if the director terminates his service voluntarily when grounds do not exist for a termination with cause or if the director engages in any conduct that would be a violation of a restrictive covenant set forth in the applicable award agreement but for the fact that the conduct occurred outside the relevant

periods (any such conduct a “Competitive Activity”), then the Company has the right, for a specified period following the termination of such director’s service, to purchase all of such director’s vested restricted stock units at fair market value.

The award agreements with Messrs. Galant and Tibbetts relating to the restricted stock units contain specified restrictive covenants, including an indefinite covenant on confidentiality of information, and covenants related to non-disparagement, noncompetition and non-solicitation of our employees and subscribers and affiliates at all times during the director’s service, and for a one-year period after any termination of his service.

The following table provides information on the compensation of our non-management directors in fiscal 2018 .

Name	Fees Earned or Paid in Cash (\$)	Stock Awards (\$)(1)	Option Awards (\$)	Non-Equity Incentive Plan Compensation (\$)	Change in Pension Value and Nonqualified Deferred Compensation Earnings (\$)	All Other Compensation (\$)	Total (\$)
David F. D’Alessandro	150,000	63,333	—	—	—	—	213,333
Paul S. Galant	150,000	86,400	—	—	—	—	236,400
Bruce McEvoy (2)	—	—	—	—	—	—	—
Jay D. Pauley (2)	—	—	—	—	—	—	—
Joseph S. Tibbetts, Jr.	150,000	86,400	—	—	—	—	236,400
Peter F. Wallace (2)	—	—	—	—	—	—	—

- (1) The amounts reported in this column for Messrs. Galant and Tibbetts reflect the grant date fair value of the restricted stock unit awards of Vivint Group, Inc., calculated in accordance with Topic 718 utilizing the assumptions discussed in Note 12 - “Stock-Based Compensation and Equity” in the audited financial statements included elsewhere in this Annual Report on Form 10-K. The amounts reported in this column for Mr. D’Alessandro reflect the incremental fair value, calculated in accordance with Topic 718, in connection with the modification of the Class B Units. See “Compensation Discussion and Analysis-Long-Term Incentive Compensation-Equity Awards” and “Narrative Disclosure to Summary Compensation Table and Grants of Plan-Based Awards-Equity Awards-Vesting Terms.” As of December 31, 2018 , Mr. D’Alessandro held Class B Units as follows: 166,667 unvested units subject to time-vesting criteria that vest on each of the first five anniversaries of June 12, 2018, 166,667 unvested units subject to exit-vesting criteria and 166,667 vested units. Each of Messrs. Galant and Tibbetts held 84,034 stock appreciation rights covering shares of common stock of Vivint Group, Inc., which became vested and exercisable on July 1, 2017 and 180,000 restricted stock units of Vivint Group, Inc. which become vested on each of the first three anniversaries of June 8, 2018.
- (2) Employees of Blackstone and Summit Partners do not receive any compensation from us for their services on our Board of Directors.

CEO Pay Ratio

As required by Section 953(b) of the Dodd-Frank Wall Street Reform and Consumer Protection Act, and Item 402(u) of Regulation S-K (“Item 402(u)”), the Company is providing the following reasonable estimate of the ratio of the median of the annual total compensation of all of our employees except Todd R. Pedersen, our CEO, to the annual total compensation of Mr. Pedersen, calculated in a manner consistent with Item 402(u). For 2018 , our last completed fiscal year:

- The median of the annual total compensation of all of our employees, excluding our CEO, was \$34,736 .
- The annual total compensation of our CEO was \$5,513,635 .

Based on this information, the ratio of the annual total compensation of our CEO to the median of the annual total compensation of all of our employees except our CEO was 159 to 1.

We determined that, as of December 31, 2018 , our employee population consisted of approximately 8,563 U.S. employees and approximately 234 non-U.S. employees all of whom were located in Canada. As permitted by Item 402(u), we excluded from our employee population for purposes of identifying our “median employee” the approximately 234 non-U.S. employees located in Canada, who comprised in the aggregate less than 3% of our of our total employees as of December 31,

2018 . Our resulting employee population consisted of: approximately 2,221 direct sellers, whose compensation is entirely commission-based and who work primarily during the period from April to August; approximately 5,267 regular full-time and part-time employees; approximately 1,050 seasonal employees, whose compensation is primarily based on the number of installations they perform and who work primarily during the period from April to August; and approximately 25 temporary employees.

To identify our “median employee” from this employee population, we obtained from our internal employee tax records total income paid in 2018 to each employee in the employee population, as reported in the 2018 tax form applicable to such employee. We believe this consistently applied compensation measure reasonably reflects annual compensation across our employee base. We annualized the total income amounts paid to any permanent employees in the employee population who were employed by us for less than the full fiscal year. We then ranked the resulting income paid to all of the employees in the employee population other than our CEO to determine our median employee. Once we identified our median employee, we combined all of the elements of such employee’s compensation for 2018 in accordance with the requirements of Item 402(c)(2)(x) of Regulation S-K for the Summary Compensation Table. With respect to the annual total compensation of our CEO, we used the amount reported in the “Total” column of our Summary Compensation Table set forth above in this annual report on Form 10-K.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

Acquisition LLC owns 92.3% of the issued and outstanding shares of common stock of Vivint Smart Home, Inc., which, in turn, owns 100% of the issued and outstanding shares of common stock of APX Group Holdings, Inc., which, in turn owns 100% of the issued and outstanding shares of common stock of APX Group, Inc.

The following table sets forth certain information as of December 31, 2018 with respect to Class A limited liability company interests in Acquisition LLC (“Class A Units”) beneficially owned by (i) each person known by us to be the beneficial owner of more than 5% of the outstanding Class A Units, (ii) each of our directors, (iii) each of our named executive officers and (iv) all of our directors and executive officers as a group.

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

Except as indicated in the footnotes to the table, each of the unitholders listed below has sole voting and investment power with respect to Class A Units owned by such unitholder. Unless otherwise noted, the address of each beneficial owner is c/o APX Group, Inc. 4931 North 300 West, Provo, Utah 84604.

Name and Address of Beneficial Owner	Class A Units	
	Amount and Nature of Beneficial Ownership	Percent of Class
Principal Unitholders:		
Blackstone Funds(1)(2)	579,077,203	74%
Summit Funds(1)(3)	50,000,000	6%
Directors and Named Executive Officers(4):		
Todd R. Pedersen	96,479,649	12%
Alex J. Dunn	5,282,259	1%
David F. D’Alessandro	—	—
Bruce McEvoy(5)	—	—
Jay D. Pauley	—	—
Joseph S. Tibbetts, Jr.	—	—
Paul S. Galant	—	—
Peter F. Wallace(5)	—	—
Mark J. Davies	—	—
Matthew J. Eyring	—	—
Todd M. Santiago	1,500,000	*
All Directors and Executive Officers as a Group (15 persons)	103,836,908	13%

* Indicates less than 1%

(1) The limited liability company agreement of Acquisition LLC (the “LLC Agreement”) provides that the business and affairs of Acquisition LLC will be managed by the Board of Directors, initially comprised of five members, three of whom will be appointed by Blackstone, one of whom will be appointed by Mr. Pedersen, and one of whom will be appointed by the Summit Funds, and Blackstone Capital Partners VI L.P. (“BCP VI”) acting as managing member (in such capacity, the “Managing Member”). The Managing Member is an affiliate of Blackstone and will have the ability to appoint its own successor if it resigns its position as Managing Member. The members of the board of managers of

Acquisition LLC are Todd Pedersen, Peter Wallace, Alex Dunn, David F. D'Alessandro, Bruce McEvoy, Jay Pauley, Joseph Tibbetts and Paul Galant. Pursuant to the LLC Agreement, Members of Acquisition LLC, including employee members, will be deemed to have voted their respective limited liability company interests in Acquisition LLC in favor of all actions taken by the Board of Directors and the Managing Member. The Managing Member, the Blackstone entities described below, and Stephen A. Schwarzman may be deemed to beneficially own all the outstanding shares of common stock of the Issuer indirectly beneficially owned by Acquisition LLC, directly held by its wholly owned indirect subsidiary APX Group Holdings, Inc. and all of the limited liability company interests in Acquisition LLC. Each of the Managing Member, such Blackstone entities and Mr. Schwarzman disclaim beneficial ownership of such shares of common stock of the Issuer and limited liability company interests in Acquisition LLC (other than the Blackstone Funds to the extent of their direct holdings).

- (2) Represents (i) 436,112,144 Class A Units directly held by BCP VI, (ii) 2,644,957 Class A Units directly held by Blackstone Family Investment Partnership VI—ESC L.P. (“BFIP VI—ESC”), (iii) 220,012 Class A Units directly held by Blackstone Family Investment Partnership VI L.P. (“BFIP VI”) and (iv) 140,100,090 Class A Units directly held by Blackstone VNT Co-Invest, L.P. (“VNT”) (BCP VI, BFIP VI-ESC, BFIP VI and VNT are collectively referred to as the “Blackstone Funds”). BCP VI Side-by-Side GP L.L.C. is the general partner of each of BFIP VI-ESC and BFIP VI. Blackstone Management Associates VI L.L.C. is the general partner of each of BCP VI and VNT. BMA VI L.L.C. is the sole member of Blackstone Management Associates VI L.L.C. Blackstone Holdings III L.P. is the managing member of BMA VI L.L.C. and the sole member of BCP VI Side-by-Side GP L.L.C. The general partner of Blackstone Holdings III L.P. is Blackstone Holdings III GP L.P. The general partner of Blackstone Holdings III GP L.P. is Blackstone Holdings III GP Management L.L.C. The sole member of Blackstone Holdings III GP Management L.L.C. is The Blackstone Group L.P. The general partner of The Blackstone Group L.P. is Blackstone Group Management L.L.C. Blackstone Group Management L.L.C. is wholly owned by Blackstone’s senior managing directors and controlled by its founder, Stephen A. Schwarzman. Each of such Blackstone entities and Mr. Schwarzman may be deemed to beneficially own the limited liability company interests in Acquisition LLC beneficially owned by the Blackstone Funds directly or indirectly controlled by it or him, but each disclaims beneficial ownership of such limited liability company interests in Acquisition LLC (other than the Blackstone Funds to the extent of their direct holdings). The address of each of Mr. Schwarzman and each of the other entities listed in this footnote is c/o The Blackstone Group L.P., 345 Park Avenue, New York, New York 10154.
- (3) Class A Units shown as beneficially owned by the Summit Funds (as hereinafter defined) are held by the following entities: (i) Summit Partners Growth Equity Fund VIII-A, L.P. (“SPGE VIII-A”) owns 36,490,139 Class A Units, (ii) Summit Partners Growth Equity Fund VIII-B, L.P. (“SPGE VIII-B”) owns 13,330,631 Class A Units, (iii) Summit Investors I, LLC (“SI”) owns 164,980 Class A Units and (iv) Summit Investors I (UK), LP (“SI(UK)”) and together with SPGE VIII-A, SPGE VIII-B and SI, the “Summit Funds”) owns 14,250 Class A Units. Summit Partners, L.P. is (i) the managing member of Summit Partners GE VIII, LLC, which is the general partner of Summit Partners GE VIII, L.P., which is the general partner of each of Summit Partners Growth Equity Fund VIII-A, L.P. and Summit Partners Growth Equity Fund VIII-B, L.P., and (ii) the manager of Summit Investors Management, LLC, which is the managing member of Summit Investors I, LLC and the general partner of Summit Investors I (UK), L.P. Summit Partners, L.P., through a three-person investment committee currently composed of Peter Y. Chung, Bruce R. Evans and Martin J. Mannion, has voting and dispositive authority over the Units held by the Summit Funds. Each of such Summit entities and therefore Summit Partners, L.P. may be deemed to beneficially own limited liability company interests in Acquisition LLC beneficially owned by the Summit Funds directly or indirectly controlled by it, but each disclaims beneficial ownership of such limited liability company interests in Acquisition LLC (other than Summit Partners, L.P. and other than the Summit Funds to the extent of their direct holdings). The address of each of these entities and Messrs. Chung, Evans and Mannion is 222 Berkeley Street, 18th Floor, Boston, Massachusetts 02116.
- (4) Certain directors and executive officers also own profits interests in Acquisition LLC, having economic characteristics similar to stock appreciation rights, in the form of Class B Units of Acquisition LLC, as described under “Management—Executive Compensation—Compensation Discussion and Analysis—Long-term Incentive Compensation”. Directors and executive officers as a group hold an aggregate of 69,909,562 Class B Units.
- (5) Messrs. McEvoy and Wallace are each employees of affiliates of the Blackstone Funds, but each disclaims beneficial ownership of the limited liability company interests in Acquisition LLC beneficially owned by the Blackstone Funds. The address for Messrs., McEvoy and Wallace is c/o The Blackstone Group L.P., 345 Park Avenue, New York, New York 10154.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

Support and Services Agreement

In connection with the Merger, we entered into a support and services agreement with Blackstone Management Partners L.L.C. (“BMP”), an affiliate of Blackstone. Under the support and services agreement, we have agreed to reimburse BMP for any out-of-pocket expenses incurred by BMP and its affiliates and to indemnify BMP and its affiliates and related parties, in each case, in connection with the Transactions and the provision of services under the support and services agreement.

Monitoring Services and Fees

In addition, under this agreement, we have engaged BMP to provide, directly or indirectly, monitoring, advisory and consulting services that may be requested by us in the following areas: (1) advice regarding the structure, distribution and timing of debt and equity offerings and advice regarding relationships with our lenders and bankers, (2) advice regarding the structuring and implementation of equity participation plans, employee benefit plans and other incentive arrangements for certain of our key executives, (3) general advice regarding dispositions and/or acquisitions, (4) advice regarding the strategic direction of our business of APX Group Holdings, Inc., the Surviving Company and such other advice directly related or ancillary to the above advisory services as may be reasonably requested by us. These services will generally be provided until the first to occur of (a) the tenth anniversary of the closing date of the Merger (November 16, 2022), (b) the date of a first underwritten public offering of shares of our common stock listed on the New York Stock Exchange or Nasdaq’s national market system for aggregate proceeds of at least \$150 million (an “IPO”) and (c) the date upon which Blackstone owns less than 9.9% of our common stock or that of our direct or indirect controlling parent and such stock has a fair market value (as determined by Blackstone) of less than \$25 million (each of the events specified in clauses (a) through (c) above, the “Exit Date”).

The monitoring fee payable for monitoring services in any fiscal year of ours will be equal to the greater of (1) a minimum base fee of \$2.7 million (the “Minimum Annual Fee”), subject to adjustment as summarized below if we engage in a business combination or disposition that is “significant” (as defined in the support and services agreement) and (2) the amount of the monitoring fee paid in respect of the immediately preceding fiscal year, without regard to the post-fiscal year “true-up” adjustment described in the paragraph below (which will not yet have occurred at the time the annual monitoring fee is paid). We refer to the adjusted monitoring fee for any fiscal year of the Surviving Company as the “Monitoring Fee” for such fiscal year.

In the case of a significant business combination or disposition, if 1.5% of our pro forma consolidated EBITDA (as defined in the support and services agreement) after giving effect to the business combination or disposition exceeds (in the case of a business combination) or is less than (in the case of a disposition) the then-current Monitoring Fee, the Monitoring Fee for the year in which the significant business combination or disposition occurs will be adjusted upward or downward, respectively, by the amount of such excess or shortfall, with such adjustment prorated based on the remaining full or partial fiscal quarters remaining in our then-current fiscal year. We will pay upward adjustments to the Monitoring Fee promptly upon availability of the pro forma income statement prepared in respect of such business combination. Downward adjustments to the Monitoring Fee will be effected through a rebate of the fee paid to BMP in that fiscal year. Subsequently, the Minimum Annual Fee applicable to full fiscal years following any significant business combination or disposition will be equal to 1.5% of our pro forma consolidated EBITDA after giving effect to the business combination or disposition (subject to further adjustments for subsequent significant business combinations and dispositions). However, in all cases (including in the case of a current-year rebate described above), the Monitoring Fee will always be at least \$2.7 million and in no event will a rebate for a downward adjustment result in BMP retaining a monitoring fee of less than \$2.7 million for monitoring services in respect of any particular fiscal year.

In addition to the adjustments to the Minimum Annual Fee and the Monitoring Fee in connection with significant business combinations or dispositions and the related payments or rebates described above, there may be other adjustments to the Monitoring Fee based on projected consolidated EBITDA and a post-fiscal year “true-up.” If 1.5% of our projected consolidated EBITDA, as first presented to our board of directors by senior management during the last third of such fiscal year, is projected to exceed the amount of the monitoring fee already paid to BMP in respect of monitoring services due to be rendered during that fiscal year, we will pay BMP the amount of such excess as an upward adjustment to the Monitoring Fee within two business days of such presentation. Following the completion of each applicable fiscal year and within deadlines required by our revolving credit facility, our chief financial officer will certify to BMP the amount of our consolidated EBITDA for such fiscal year. If 1.5% of such certified consolidated EBITDA is greater than the Monitoring Fee previously paid to BMP

for monitoring services rendered during that fiscal year (including the adjustment in respect of projected EBITDA described above), we will, jointly and severally, pay BMP the amount of such excess within two business days of such certification. If 1.5% of such certified consolidated EBITDA is less than the monitoring fee previously paid to BMP for services rendered during that fiscal year (including the adjustment in respect of projected consolidated EBITDA described above), the amount of such shortfall will be applied as a credit against the next payment by us of the Monitoring Fee to BMP. However, BMP will always be entitled to retain the Minimum Annual Fee as then in effect and BMP will have no obligation to rebate any amount that would result in BMP having been paid Monitoring Fees for monitoring services in an amount less than the Minimum Annual Fee applicable to the relevant fiscal year.

Upon (i) an IPO, or (ii) the date upon which Blackstone owns less than 50% of the common stock of the Company or its direct or indirect controlling parent, and such stock has a fair market value (as determined by Blackstone) of less than \$25 million, we will pay to BMP a milestone payment equal to the present value of all Monitoring Fee payments that, absent such event occurring, would otherwise have accrued and been payable through the tenth anniversary of the date of the support and services agreement, based on the continued payment of a Monitoring Fee in an amount equal to the then-applicable estimate for the Monitoring Fee for the fiscal year of the Surviving Company in which such event occurs, discounted at a rate equal to the yield to maturity on the close of business on the second business day immediately preceding the date the payment is payable of the class of outstanding U.S. government bonds having a final maturity closest to such tenth anniversary date.

Portfolio Operations Support and Other Services

Under the support and services agreement, we have, through the Exit Date (or an earlier date determined by BMP), engaged BMP to arrange for Blackstone's portfolio operations group to provide support services customarily provided by Blackstone's portfolio operations group to Blackstone's private equity portfolio companies of a type and amount determined by such portfolio services group to be warranted and appropriate. BMP will invoice us for such services based on the time spent by the relevant personnel providing such services during the applicable period and Blackstone's allocated costs of such personnel, but in no event shall we be obligated to pay more than \$1.5 million during any calendar year.

Investor Securityholders' Agreement

In connection with the closing of the Merger, 313 Acquisition LLC and APX Group Holdings, Inc. entered into a Securityholders' Agreement (the "Securityholders' Agreement") with the Investors. The Securityholders' Agreement governs certain matters relating to ownership of 313 Acquisition LLC and APX Group Holdings, Inc., including with respect to the election of directors of our parent companies, transfer of shares, including tag-along rights and drag-along rights, other special corporate governance provisions and registration rights (including customary indemnification provisions).

Other Transactions with Blackstone

Blackstone Advisory Partners L.P., an affiliate of Blackstone, participated as one of the initial purchasers of the Term Loan in September 2018 and received fees at the time of closing of such issuances aggregating approximately \$0.9 million .

In addition, GSO Capital Partners, an affiliate of Blackstone, is a participating lender in the Term Loan and as of December 31, 2018 had received in aggregate interest payments of approximately \$0.9 million . As of December 31, 2018 , GSO Capital Partners holds \$75.1 million of outstanding aggregate principal of the Term Loan.

Agreements with Solar

Trademark / Service Mark License Agreement

On June 1, 2011, we and Solar entered into a Trademark / Service Mark License Agreement, or the Trademark Agreement. Pursuant to the Trademark Agreement, we granted Solar and its subsidiaries a non-exclusive license to use certain Vivint marks, subject to certain quality control requirements, in exchange for a fee per month of \$0.01 per kilowatt hour of electricity generated by the solar equipment each month for each subscriber account. On June 10, 2013, the Trademark Agreement was amended and restated to grant Solar a royalty-free, non-exclusive license to the marks, and was applied retroactively to be in effect as of January 1, 2013. Solar may only use the marks to manufacture, purchase and distribute its solar energy systems for residential rooftop installation, as well as in advertising and promotional material. We generally have the right to consent to any sublicense of the marks. In connection with its initial public offering, Solar terminated this agreement and we do not expect any additional payments to us as a result of this termination. See "Agreements with Solar" below.

Agreements in Connection with Solar's Initial Public Offering

In connection with Solar's initial public offering in 2014, we have negotiated on an arm's-length basis and entered into a number of agreements with Solar related to services and other support that we have provided and will provide to Solar, including:

- *Master Intercompany Framework Agreement* . This agreement establishes a framework for the ongoing relationship between us and Solar. This agreement contains master terms regarding the protection of each other's confidential information, and master procedural terms, such as notice procedures, restrictions on assignment, interpretive provisions, governing law and dispute resolution. We and Solar each make customary representations and warranties that will apply across all of the agreements between us, and we each agree not to damage the value of the goodwill associated with the "VIVINT" or "VIVINT SOLAR" marks. We agree to provide Solar notice if we plans to stop using or to abandon rights in the "VIVINT" mark in any country or jurisdiction, and Solar is permitted to take steps to prevent abandonment of the "VIVINT" mark. We each also agree not to make public statements about each other without the consent of the other or disparage one another.
- *Non-Competition Agreement* . In this agreement, we and Solar each define our current areas of business and our competitors, and agree not to directly or indirectly engage in the other's business for three years. Our area of business is defined as residential and commercial automation and security products and services, energy management (i.e., wireless or remote management and control of energy controlling or consuming devices in a residence, including thermostats, HVAC, lighting, other appliances and in-house consumption monitoring), products and services for accessing and using the Internet, products and services for the storage, access, retrieval, and sharing of data, fixed and mobile data services, audio/video entertainment services, healthcare and wellness services, content distribution network services, wholesale cloud computing services, demand response services and information security. Solar's area of business is defined as selling renewable energy and energy storage products and services. We and Solar may each engage in the business of energy inverters, aggregate consumption monitoring and micro-grid technology. We may not sell products and services to Solar's competitors. Solar may purchase products and services from specified Vivint competitors. Although Solar may not engage in our business for three years, we may engage in Solar's business in markets where Solar is not yet operating, including by selling subscriber leads to Solar's competitors (other than SolarCity Corporation). Once Solar begins operating in a market, we will provide those leads exclusively to Solar. This agreement permits us and Solar to make investments of up to 2.5% in any publicly traded company without violating the commitments in this agreement. This agreement also permits Solar to obtain financing from a Vivint competitor. Finally, in this agreement we also each agree that for five years, unless we or Solar obtain prior written permission from the other party, neither of us will solicit for employment any member of the other's executive or senior management team, or any of the other's employees who primarily manage sales, installation or servicing of the other's products and services. The commitment not to solicit those employees lasts for 180 days after the employee finishes employment with us or Solar. General purpose employment advertisements and contact initiated by an employee are not, however, considered solicitation.
- *Transition Services Agreement* . Pursuant to this agreement we will provide to Solar various enterprise services, including services relating to information technology and infrastructure, human resources and employee benefits, administration services and facilities-related services. We agreed to perform the services with the same degree of care and diligence that we take in performing services for our own operations. We also agreed to provide Solar with reasonable assistance with Solar's eventual transition to providing those services in-house or through the use of third-party service providers. Solar will pay us a sum of \$313,000 per month for the services, which represents our good faith estimate of our full cost of providing the services to Solar, without markup or surcharge. As Solar transitions any service from us to an alternate provider or in-house, the fees paid to us will be reduced accordingly, except for any third party license fees related to services we obtains for Solar that cannot be terminated or assigned to Solar. The agreement will also account for the possibility that new services will be required from us that were not initially addressed in the agreement. The initial term of this agreement is six months; however, we and Solar will seek to complete the transition of the services contemplated by this agreement as soon as commercially practicable.
- *Product Development and Supply Agreement* . Pursuant to this agreement, one of Solar's wholly owned subsidiaries will collaborate with us to develop certain monitoring and communications equipment that will be compatible with other equipment used in Solar's solar energy systems and will replace equipment Solar currently procures from third parties. The initial term of the agreement is three years, and it will automatically renew for successive one-year periods unless either party elects otherwise.
- *Marketing and Subscriber Relations Agreement* . This agreement governs various cross-marketing initiatives between us and Solar, in particular the provision of sales leads from each company to the other. In November 2016, the parties amended this agreement to update certain terms and conditions governing existing cross-marketing initiatives and to introduce new cross-marketing initiatives, including a pilot program with the purpose of exploring potential

opportunities for each company to offer, sell and integrate the other company's respective products and services with its standard product offering. The term of this agreement, as amended, including the terms of the schedules defining the various cross-marketing initiatives, is up to three years.

- *Bill of Sale* . This agreement governs the transfer of certain assets such as office equipment from us to Solar.
- *Trademark License Agreement* . Pursuant to this agreement, the licensor, a special purpose subsidiary majority-owned by us and minority-owned by Solar, will grant Solar a royalty-free exclusive license to the trademark "VIVINT SOLAR" in the field of selling renewable energy or energy storage products and services. The agreement enables Solar to sublicense the Vivint Solar trademark to its subsidiaries and to certain third parties, such as suppliers and distributors, to the extent necessary for Solar to operate its business. The agreement governs how Solar may use and display the Vivint Solar trademark and provides that Solar may create new marks that incorporate "VIVINT SOLAR" with licensor's reasonable approval. The agreement also provides that the licensor will apply to register Vivint Solar trademarks as reasonably requested by Solar, and that Solar will work together with the licensor in enforcing and protecting the Vivint Solar trademarks. The agreement is perpetual but may be terminated voluntarily by Solar or by the licensor if (1) a court finds that Solar have materially breached the agreement and not cured such breach within 30 days after notice, (2) Solar becomes insolvent, makes an assignment for the benefit of creditors, or becomes subject to bankruptcy proceedings, (3) one of the parties (or us, with respect to the licensor) is acquired by a competitor of the other party, or (4) Solar ceases using the "VIVINT SOLAR" mark worldwide. We retain ownership of the Vivint trademark and Solar has no right to use "Vivint" except as part of "VIVINT SOLAR".

Sales Dealer Agreement

In 2017, we entered into a Sales Dealer agreement (the "Sales Dealer Agreement"), pursuant to which each party will act as a non-exclusive dealer for the other party to market, promote and sell each other's products. The agreement has an initial two-year term, which will be automatically renewed for successive one-year terms unless written notice of termination is provided by one of the parties to the other no less than 90 days prior to the end of the then current term. The products, territories and consideration that is payable by each party to the other will be determined in accordance with the agreement. The Sales Dealer Agreement will govern and replace substantially all of the activities that were previously undertaken under the Marketing and Subscriber Relations Agreement described above, including the pilot program. We and Solar also agreed to extend the term of the non-solicitation provisions under the existing Non-Competition Agreement to match the term of the Sales Dealer Agreement.

Transactions with Executive Officers

In each of 2015, 2016, 2017 and 2018 the Company entered into one-year lease agreements with Axis Aviation LLC ("Axis Aviation"), a company owned by Mr. Pedersen through a trust, for use of an airplane hangar at the Provo, Utah airport. Such lease agreements are terminable by either party on 90 days' prior written notice without penalty. Payments to Axis Aviation in the year ended December 31, 2018 pursuant to such lease agreements totaled \$67,500 .

Procedures with Respect to Review and Approval of Related Person Transactions

From time to time, we may do business with certain companies affiliated with Blackstone. The board of directors has not adopted a formal written policy for the review and approval of transactions with related persons. However, the board of directors reviews and approves transactions with related persons as appropriate.

Independence of Directors

The information contained under the heading "Corporate Governance Matters - Independence of Directors" in Part III, Item 10. Directors, Executive Officers and Corporate Governance is incorporated by reference herein.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES**Disclosure of Fees Paid to Independent Registered Public Accounting Firm**

Aggregate fees billed to the Company for the fiscal year ended December 31, 2018 and 2017 represent fees billed by the Company's principal independent registered public accounting firm, Ernst & Young LLP.

Fee Category	Year ended December 31,	
	2018	2017
Audit Fees (a)	\$ 1,398,921	\$ 1,793,930
Audit-Related Fees	—	—
Total Audit and Audit-Related Fees	1,398,921	1,793,930
Tax Fees (b)	63,000	—
All Other Fees	—	—
Total	\$ 1,461,921	\$ 1,793,930

- (a) Audit Fees primarily consisted of audit work performed for the preparation of the Company's annual consolidated financial statements and reviews of interim consolidated financial information and in connection with regulatory filings.
- (b) Tax Fees included tax compliance, planning and support services.

The audit committee pre-approves all audit and non-audit services provided by its independent registered public accounting firm. The audit committee considered whether the non-audit services rendered by Ernst & Young LLP were compatible with maintaining Ernst & Young LLP's independence as the independent registered public accounting firm of the Company's consolidated financial statements and concluded they were.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) Financial Statements and Financial Statement Schedules

1. Financial Statements:

Included in Part II, Item 8 of this Report.

2. Financial Statement Schedules:

All other financial schedules are omitted because they are not applicable or not required, or because the information is included herein in Part II, Item 8 in our consolidated financial statements or the notes related thereto.

(b) Exhibits

EXHIBIT INDEX

<u>Exhibit No.</u>	<u>Description</u>
3.3	<u>Certificate of Incorporation of APX Group Holdings, Inc. (incorporated by reference to Exhibit 3.3 to the Registration Statement on Form S-4 of APX Group Holdings, Inc. and the other registrants listed therein (File Number: 333-191132-02))</u>
3.4	<u>Bylaws of APX Group Holdings, Inc. (incorporated by reference to Exhibit 3.4 to the Registration Statement on Form S-4 of APX Group Holdings, Inc. and the other registrants listed therein (File Number: 333-191132-02))</u>
4.1	<u>Indenture, dated as of November 16, 2012, among APX Group, Inc., the guarantors named therein and Wilmington Trust, National Association, as trustee, relating to the Company's 8.75% Senior Notes due 2020 (incorporated by reference to Exhibit 4.5 to the Registration Statement on Form S-4 of APX Group Holdings, Inc. and the other registrants listed therein (File Number: 333-191132-02))</u>
4.2	<u>First Supplemental Indenture, dated as of December 20, 2012, among 313 Aviation, LLC and Wilmington Trust, National Association, as trustee, relating to the Company's 8.75% Senior Notes due 2020 (incorporated by reference to Exhibit 4.6 to the Registration Statement on Form S-4 of APX Group Holdings, Inc. and the other registrants listed therein (File Number: 333-191132-02))</u>
4.3	<u>Second Supplemental Indenture, dated as of May 14, 2013, among Vivint Wireless, Inc. and Wilmington Trust, National Association, as trustee, relating to the Company's 8.75% Senior Notes due 2020 (incorporated by reference to Exhibit 4.7 to the Registration Statement on Form S-4 of APX Group Holdings, Inc. and the other registrants listed therein (File Number: 333-191132-02))</u>
4.4	<u>Third Supplemental Indenture, dated as of May 31, 2013, among APX Group, Inc., the guarantors named therein and Wilmington Trust, National Association, as trustee, relating to the Company's 8.75% Senior Notes due 2020 (incorporated by reference to Exhibit 4.8 to the Registration Statement on Form S-4 of APX Group Holdings, Inc. and the other registrants listed therein (File Number: 333-191132-02))</u>
4.5	<u>Fourth Supplemental Indenture, dated as of December 13, 2013, among APX Group, Inc., the guarantors named therein and Wilmington Trust, National Association, as trustee, relating to the Company's 8.75% Senior Notes due 2020 (incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K of APX Group Holdings, Inc. filed on December 13, 2013 (File Number: 333-191132-02))</u>
4.6	<u>Fifth Supplemental Indenture, dated as of July 1, 2014, among APX Group, Inc., the guarantors named therein and Wilmington Trust, National Association, as trustee, relating to the Company's 8.75% Senior Notes due 2020 (incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K of APX Group Holdings, Inc. filed on July 1, 2014 (File Number: 333-191132-02))</u>

- 4.7 [Sixth Supplemental Indenture, dated as of December 18, 2014, among APX Group, Inc., the guarantors named therein and Wilmington Trust, National Association, as trustee, relating to the Company's 8.75% Senior Notes due 2020 \(incorporated by reference to Exhibit 4.12 to the Registration Statement on Form S-4 of APX Group Holdings, Inc. and the other registrants listed therein \(File Number: 333-191132-02\)\)](#)
- 4.8 [Form of Note relating to Company's 8.75% Senior Notes due 2020 \(attached as exhibit to Exhibit 4.1\)](#)
- 4.9 [Indenture, dated as of May 26, 2016, among APX Group, Inc., the guarantors party thereto and Wilmington Trust, National Association, as trustee and collateral agent, relating to the Company's 7.875% Senior Secured Notes due 2022 \(incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K of APX Group Holdings, Inc. filed on May 26, 2016 \(File Number: 333-191132-02\)\)](#)
- 4.10 [First Supplemental Indenture, dated as of August 17, 2016, among APX Group, Inc., the guarantors party thereto and Wilmington Trust, National Association, as trustee and collateral agent, relating to the Company's 7.875% Senior Secured Notes due 2022 \(incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K of APX Group Holdings, Inc. filed on August 17, 2016 \(File Number: 333-191132-02\)\)](#)
- 4.11 [Second Supplemental Indenture, dated as of February 1, 2017, among APX Group, Inc., the guarantors party thereto and Wilmington Trust, National Association, as trustee and collateral agent, relating to the Company's 7.875% Senior Secured Notes due 2022 \(incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K of APX Group Holdings, Inc. filed on February 1, 2017 \(File Number: 333-191132-01\)\)](#)
- 4.12 [Indenture, dated as of August 10, 2017, among APX Group, Inc., the guarantors party thereto and Wilmington Trust, National Association, as trustee, relating to the Company's 7.625% Senior Notes due 2023 \(incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K of APX Group Holdings, Inc. filed on August 10, 2017 \(File Number: 333-191132-02\)\)](#)
- 10.1 [Amended and Restated Credit Agreement, dated as of June 28, 2013, among APX Group, Inc., the other guarantors party thereto, Bank of America, N.A., as Administrative Agent and the other lenders and parties thereto \(incorporated by reference to Exhibit 10.1 to the Registration Statement on Form S-4 of APX Group Holdings, Inc. and the other registrants listed therein \(File Number: 333-191132-02\)\)](#)
- 10.2 [Second Amended and Restated Credit Agreement, dated as of March 6, 2015, among APX Group, Inc., the other guarantors party thereto, Bank of America, N.A., as Administrative Agent and the other lenders and parties thereto \(incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K of APX Group Holdings, Inc. filed on March 11, 2015. \(File Number: 333-191132-02\)\)](#)
- 10.3 [Third Amended and Restated Credit Agreement, dated as of August 10, 2017, by and among APX Group, Inc., APX Group Holdings, Inc., the other guarantors party thereto, each lender from time to time party thereto and Bank of America, N.A., as administrative agent, L/C issuer and swing line lender \(incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K of APX Group Holdings, Inc. filed on August 10, 2017 \(File Number: 333-191132-02\)\)](#)
- 10.4 [Security Agreement, dated as of November 16, 2012, among the grantors named therein and Bank of America, N.A., as Administrative Agent \(incorporated by reference to Exhibit 10.2 to the Registration Statement on Form S-4 of APX Group Holdings, Inc. and the other registrants listed therein \(File Number: 333-191132-02\)\)](#)

- 10.5 [Security Agreement, dated as of November 16, 2012, among the grantors named therein and Wilmington Trust, National Association, as Collateral Agent \(incorporated by reference to Exhibit 10.3 to the Registration Statement on Form S-4 of APX Group Holdings, Inc. and the other registrants listed therein \(File Number: 333-191132-02\)\)](#)

- 10.6 [Intercreditor Agreement and Collateral Agency Agreement, dated as of November 16, 2012, among 313 Group Inc., the other grantors named therein, Bank of America, N.A., as Credit Agreement Collateral Agent, Wilmington Trust, National Association, as Notes Collateral Agent, and each Additional Collateral Agent from time to time party thereto \(incorporated by reference to Exhibit 10.4 to the Registration Statement on Form S-4 of APX Group Holdings, Inc. and the other registrants listed therein \(File Number: 333-191132-02\)\)](#)

- 10.7 [Credit Agreement, dated as of September 6, 2018, among APX Group, Inc., APX Group Holdings, Inc., the other guarantors party thereto, each lender from time to time party thereto and Bank of America, N.A., as administrative agent \(incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K of APX Group Holdings, Inc. filed on September 6, 2018 \(File Number 333-191132-02\)\)](#)

- 10.8 [Security Agreement, dated as of September 6, 2018, among the grantors identified therein and Bank of America, N.A., as administrative agent \(incorporated by reference to Exhibit 10.2 to the Quarterly Report on Form 10-Q of APX Group Holdings, Inc. for the quarterly period ended September 30, 2018 \(File Number 333-191132-02\)\)](#)

- 10.9 [Collateral Agent Joinder Agreement No. 1, dated as of September 6, 2018 to the Intercreditor and Collateral Agency Agreement dated as of November 16, 2012, among APX Group, Inc., the grantors party thereto, Bank of America, N.A. as the Credit Agreement Collateral Agent, Wilmington Trust, National Association, as Notes Collateral Agent, and each additional collateral agent from time to time party thereto \(incorporated by reference to Exhibit 10.3 to the Quarterly Report on Form 10-Q of APX Group Holdings, Inc. for the quarterly period ended September 30, 2018 \(File Number 333-191132-02\)\)](#)

- 10.10 [Transaction Agreement, dated September 16, 2012, by and among 313 Acquisition LLC, 313 Group, Inc., 313 Solar, Inc., 313 Technologies, Inc., APX Group, Inc., V Solar Holdings, Inc. and 2GIG Technologies, Inc. \(incorporated by reference to Exhibit 2.1 to the Registration Statement on Form S-4 of APX Group Holdings, Inc. and the other registrants listed therein \(File Number: 333-191132-02\)\)](#)

- 10.11† [Management Subscription Agreement \(Co-Investment Units\), dated as of November 16, 2012, between 313 Acquisition LLC and Todd Pedersen \(incorporated by reference to Exhibit 10.5 to the Registration Statement on Form S-4 of APX Group Holdings, Inc. and the other registrants listed therein \(File Number: 333-191132-02\)\)](#)

- 10.12† [Management Subscription Agreement \(Co-Investment Units\), dated as of November 16, 2012, between 313 Acquisition LLC and Alex Dunn \(incorporated by reference to Exhibit 10.6 to the Registration Statement on Form S-4 of APX Group Holdings, Inc. and the other registrants listed therein \(File Number: 333-191132-02\)\)](#)

- 10.13† [Management Subscription Agreement \(Incentive Units\), dated as of November 16, 2012, between Acquisition LLC and Todd Pedersen \(incorporated by reference to Exhibit 10.7 to the Registration Statement on Form S-4 of APX Group Holdings, Inc. and the other registrants listed therein \(File Number: 333-191132-02\)\)](#)

- 10.14† [Management Subscription Agreement \(Incentive Units\), dated as of November 16, 2012, between Acquisition LLC and Alex Dunn \(incorporated by reference to Exhibit 10.8 to the Registration Statement on Form S-4 of APX Group Holdings, Inc. and the other registrants listed therein \(File Number: 333-191132-02\)\)](#)

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10.15†	Form of Management Subscription Agreement (Incentive Units) (incorporated by reference to Exhibit 10.9 to the Registration Statement on Form S-4 of APX Group Holdings, Inc. and the other registrants listed therein (File Number: 333-191132-02))
10.16†	Form of Management Subscription Agreement (Co-Investment Units) (incorporated by reference to Exhibit 10.10 to the Registration Statement on Form S-4 of APX Group Holdings, Inc. and the other registrants listed therein (File Number: 333-191132-02))
10.17†	Amended and Restated 313 Acquisition LLC Unit Plan (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K of APX Group Holdings, Inc. filed on September 23, 2016 (File Number: 333-191132-02))
10.18†**	Form of Time-Sharing Agreement
10.19†*	Amended and Restated Employment Agreement, dated March 4 2019, between APX Group, Inc. and Alex Dunn
10.20†*	Amended and Restated Employment Agreement, dated March 4, 2019, between APX Group, Inc. and Todd Pedersen
10.21†	Employment Agreement, dated March 8, 2016, by and between APX Group, Inc. and Mark Davies (incorporated by reference to Exhibit 10.17 to the Annual Report on Form 10-K of APX Group Holdings, Inc. for the fiscal year ended December 31, 2015 (File Number 333-191132-02))
10.22†	Employment Agreement, dated March 8, 2016, by and between APX Group, Inc. and Todd Santiago (incorporated by reference to Exhibit 10.18 to the Annual Report on Form 10-K of APX Group Holdings, Inc. for the fiscal year ended December 31, 2015 (File Number 333-191132-02))
10.23†	Employment Agreement, dated March 8, 2016, by and between APX Group, Inc. and Matthew Eyring (incorporated by reference to Exhibit 10.19 to the Annual Report on Form 10-K of APX Group Holdings, Inc. for the fiscal year ended December 31, 2016 (File Number 333-191132-02))
10.24†	Form of Letter Amendment, dated March 8, 2016, to Management Subscription Agreement (Incentive Units) (incorporated by reference to Exhibit 10.20 to the Annual Report on Form 10-K of APX Group Holdings, Inc. for the fiscal year ended December 31, 2015 (File Number 333-191132-02))
10.25†	Form of Outside Director Offer Letter (incorporated by reference to Exhibit 10.1 to the Quarterly Report on Form 10-Q of APX Group Holdings, Inc. for the quarterly period ended September 30, 2015 (File Number: 333-191132-02))
10.26†	Form of Retention Award Agreement (incorporated by reference to Exhibit 10.4 to the Quarterly Report on Form 10-Q of APX Group Holdings, Inc. for the quarterly period ended September 30, 2018 (File Number 333-191132-02))
10.27†	Vivint Group, Inc. Amended and Restated 2013 Omnibus Incentive Plan (incorporated by reference to Exhibit 10.5 to the Quarterly Report on Form 10-Q of APX Group Holdings, Inc. for the quarterly period ended September 30, 2018 (File Number 333-191132-02))
10.28†	Form of Restricted Stock Unit Award Agreement under the Vivint Group, Inc. Amended and Restated 2013 Omnibus Incentive Plan (incorporated by reference to Exhibit 10.6 to the Quarterly Report on Form 10-Q of APX Group Holdings, Inc. for the quarterly period ended September 30, 2018 (File Number 333-191132-02))

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10.29	Form of Note Purchase Agreement, relating to the Company's 8.875% Senior Secured Notes due 2022 (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K of APX Group Holdings, Inc. filed on October 19, 2015 (File Number: 333-191132-02))
10.30	Second Amended and Restated Consumer Financing Services Agreement, dated May 31, 2017, between Citizens Bank, N.A. and APX Group, Inc. (Portions of this exhibit have been omitted pursuant to a request for confidential treatment) (incorporated by reference to Exhibit 10.24 to the Annual Report on Form 10-K of APX Group Holdings, Inc. for the fiscal year ended December 31, 2017 (File Number 333-191132-02))
10.31†**	Incentive Compensation Plan adopted on March 4, 2019
21.1*	Subsidiaries of APX Group Holdings, Inc.
24.1*	Power of Attorney (included on the signature page to the Form 10-K)
31.1*	Certification of the Registrant's Chief Executive Officer, Todd Pedersen, pursuant to Rule 13a-14 of the Securities Exchange Act of 1934
31.2*	Certification of the Registrant's Chief Financial Officer, Mark Davies, pursuant to Rule 13a-14 of the Securities Exchange Act of 1934
31.3**	Certification of Amendment No. 1 to Annual Report of the Registrant's Chief Executive Officer, Todd Pedersen, pursuant to Rule 13a-14 of the Securities Exchange Act of 1934
31.4**	Certification of Amendment No. 1 to Annual Report of the Registrant's Chief Financial Officer, Mark Davies, pursuant to Rule 13a-14 of the Securities Exchange Act of 1934
32.1*	Certification of the Registrant's Chief Executive Officer, Todd Pedersen, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
32.2*	Certification of the Registrant's Chief Financial Officer, Mark Davies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
32.3**	Certification of Amendment No. 1 to Annual Report of the Registrant's Chief Executive Officer, Todd Pedersen, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
32.4**	Certification of Amendment No. 1 to Annual Report of the Registrant's Chief Financial Officer, Mark Davies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
99.2	Stock Purchase Agreement, dated as of February 13, 2013, by and among Nortek, Inc. and APX Group, Inc. (incorporated by reference to Exhibit 2.1 to the Current Report on Form 8-K of Nortek, Inc. filed on April 1, 2013 (File Number: 001-34697))
101.1**	The following materials are formatted in XBRL (eXtensible Business Reporting Language): (i) the Consolidated Balance Sheets, (ii) the Consolidated Statements of Operations, (iii) the Consolidated Statements of Comprehensive Loss, (iv) the Consolidated Statements of Changes in Equity, (v) the Consolidated Statements of Cash Flows, (vi) Notes to Consolidated Financial Statements, and (vii) document and entity information. (A)

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* Filed with the Form 10-K.

** Filed herewith.

† Identifies exhibits that consist of a management contract or compensatory plan or arrangement.

(A) Pursuant to Rule 406T of Regulation S-T, the Interactive Data files on Exhibit 101.1 hereto are deemed not filed or part of a registration statement or prospectus for purposes of Sections 11 or 12 of the Securities Act of 1933, as amended, are deemed not filed for purposes of Section 18 of the Securities and Exchange Act of 1934, as amended, and otherwise are not subject to liability under those sections.

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.

APX GROUP HOLDINGS, INC.

By: /s/ MARK J. DAVIES

Mark J. Davies

Chief Financial Officer

Date: March 8, 2019

TIME-SHARING AGREEMENT

This Time-Sharing Agreement (the “*Agreement*”) is made and entered into as of _____ (the “*Effective Date*”), by and between APX Group, Inc., a Delaware corporation (“*Lessor*”) and _____, an individual (“*Lessee*”), and is made and entered into with reference to the following facts and objectives:

RECITALS

A. *WHEREAS*, Lessor operates that certain aircraft identified as a Bombardier Inc. model BD-100-1A10 (Challenger 300) aircraft, Serial Number 20365, U.S. Registration Number N313V (collectively, the “*Aircraft*”) under Part 91 of the Federal Aviation Regulations (“*FAR*”); and

B. *WHEREAS*, Lessor has heretofore engaged a fully qualified flight crew to operate the Aircraft; and

C. *WHEREAS*, Lessee desires to make the Aircraft available to Lessee, and Lessee desires to utilize the Aircraft, on a time-sharing basis, as defined in Sections 91.501(b)(6), (c)(1) and (d) of the FAR.

NOW, THEREFORE, for and in consideration of the mutual promises, covenants and conditions herein set forth, Lessor and Lessee agree as follows:

1. *Lease of Aircraft; Term of Lease*. Lessor agrees to provide the Aircraft to and operate the Aircraft for Lessee on a non-exclusive basis, pursuant to the provisions of FAR 91.501(c)(1), and to provide a fully qualified flight crew for all operations for the period commencing on the Effective Date of this Agreement and terminating on the date that is three (3) calendar years from the Effective Date (the “*Term*”); provided, however, that either party may terminate this Agreement upon thirty (30) days written notice to the other party of its election to terminate the Agreement.

2. *Lessee’s Payment Obligations*. Lessee shall pay Lessor for each flight conducted under this Agreement the aggregate incremental cost of each specific flight, provided, however, such cost shall in no event exceed the sum of the following expenses authorized by FAR Part 91.501(d);

- A. Fuel, oil, lubricants, and other additives;
- B. Travel expenses of the crew, including food, lodging and ground transportation;
- C. Hangar and tie down costs away from the Aircraft’s base of operation;
- D. Insurance obtained for the specific flight;
- E. Landing fees, airport taxes and similar assessments including, but not limited to IRC Section 4261 and related excise taxes;
- F. Customs, foreign permit, and similar fees directly related to the flight;
- G. In-flight food and beverages;
- H. Passenger ground transportation;
- I. Flight planning and weather contract services; and
- J. An additional charge equal to 100% of the expenses listed in subparagraph (A) of this paragraph.

3. *Invoicing for Flights*. Within ten (10) days of completion of each flight, Lessor will provide Lessee with a statement of expenses set forth in Paragraph 2 above, related to the operation of the Aircraft for each specific flight. Lessor shall also provide Lessee with a monthly statement within ten (10) days after the end of each month, which shall contain the expenses set forth in Paragraph 2 above for Lessee’s flights occurring during the prior month. Within ten (10) days after the end of each quarter, Lessor shall provide Lessee with an invoice for the amount due from Lessee for any unpaid expenses set forth in Paragraph 2 above incurred during the quarter. Lessee shall pay Lessor for the unpaid balance of said expenses within 10 days of receipt of the quarterly

invoice therefor.

4. Request for Flights by Lessee. Lessee will provide Lessor with requests for flight time and proposed flight schedules as far in advance of any given flight as possible. Requests for flight time shall be in a form, whether written or oral, mutually convenient to, and agreed upon by the parties, and shall contain such information as shall be reasonably requested by Lessor.

5. Scheduling Flights. Lessor shall have final authority over the scheduling of the Aircraft. Lessor shall be responsible for the physical and technical operation of the aircraft and the safe performance of all flights and shall retain full authority and control, including exclusive operational control, and possession of the Aircraft at all times during the Term of this Agreement.

6. Additions and Alterations. Lessee shall not in any way alter or modify, or cause to be made alterations or modifications to the Aircraft or any of its component parts, including without limitation its engines, APU or avionics.

7. Maintenance of Aircraft. Lessor shall be solely responsible for performing or arranging for the performance of all scheduled and unscheduled maintenance or preventive maintenance and shall cause to be performed all required or necessary inspections on the Aircraft, and shall take all such requirements into account in scheduling the Aircraft. No period of maintenance, preventative maintenance or inspection shall be delayed or postponed for the purpose of scheduling the Aircraft, unless said maintenance or inspection can be safely conducted at a later time in compliance with all applicable laws and regulations, and within the sound discretion of the pilot in command. The pilot in command shall have final and complete authority to cancel any flight for any reason or condition, which in his or her judgment would compromise the safety of the flight.

8. Flight Crew. Lessor shall engage a qualified flight crew for each flight undertaken under this Agreement.

9. Safety of Flights. In accordance with applicable FAR, the qualified flight crew provided by Lessor will exercise all of its duties and responsibilities in regard to the safety of each flight conducted hereunder. Lessee specifically agrees that the flight crew, in its sole discretion, may terminate any flight, refuse to commence any flight, or take other action, which in the considered judgment of the pilot in command is necessitated by considerations of safety. No such action of the pilot in command shall create or support any liability for loss, injury, damage or delay to Lessee or any other person. The parties further agree that Lessor shall not be liable for delay or failure to furnish the Aircraft and crew pursuant to this Agreement for any reason whatsoever, including, without limitation, when such failure is caused by government regulation or authority, mechanical difficulty, maintenance related issues, war, civil commotion, strikes or labor disputes, weather conditions, or acts of God. In such event, Lessee shall be invoiced for any legs completed for Lessee, and Lessor shall not be obligated to provide any replacement transportation for any legs not completed for Lessee.

10. No Lessor Warranties or Representations. LESSEE HEREBY ACKNOWLEDGES AND AGREES THAT, EXCEPT AS SET FORTH IN THIS AGREEMENT, THE LESSOR HAS NOT MADE ANY WARRANTY OR REPRESENTATION TO LESSEE, EITHER EXPRESS OR IMPLIED, AS TO THE DESIGN, COMPLIANCE WITH SPECIFICATIONS, OPERATION, OR CONDITION OF, OR AS TO THE QUALITY OF THE MATERIAL, OR WORKMANSHIP IN THE AIRCRAFT, OR ANY COMPONENT THEREOF, DELIVERED TO THE LESSEE, AND EXCEPT AS SET FORTH IN THIS AGREEMENT, THE LESSOR DOES NOT MAKE ANY WARRANTY OF MERCHANTABILITY OR FITNESS OF THE AIRCRAFT, OR ANY COMPONENT THEREOF, FOR ANY PARTICULAR PURPOSE, OR AS TO TITLE TO THE AIRCRAFT OR ANY COMPONENT THEREOF, OR ANY OTHER REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, WITH RESPECT TO THE AIRCRAFT OR ANY COMPONENT THEREOF.

11. Insurance. Lessor shall be responsible for all costs to maintain in effect throughout the Term insurance policies containing such provisions and providing such coverages as Lessor deems reasonably appropriate in its sole and complete discretion. All insurance policies shall (i) name Lessee as an additional insured, (ii) not be subject to any offset by any other insurance carried by Lessor or Lessee, (iii) contain a waiver by the insurer of any subrogation rights against Lessor or Lessee and (iv) insure the interest of Lessee regardless of any breach or violation by the Lessor or by any other person (other than is solely attributable to the gross negligence or willful misconduct of Lessee) or any warranty, declaration or condition contained in such policies.

12. Representations of Lessee. Lessee warrants that during the term of this Agreement:

A. It shall use the Aircraft for and on account of its own business or non-business use only, and will not use the Aircraft for the purpose of providing transportation of passengers or cargo in air commerce for compensation or hire;

B. It shall refrain from incurring any mechanics or other lien in connection with inspection, preventative maintenance, maintenance or storage of the Aircraft, whether permissible or impermissible under this Agreement, nor shall there be any attempt by Lessee to convey, mortgage, assign, lease or any way alienate the Aircraft or create any kind of lien or security interest involving the Aircraft or do anything or take any action that might mature into such a lien;

C. It shall abide by and conform to all such laws, governmental and airport orders, rules and regulations, as shall from time to time be in effect relating in any way to the operation and use of the Aircraft by a time-sharing Lessee;

D. It shall not violate, and shall not permit any of his employees, agents, or guests to violate, any applicable law, regulation or rule of the United States, and state, territory of local authority, or any foreign government or subdivision thereof, and shall not bring or cause to be brought or carried on board the Aircraft, or permit any employee, agent or guest to bring or cause to be

brought or carried on board the Aircraft, any contraband or unlawful articles or substance in any jurisdiction into or over which the Aircraft is to operate on its behalf.

E. It shall, and it shall cause its employees, agents and guests to, comply with all lawful instructions and procedures of Lessor and its agents and employees regarding the Aircraft, its operation or flight safety; and

F. Any proposed flight shall not require the flight crew to exceed any flight or duty time limitations that Lessor imposes on its flight crews.

13. Aircraft Base. For purposes of this Agreement, the permanent base of operation of the Aircraft shall be PVU in Provo, Utah, or such other location as shall be determined by Lessor.

14. No Assignment. Neither this Agreement nor any party's interest herein shall be assignable to any other party whatsoever. This Agreement shall inure to the benefit of and be binding upon the parties hereto, their heirs, representatives and successors.

15. General Provisions.

A. Headings. The headings contained in this Agreement are for reference purposes only and shall not affect in any way the construction of interpretation of this Agreement.

B. Partial Invalidity. If any provision of this Agreement, or the application thereof to any person, place or circumstance, shall be held by a court of competent jurisdiction to be illegal, invalid, unenforceable or void, then such provision shall be enforced to the extent that it is not illegal, invalid, unenforceable or void, and the remainder of this Lease, as well as such provision as applied to other persons, shall remain in full force and effect.

C. Waiver. With regard to any power, remedy or right provided in this Agreement or otherwise available to any party, (i) no waiver or extension of time shall be effective unless expressly contained in a writing signed by the waiving party, (ii) no alteration, modification or impairment shall be implied by reason of any previous waiver, extension of time, delay or omission in exercise or other indulgence and (iii) waiver by any party of the time for performance of any act or condition hereunder does not constitute waiver of the act or condition itself.

D. Notices. Any notice or other communication required or permitted under this Lease shall be in writing, and shall be deemed duly given upon actual receipt, if delivered personally; or one (1) day following deposit with Federal Express or another next day delivery provider for next day delivery, if deposited with postage prepaid, and addressed to such address as may be specified in writing by the relevant party from time to time, and which shall initially be as follows:

To Lessor at:

APX Group, Inc.
4931 North 300 West
Provo, Utah 84604
Attn: *Shawn Lindquist, Chief Legal Officer*
Dale R. Gerard, SVP, Finance & Treasurer

To Lessee at:

4931 North 300 West
Provo, Utah 84604

E. Utah Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Utah, regardless of the choice of laws provisions of Utah or any other jurisdiction.

F. Entire Agreement. This Agreement (including any exhibits) constitutes the entire agreement between the parties pertaining to the subject matter contained in this Agreement and supersedes any prior or contemporaneous agreements, representations and understandings, whether written or oral, of or between the parties with respect to the subject matter of this Agreement. There are no representations, warranties, covenants, promises or undertakings, other than those expressly set forth or referred to herein.

G. Amendment. This Agreement may be amended only by a written agreement signed by all of the parties.

H. Binding Effect: Assignment. This Agreement shall be binding on, and shall inure to the benefit of, the parties to it and their respective successors and assigns; provided, however, that Lessee may not assign any of its rights under this Agreement and any such purported assignment shall be null, void and of no effect.

I. Attorneys' Fees. Should any action (including any proceedings in a bankruptcy court) be commenced between any of the parties to this Agreement or their representatives concerning any provision of this Agreement or the rights of any person or entity thereunder, solely as between the parties or their successors, the party or parties prevailing in such action as determined by the court shall be entitled to recover from the other party all of its costs and expenses incurred in connection with such action (including without limitation fees, disbursements and expenses of attorneys and costs of investigation).

J. Remedies Not Exclusive. No remedy conferred by any of the specific provisions of this Agreement is intended to be exclusive of any other remedy, and each and every remedy shall be cumulative and shall be in addition to every other remedy given hereunder or now or hereafter existing at law or in equity by statute or otherwise. The election of any one or more remedies shall not constitute a waiver of the right to pursue other remedies.

K. No Third Party Rights. Nothing in this Agreement whether express or implied, is intended to confer any rights or remedies under or by reason of this Agreement on any third person or entity, and the parties to this Agreement and their respective successors and assigns, nor is anything in this Agreement intended to relieve or discharge the obligation or liability of any third persons or entities to any party to this Agreement, nor shall any provision give any third person or entity any right of subrogation or action over or against any party to this Agreement.

L. Counterparts. This Agreement may be executed in one or more counterparts, each of which independently shall be deemed to be an original and all of which together shall constitute one instrument. The parties may exchange executed copies transmitted by telecopier, provided the executed originals are forwarded in accordance with Paragraph 15D hereof.

M. Expenses. Each party shall bear all of its own expenses in connection with the negotiation, execution and delivery of this Agreement.

N. Broker/Finder Fees. Each party represents that it has dealt with no broker or finder in connection with the transaction contemplated by this Agreement and that no broker or other person is entitled to any commission or finder's fee in connection therewith. Lessor and Lessee each agree to indemnify and hold harmless one another against any loss, liability, damage, cost, claim or expense incurred by reason of any brokerage commission or finder's fee alleged to be payable because of any act, omission or statement of the indemnifying party.

O. Relationship of the Parties. Nothing contained in this Agreement shall in any way create any association, partnership, joint venture, or principal and agent relationship between the parties hereto or be construed to evidence the intention of the parties to constitute such.

P. Survival. All representations, warranties, covenants and agreements contained in this Agreement, or in any instrument, certificate, exhibit, schedule, or other writing provided for in it, shall survive the expiration or termination of this Agreement.

[THIS SPACE INTENTIONALLY LEFT BLANK]

16. TRUTH IN LEASING STATEMENT PURSUANT TO 14 CFR PART 91.23

THE AIRCRAFT, A BOMBARDIER INC. MODEL BD-1-A10 (CHALLENGER 300), MANUFACTURER'S SERIAL NO. 20365, CURRENTLY REGISTERED WITH THE FEDERAL AVIATION ADMINISTRATION AS N313V, HAS BEEN MAINTAINED AND INSPECTED UNDER FAR PART 91 DURING THE 12 MONTH PERIOD PRECEDING THE DATE OF THIS AGREEMENT.

APX GROUP, INC. (THE "**COMPANY**"), CERTIFIES THAT THE AIRCRAFT IS IN COMPLIANCE WITH ALL APPLICABLE MAINTENANCE AND INSPECTION REQUIREMENTS FOR OPERATIONS TO BE CONDUCTED UNDER THIS AGREEMENT. THE AIRCRAFT WILL BE MAINTAINED AND INSPECTED UNDER FAR PART 91.409(a)(3) FOR

OPERATIONS TO BE CONDUCTED UNDER THIS AGREEMENT.

THE COMPANY CERTIFIES AND ACKNOWLEDGES THAT WHENEVER THE AIRCRAFT IS OPERATED UNDER THIS AGREEMENT, THE COMPANY SHALL BE KNOWN AS, CONSIDERED AND SHALL IN FACT BE RESPONSIBLE FOR OPERATIONAL CONTROL OF THE AIRCRAFT IDENTIFIED AND TO BE OPERATED UNDER THIS AGREEMENT. EACH PARTY CERTIFIES THAT IT UNDERSTANDS ITS RESPECTIVE RESPONSIBILITIES, IF ANY, FOR COMPLIANCE WITH APPLICABLE FEDERAL AVIATION REGULATIONS.

EACH PARTY UNDERSTANDS THAT AN EXPLANATION OF FACTORS BEARING ON OPERATIONAL CONTROL AND PERTINENT FEDERAL AVIATION REGULATIONS CAN BE OBTAINED FROM THE NEAREST FAA FLIGHT STANDARDS DISTRICT OFFICE.

I, THE UNDERSIGNED, DALE R. GERARD, AS VP, FINANCE AND TREASURER OF THE COMPANY, CERTIFY THAT THE COMPANY IS RESPONSIBLE FOR OPERATIONAL CONTROL OF THE AIRCRAFT FOR OPERATIONS TO BE CONDUCTED UNDER THIS AGREEMENT AND THAT THE COMPANY UNDERSTANDS ITS RESPONSIBILITIES FOR COMPLIANCE WITH APPLICABLE FEDERAL AVIATION REGULATIONS.

THE ADDRESS OF THE COMPANY IS 4931 NORTH 300 WEST, PROVO, UTAH 84601.

IN WITNESS WHEREOF, the parties have executed this Agreement effective as of the date first set forth above.

LESSOR: LESSEE:

APX Group, Inc.,
a Delaware corporation,

By: _____
Name: Dale R. Gerard
Title: SVP, Finance & Treasurer _____

APX GROUP, INC.

INCENTIVE COMPENSATION PLAN

Adopted on March 4, 2019

- 1) Purposes of the Plan. The Plan is intended to increase the Company's long-term value and success by (A) motivating Employees to (i) perform to the best of their abilities, and (ii) advance the Company's mission and strategy and (B) reward Employees in a manner aligned with the Company's financial and operational performance.
- 2) Definitions.
 - a) "Affiliate" means any corporation or other entity (including, but not limited to, partnerships and joint ventures) controlled by the Company.
 - b) "Actual Award" means as to any Performance Period, the actual award (if any) payable to a Participant for the Performance Period, subject to the Committee's authority under Section 3(d) to modify the award.
 - c) "Board" means the Board of Directors of the Company.
 - d) "Bonus Pool" means the pool of funds available for distribution to Participants. Subject to the terms of the Plan, the Committee establishes the Bonus Pool for each Performance Period.
 - e) "Code" means the Internal Revenue Code of 1986, as amended. Reference to a specific section of the Code or regulation thereunder will include such section or regulation, any valid regulation promulgated thereunder, and any comparable provision of any future legislation or regulation amending, supplementing or superseding such section or regulation.
 - f) "Committee" means the Compensation Committee of the Company's Board of Directors (or a duly appointed sub-committee thereof).
 - g) "Company" means APX Group, Inc., a Delaware corporation, or any successor thereto.
 - h) "Disability" means a Participant's inability, for a period of six (6) consecutive months or for an aggregate of twelve (12) months in any twenty-four (24) consecutive month period, to perform Participant's employment duties as a result of the Participant becoming physically or mentally incapacitated, as determined in good faith by the Committee or otherwise determined in accordance with uniform and nondiscriminatory standards adopted by the Committee from time to time.
 - i) "Employee" means any executive, officer, or employee of the Company or of an Affiliate, whether such individual is so employed at the time the Plan is adopted or becomes so employed subsequent to the adoption of the Plan.
 - j) "Participant" means as to any Performance Period, an Employee who has been selected by the Committee for participation in the Plan for that Performance Period.
 - k) "Performance Period" means the period of time for the measurement of the performance criteria that must be met to receive an Actual Award, as determined by the Committee in its sole discretion. A Performance Period may be divided into one or more shorter periods if, for example, but not by way of

limitation, the Committee desires to measure some performance criteria over 12 months and other criteria over 3 months.

- l) “ Plan ” means this Incentive Compensation Plan, as set forth in this instrument and as hereafter amended from time to time.
- m) “ Target Award ” means the target award, at 100% performance achievement, payable under the Plan to a Participant for the Performance Period, as determined by the Committee in accordance with Section 3(b).
- n) “ Termination of Service ” means a cessation of the employee-employer relationship between an Employee and the Company or an Affiliate for any reason, including, but not by way of limitation, a termination by resignation, discharge, death, Disability, retirement, or the disaffiliation of an Affiliate, but excluding any such termination where there is a simultaneous reemployment by the Company or an Affiliate.

3) Selection of Participants and Determination of Awards .

a) Selection of Participants . The Committee, in its sole discretion, will select the Employees who will be Participants for any Performance Period. Participation in the Plan is in the sole discretion of the Committee, on a Performance Period by Performance Period basis. Accordingly, an Employee who is a Participant for a given Performance Period in no way is guaranteed or assured of being selected for participation in any subsequent Performance Period or Periods.

b) Determination of Target Awards . The Committee, in its sole discretion, will establish a Target Award for each Participant, which may be a percentage of a Participant’s base salary as of the beginning or end of the Performance Period or a fixed dollar amount.

c) Bonus Pool . Each Performance Period, the Committee, in its sole discretion, will establish a Bonus Pool, which pool may be established before, during or after the applicable Performance Period. Actual Awards will be paid from the Bonus Pool.

d) Discretion to Modify Awards . Notwithstanding any contrary provision of the Plan, the Committee may, in its sole discretion and at any time, (i) increase, reduce or eliminate a Participant’s Actual Award, and/or (ii) increase, reduce or eliminate the amount allocated to the Bonus Pool. The Actual Award may be below, at or above the Target Award, in the Committee’s discretion. The Committee may determine the amount of any reduction on the basis of such factors as it deems relevant and will not be required to establish any allocation or weighting with respect to the factors it considers.

e) Discretion to Determine Criteria . Notwithstanding any contrary provision of the Plan, the Committee will, in its sole discretion, determine the performance goals applicable to any Target Award which may include, without limitation, (i) attainment of research, development and launch milestones, (ii) bookings, (iii) business divestitures and acquisitions, (iv) cash flow, (v) cash position, (vi) contract awards or backlog, (vii) customer renewals, (viii) customer attrition rates or customer retention rates from an acquired company, subsidiary, business unit or division, (ix) earnings (which may include earnings before interest, tax, depreciation and amortization (“ EBITDA ”), adjusted EBITDA, EBITDA and adjusted EBITDA lifetime value, earnings before interest and taxes, earnings before taxes and net earnings, and other metrics), (x) earnings per share, (xi) expenses, (xii) gross margin, (xiii) growth in stockholder value, (xiv) internal rate of return, (xv) inventory turns, (xvi) inventory levels, market share, (xvii) net income, (xviii) net profit, (xix) net sales, (xx) new product development, (xxi) new product invention or innovation, (xxii) number of customers, (xxiii) operating cash flow, (xxiv) operating expenses, (xxv) operating income, (xxvi) operating margin, (xxvii) overhead or other expense reduction, (xxviii) product defect measures, (xxix) product development and launch and product release timelines,

(xxx) productivity, (xxxi) profit, (xxxii) return on assets, (xxxiii) return on capital, (xxxiv) return on equity, (xxxv) return on investment, (xxxvi) return on sales, (xxxvii) revenue, (xxxviii) revenue growth, (xxxix) sales results or selling efforts, (xl) sales growth and other growth initiatives, (xli) stock price, (xlii) time to market, (xliii) total stockholder return, (xliv) working capital, (xlv) financial management and operational improvement, (xlvi) product innovation and strategy, (xlvii) installation base lifetime value, (xlviii) service costs, (xlix) onboard key employees, (l) such other metrics as may be set forth in the Company's filings with the U.S. Securities Exchange Commission from time to time, and (li) individual objectives such as peer reviews or other subjective or objective criteria, each as may be adjusted. As determined by the Committee, the performance goals may be based on GAAP or Non-GAAP results and any actual results may be adjusted by the Committee for one-time items or unbudgeted or unexpected items and/or payments of Actual Awards under the Plan when determining whether the performance goals have been met. The goals may be on the basis of any factors the Committee determines relevant, and may be on an individual, divisional, business unit or enterprise basis. The performance goals may differ from Participant to Participant and from award to award. Failure to meet the goals will result in a failure to earn the Target Award, except as provided in Section 3(d).

4) Payment of Awards.

a) Right to Receive Payment. Each Actual Award will be paid solely from the general assets of the Company. Nothing in this Plan will be construed to create a trust or to establish or evidence any Participant's claim of any right other than as an unsecured general creditor with respect to any payment to which he or she may be entitled.

b) Timing of Payment. Payment of each Actual Award shall be made as soon as practicable after the end of the Performance Period during which the Actual Award was earned and after the Actual Award is approved by the Committee, but in no event later than the fifteenth (15th) day of the third (3rd) month of the fiscal year following the date the Participant's Actual Award has been earned and is no longer subject to a substantial risk of forfeiture. Unless otherwise determined by the Committee, to earn an Actual Award a Participant must be employed by the Company or any Affiliate on the date the Actual Award is paid. Accordingly, an Actual Award is not considered earned until paid.

It is the intent that this Plan be exempt from or in compliance with the requirements of Code Section 409A so that none of the payments to be provided hereunder will be subject to the additional tax imposed under Code Section 409A, and any ambiguities herein will be interpreted to so comply. Each payment under this Plan is intended to constitute a separate payment for purposes of Treasury Regulation Section 1.409A-2(b)(2).

c) Form of Payment. Each Actual Award will be paid in cash (or its equivalent) in a single lump sum.

d) Payment in the Event of Death or Disability. If a Participant dies or becomes Disabled prior to the payment of an Actual Award earned by him or her prior to death or Disability for a prior Performance Period, the Actual Award will be paid to his or her estate or to the Participant, as the case may be, subject to the Committee's discretion to reduce or eliminate any Actual Award otherwise payable.

5) Plan Administration.

a) Committee is the Administrator. The Plan will be administered by the Committee.

b) Committee Authority. The Committee will have all powers and discretion necessary or appropriate to administer the Plan in accordance with the Plan's provisions and to control its operation, including, but not limited to, the power to (i) determine which Employees will be granted awards, (ii) prescribe the terms and conditions of awards, (iii) interpret the Plan and the awards, (iv) adopt such procedures and subplans as are necessary or appropriate to permit participation in the Plan by Employees who are foreign nationals or employed outside of the United States, (v) adopt rules for the administration, interpretation and application of the Plan as are consistent therewith, and (vi) interpret, amend or revoke any such rules.

c) Decisions Binding. All determinations and decisions made by the Committee, the Board, and any delegate of the Committee pursuant to the provisions of the Plan will be final, conclusive, and binding on all persons, and will be given the maximum deference permitted by law.

d) Delegation by Committee. The Committee, in its sole discretion and on such terms and conditions as it may provide, may delegate all or part of its authority and powers under the Plan to one or more directors and/or officers of the Company.

e) Indemnification. Each person who is or will have been a member of the Committee will be indemnified and held harmless by the Company against and from (i) any loss, cost, liability, or expense that may be imposed upon or reasonably incurred by him or her in connection with or resulting from any claim, action, suit, or proceeding to which he or she may be a party or in which he or she may be involved by reason of any action taken or failure to act under the Plan or any award, and (ii) from any and all amounts paid by him or her in settlement thereof, with the Company's approval, or paid by him or her in satisfaction of any judgment in any such claim, action, suit, or proceeding against him or her, provided he or she will give the Company an opportunity, at its own expense, to handle and defend the same before he or she undertakes to handle and defend it on his or her own behalf. The foregoing right of indemnification will not be exclusive of any other rights of indemnification to which such persons may be entitled under the Company's Certificate of Incorporation or Bylaws, by contract, as a matter of law, or otherwise, or under any power that the Company may have to indemnify them or hold them harmless.

6) General Provisions.

a) Tax Withholding. The Company will withhold all applicable taxes from any Actual Award, including any federal, state and local taxes (including, but not limited to, the Participant's FICA and SDI obligations).

b) No Effect on Employment or Service. Nothing in the Plan will interfere with or limit in any way the right of the Company to terminate any Participant's employment or service at any time, with or without cause. For purposes of the Plan, transfer of employment of a Participant between the Company and any one of its Affiliates (or between Affiliates) will not be deemed a Termination of Service. Employment with the Company and its Affiliates is on an at-will basis only. The Company expressly reserves the right, which may be exercised at any time and without regard to when during a Performance Period such exercise occurs, to terminate any individual's employment with or without cause, and to treat him or her without regard to the effect that such treatment might have upon him or her as a Participant.

c) Participation. No Employee will have the right to be selected to receive an award under this Plan, or, having been so selected, to be selected to receive a future award.

d) Successors. All obligations of the Company under the Plan, with respect to awards granted hereunder, will be binding on any successor to the Company, whether the existence of such successor is the result of a direct or indirect purchase, merger, consolidation, or otherwise, of all or substantially all of the business or assets of the Company.

e) Beneficiary Designations. If permitted by the Committee, a Participant under the Plan may name a beneficiary or beneficiaries to whom any vested but unpaid award will be paid in the event of the Participant's death. Each such designation will revoke all prior designations by the Participant and will be effective only if given in a form and manner acceptable to the Committee. In the absence of any such designation, any vested benefits remaining unpaid at the Participant's death will be paid to the Participant's estate.

f) Nontransferability of Awards. No award granted under the Plan may be sold, transferred, pledged, assigned, or otherwise alienated or hypothecated, other than by will, by the laws of descent and distribution, or to the

limited extent provided in Section 6(e). All rights with respect to an award granted to a Participant will be available during his or her lifetime only to the Participant.

7) Amendment, Termination, and Duration.

a) Amendment, Suspension, or Termination. The Board, in its sole discretion, may amend or terminate the Plan, or any part thereof, at any time and for any reason. The amendment, suspension or termination of the Plan will not, without the consent of the Participant, alter or impair any rights or obligations under any Actual Award theretofore earned by such Participant. No award may be granted during any period of suspension or after termination of the Plan.

b) Duration of Plan. The Plan will commence on the date specified herein, and subject to Section 7(a) (regarding the Board's right to amend or terminate the Plan), will remain in effect thereafter.

8) Legal Construction.

a) Gender and Number. Except where otherwise indicated by the context, any masculine term used herein also will include the feminine; the plural will include the singular and the singular will include the plural.

b) Severability. In the event any provision of the Plan will be held illegal or invalid for any reason, the illegality or invalidity will not affect the remaining parts of the Plan, and the Plan will be construed and enforced as if the illegal or invalid provision had not been included.

c) Requirements of Law. The granting of awards under the Plan will be subject to all applicable laws, rules and regulations, and to such approvals by any governmental agencies or national securities exchanges as may be required.

d) Governing Law. The Plan and all awards will be construed in accordance with and governed by the laws of the State of Delaware, but without regard to its conflict of law provisions.

e) Bonus Plan. The Plan is intended to be a "bonus program" as defined under U.S. Department of Labor regulation 2510.3-2(c) and will be construed and administered in accordance with such intention.

f) Captions. Captions are provided herein for convenience only and will not serve as a basis for interpretation or construction of the Plan.

**CERTIFICATION OF PERIODIC REPORT UNDER SECTION 302 OF
THE SARBANES-OXLEY ACT OF 2002**

I, Todd Pedersen, certify that:

1. I have reviewed this Amendment No. 1 to the annual report on Form 10-K for the year ended December 31, 2018 of APX Group Holdings, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 8, 2019

/s/ Todd Pedersen

Todd Pedersen

Chief Executive Officer and Director

(Principal Executive Officer)

**CERTIFICATION OF PERIODIC REPORT UNDER SECTION 302 OF
THE SARBANES-OXLEY ACT OF 2002**

I, Mark Davies, certify that:

1. I have reviewed this Amendment No. 1 to the annual report on Form 10-K for the year ended December 31, 2018 of APX Group Holdings, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 8, 2019

/s/ Mark Davies

Mark Davies

Chief Financial Officer

(Principal Financial Officer)

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350
AS ADOPTED PURSUANT TO SECTION 906
OF THE SARBANES-OXLEY ACT OF 2002**

In connection with Amendment No. 1 to the Annual Report of APX Group Holdings, Inc. (the “Company”) on Form 10-K for the year ended December 31, 2018 filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Todd Pedersen, Chief Executive Officer and Director of the Company, do hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

- The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company for the periods presented therein.

Date: March 8, 2019

/s/ Todd Pedersen

Todd Pedersen
Chief Executive Officer and Director
(Principal Executive Officer)

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350
AS ADOPTED PURSUANT TO SECTION 906
OF THE SARBANES-OXLEY ACT OF 2002**

In connection with Amendment No. 1 to the Annual Report of APX Group Holdings, Inc. (the “Company”) on Form 10-K for the year ended December 31, 2018 filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Mark Davies, Chief Financial Officer of the Company, do hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

- The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company for the periods presented therein.

Date: March 8, 2019

/s/ Mark Davies

Mark Davies
Chief Financial Officer
(Principal Financial Officer)