

ANNUAL REPORT AND FORM 10-K | 2019

LEADING THE DIGITAL TRANSFORMATION FOR INDUSTRY



Dear Fellow Shareholders,

With more than 25 years of experience in delivering breakthrough technology, products and services that connect the world's assets, ORBCOMM is a leader and innovator in driving the digital transformation of industry. In 2019 we solidified our position as the vendor of choice in the Industrial Internet of Things (IIoT), providing our customers with advanced solutions that extend beyond track and trace to help them be more competitive, efficient and profitable. By offering customers around the globe a Cloud-based platform that is built for the future, integrating multiple asset types, unique feature sets as well as incremental value through data analytics, we have a differentiated IIoT portfolio positioned to drive growth in 2020.

2019 was driven largely by our integration efforts, focused on building efficiency and scalability across the Company and consolidating our existing products and platforms that we gained through our 13 acquisitions. We are in the process of converging redundant hardware, overlapping web platforms and multiple accounting systems to increase efficiencies across the business. These efforts have already resulted in lowering the number of hardware product lines from our high of 160 down to 53 and, in the process, have reduced inventory levels by more than 20 percent and improved hardware margins by 25 percent. We expect further consolidation in 2020 leading to just 40 hardware product lines. We are also in the process of converging over 20 web platforms across our various solutions with the goal of just two, thereby reducing integrations across multiple platforms and better utilizing our resources to focus on innovation. In addition, we have implemented a global Enterprise Resource Planning (ERP) System to integrate all 13 acquisitions on a single platform,

enabling a more efficient financial close process, improved inventory turns and simplified billing. Overall, as a result of these initiatives, we believe ORBCOMM will emerge as a fully integrated, better scaled and more productive company. Our focus in 2020 can now turn to advancing our technology and better serving our customers, leading to faster growth and further cash generation, all of which are key to the future success of the Company.

From a financial perspective, our integration efforts led to significant margin expansion across service, product and Adjusted EBITDA, as well as improved cash flow generation. While ORBCOMM has a history of strong organic revenue growth, 2019 Total Revenues of \$272 million were in the same range as 2018. Revenues were impacted by a difficult U.S. transportation macro environment with heightened global trade tensions. Despite nearly flat revenues, our efforts to deploy new cost-optimized products and improve overall service margins resulted in achieving

record Adjusted EBITDA of \$63 million, an 11% increase over 2018. This performance helped generate \$30 million in Operating Cash Flow, a significant increase of \$19 million over the prior year. While these results represent improvements over the prior year, our share price does not reflect these improvements, nor does it reflect the expected benefits of the investments we have made in our integration efforts. As we look to 2020, with these new levels of margins, cash flow moving in an upward trend and large deployments underway, we anticipate our financial performance to continue to improve, achieving greater levels of profitability and shareholder value.

With the increasing role IIoT technology is playing in our customers' operations, we continue to make innovation a priority. In addition to rolling out new feature-rich, cost-reduced products and services, we embarked on a number of new product development initiatives. For example, to support the heavy equipment industry, we introduced an enhanced heavy equipment monitoring device available in single and dual-mode satellite, as well as a low-cost asset tracking device equipped with an integrated antenna, all available on our enhanced FleetEdge4 web platform. We expanded our refrigerated container and vessel monitoring platforms to manage the intermodal industry's new, energy-efficient Controlled Atmosphere containers, which regulate carbon dioxide, oxygen and nitrogen levels to enhance the quality and shelf life of produce in transit. There are several product and service innovations planned for launch in 2020, which feature disruptive technology, our unique dual-mode connectivity, an array of sensors and customer-specific integrations, providing greater value and ROI-driven insights to customers about their business operations.

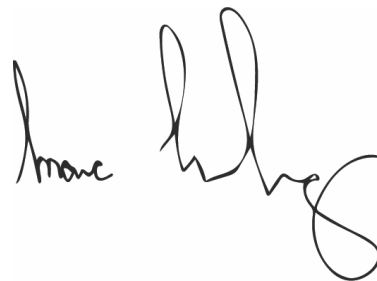
To enhance our satellite offering, we contracted to build, launch and operate two next generation Automatic Identification System (AIS) CubeSats to expand AIS coverage, increase visibility to smaller Class B ships and enhance our polar footprint. The CubeSats, which feature three dedicated AIS receivers and a state-of-the-art antenna, are expected to outperform all other AIS satellites in orbit. We are expecting the first launch in late 2020.

In 2019 we leveraged our deep industry expertise, value-added services and leading-edge technology to win opportunities in the transportation & distribution, supply chain & logistics, heavy equipment, maritime and government industries. We expanded our customer portfolio with some pivotal wins, many of which were "double play" and "triple play" opportunities that selected ORBCOMM for our ability to deliver solutions for multiple asset classes, including dry van, refrigerated and in-cab, utilizing a single integrated platform. We secured one of our most significant opportunities to date with Carrier, the largest refrigerated transportation OEM globally, in support of one of the industry's largest shipping companies. This exciting project is a fleet-wide, global deployment of 150,000 devices that spans five continents and enables the customer to gain complete command and control of their refrigerated containers. There are several other high-profile customers and many small and mid-sized opportunities on the horizon that are setting the stage for a strong 2020.

As we head into a new decade, we are proud of our impact on the digitization of industry and will continue to strive for profitable growth and operational excellence through our integration efforts to build efficiency and scalability across the Company. We are confident in our strategic plan and believe that 2020 will bring an increasing number of customer opportunities in new geographies and market segments, improved financial results and increased shareholder value.

On behalf of the ORBCOMM team, thank you for your continued support.

Sincerely,

A handwritten signature in black ink, appearing to read "Marc Eisenberg". The signature is fluid and cursive, with the first name "Marc" written in a smaller, more compact script than the last name "Eisenberg", which is written in a larger, more expansive cursive style.

Marc Eisenberg
Chief Executive Officer

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, DC 20549

Form 10-K

(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, 2019

or

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

For the transition period from _____ to _____
Commission file number 001-33118

ORBCOMM INC.

(Exact name of registrant in its charter)

Delaware
*(State or other jurisdiction of
incorporation of organization)*

41-2118289
*(I.R.S. Employer
Identification Number)*

**395 W. Passaic Street
Rochelle Park, New Jersey 07662**
(Address of principal executive offices)

Registrant's telephone number, including area code:
(703) 433-6300

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

<u>Title of Each Class:</u>	<u>Trading Symbols(s)</u>	<u>Name of Each Exchange on Which Registered:</u>
Common stock, par value \$0.001 per share	ORBC	The Nasdaq Stock Market, LLC

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

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

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

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

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

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

Large accelerated filer	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

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 the registrant's common stock held by non-affiliates of the registrant (based on the closing price reported on the Nasdaq Global Market on June 30, 2019) was \$545,928,379.

Shares held by all executive officers and directors of the registrant have been excluded from the foregoing calculation because such persons may be deemed to be affiliates of the registrant.

The number of shares of the registrant's common stock outstanding as of February 21, 2020 was 78,344,013.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's Proxy Statement for the 2020 Annual Meeting of Stockholders to be held on April 22, 2020 are incorporated by reference in Part III of this Form 10-K.

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Forward- Looking Statements

Certain statements discussed in Part I, Item 1. “Business”, Part I, Item 3. “Legal Proceedings”, Part II, Item 7. “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and elsewhere in this Annual Report on Form 10-K constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These forward-looking statements generally relate to our plans, estimates, objectives and expectations for future events, as well as projections, business trends and other statements that are not historical facts. Such forward-looking statements are subject to known and unknown risks and uncertainties, some of which are beyond our control, which may cause our actual results, performance or achievements, or industry results, to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. These risks and uncertainties include but are not limited to: demand for and market acceptance of our products and services and our ability to successfully implement our business plan; our dependence on our subsidiary companies (Market Channel Affiliates (“MCAs”)) and third-party product and service developers and providers, distributors and resellers (Market Channel Partners (“MCPs”)) to develop, market and sell our products and services, especially in markets outside the United States; substantial losses we have incurred and may continue to incur; substantial competition in the telecommunications, AIS data and industrial IoT industries; the inability to effect suitable investments, alliances and acquisitions or the inability to successfully integrate acquired businesses and systems; defects, errors or other insufficiencies in our products or services; failure to meet minimum service level commitments to certain of our customers; our dependence on significant customers for a substantial portion of our revenues, including key customers such as JB Hunt Transport Services, Inc., Caterpillar Inc., Komatsu Ltd., Carrier Transicold and Satlink S.L.; our ability to expand our business outside the United States and risks related to the economic, political and other conditions in foreign countries in which we do business; fluctuations in foreign currency exchange rates; unanticipated domestic or foreign tax or fee liabilities; the possibility we will be required to collect certain taxes in jurisdictions where we have not historically done so; economic, political and other conditions; extreme events such as man-made or natural disasters, earthquakes, severe weather or other climate change-related events; our dependence on a limited number of manufacturers for many of our products and services; interruptions, discontinuations, slowdown or loss of the supply of subscriber communicators from our vendor Sanmina Corporation; legal proceedings; our reliance on intellectual property; increased regulatory restrictions and oversight; lack of in-orbit or other insurance for our ORBCOMM Generation 1 or ORBCOMM Generation 2 satellites; our reliance on third-party wireless network service providers to deliver existing and developing services in certain areas of our business; significant interruptions, discontinuation or loss of services provided by Inmarsat plc; failure to maintain proper and effective internal controls; inaccurate estimates in accounting or incorrect financial assumptions; significant operating risks related to our satellites due to various types of potential anomalies and potential impacts of space debris or other spacecrafts; the failure of our systems or reductions in levels of service due to technological malfunctions or deficiencies or other events outside of our control; difficulty upgrading or replacing aging hardware and software we use in operating our gateway earth stations and our customers’ subscriber communicators; technical or other difficulties with our gateway earth stations; security risks related to our networks, data processing systems and software systems and those of our third-party service providers; liabilities or additional costs as a result of laws, governmental regulations and evolving views of personal privacy rights; failure of our information technology systems; cybersecurity risks; the level of our indebtedness and the terms of our \$250.0 million 8.0% senior secured note indenture and our revolving credit agreement, under which we may borrow up to \$25.0 million, that could restrict our business activities or our ability to execute our strategic objectives or adversely affect our financial performance; and risks related to an investment in our common stock, including volatility due to our quarterly performance or our recently announced stock repurchase program. In addition, specific consideration should be given to various factors described in Part I, Item 1A. “Risk Factors” and Part II, Item 7. “Management’s Discussion and Analysis of Financial Condition and Results of Operations”, and elsewhere in this Annual Report on Form 10-K. We undertake no obligation to publicly revise any forward-looking statements or cautionary factors, except as required by law.

PART I

Item 1. *Business*

We are a global provider of industrial Internet of Things (“IoT”) solutions, including network connectivity, devices, device management and web reporting applications. These solutions enable optimal business efficiencies, increased asset utilization and reduced asset write-offs, helping customers realize benefits on a worldwide basis. Our industrial IoT products and services are designed to track, monitor, control and enhance security for a variety of assets, such as trailers, trucks, rail cars, sea containers, power generators, fluid tanks, marine vessels, diesel or electric powered generators (“gensets”), oil and gas wells, pipeline monitoring equipment, irrigation control systems, and utility meters, in the transportation and supply chain, heavy equipment, fixed asset monitoring and maritime industries, as well as for governments. Additionally, we provide satellite Automatic Identification Service (“AIS”) data services to assist in vessel navigation and to improve maritime safety for government and commercial customers worldwide. Through two acquisitions in 2017, we added vehicle fleet management, as well as in-cab and fleet vehicle solutions, to our transportation solution portfolio. We provide our services using multiple network platforms, including our own constellation of low-Earth orbit (“LEO”) satellites and our accompanying ground infrastructure, as well as terrestrial-based cellular communication services obtained through reseller agreements with major cellular (Tier One) wireless providers. We also offer customer solutions utilizing additional satellite network service options that we obtain through service agreements we have entered into with third-party mobile satellite providers. Our satellite-based customer solution offerings use small, low-power, mobile satellite subscriber communicators for remote asset connectivity, and our terrestrial-based solutions utilize cellular data modems with subscriber identity modules (“SIMs”). We also resell service using the two-way Inmarsat plc (“Inmarsat”) satellite network to provide higher bandwidth, low-latency satellite products and services, leveraging our IsatDataPro (“IDP”) technology. Our customer solutions provide access to data gathered over these systems through connections to other public or private networks, including the Internet. We are dedicated to providing what we believe are the most versatile, leading-edge industrial IoT solutions in our markets that enable our customers to run their business operations more efficiently and achieve significant return on investment.

Customers benefiting from our network, products and solutions include original equipment manufacturers (“OEMs”), such as Caterpillar Inc., Doosan Infracore America, Hitachi Construction Machinery Co., Ltd., John Deere, Komatsu Ltd., and Volvo Construction Equipment; vertical market technology integrators known as value-added resellers (“VARs”) and international value-added resellers (“IVARs”), such as American Innovations, and value-added solutions providers, such as Onixsat, Satlink and Sascar (collectively referred to as “MCPs”); and end-to-end solutions customers such as Carrier Transicold, C&S Wholesale, Canadian National Railways, CR England, Hub Group, Inc., JB Hunt Transport Services, Inc. (“JB Hunt”), KLLM Transport Services, Marten Transport, Prime Inc., Swift Transportation, Target, Tropicana, Tyson Foods, Walmart and Werner Enterprises.

We derive service revenues primarily from monthly fees for industrial IoT connectivity services that consist of subscriber-based and recurring monthly usage fees for each subscriber communicator or SIM activated for use on our satellite network, as well as other satellite networks and cellular wireless networks that we resell to our customers (i.e., our MCPs, MCAs and direct customers). We also generate recurring AIS service revenues from subscription-based services supplying recurring AIS data services to customers and resellers, as well as monthly subscription-based service revenues from our platform that provides operational and transaction data management and business intelligence. In addition, we earn service revenues from extended warranty service agreements extending beyond the initial warranty period of typically one year; installation services; royalty fees from third parties for the use of our proprietary communications protocol, recognized at a point in time when the third parties notify us of the units they have manufactured and a unique serial number is assigned to each unit; and fees from providing engineering, technical and management support services to our customers.

We derive product sales primarily from sales of complete industrial IoT telematics devices, modems and cellular wireless SIMs (for our terrestrial-communication services) to our resellers (i.e., our MCPs and MCAs) and direct customers. Revenues generated from product sales are either recognized when the products are shipped or when customers accept the product, depending on the specific contractual terms. Shipping costs billed to customers are included in product sales and the related costs are included as cost of product sales.

Unless otherwise noted or the context otherwise requires, references in this Form 10-K to “ORBCOMM,” “the Company,” “our company,” “we,” “us” or “our” refer to ORBCOMM Inc. and its direct and indirect subsidiaries.

Business Development Activities

Stock repurchase program

On August 5, 2019, our Board of Directors authorized a stock repurchase program under which we may repurchase up to \$25.0 million of our outstanding shares of common stock through open market transactions and privately negotiated transactions, until August 5, 2020. In addition, open market repurchases of our shares of common stock may be made pursuant to applicable securities laws and regulations, including Rule 10b-18, as well as Rule 10b5-1 under the Securities Exchange Act of 1934, as amended. During the year ended December 31, 2019, we repurchased 1,930,414 shares at an average share price of \$4.86. As of December 31, 2019, authorization for approximately \$15.6 million of our common stock remained available for future purchases under the repurchase program.

Share offering

On April 13, 2018, we filed a shelf registration statement with the Securities and Exchange Commission (“SEC”), registering an unspecified amount of debt and/or equity securities that we may offer in one or more offerings on terms to be determined at the time of sale. The shelf registration statement was automatically effective upon filing and superseded and replaced our previous shelf registration statement declared effective on April 14, 2015, which was due to expire on April 14, 2018.

On April 10, 2018, we completed a public offering of 3,450,000 shares of our common stock, including 450,000 shares sold upon exercise in full of the underwriters’ option to purchase additional shares, at a price of \$8.60 per share. We received net proceeds of approximately \$28.0 million after deducting underwriters’ discounts and commissions and offering costs.

Senior secured notes

On April 10, 2017, we issued \$250.0 million aggregate principal amount of 8.0% senior secured notes due 2024 (the “Senior Secured Notes”). The Senior Secured Notes were issued pursuant to an indenture, dated as of April 10, 2017, among us, certain of our domestic subsidiaries party thereto (the “Guarantors”) and U.S. Bank National Association, as trustee and collateral agent (the “Indenture”). The Senior Secured Notes are unconditionally guaranteed on a senior secured basis by the Guarantors and are secured on a first priority basis by (i) pledges of capital stock of certain of our directly- and indirectly-owned subsidiaries; and (ii) substantially all of our and our Guarantors’ other property and assets, to the extent a first priority security interest is able to be granted or perfected therein, and subject, in all cases, to certain specified exceptions, and an intercreditor agreement with the collateral agent for our revolving credit facility described below. Interest payments are due on the Senior Secured Notes semi-annually in arrears on April 1 and October 1, beginning October 1, 2017.

We have the option to redeem some or all of the Senior Secured Notes at any time on or after April 1, 2020, at redemption prices set forth in the Indenture plus accrued and unpaid interest, if any, to the date of redemption. We also have the option to redeem some or all of the Senior Secured Notes at any time before April 1, 2020 at a redemption price of 100% of the principal amount of the Senior Secured Notes to be redeemed, plus a “make-whole” premium and accrued and unpaid interest, if any, to the date of redemption. In addition, at any time before April 1, 2020, we may redeem up to 35% of the aggregate principal amount of the Senior Secured Notes to be redeemed, plus accrued and unpaid interest, if any, to the date of redemption, with the proceeds from certain equity issuances.

The Indenture contains covenants that, among other things, limit our ability and our restricted subsidiaries’ ability to: (i) incur or guarantee additional indebtedness; (ii) pay dividends, make other distributions or repurchase or redeem capital stock; (iii) prepay, redeem or repurchase certain indebtedness; (iv) make loans and investments; (v) sell, transfer or otherwise dispose of assets; (vi) incur or permit to exist certain liens; (vii) enter into certain types of transactions with affiliates; (viii) enter into agreements restricting our subsidiaries’ ability to pay dividends; and (ix) consolidate, amalgamate, merge or sell all or substantially all of their assets; subject, in all cases, to certain specified exceptions. Such limitations have various exceptions and baskets as set forth in the Indenture, including the incurrence by us and our restricted subsidiaries of indebtedness under potential new credit facilities in the aggregate principal amount at any one time outstanding not to exceed \$50.0 million.

On April 10, 2017, a portion of the proceeds from the issuance of the Senior Secured Notes was used to repay in full our outstanding obligations under our \$150.0 million outstanding credit facilities incurred pursuant to the secured credit facilities credit agreement entered into on September 30, 2014, and to terminate the agreement, resulting in an early payment fee of \$1.5 million and an additional expense associated with the remaining unamortized debt issuance cost of \$2.4 million.

Revolving credit facility

On December 18, 2017, we and certain of our subsidiaries entered into a senior secured revolving credit agreement (the “Revolving Credit Agreement”) with JPMorgan Chase Bank, N.A. (“JPMorgan Chase”), as administrative agent and collateral agent. The Revolving Credit Agreement provides for a revolving credit facility (the “Revolving Credit Facility”) in an aggregate principal amount of up to \$25.0 million for working capital and general corporate purposes and matures on December 18, 2022. The Revolving Credit Facility bears interest at an alternative base rate or an adjusted LIBOR, plus an applicable margin of 1.50% in the case of alternative base rate loans and 2.50% in the case of adjusted LIBOR loans. The Revolving Credit Facility is secured by a first priority security interest in substantially all of our and our subsidiaries’ assets under a security agreement among the Company, the applicable subsidiaries and JPMorgan Chase, subject to an intercreditor agreement with the indenture trustee for the Senior Secured Notes. The Revolving Credit Facility has no scheduled principal amortization until the maturity date. Subject to the terms set forth in the Revolving Credit Agreement, we may borrow, repay and reborrow amounts under the Revolving Credit Facility at any time prior to the maturity date.

The Revolving Credit Agreement contains customary representations and warranties, conditions to funding, covenants and events of default. The Revolving Credit Agreement contains covenants that, among other things, limit us and our restricted subsidiaries’ ability to: (i) incur or guarantee additional indebtedness; (ii) pay dividends, make other distributions or repurchase or redeem capital stock; (iii) prepay, redeem or repurchase certain indebtedness; (iv) make loans and investments; (v) sell, transfer or otherwise dispose of assets; (vi) incur or permit to exist certain liens; (vii) enter into certain types of transactions with affiliates; (viii) enter into agreements restricting our subsidiaries’ ability to pay dividends; and (ix) consolidate, amalgamate, merge or sell all or substantially all of their assets; subject, in all cases, to certain specified exceptions. Such limitations have various baskets as set forth in the Revolving Credit Agreement.

At December 31, 2019, no amounts were outstanding under the Revolving Credit Facility. As of December 31, 2019, we were in compliance with all financial covenants under the Revolving Credit Agreement.

Strategic alliance with Inmarsat

In early 2016, in connection with the strategic alliance with Inmarsat announced on November 4, 2013, we introduced the first of a series of interchangeable modems that work with either our ORBCOMM Generation 2 (“OG2”) VHF network or Inmarsat’s L-band network. These modems have the same footprint, connectors, power input, and programming environment to allow for easy exchange of modems for the different networks. Manufacturers and partners are able to place into their products the appropriate modem that corresponds with either our or Inmarsat’s network based on geography, message size and delivery speed for ease of use and flexibility. In addition, users are able to take advantage of our relationships with Tier One cellular providers for dual-mode cellular and satellite service with either satellite network. We also offer our unique ORBCOMMConnect Platform, which seamlessly translates and integrates the communications from our diverse network service partners into a uniform set of commands and information. This facilitates a uniform platform for provisioning, billing and multi-mode access for industrial IoT applications, supported by Inmarsat’s machine-to-machine (“M2M”) Access Platform, enabling access to network and terminal management tools for wholesale integration with us.

These versatile offerings are available in our end-to-end solutions for heavy equipment, fixed asset monitoring and transportation industries, as well as through our MCPs. We leverage our relationship with Inmarsat to access their worldwide fleet of L-band geostationary (“GEO”) satellites to provide IDP, a satellite packet data service offering the highest throughput and lowest latency in the market.

Our Business Strengths and Competitive Advantage

With years of experience in providing global M2M and industrial IoT solutions, we continue to deliver advanced products and services that connect the world’s assets to increase visibility, operational efficiency and profitability and enable faster and smarter business decisions through data analytics and reporting for our customers across a wide range of vertical markets. As industrial IoT and business intelligence technologies transform the competitive landscape at an increasing pace, customers are looking for more sophisticated solutions that extend beyond track and trace applications to unlock incremental value in their business so they can see more, know more and do more.

Our key competitive advantages include a broad range of industrial IoT network connectivity solutions, including cellular network connectivity through our partnerships with Tier One cellular carriers, and global, two-way satellite data communication connectivity through our own network of LEO satellites and accompanying ground infrastructure, as well as through a strategic partnership with Inmarsat.

By leveraging our deep industry expertise and market domain knowledge in transportation & distribution, supply chain & logistics, heavy equipment, maritime industries, as well as for governments, we are changing the way enterprises track, monitor, protect, control, and predict the behavior of assets around the world. We provide individual application components, such as modems and chip sets, as well as full end-to-end solutions, such as freight transportation monitoring, cold chain compliance, refrigerated asset monitoring, vehicle fleet management, in-cab driver safety and cargo security systems. Our combination of global network services along with our state-of-the-art devices, and an open, cloud-based analytics platform and information management engine provides what we believe is the global industrial IoT market's most comprehensive service offering and positions us as a leader and innovator in this marketplace. In addition, our global solution delivery team provides end-to-end customer service – from installation to deployment to ongoing customer care — to support our diverse customer base anywhere in the world. We believe that our approach to industrial IoT solutions along with the depth of our expertise are unique in our industry and position us to respond effectively to rapidly evolving market demands.

Our customer base has widely divergent requirements for hardware, connectivity, middleware, and software that depend, in part, on specific industry, geography, and price requirements. Leveraging our engineering expertise in the global industrial IoT sector and through our diverse portfolio of devices, network services, and data analytics platform, we offer solutions that enable customers to minimize development time, reduce costs and increase operational efficiency, whether by saving on fuel, improving asset turn times, lowering maintenance costs or optimizing asset utilization. In addition to operational and transaction data management for customers in our key markets, our robust platform provides in-depth descriptive, predictive and prescriptive insights to increase the efficiency of customer processes and better manage costs, resulting in a strong return on investment. We believe our flexibility in responding to unique customer requirements, as well as our ability to provide all these products and services ourselves as a single source enhances our competitive positioning.

Through our satellite network, we provide worldwide coverage, including in the open ocean, allowing end users to access our communications system in areas outside the coverage of terrestrial networks. Our unique, proven technology offers full two-way data communication with minimal line-of-sight limitations and reliable performance. Using our satellite-based AIS system, which is equipped on each of our OG2 satellites, our customers have access to AIS data well beyond coastal regions in a cost-effective and timely fashion. We provide global AIS data service through a combination of satellite and terrestrial data, enabling government and commercial customers to track more than 200,000 AIS-equipped vessels worldwide per day, facilitating maritime surveillance and intelligence. We intend to continue working with system integrators and maritime information service providers to develop AIS-based value-added services and to facilitate the sales and distribution of AIS data.

In addition, we are continuing to make investments to support growth in the AIS markets by enhancing our service offering. We are partnering with Clyde Space, who will build, launch and operate our two next-generation AIS CubeSats, each of which host three dedicated AIS receivers, including a highly versatile Software Defined Radio, along with a state-of-the-art antenna concept to maximize AIS detections. The two new satellites are expected to expand coverage of our constellation, increase visibility to smaller Class B ships and enhance our polar footprint with launches planned on two separate missions starting in late 2020.

Our Strategy

Our long-term growth strategy capitalizes on expanding our capabilities and distribution through a build, buy or partner approach based on time to market and return on investment. Our growth is a result of our ability to leverage our extensive world-class in-house engineering capabilities to design new products, as well as reduce costs and improve the functionality of our products through product redesign initiatives. In addition, we continue to identify strategic acquisitions that expand existing business lines, increase our resources and scalability and build collaborative partnerships with fellow industry leaders.

Our strategic relationships with key distributors and OEMs have enabled us to streamline our sales and distribution channels and, in some cases, shift much of the risk and cost of developing and marketing end-user applications to the OEMs and MCPs. We have established strategic relationships with major OEMs, such as Carrier Transicold, Komatsu Ltd., Volvo Construction Equipment and Oshkosh Corporation / JLG Industries, Inc., as well as key VARs and IVARs, such as Precise Innovations and American Innovations in North America, along with Onixsat, Satlink S.L. and Sascar in key international markets.

Industry Overview

Businesses and governments increasingly face the need to track, control, monitor and communicate with fixed and mobile assets that are located throughout the world. At the same time, these assets increasingly incorporate microprocessors, sensors and other devices that can provide a variety of information and analytical insight about the asset's location, condition, operation and environment and are capable of responding to external commands and queries. As these intelligent devices proliferate, we believe that the need to establish two-way communications with these devices is greater than ever. The owners and operators of these intelligent devices are seeking low-cost and efficient communications systems that will enable them to communicate with these devices.

We operate in the industrial IoT industry, which includes various types of communications systems that enable intelligent machines, devices and fixed or mobile assets to communicate information from the machine, device, or fixed or mobile asset to and from back-office information systems of the businesses and government agencies that track, monitor, control and communicate with them. These industrial IoT data communications systems integrate a number of technologies and cross several different industries, including computer hardware and software systems, positioning systems, terrestrial and satellite communications networks and information technologies (such as data hosting and business intelligence).

There are four main components in any industrial IoT data communications system:

1. *Devices and device management.* Devices and sensors collect, measure, record and gather data about intelligent or trackable remote or mobile assets and their environment to be used, analyzed or otherwise disseminated to other machines, applications or human operators. These devices and sensors can:
 - Report the location, speed and fuel economy data from trucks and locomotives;
 - Monitor the location, condition and environmental factors of dry van trailers, railcars and marine shipping containers;
 - Monitor the location, condition and temperature of refrigerated trailers, railcars and marine shipping containers that transport temperature-sensitive cargo, including remote command and control of temperature;
 - Monitor vehicle fleet location, route details and fuel usage;
 - Monitor driver in-cab behavior;
 - Report operating data usage and required maintenance for heavy equipment;
 - Monitor fishing vessels to enforce government regulations regarding geographic and seasonal restrictions;
 - Report the location and condition of ocean buoys;
 - Report energy consumption from a utility meter;
 - Monitor corrosion in a pipeline;
 - Monitor levels in liquid, gas and materials storage tanks;
 - Measure water delivery in agricultural pipelines; and
 - Monitor environmental conditions in agricultural facilities.
2. *Network connectivity and subscriber management.* The communications network enables a connection to take place between the fixed or mobile asset and the back-office systems and users of that asset's data. The proliferation of terrestrial and satellite-based wireless networks has enabled the creation of a variety of industrial IoT data communications applications. Networks that are being used to deliver asset data include terrestrial communications networks, such as cellular, radio paging and WiFi networks, and satellite communications networks, utilizing LEO or GEO satellites.
3. *Software-as-a-Service ("SaaS") applications.* Data collected from a remote asset is used in a variety of ways with SaaS applications that allow the end user to track, monitor, control, communicate with and predict the behavior of these assets with a greater degree of control and with much less time and expense than would be required to do so manually.
4. *Platform-as-a-Service ("PaaS").* Multiple devices over various networks are better managed with a device management platform, utilizing cloud-based portal technology to provide visibility and management to all devices. With a single interface for managing multiple networks and devices, connectivity and device-specific messaging is abstracted to a common interface and messaging application programming interface (API), allowing the end user to speak one language to all of their connected industrial IoT devices for complete interoperability.

Market Opportunity

We believe the following market opportunities, as well as the increasing mainstream deployment of industrial IoT solutions, will continue to position us as a leader and innovator in the global industrial IoT market:

Commercial transportation and distribution

For-hire transportation companies, including truckload carriers, shipping lines, railroads and third-party logistics providers, and the in-house transportation operations of enterprises are increasingly requiring industrial IoT telematics solutions to manage their transportation assets more safely and efficiently and to improve performance and utilization. These wireless devices report location, engine diagnostic data, fuel consumption, compliance, fuel taxes, driver electronic data logs, cargo condition, on/off utilization, empty/loaded condition, demurrage and detention, facility entry/exit, as well as a wide variety of other functions, in order to provide better control over business operations.

A growing number of truck and trailer fleet owners, operators and OEMs are integrating industrial IoT data communications systems into their transportation operations. In order to improve driver safety and effectively track hours of service, the Federal Motor Carrier Safety Administration (FMCSA) instituted regulatory requirements for Electronic Logging Devices (ELDs), also known as the “ELD Mandate,” with a deadline of December 16, 2019. Through the Blue Tree Systems Limited (“Blue Tree”) acquisition, we are now able to offer what we believe is the most advanced and user-friendly ELD solution on the market for medium-to large-sized fleets, which not only enables regulatory compliance but also enables far greater operational efficiency. The trailer market also requires additional wireless applications, such as cargo sensor reporting, load monitoring, fuel measurement, control of refrigeration systems and door alarms, which we offer as part of our complete transportation solution portfolio. Future regulations may require position tracking of specific types of cargo, such as hazardous materials, and could also increase trailer tracking market opportunities. The coordination and integration of the broad collection of transportation assets, including trucks, trailers, containers, chassis and gensets, through an integrated service can provide significant benefits, synergies and savings to customers through operating efficiencies and increased logistical performance. The unified delivery of all these transport asset solutions provides a significant advantage for us, which now offers what we believe is the transportation industry’s most comprehensive, integrated platform for nearly all transportation assets leveraging the technology acquired from the inthinc, Inc. (“Inthinc”) acquisition and Blue Tree acquisition.

Refrigerated or cold chain transportation shippers and transportation companies have a growing need to track and monitor environmental and control conditions and fill the visibility gap of cargo over rail, trucking and sea transport, representing an important market opportunity. Our industry-leading cold chain monitoring solutions, including those for trailers, railcars, gensets and sea containers, address this significant market. In addition, the Food and Drug Administration’s Food Safety Modernization Act (“FSMA”) continues to impact the growth of our market opportunity in this sector as we continue to work with our customers to ensure they are informed, compliant and FSMA-ready. The FSMA ensures the safety of food across the supply chain through the introduction of new requirements for food manufacturers, processors, transporters and distributors. The FSMA requires every large food distribution company to implement wireless monitoring solutions at every step, from farm to table, which we expect will continue to increase the demand for our cold chain monitoring systems.

Fleet management

Enterprises that utilize large and geographically dispersed fleets of vehicles are demanding improved fleet visibility, operational efficiency, regulatory compliance, and improved asset management. The demand for fleet management solutions has increased due to driver hours of service regulations imposed in the United States by the ELD Mandate, innovations in workforce productivity, more efficient driver performance via electronic monitoring, and new safety applications. Wireless applications provide enterprise fleet operators with a wide variety of fleet management services, including driver hours of service compliance, asset tracking, instantaneous driver coaching and performance feedback, vehicle efficiency monitoring, fuel management, and asset utilization. Through the Blue Tree acquisition, we offer a driver-friendly, ELD-compliant in-cab solution to private and for-hire truck fleets. Fleet asset management is one of the largest and most dynamic markets for industrial IoT applications and offers a rapid growth opportunity for specialized solutions for in-cab telematics in the freight transportation industry.

Fleet safety and compliance

Commercial vehicle accidents caused by driver behavior is the most frequent and costly source of safety liability for many industrial companies. Lapses in driver behavior contribute to the majority of industrial safety-related injuries and deaths, costing billions of dollars annually. Improving fleet safety involves more than simple driver monitoring and reactive policy measures—it requires a proactive solution that provides verbal coaching to drivers in real-time to develop safer driving habits. Through the Inthinc acquisition, we provide this technology, including the unique “Speed-by-Street™” feature, that is squarely focused on improving driver safety. This solution is the only real-time fleet safety solution that detects unsafe driver behavior, such as speeding, aggressive driving, and seat belt violations, and conducts in-cab verbal coaching, lowering the incidences of accidents and fineable offenses. Customers, particularly those in industrial environments such as oil and gas, utilities, services industries, and emergency services, increasingly benefit from safer fleet operations and better management of their drivers, expanding our reach into many new market segments.

Manufacturing, warehousing and supply chain management

In the increasingly complex and competitive world of manufacturing and supply chain operations, enterprises need to ensure that high-value materials, tools and supplies converge at the right time and place. Manufacturing and warehousing profitability is dependent on ensuring just-in-time availability and accurate real-time location of inventory in the supply chain. Companies employing sophisticated supply chain methods have the potential to realize greater profits than competitors using more traditional means. As regulatory pressure for buying multiple technologies rises, customers are increasingly demanding integrated solutions from single-source providers. We provide end-to-end industrial IoT solutions based on multi-modal short-range tracking technologies such as RFID, WiFi, condition sensors and actuators that are more capable of handling the complex demands of today's manufacturing and supply chain operations.

Heavy equipment

Heavy equipment fleet owners and leasing companies seeking to improve fleet productivity and profitability require applications that report diagnostic information, location, time-of-use information, emergency notification, driver usage and maintenance alerts for their heavy equipment, which may be in remote, difficult-to-reach locations. Using industrial IoT data communications systems, heavy equipment fleet operators can remotely manage the productivity and mechanical condition of their equipment, potentially lowering operating costs through preventive maintenance. OEMs can also use industrial IoT applications to better anticipate the maintenance and spare parts needs of their customers, expanding the market for higher-margin spare parts orders. Heavy equipment OEMs are increasingly integrating industrial IoT data communications systems into their equipment at the factory or offering them as options through certified after-market dealers.

Fixed asset monitoring

Companies with widely dispersed fixed assets, such as remote oil and gas equipment, require a means of collecting data from them to monitor productivity, manage inventory, increase security, minimize downtime and realize other operational benefits, as well as manage remote operation of valves, compressors, pumps and electrical switches. Industrial IoT systems can provide automated meter reading, oil and gas storage tank monitoring, pipeline monitoring and environmental monitoring, which can reduce labor costs, fuel costs, and the expense of on-site monitoring and maintenance.

Marine

Marine vessels need satellite-based communications due to the absence of reliable terrestrial-based coverage more than a few miles offshore. We offer industrial IoT solutions ranging from maritime sensors on buoys to features and functions to support luxury recreational marine vessels and commercial fishing vessels. These applications include onboard diagnostics and other marine telematics, alarms, requests for assistance, security, location reporting and tracking, two-way messaging, catch data and weather reports. Owners and operators of commercial fishing and other marine vessels are increasingly subject to regulations governing, among other things, commercial fishing seasons and geographic limitations, vessel tracking, safety systems, and resource management and protection.

We expect to leverage our investment in satellite technology to resell our M2M data services and the AIS data collected by our network to maritime services and governmental agencies. Further expansion of our maritime business has been driven by our distribution agreements with resellers to resell the M2M and AIS data for commercial purposes.

Government and homeland security

Governments worldwide are seeking to address the global terror threat by monitoring land borders and hazardous materials, as well as marine vessels and containers. In addition, modern military and public safety forces use a variety of applications, particularly in supply chain management, logistics and support, which could incorporate our products and services. Industrial IoT systems are used in applications to address infiltration across land borders by, for example, monitoring seismic sensors placed along the border to detect incursions. Industrial IoT systems are also used in applications to address homeland security requirements, such as tracking and monitoring vessels and containers.

Customers

We market and sell our products and services directly to OEM and government customers and end users, and indirectly through MCPs and MCAs, as discussed below.

Revenues in Foreign Geographic Areas

Revenues in 2019, 2018 and 2017 in foreign geographic areas, mostly South America, Europe and Japan, represented approximately 49%, 37% and 22% of our consolidated revenues, respectively. Other than South America and Europe, no foreign geographic area accounted for more than 10% of our consolidated revenues. See also “Note 12 – Segment Information” in our audited consolidated financial statements included in Part II, Item 8 of this Annual Report on Form 10-K.

Sales, Marketing and Distribution

We generally market our services and products through the following channels:

Market Channel Partners (MCPs). We are currently working with a number of MCPs and seek to add additional MCPs as we expand our business. The role of the MCP is to develop tailored applications that utilize our system and then market them, through non-exclusive licenses, to specific, targeted vertical markets and geographies. MCPs are responsible for establishing retail pricing, collecting revenues from end users and for providing customer service and support. Our MCPs have made significant investments in developing ORBCOMM-based applications. MCPs pay fees for access to our system based on either a fixed monthly recurring charge or on the amount of data transmitted.

Generally, subject to regulatory restrictions, MCPs that have an IVAR arrangement allow us to enter into a single agreement with any given IVAR and allow the IVARs to pay directly to us a single price on a single monthly invoice in a single currency for worldwide service, regardless of the territories in which they sell, avoiding the need to negotiate prices in each territory.

Market Channel Affiliates (MCAs). We primarily market and distribute our services outside the United States through our subsidiary companies, several of which are overseas joint ventures, that are assigned specific international territories. We rely on these MCAs to establish business in their respective territories, including obtaining and maintaining necessary regulatory and other approvals, as well as managing local resellers. We believe our MCAs, through their local expertise, are able to operate in these territories in a more efficient and cost-effective manner. We currently have MCAs covering over 135 countries and territories. As we seek to expand internationally, we expect to add additional MCAs to cover Asia and Africa. We pay our MCAs a commission on revenues received from IVARs from each subscriber activated in the specific territory assigned to the MCA.

Direct to End Users. We also market directly to end users, providing services and products tailored to particular vertical markets, establishing retail pricing, collecting revenues and providing customer service and support.

Competition

Over the last several years, we have transitioned from a satellite network operator to a multi-network service provider to an industrial IoT solutions company to today, where we offer the full industrial IoT technology stack and leverage our satellite network, as well as price competitive networks, as a key differentiator. We believe no other industrial IoT company offers more options for hardware, software, connectivity, and responsive analytics at competitive price points. Currently, we are the only commercial provider of below 1 GHz band, or little LEO, two-way data satellite services optimized for narrowband. However, we are not the only provider of data communication services, and our industrial IoT products and services are increasingly subject to competition from existing and new entrants into the markets we serve. Competing service providers can be divided into four main categories: telematics and industrial IoT solution providers (including OEMs), terrestrial tower-based cellular networks, LEO mobile satellite and geostationary satellite service providers.

Telematics and industrial IoT solution providers

The growth in the industrial IoT industry has led to other competitors that compete with our products and services, including system integrators, device management and open source platforms, enterprise and commercial fleets, for-hire carriers, tank monitoring applications and petroleum logistics solutions, as well as OEMs in the refrigeration and transportation markets. In addition, IoT device manufacturers are seeking to expand into solutions to increase recurring service revenue. However, our industry-leading combination of global network services along with our state-of-the-art devices, breadth of related services and robust cloud-based analytics and reporting platform, for multiple market segments, asset classes and fleets of any size, provide what we believe is the global industrial IoT market’s most comprehensive service offering and positions us as a leader and innovator in this marketplace.

Terrestrial tower-based cellular networks

While terrestrial tower-based cellular networks are capable of providing services comparable to ours at higher data rates, they lack seamless global coverage. Terrestrial coverage is dependent on the location of tower transmitters, which are generally located in densely populated areas or heavily traveled routes. Several data and messaging markets, such as long-haul trucking, railroads, oil and gas, agriculture, utility distribution and heavy construction, have significant activity in sparsely populated areas with limited or no terrestrial coverage. In some geographic areas, terrestrial tower-based networks have gaps in their coverage and may require a back-up system to fill such coverage gaps. We have entered into re-seller agreements with several major Tier One cellular wireless providers to provide our customers options for incorporating terrestrial communications connectivity for industrial IoT solutions, in either single-mode or dual-mode configurations that use both terrestrial and satellite network platforms. In addition, cellular providers are expanding into IoT solutions.

Low-Earth orbit mobile satellite service providers

LEO mobile satellite service providers operating above the 1 GHz band, or big LEO systems, can provide data connectivity with global coverage that can compete with our communications services. The primary focus of big LEO satellite service providers has been on circuit-switched communications tailored for time- and bandwidth-intensive voice traffic, which is less efficient than the transfer of short data messages. However, big LEO satellite service providers have shifted to focus more on industrial IoT data communications. These systems entail significantly higher costs for the satellite fleet operator and the end users. Our principal big LEO mobile satellite service competitors are Iridium Communications Inc. and, to a lesser extent, Globalstar, Inc., whose satellite airtime services we also resell.

Geostationary satellite service providers

Geostationary satellite system operators can offer services that compete with ours. Certain pan-regional or global systems (operating in the L- or S-bands), such as Inmarsat, are designed and licensed for mobile high-speed data and voice services. We believe that the equipment cost and service fees for narrowband data communications using these systems are also significantly higher than ours, and that these geostationary providers cannot offer global service with competitive communications devices and costs. In addition, they have other limitations, such as requiring a clear line of sight between the communicator equipment and the satellite, being affected by adverse weather or atmospheric conditions, and being vulnerable to catastrophic single-point failures of their satellites with limited backup options. In addition, we resell satellite airtime service provided by Inmarsat to meet specific customer needs.

Product Development

We develop products and service enhancements that we sell directly to our end-user customers, as well as design new products and services that enhance features and capabilities, while at the same time reducing costs of our products and services.

ORBCOMM Communications System

Overview

Our industrial IoT data communications services are provided by offering a unique combination of both satellite and terrestrial networks including our proprietary LEO satellite constellation, consisting of our ORBCOMM Generation 1 (“OG1”) and OG2 satellites, which are equipped with additional AIS capabilities, operating in the VHF band. In addition, we offer data communication services provided by third-party satellite constellations, such as our partnership with Inmarsat, through which we provide L-band GEO satellite service via both IDP, a satellite packet data service offering the highest payload and lowest latency in the market and a 3G-based service, and the Globalstar, Inc. satellite network. In addition, we provide data communication services utilizing Tier One wireless carriers through partnerships with AT&T, Verizon, T-Mobile, Telefonica, Orange, Rogers, Jersey Telecom and Vodafone, whose Access Point Name (“APN”) networks are tightly integrated into our own production network to provide a common interface for a mix of carrier and service options for our customers.

We utilize our ORBCOMMConnect Platform to seamlessly translate and integrate the communications from our diverse network service partners into a uniform and easily manageable set of commands and responses and information delivery. This creates a common user platform for provisioning, billing and multi-mode access for industrial IoT applications and enables access to network and terminal management tools for rapid wholesale integration with our network. We sell or lease to our customers a subscriber component, which consists of satellite subscriber communicators and cellular terrestrial units, or wireless modems incorporating SIMs, used by end users to transmit and receive messages to and from their assets and our system. In addition, our web applications provide specialized data feeds that are established through our application gateway interface to third-party dispatch systems and proprietary customer software applications to provide customers with data and analytics from telematics products and specialized sensors.

The data generated by our customer base typically comes from end-user or ORBCOMM-developed applications. The data may be transferred to either a satellite terminal or a terrestrial-based wireless device using a SIM on the partner cellular provider's network. If the data is transferred to a satellite subscriber communicator, data is transmitted to the next satellite that comes into view in near real-time. The data is then routed by the satellite to the next gateway earth station ("GES") that it successfully connects to, which in turn forwards it to the ORBCOMM gateway control center ("GCC"). Within the GCC, the data is processed, safe-stored, and forwarded to its ultimate destination and, if requested, an acknowledgment that the message content has been received is transmitted back to the subscriber communicators. If the data is transferred to a cellular device, data is routed through the partner carrier's network via VPN to the ORBCOMM GCC and forwarded to its ultimate destination in real time. The destination for transferred data may be another subscriber communicator, a SIM, a corporate resource management system, any personal or business Internet e-mail address, a pager or a text message-capable cellular phone, or any combination of the above. In addition, data can be sent in the reverse direction (a feature which is utilized by many applications to remotely control assets) using similar methods.

System Status

OG1 satellites

With the launch of the OG2 satellites, we are gradually phasing out the OG1 satellites. We will maintain operational control for the remaining lives of the OG1 satellites.

OG2 satellites

On July 14, 2014, we launched six of our next-generation OG2 satellites, all of which were placed into proper orbit. On September 15, 2014, following an in-orbit testing period, we initiated commercial service for the six OG2 satellites. On December 21, 2015, we launched the remaining 11 next-generation OG2 satellites, all of which were placed into proper orbit. On March 1, 2016, following an in-orbit testing period, we initiated commercial service for the 11 OG2 satellites. Of the 17 OG2 satellites placed in service, we have lost communication with five satellites. In October 2018, we experienced a communication issue with one OG2 satellite. We remain in operational control of this satellite and are developing new software in an attempt to restore AIS and/or messaging services.

In 2017, following a loss of communication with three OG2 satellites we established a comprehensive investigative team that included outside independent consultants, internal engineers and OG2 contractors to determine the root cause of the anomalies affecting these three OG2 satellites and associated corrective measures. The investigative team identified two potential primary causes for the loss of communication and developed operational procedures and software enhancements to mitigate the risk of a similar anomaly occurring on other OG2 satellites. The investigative team did not identify a systemic design flaw in the OG2 satellites. The satellite network capacity remains multiple times more capable than current demand, while there has been a small effect on message delivery times.

The operational OG2 satellites are providing both M2M messaging and AIS service for our global customers. The satellites have been divided into four separate planes and were placed into differing altitudes to allow each plane to drift to the proper orbit. All of the drifting operations are complete and the OG2 satellites are equally spaced in four planes providing customers the optimum coverage.

ORBCOMM gateways

The GESs in the United States and internationally are performing well. In addition to routine maintenance, we continue to perform hardware and software upgrades which have improved the functionality of the GESs. Specifically, new antenna control and drive systems have been installed in several of the GESs in conjunction with the aforementioned upgrades.

ORBCOMM network capacity

With the addition of our OG2 satellites, the ORBCOMM network capacity has been greatly increased. In the backwards compatible OG1 mode, each OG2 satellite has more than six times the capacity of the OG1 satellites because each OG2 satellite has six downlink transmitters where the OG1 satellites have only one. Currently, the OG2 satellites are meeting our capacity needs with just one or two downlink channels per satellite. Our ground segment was originally designed with scalability in mind. As technologies in storage and networking solutions evolve, we are continuously upgrading, through internal resources, the key components that are impacted most by an increasing subscriber base.

Inmarsat Services

With our acquisition of SkyWave Mobile Communications, Inc. (“SkyWave”) in January 2015 (the “SkyWave Acquisition”), we entered into an agreement with Inmarsat to transition the primary operational control of the IDP services to Inmarsat. This transition is complete, and the system performance is over 99.6% network availability. For the legacy IsatM2M services, we provide operational support to Inmarsat’s engineering and operations teams. Like the IDP services, network availability for IsatM2M services has been consistent and reliable. For both the IDP and IsatM2M services, we remain in control of the message delivery gateway that is the interface to our customers for message delivery. The gateway is a redundant system providing customer access via two independent Internet lines which offer connectivity to their mobile terminals and messages over multiple transports and protocols. It is a high-availability system responsible for connection, storing and relaying messages between customers and Inmarsat satellite network systems, as well as providing terrestrial messaging services between customers and mobile terminals.

Terrestrial Services

We have active partnerships with many of the major terrestrial carriers, both domestically and abroad, including AT&T, Verizon, T-Mobile, Telefonica, Orange, Rogers, Jersey Telecom and Vodafone. We have tightly integrated each carrier’s APN into our production network to provide a common interface for a mix of carrier and service options for our customers. The integration planning of each carrier network is at the core of our goal to provide a consistent and reliable uniform messaging environment over a variety of networks. We maintain redundant connections to carriers through an East Coast primary data center and West Coast backup data center. Our Network Control Center (“NCC”), staffed 24 hours a day, monitors all aspects of the network to ensure prompt response to network anomalies when they occur. Aside from a traditional Network Management System (“NMS”) utilizing Simple Network Management Protocol (“SNMP”) for infrastructure monitoring, device and carrier specific tests simulate customer traffic and provide performance metrics for support staff and engineers. A three-tier support structure is employed to ensure that staff with domain specific knowledge are quickly assigned to address anomalies and implement resolutions.

AIS Services

Our AIS data services are provided through a combination of our OG2 satellites, which are all enabled with advanced AIS data receivers, and third-party space-based assets and terrestrial AIS data providers.

Regulation of Our Business in the United States

FCC authorizations

Any entity seeking to construct, launch, or operate a commercial satellite system in the United States must first be licensed by the U.S. Federal Communications Commission (“FCC”). ORBCOMM License Corp., a wholly owned subsidiary of ours, holds the FCC license for our VHF LEO Satellite System (the “Space Segment License”). ORBCOMM License Corp. also holds additional FCC licenses relating to our United States GESs, and our VHF and L-Band subscriber communicator deployments in the United States. We believe that our business, as currently conducted, is in full compliance with all applicable FCC rules, policies and license conditions.

FCC license renewals

The current 15-year term of our Space Segment License expires in April 2025, and the renewal application must be filed between 30 and 90 days prior to the end of the twelfth year of the current license term (i.e., between 30 and 90 days prior to April 2022). The current FCC earth station licenses for the United States GESs and VHF subscriber communicators expire on May 17, 2020 and June 12, 2020, respectively, and our two L-Band subscriber communicator licenses expire on January 22, 2034 and April 19, 2026, respectively. Renewal applications for our FCC earth station licenses must be filed between 30 and 90 days prior to expiration. We will timely file our applications for renewal of our four United States GES and VHF subscriber communicator FCC licenses in accordance with FCC rules and procedures, and we expect that those renewal applications will be granted by the FCC. However, although the FCC has been positively disposed thus far towards granting our applications for license renewals, there can be no assurance that the FCC will in fact grant our earth station license renewals, or renew our other FCC licenses in the future.

We believe that our business as currently conducted is in full compliance with all applicable FCC rules, policies, and license conditions. We also believe that we will have the ability to continue to comply with all applicable FCC requirements, although we cannot provide assurance that will be the case.

Non-common carrier status

All of our FCC licenses authorize our provision of commercial services on a “non-common carrier” basis. As a result, our service offerings are subject to limited FCC regulations, and we are not required to comply with the obligations, restrictions and reporting requirements applicable to common carriers or to providers of Commercial Mobile Radio Services, or CMRS. There can be no assurance, however, that in the future, we will not be deemed by the FCC to provide services that are designated common carrier or CMRS, or that the FCC will not exercise its discretionary authority to apply its common carrier or CMRS rules and regulations to our service offerings. If this were to occur, we would be subject to FCC obligations that include record retention requirements, limitations on use or disclosure of customer proprietary network information and truth-in-billing regulations. In addition, we would need to obtain FCC approval for foreign ownership in excess of 25% and authority under Section 214 of the Communications Act of 1934, as amended, to provide international services. Finally, we would be subject to additional reporting obligations with regard to international traffic and circuits, and Equal Employment Opportunity Act compliance.

United States regulatory controls

We are subject to U.S. import and export control laws and regulations, specifically the Arms Export Control Act, the International Traffic in Arms Regulations, and the Export Administration Regulations. We are also subject to other regulatory regimes, including trade and economic sanctions laws and regulations administered by the U.S. Department of the Treasury’s Office of Foreign Assets Control and the Foreign Corrupt Practices Act, and we believe we are in full compliance with all such laws and regulations. We also believe that we have obtained all the specific authorizations currently needed to operate our business and believe that the terms of the relevant licenses are sufficient given the scope and duration of the activities to which they pertain.

Regulation of Our Business in Other Countries

Our business and our business objectives are inherently worldwide, and our product and service offerings are subject to national telecommunication regulation and other applicable laws and regulations of every country in which we, our MCAs, and our MCPs conduct business. These other applicable laws and regulations include various European Union compliance obligations, the UK Bribery Act, the General Data Protection Regulation, and other national privacy and information security compliance regimes in countries, including Canada, Australia, Argentina, China and Brazil. These rules and policies, all of which are subject to change from time to time without prior notice, specify technical parameters for the operation of network facilities and subscriber communicators, determine the permissible uses of network facilities and subscriber communicators, and otherwise establish the terms and conditions pursuant to which our products and services can be offered and utilized in any given country. As a result, we, our MCAs, our MCPs and, in some cases, our respective customers, must comply with various overseas legal and regulatory regimes, and obtain and maintain requisite local regulatory and other governmental approvals in each country where our product and services are offered and utilized. The process for obtaining the applicable regulatory authorization varies from country to country, and in some instances may require technical studies or actual experimental field tests under the direction and/or supervision of the local regulatory authority. Certain countries continue to require that some or all telecommunications services be provided by a government-owned or controlled entity. Therefore, under such circumstances, we may be required to offer our products or services through a government-owned or controlled entity. Failure to obtain or maintain any requisite authorizations in any given country could mean that some or all of our products and services may not be provided or utilized in that country.

We believe, but cannot provide assurance that we, our MCAs, our MCPs, and our customers are in compliance with all applicable laws and policies and have obtained all necessary regulatory or other governmental approvals required to conduct our respective current business activities in each of the countries where we currently operate. However, it may not be possible for us, our MCAs, our MCPs, and our customers to maintain compliance with all applicable laws and policies, or obtain, modify, or maintain requisite regulatory or other governmental approvals in the future. Moreover, future changes in applicable regulatory or governmental approval requirements may result in disruptions of our ability to provide or utilize some or all of the products and services we offer in one or more countries, or alternatively, result in added operational costs, which could materially harm our business.

Non-U.S. GESs for our satellite constellation

To date, in addition to those in the United States, GESs for our VHF satellite constellation have been authorized and deployed in Argentina, Australia, Brazil, Curaçao, Italy, Japan, Kazakhstan, Malaysia, Morocco, South Africa and South Korea. GESs are generally licensed on an individual facility basis. This process normally entails radio frequency coordination within the country of operation for the specific frequencies to be used in the designated geographic location of the subject GES. This domestic frequency coordination is in addition to any international coordination that may be required, as determined by the proximity of the GES location to foreign borders (see “—International Regulation of Our VHF LEO Satellite System” below). Based on the best available information, we believe that each of the GES authorizations is sufficient for the provision of our VHF satellite constellation services in the areas served by the relevant facilities. We will need additional GES authorizations in other countries as we install additional ORBCOMM GESs around the world.

Equipment standards

Each manufacturer of the applicable subscriber communicator is contractually responsible to obtain and maintain the governmental authorizations necessary to operate their subscriber communicators in each jurisdiction. Most countries generally require all radio transmission equipment used within their borders to comply with operating standards that may include specifications relating to required minimum acceptable levels for radiated power, power density and spurious emissions into adjacent frequency bands not allocated for the intended use. Technical criteria established by telecommunications equipment standards issued by the FCC and/or the European Telecommunications Standards Institute, or ETSI, are generally accepted and/or closely duplicated by domestic equipment approval regulations in most countries. To the best of our knowledge, all of the subscriber communicator models that we, our MCAs, and our MCPs offer on the market comply with established FCC and ETSI standards.

International Regulation of Our VHF LEO Satellite System

The use of certain orbital planes and related system radio frequency assignments by our VHF LEO Satellite System, as licensed by the FCC, is subject to the frequency coordination and registration process of the International Telecommunication Union (“ITU”). In order to protect satellite systems from harmful radio frequency interference from other satellite communications systems, the ITU maintains a Master International Frequency Register (“MIFR”), of radio frequency assignments and their associated orbital locations. Each ITU member state (referred to as an administration) is required by treaty to give notice of, coordinate and register its proposed use of radio frequency assignments and associated orbital locations with the ITU’s Radio Communication Bureau.

The FCC serves as the notifying administration for the United States and is responsible for filing and coordinating the allocated radio frequency assignments and associated orbital locations for our VHF LEO Satellite System with both the ITU’s Radio Communication Bureau and the national administrations of other countries. While the FCC, as our notifying administration, is responsible for coordinating our VHF LEO Satellite System, in practice the satellite licensee is generally responsible for identifying any potential interference concerns with existing systems or those enjoying date priority and for coordinating with such systems. If we are unable to reach agreement and finalize coordination, the FCC would then assist with such coordination.

The FCC has notified the ITU that our VHF LEO Satellite System was initially placed into service in April 1995 and that it has operated without any substantiated complaints of interference since that time. The FCC has also informed the ITU that our system has successfully completed the international coordination process and has been formally registered in the MIFR. We continue to support FCC efforts to complete any additional required international coordination relating to our system and our new satellites, as necessary. If design modifications we may make to our future satellites entail substantial changes to the frequency utilization by the subject system component(s), additional international coordination may be required or reasonably deemed advisable. However, we believe that ITU coordination can be successfully completed in all circumstances where such coordination is required, although we cannot provide assurance that we will successfully complete such ITU coordination. Failure to complete requisite ITU coordination could have a material adverse effect on our business. Regardless, to date, and to our best knowledge, the system has not caused harmful interference to any other radio system, or suffered harmful interference from any other radio system.

Intellectual Property

We use and hold intellectual property rights for a number of trademarks, service marks and logos for our system. We have two main marks — “ORBCOMM” — which is registered or is pending registration in approximately 125 countries and the ORBCOMM logo, which is represented by the ORBCOMM name in black type with a distinctive red graphic within the second “O.”

The telematics solutions services provided by our affiliates use trademarks, including “REEFERTRAK” and “CARGOWATCH,” that are registered in the U.S. and numerous countries around the world. Other trademarks, such as “GLOBALTRAK,” are seeking registration only in the U.S., while others, such as “STARTRAK,” “MOBILENET” and “FLEETEDGE,” are subject to common law protection. In addition, as part of the Blue Tree acquisition, we acquired the “R:COM” trademark registered in the U.S. and European Community, as well as “BLUE TREE SYSTEMS & DEVICE,” which is also registered in the European Community.

Our telematics solutions services are protected by approximately 100 patents maintained across the United States, Europe, Australia, China, Mexico and Canada. We also have a significant number of pending patent applications relating to our devices and solutions services. Further, we expect to file additional patent applications in the appropriate countries to protect our technology investments and innovations.

We believe that all intellectual property rights used in our system were independently developed or duly licensed by us, by those we license the rights from or by the technology companies who supplied portions of our system. We cannot provide assurance, however, that third parties will not bring suit against us for patent or other infringement of intellectual property rights.

The value of intellectual property assets recorded for accounting purposes is primarily related to technology-based intangible assets resulting from acquisitions.

Employees

As of December 31, 2019, we had 786 full-time employees. Our employees are not covered by any collective bargaining agreements and we have not experienced a work stoppage since our inception.

Corporate Information

ORBCOMM Inc. was incorporated in Delaware in 2003. Our principal executive offices are located at 395 W. Passaic Street, Rochelle Park, New Jersey 07662, and our telephone number is (703) 433-6300. Our website is www.orbcomm.com and information contained on our website is not included as a part of, or incorporated by reference into, this Annual Report on Form 10-K. We file annual, quarterly and current reports, proxy statements and other information with the SEC. The SEC maintains an Internet website that contains reports, proxy statements and other information regarding issuers like us that file electronically with the SEC, which can be found at <http://www.sec.gov>. Our annual, quarterly and current reports, and amendments to those reports can be obtained free of charge through the Investors section of our website as soon as reasonably practicable after we electronically file such documents with, or furnish them to, the SEC or from the SEC through its website.

Information About Our Executive Officers

Certain information regarding our executive officers is provided below:

Name	Age	Position(s)
Marc J. Eisenberg.....	53	Chief Executive Officer and President
Constantine Milcos	54	Executive Vice President and Chief Financial Officer
Christian G. Le Brun	52	Executive Vice President and General Counsel
Craig Malone.....	57	Executive Vice President, Product Development
John J. Stolte, Jr.	60	Executive Vice President, Technology and Operations

Marc J. Eisenberg is our Chief Executive Officer and President, a position he has held since March 31, 2008, and a member of our board of directors since March 7, 2008. From June 2006 to March 30, 2008, he was our Chief Operating Officer and from March 2002 to June 2006, he was our Executive Vice President, Sales and Marketing. Mr. Eisenberg was a member of the board of directors of ORBCOMM Holdings LLC from May 2002 until February 2004. Prior to joining ORBCOMM, from 1999 to 2001, Mr. Eisenberg was a Senior Vice President of Cablevision Electronics Investments, where among his duties he was responsible for selling Cablevision services such as video and internet subscriptions through its retail channel. From 1984 to 1999, he held various positions, most recently as the Senior Vice President of Sales and Operations with the consumer electronics company The Wiz, where he oversaw sales and operations and was responsible for over 2,000 employees and \$1.0 billion a year in sales. Mr. Eisenberg is the son of Jerome B. Eisenberg, our Chairman of the Board.

Constantine Milcos is our Executive Vice President and Chief Financial Officer, a position he has held since April 5, 2019. From September 2013 to April 2019, Mr. Milcos was our Senior Vice President and Chief Accounting Officer. Prior to joining ORBCOMM, Mr. Milcos served in various accounting roles at Medco Health Solutions from 2003 to 2013, most recently serving as Vice President, SEC Reporting, Technical Accounting and Controls from 2008 to 2013. In addition, from 1999 to 2003, he was an accountant with KPMG, LLP. Mr. Milcos is a Certified Public Accountant licensed in the State of New York.

Christian G. Le Brun is our Executive Vice President and General Counsel, a position he has held since March 31, 2008. From April 2005 to March 30, 2008, Mr. Le Brun was our Senior Vice President and General Counsel. Prior to joining ORBCOMM, from 1999 to 2005, Mr. Le Brun was an attorney with Chadbourne & Parke LLP, where he oversaw a broad range of transactions, including mergers, acquisitions, divestitures, corporate restructurings and work-outs, as well as debt and equity financing arrangements involving publicly-held and private companies. In addition, from 1994 to 1999, he was a corporate attorney with Pullman & Comley, LLC. Mr. Le Brun is a member of the New York State Bar.

Craig Malone is our Executive Vice President, Product Development, a position he has held since July 8, 2013. Mr. Malone joined ORBCOMM in 2011 as the Senior Vice President of Product Development. Mr. Malone has over 20 years of experience in leading teams engaged in the development of innovative products and solutions for the M2M, wireless and telecommunications industries. Prior to joining ORBCOMM, Mr. Malone was the Senior Vice President of Product Development and Operations at Skybitz. He also served as the Vice President of Product Development and Chief Technology Officer at GeoLogic Solutions and held executive positions at Philips Electronics and Raytheon Company.

John J. Stolte, Jr. is our Executive Vice President, Technology and Operations, a position he has held since April 2001. From January to April 2001, he held a similar position with ORBCOMM Global L.P. Mr. Stolte has over 25 years of technology management experience in the aerospace and telecommunications industries. Prior to joining ORBCOMM Global L.P., Mr. Stolte held a number of positions at Orbital Sciences Corporation from September 1990 to January 2001, most recently as Program Director, where he was responsible for the design, manufacturing and launch of the ORBCOMM satellite constellation. From 1982 to 1990, Mr. Stolte worked for McDonnell Douglas in a number of positions, including at the Naval Research Laboratory where he led the successful integration, test and launch of a multi-billion dollar defense satellite.

Item 1A. Risk Factors

Set forth below and elsewhere in this Annual Report on Form 10-K are risks and uncertainties that could cause actual results to differ materially from the results contemplated by the forward-looking statements contained in this Annual Report on Form 10-K. Any of these risks could also materially and adversely affect our business, financial condition, results of operations or the price of our common stock. Because of the following factors, as well as other variables affecting our operating results, past financial performance should not be considered as a reliable indicator of future performance and investors should not use historical trends to anticipate results or trends in future periods.

Risks Related to Our Business

Our business plan depends on both increased demand for our products and services and our ability to successfully secure and retain business from large enterprise customers.

Our business plan is predicated on continued growth in demand for our products and services, which is often dependent on the continued growth of business from our existing customers through their purchasing of additional products and services, the renewal of existing agreements and selling our products and services to new and existing large enterprise customers. Demand for such data products and services may not grow, or may even contract, either generally or in particular geographic markets, for particular types of services or during particular time periods. A lack of demand for our products and services could harm our ability to develop our business and increase our revenue and could exert downward pressure on prices. A decline in prices would decrease our revenues and negatively affect our ability to generate cash for investments and other working capital needs. Our business plan assumes that potential customers and end users will accept certain limitations that can be inherent in our product and service offerings. For example, our VHF satellite system is optimized for small packet, or narrowband, data transmissions, is subject to certain delays in the relay of messages, referred to as latencies, and may be subject to certain line-of-sight limitations between our satellites and the end user's subscriber communicator.

Specifically, our ability to successfully implement our business plan depends on a number of factors, including:

- our ability to successfully secure new large enterprise customers and accurately predict their development and deployment schedule;
- our ability to continue to successfully and timely introduce innovative new products and services that satisfy market demand, including new services provided via our satellite constellation, our other satellite network platforms, our terrestrial communication network platforms, our dual-mode or multi-mode network platform products and services, and our emerging data analytics business;
- our ability to sell our products and services in additional countries and vertical markets;
- the ability of our various MCAs and MCPs to market and sell our products and services, and to continue to successfully develop, market, and sell additional offerings based on our products and services;
- our ability to continue to offer our customers a diversity of satellite and terrestrial communication network platform options, including our ability to maintain and limit the effects of decreased health, in-orbit anomalies, capacity and control of our ORBCOMM VHF satellites;
- failure to renew or maintain our business with existing customers at existing levels or to attract new customers;
- the inability to obtain or maintain the necessary regulatory or other required governmental approvals in particular countries or territories;
- our ability to meet customers' increasing demand for more sophisticated and complex solutions;
- our ability to meet transportation market customers' increasing demand for a sales model that combines the cost of hardware and service for one monthly price over a multi-year term; and
- our ability to maintain competitive prices for our products and services and control costs.

We substantially rely on our subsidiary companies and various third parties to market and sell our products and services, and to develop and sell additional offerings utilizing our products and services. If these parties are unsuccessful in these endeavors, our business will be harmed.

To successfully develop, market, and sell our products and services, we substantially rely on our subsidiary companies, several of which are overseas joint ventures, to address particular products or services, vertical segments, or distinct market territories (we refer collectively to these subsidiary companies as MCAs). We also substantially rely on our various third parties, including product and service developers and providers, distributors, resellers, solution providers and others (we refer collectively to these third parties as MCPs). The willingness and ability of our existing and potential new MCPs to engage or continue to engage in our business depends on a number of factors, including whether they perceive our services to be compatible with their business objectives, whether the prices they can charge end users will provide an adequate return, and the burden imposed by market challenges or regulatory constraints. We believe that successful marketing of our products and services will depend on our ability to continue to develop and launch competitively-priced solutions that support the specific needs of the targeted end users. The design, development and implementation of successful solutions require the commitment of substantial financial and technological resources by us and our MCPs. Certain of our MCPs are, and many potential new MCPs will be, newly formed or small ventures with limited financial resources, and such entities might not be successful in their efforts to effectively market our products and services, or to design new offerings that utilize our products and services. The inability of our MCAs and MCPs to successfully market and sell to end users could have a material adverse effect on our business, financial condition and results of operations. We also believe that our success depends upon the competitive pricing of product and service offerings by us, our MCAs and our MCPs. However, we have little or no control over our MCPs with respect to customer pricing decisions.

The substantial reliance we must place on our MCAs and MCPs is inherent to our business structure and is driven by the competitive landscape in which we operate. Thus, our revenues, profitability, liquidity and reputation could be adversely affected if either our MCAs or our MCPs are not sufficiently successful.

We have incurred net losses since our inception, other than in 2012 and 2013, and may incur additional net losses in the future. As a result, we have an accumulated deficit of \$210.9 million as of December 31, 2019. To become profitable, we must increase our revenues at a faster rate than increases in our expenses.

We have had annual net losses since our inception, other than in fiscal years 2012 and 2013, and as of December 31, 2019, we have an accumulated deficit of \$210.9 million. Our future results will continue to reflect significant operating expenses, including expenses associated with expanding our sales and marketing efforts, maintaining the infrastructure to operate as a public company, and the ongoing depreciation, operation and maintenance of our fleet of VHF and AIS satellites and associated ground network facilities, as well as the additional facilities we own and operate in connection with our other satellite and terrestrial network platform service offerings. The continued development of our business will also require additional capital expenditures for, among other things, the installation and maintenance of additional GESs and associated satellite network ground facilities around the world relating to our VHF and AIS satellite systems, as well as expenditures for the ongoing maintenance, repair, upgrade, or expansion of other network facilities that we own and operate. In addition, our acquisitions have resulted in increases in intangible assets, which are subject to amortization and potential impairment. Accordingly, as we make these capital and acquisition investments, our future results will include greater depreciation and amortization expense which reflect the full cost of acquiring these new assets and we may incur additional operating losses and net losses in the future.

In order to become profitable, we must continue to increase revenue at a faster rate than increases in expenses. Revenue will depend on our success, the success of our MCAs and MCPs and acceptance of our products and services by end users in current markets, as well as in new geographic and industry markets. We may not be able to sustain such profitability, if achieved.

We face substantial competition from existing and potential competitors in the telecommunications, AIS data and industrial IoT industries, including numerous OEMs as well as terrestrial and satellite-based network systems with greater resources, which could reduce our market share and revenues. Many of these competitors in the transportation and cargo markets offer hardware and solutions in a bundled offering for a single monthly fee, which could reduce our market share and revenues if we do not match this bundled sales model.

Competition in the telecommunications, AIS data and industrial IoT industries is intense, fueled by rapid, continuous technological advances and alliances between industry participants seeking to capture significant market share. We face competition from numerous existing and potential alternative products and services provided by various companies, including sophisticated two-way satellite-based data and voice communication services and digital cellular services, such as GSM, 3G, 4G, LTE, 5G, two-way terrestrial services such as Low-Power Wide-Area Network (“LPWAN”), and a diverse group of industrial IoT providers aggressively pricing their products and services, including by bundling their hardware and service for a single monthly fee, to gain market share. The rigorously competitive environment in which we operate can have a substantial negative influence on pricing flexibility, gross profit margins and market share, both for our products and services and the offerings of our MCPs. For example, we face ongoing market pressures from several global satellite communication services operators that offer mobile satellite data products and services that directly compete with our products and services. New and advanced technology which can perform essentially the same functions as our products and services, direct broadcast satellites, newly deployed satellites of competing low-earth orbit satellite systems and other forms of wireless transmission, are in various stages of development by others in the industry.

The industrial IoT and telematics industry includes numerous companies developing technologies to compete with our products and services including OEMs such as ThermoKing and Carrier with respect to the refrigerated cargo market and truck and trailer OEMs with respect to the transportation market. OEMs and large enterprise customers have also begun developing their own device management and open source platforms which operate independently of the ORBCOMM platform. These technologies are being developed, marketed and supported by entities that may have significantly greater financial, technical, marketing and distribution resources than we do. These technologies could adversely impact the demand for our products and services. Research and development by others may lead to technologies that render some or all of our services non-competitive or obsolete in the future. In addition, a continuing trend toward consolidation and strategic alliances in the telecommunications industry, as well as the potential development of new satellite constellations, could give rise to significant new competitors. With respect to AIS-enabled satellites, a number of competitors have entered and may continue to enter the market, which we expect to give rise to additional competition. Furthermore, some foreign competitors may benefit from government subsidies, or other protective measures, afforded by their home countries. Some of these competitors may provide more efficient or less expensive products or services than we are able to provide by utilizing more aggressive pricing policies and offering customers more attractive terms than we can, which could reduce our market share and adversely affect our revenues and business.

The market for industrial IoT solutions in which we participate is highly fragmented and competitive, with relatively low barriers to entry. If we do not compete effectively, our operating results may be harmed.

The market for industrial IoT solutions is highly fragmented, consisting of a significant number of vendors, competitive and rapidly changing, with relatively low barriers to entry. Competition in our market is based primarily on the level of difficulty in installing, using and maintaining solutions, total cost of ownership, product performance, functionality, interoperability, brand and reputation, distribution channels, industries and the financial resources of the vendor. We expect competition to intensify in the future with the introduction of new technologies and market entrants and with the possible consolidation of competitors. Mobile service and software providers, such as Garmin Ltd., provide limited services at lower prices or no charge, such as basic GPS-based mapping, tracking and turn-by-turn directions that could be expanded or further developed to more directly compete with our solutions. OEMs could provide factory-installed devices and may in turn compete directly or indirectly with us by partnering with one or more of our competitors, and we cannot provide any assurance that we would be able to participate in this new ecosystem. Our competitors may reduce their pricing in order to more effectively compete with us. This could result in a decrease in our subscription volumes or cause our churn to increase. Increased competition could result in reduced operating margins, increased sales and marketing expenses and the loss of market share, any of which would likely cause serious harm to our operating results.

Our success depends, in part, on our ability to effect suitable investments, alliances and acquisitions and our ability to successfully integrate the businesses and systems we acquire.

Since mid-2011, we have expanded our business both organically and through several key acquisitions. On an ongoing basis, we review investment, alliance and acquisition prospects that would complement our existing product offerings, augment our market coverage or enhance our technological capabilities. However, we cannot assure that we will be able to identify and consummate suitable investment, alliance or acquisition transactions in the future. Our prospects and ability to strategically pursue possible new acquisitions or joint ventures are subject to our ability to:

- evaluate the goodwill and acquisition-related intangible assets for impairment and when such assets are found to be impaired, they will be written down to estimated fair value, with a charge against earnings;
- successfully engage with our existing MCAs and MCPs, and develop new MCA and MCP relationships; and
- use all of our capabilities to expand our business across existing and new verticals and key markets throughout the world by driving existing and new customers to our array of product and service offerings.

Even if we are able to successfully identify and consummate suitable acquisition transactions, the consummation of such acquisitions may result in:

- issuances of equity securities dilutive to our existing shareholders;
- the incurrence of substantial debt and assumption of unknown liabilities;
- the potential loss of key employees from the acquired company;
- amortization expenses related to intangible assets; and
- the diversion of management's attention from other business concerns.

Furthermore, the integration of acquired businesses and their products and services may be expensive, time-consuming and a strain on our resources and present certain challenges, including:

- the impairment of relationships with employees and customers;
- the inability to successfully complete, or delays in, the integration and consolidation of the acquired businesses and software platforms in which the Company has been investing for several years;
- the inability to maintain brand recognition of the acquired businesses;
- the inability to maintain corporate controls, procedures and policies;
- the failure of acquired features, functions, products or services to achieve market acceptance; and
- potential unknown liabilities associated with acquired businesses.

Defects, errors or other insufficiencies in our products or services have and could result in end users rejecting our offerings, which could damage our reputation and harm our financial condition.

We must continue to successfully develop and deploy innovative, reliable, and cost-effective products and services that keep pace with rapidly changing markets and customer requirements. These efforts, which often entail complex or accelerated development cycles, can result in offerings that have undetected errors or defects, especially when first introduced or when subsequent versions are introduced. Any such errors or defects could result in the disruption or failure of our products or services, or even personal injury or property damage. Any such occurrence could damage our reputation as well as the reputation of respective MCAs or MCPs, and result in lost customers, lost revenue, diverted development resources, increased service, recall and warranty costs, and even liability claims. In addition, it is possible that our products could become the subject of a product recall as a result of a product defect. We do not maintain recall insurance, so any recall could have a material adverse effect on our business, financial condition and results of operations. In addition to the direct expenses of liability claim awards, recalls and litigation, any of the foregoing might cause us adverse publicity, which could harm our reputation and compromise our ability to sell our products in the future.

We provide minimum service level commitments to certain of our customers, including certain of our transportation and many of our AIS data customers, and our failure to meet them could cause us to issue credits for future subscriptions or pay penalties, which could harm our results of operations.

Certain of our customer agreements currently, and may in the future, provide minimum service level commitments regarding items such as uptime, functionality or performance, including certain of our transportation and many of our AIS data customers. The loss of one or more of our AIS-enabled OG2 satellites or third-party AIS satellites could cause our AIS service to fall below minimum service level commitments. If we are unable to meet the stated service level commitments for these customers or suffer extended periods of service unavailability, we are or may be contractually obligated to provide these customers with credits for future service, provide services at no cost, allow customers to terminate service, or pay other penalties which could adversely impact our revenue. We do not currently have any reserves on our balance sheet for these commitments.

Because we depend on a few significant customers for a substantial portion of our revenues, the loss or significant decline or slowdown in growth in business of any of these customers could seriously harm our business.

Our revenues depend on a small number of significant customers such as JB Hunt, Caterpillar Inc., Komatsu Ltd., Carrier Transicold, and Satlink S.L., which collectively represented approximately 21.0% and 20.1% of our revenues in 2019 and 2018, respectively, and are expected to represent a substantial portion of our revenues in the near future. As a result, the loss of any one of these customers, or decline or slowdown in the growth in business of these customers, which has occurred and could continue to occur at any time, could have a material adverse effect on our business, financial condition and results of operations. In addition, because service revenue depends either partially or entirely on the usage levels of data transmission by our customers and end users, the decline or slowdown in the growth of usage patterns of these customers, which has occurred and could continue to occur at any time with or without a reduction in the number of our billable subscribers, could have a material adverse effect on our business, financial condition and results of operations.

We could be adversely affected if we are not successful in expanding and managing our business outside of the United States and there are numerous risks inherent to our international operations that are beyond our control.

Our business and our business objectives are inherently worldwide. As a result, we are subject to certain political and economic risks, such as changes in international and foreign jurisdictional law and regulation, varying applicable telecommunication industry and governmental standards, tariffs or taxes and other trade barriers, exchange controls, expropriation, and political and economic instability, including fluctuations in the value of foreign currencies. Certain of these risks may be greater in developing countries or regions, where economic, political or diplomatic conditions may be significantly more volatile than those commonly experienced in the United States and other industrialized countries.

Unless we are able to continue expanding our business, particularly in markets outside of the United States, our ability to grow our business could be adversely affected. Although we currently have MCAs registered to do business in more than 45 countries outside of the United States, we also must substantially rely on MCPs to establish and grow our business in many overseas markets. In some countries, due to market conditions, foreign ownership restrictions, or other business or legal constraints, we are compelled or even required to rely on MCPs to obtain and maintain necessary local regulatory and other approvals for some or all of the products and services sought to be offered. We and/or our MCAs or MCPs may not be successful in obtaining and maintaining the necessary regulatory and other approvals in some countries or territories. Moreover, even if those approvals are obtained and maintained, efforts to develop markets and/or distribution networks within any given country may not be successful. Certain of our MCPs are, or are likely to be, newly formed or small ventures with limited or no operational history and limited financial resources, and any such entities may not be successful in their efforts to secure adequate financing and continue operating. In addition, in certain countries and territories outside the United States, we must currently rely on MCPs to operate and maintain various components of our system, such as several of the GESSs for our VHF satellite system. These entities may not be successful in operating and maintaining such components of our communications system and may not have the same financial incentives as we do to maintain those components in good repair.

Our business is affected by the regulatory laws and policies of the countries in which we operate. In addition, in certain countries regulatory frameworks may be rudimentary or in an early stage of development, which can make it difficult to secure the necessary approvals to operate in those jurisdictions. In certain jurisdictions, we rely on our MCPs to obtain and maintain necessary local regulatory and other governmental approvals. There can be no assurance that we, our MCAs, or our MCPs will be successful in obtaining or maintaining the necessary approvals for countries that may offer desirable new market opportunities and, if these efforts are not successful, we will be unable to do business in such countries. In addition, efforts to implement network facilities in certain foreign countries may be complicated, constrained, or even prohibited due to legal requirements we must comply with in the United States or other jurisdictions that may contravene with legal requirements in the new country markets to which we seek access. Furthermore, our ability to provide services in these countries is also constrained by national laws and policies regarding the installation and operation of in-country network facilities that manage and control the flow of communication traffic coming to and from the respective national territories. Our inability to offer our products and services in one or more important new markets could have a negative impact on our business. Even where the necessary regulatory and other governmental approvals can be obtained in these countries, the cost of developing, deploying, operating and maintaining required local network infrastructure, or other costs associated with ongoing regulatory compliance, may be prohibitive, which could impair our ability to expand our product and service offerings in such areas and undermine our value for potential customers in these markets.

While expanding our international operations would advance our growth, it would also increase numerous risks, including:

- difficulties in penetrating new markets due to established and entrenched competitors;
- difficulties in developing products and services that are tailored to the needs of local customers;
- difficulties in developing products and services at competitive prices due to foreign exchange fluctuations;
- lack of local acceptance, recognition, or knowledge of our products and services;
- unavailability of or difficulties in establishing relationships with local customers and distributors;
- significant investments, including the development, deployment and maintenance of dedicated network facilities in certain countries with laws that require such facilities to be installed and operated within their jurisdiction to connect the traffic coming to and from their territory;
- unpredictable events resulting in economic or political instability in certain countries;
- changes in laws and policies affecting trade and investment in certain jurisdictions;
- exposure to varying or inconsistently enforced legal standards, including, but not limited to, intellectual property protection and foreign state ownership laws;
- difficulties in obtaining required regulatory or other governmental approvals;
- difficulties in enforcing legal rights, even those provided for under applicable law;
- local domestic ownership requirements;
- changing and conflicting local regulatory or legal requirements; and
- excessive tax, import duty, tariff, or other governmental fee requirements.

Fluctuations in foreign currency exchange rates could have a material adverse effect on our business, results of operations and financial condition.

Fluctuations in foreign currency exchange rates could have a material adverse effect on our business, results of operations and financial condition. Our consolidated financial results are reported in U.S. dollars, however a portion of our costs and expenses are incurred in foreign currencies. Fluctuations in the value of these foreign currencies against the U.S. dollar could result in substantial changes in reported earnings and operating results due to the translation of these foreign currency transactions into U.S. dollars. Further, any appreciation of the U.S. dollar may also negatively affect our growth by increasing the cost of our products and services in foreign countries. In the future, we may choose to employ various hedging strategies to partially mitigate these foreign exchange risks, including the use of forward exchange contracts. These strategies may not be effective in protecting us against the effects of fluctuations from movements in foreign exchange rates. Our failure to mitigate these foreign currency exchange risks could materially adversely affect our business, results of operations and financial condition.

If we become subject to unanticipated domestic or foreign tax or fee liabilities, it could materially increase our costs.

We operate in various tax jurisdictions. We believe that we comply, in all material respects, with our obligations to file returns and pay taxes and fees in these jurisdictions. However, our position is subject to review and possible challenge by the authorities of these jurisdictions. If the applicable authorities were to successfully challenge our current tax or fee positions, or if there were changes in the manner in which we conduct our activities, or changes in the interpretation or application of existing laws, we could become subject to material unanticipated tax or fee liabilities. We may also become subject to additional tax, tariff, or fee liabilities as a result of changes in laws, which could in certain circumstances, have a retroactive effect. Further, our current tax rates are subject to change by the various taxing authorities in the jurisdictions in which we operate. These changes can result in additional, unanticipated taxes and fees which could adversely affect our business.

Our operating results may be harmed if we are required to collect sales, use, services or other related taxes for our solutions in jurisdictions where we have not historically done so.

We do not believe that we are required to collect sales, use, services or other similar taxes from our customers in certain jurisdictions. However, one or more countries or states may seek to impose sales, use, services, or other tax collection obligations on us, including for past sales. A successful assertion by one or more jurisdictions that we should collect sales or other taxes on the sale of our solutions could result in substantial tax liabilities for past sales and decrease our ability to compete for future sales. Each country and each state has different rules and regulations governing sales and use taxes and these rules and regulations are subject to varying interpretations that may change over time. We review these rules and regulations periodically and, when we believe sales and use taxes apply in a particular jurisdiction, voluntarily engage tax authorities in order to determine how to comply with their rules and regulations. We cannot provide assurance that we will not be subject to sales and use taxes or related penalties for past sales in jurisdictions where we presently believe sales and use taxes are not due. We reserve estimated sales and use taxes on our financial statements but we cannot be certain that we have made sufficient reserves to cover such taxes.

Providers of goods or services are typically held responsible by taxing authorities for the collection and payment of any applicable sales and similar taxes. If one or more taxing authorities determines that taxes should have, but have not, been paid with respect to our solutions, we may be liable for past taxes, in addition to being required to collect sales or similar taxes for our solutions going forward. Liability for past taxes may also include very substantial interest and penalty charges. Our client contracts provide that our clients must pay all applicable sales and similar taxes. Nevertheless, clients may be reluctant to pay back taxes and may refuse responsibility for interest or penalties associated with those taxes or we may determine that it would not be feasible to seek reimbursement. If we are required to collect and pay back taxes and the associated interest and penalties and if our clients do not reimburse us for all or a portion of these amounts, we could incur unplanned expenses that may be substantial. Moreover, imposition of such taxes on our solutions going forward will effectively increase the cost of such solutions to our clients.

Many states are also pursuing legislative expansion of the scope of goods and services that are subject to sales and similar taxes, as well as the circumstances in which a vendor of goods and services must collect such taxes. Furthermore, legislative proposals have been introduced in Congress that would provide states with additional authority to impose such taxes. Accordingly, it is possible that either federal or state legislative changes may require us to collect additional sales and similar taxes from our clients in the future.

Economic, political and other conditions could have a material adverse effect on our business, results of operations or financial condition.

A significant portion of our revenues are generated from customers located in foreign countries. Some foreign economies have been impacted by government agencies and unstable economic cycles. Governments have often changed monetary, taxation, credit, tariff and other policies to influence the course of their country's economy. For example, government actions to control inflation have at times involved setting wage and price controls, blocking access to bank accounts, imposing exchange controls and limiting imports. Our customers may be adversely affected by exchange rate movements; exchange control policies; expansion or contraction of the local economy; inflation; tax policies; other economic political, diplomatic and social developments; interest rates; liquidity of domestic capital and lending markets; and social and political instability. Specifically, the ongoing trade dispute with China and the UK's pending departure from the European Union may have an adverse effect on both our and our customers' operating expenses and result in increased obstacles to operational efficiency.

Extreme events such as a man-made or natural disasters, earthquakes, severe weather or other climate change-related events could diminish or preclude our ability to provide communications service.

Extreme events or the collateral effects of such events could damage or destroy some or all of our communication system network platforms, including our GESs and communication with our satellites. Such events could impair or completely preclude our ability to provide service to our customers in the affected region(s) on a temporary, prolonged, or even permanent basis. Even if network facilities that we own and operate were not affected by any extreme event, some or all of the communication services we provide could be disrupted if an extreme event damages or destroys third-party networks that we utilize, or disrupts our ability to connect to those networks. Our operations or the operations of our MCPs with facilities in various locations may be interrupted by extreme events and affect our ability to provide service and products for a period of time. Such failure or service disruptions could materially harm our business and results of operations.

We rely on a limited number of manufacturers for many of our products and devices. If we are unable to, or cannot find third parties to, manufacture a sufficient quantity of our products and devices at a reasonable price, the prospects for our business will be negatively impacted.

The development, manufacture and availability on a timely basis of electronics components, materials and parts are critical to the successful commercial operation of our system. We rely on contract manufacturers to procure these components in order to produce the products and devices that we market and sell. Many of these components are manufactured in China whose supply chain is currently being impacted by the coronavirus outbreak and its widening effect on trade. If the outbreak continues, there will likely be an adverse effect on the availability of components necessary to complete the manufacturing of our products. Our solutions subsidiaries rely on a few contract manufacturers. We may not be able to furnish our customers with a sufficient supply of products and devices at price points or with functional characteristics and reliability that meet their needs. An inability or delay to successfully source these materials and manufacture products and devices that meet the needs of customers and are available in sufficient numbers and at prices that render our services cost-effective to customers could limit the acceptance of our system and potentially affect the quality of our services, which could have a material adverse effect on our business, financial condition and results of operations.

Our business may be materially and adversely affected if any of our direct or indirect relationships with these contract manufacturers is terminated or modified. If our arrangements with third-party manufacturers are terminated, our search for additional or alternate manufacturers could result in significant delays, added expense and an inability to maintain or expand our customer base. Any of these events could require us to take unforeseen actions or devote additional resources to provide our services and could harm our ability to compete effectively.

In particular, significant interruptions, discontinuation, slowdown or loss of the supply of subscriber communicators from our vendor Sanmina Corporation (“Sanmina”) or a change in our commercial relationship with Sanmina could have a material adverse effect on our business.

Our business is heavily dependent on Sanmina, a contract manufacturer with significant operations in Mexico, for the manufacture of our subscriber communicators that we design and sell. Consequently, significant interruptions, discontinuation, slowdown or loss of Sanmina’s manufacturing and supply of products will negatively affect our ability to grow, provide reliable service and could have a material adverse effect on our business. While we currently have a good relationship with Sanmina, we cannot provide assurance that our future commercial relationship or arrangements with Sanmina will not change in a manner that has an adverse effect on our business. In addition, any change in trading agreements between the United States and Mexico could have a significant impact on our business.

If our arrangements with third-party manufacturers, including Sanmina, are terminated or expire, our search for additional or alternate manufacturers could result in significant delays in customers activating products on our communications system, added expense for our customers and our inability to maintain or expand our customer base.

We are, and in the future may continue to be, subject to legal proceedings that could adversely affect our business.

We may be subject to legal claims involving stockholder, consumer, antitrust, intellectual property infringement, product liability and other issues. We are also currently in litigation related to employment matters, acquisition-related claims, patent infringement and contractual matters, among other issues. Litigation is subject to inherent uncertainties, including increases in demands for our management team’s attention and potential high costs and unfavorable rulings. If an unfavorable ruling were to occur, it could include money damages and have a material adverse effect on our business, financial condition and results of operations for the period in which the ruling occurred or future periods. See also “Note 14 – Commitments and Contingencies” in our audited consolidated financial statements included in Part II, Item 8 of this Annual Report on Form 10-K.

Our business relies on intellectual property, some of which third parties own, and we, our MCAs, MCPs or respective customers may inadvertently infringe upon their patents and proprietary rights. We have been and may in the future become subject to claims that our products violate the patent or intellectual property rights of others, which could be costly and disruptive to us.

Many entities, including some of our competitors, currently or may in the future, hold patents and other intellectual property rights that cover or affect products or services related to those that are offered by us, our MCAs, our MCPs, or our respective customers. We cannot provide assurance that we are aware of all third-party intellectual property rights upon which any of our products or services may infringe. As a result, certain of our products or services may become subject to intellectual property infringement claims or litigation. In addition, certain of our patents, trademarks, copyrights or other intellectual property rights may be challenged by our competitors or others. The defense of intellectual property suits is both costly and time-consuming, even if ultimately successful, and may divert management's attention from other business concerns. An adverse determination in litigation to which we may become a party could, among other things:

- subject us, our MCAs, our MCPs, or our respective customers to significant liabilities to third parties, including treble damages;
- require disputed rights to be licensed from a third party for royalties that may be substantial;
- require cessation of the use of important technology;
- prohibit the sale of some or all products and services;
- require the redesign of products in such a way as to avoid infringing upon others' patents; or
- cause the loss of the exclusive use of certain technologies, resulting in a loss of a competitive market advantage.

We cannot estimate the extent to which we, our MCAs, our MCPs, or our respective customers may be required to obtain intellectual property licenses in the future, or the availability and cost of any such licenses. To the extent that we are required to pay royalties to third parties to whom we are not currently making payments, these increased costs of doing business could negatively affect our profitability or liquidity. If a competitor holds intellectual property rights, it may not allow the use of its intellectual property at any price, which could adversely affect our competitive position.

Some of our products and services incorporate open source software. While we believe we have used all such open source software properly and in accordance with the disclosed terms and conditions of such use, there is risk that the interpretation of how such software can be used may be subject to change due to changes in regulation or by court interpretation. In the event our use of open source software changes, we may be required to seek a license for continued use at unanticipated cost and expense, to develop our own software solution or to discontinue the sale of a product or service incorporating the open source software, each of which could adversely affect our business.

Because we operate our business in a highly regulated industry, we may be subjected to increased regulatory restrictions and oversight which could disrupt our service or increase our operating costs.

Telecommunications product and service providers are subject to extensive regulation under the laws of various national and international regulatory bodies, all of which are subject to change, from time to time without prior notice. These rules and policies establish the terms and conditions pursuant to which we, or MCAs and our MCPs must conduct our respective businesses by, among other things, requiring that certain regulatory and other governmental authorizations be obtained and maintained, establishing technical parameters for the operation of facilities and subscriber communicators, and determining the permissible uses of facilities and subscriber communicators. Additionally, under some circumstances, these rules and policies may require us, our MCAs and our MCPs to suspend or terminate the operation or use of network facilities we operate or utilize, or otherwise alter or disrupt our ability to provide services. Any such events could significantly disrupt or preclude the operation of some or all of our communications systems. These rules and policies may also impose regulatory constraints on the use of subscriber communicators within certain countries or territories. They may also cause delays in the marketing of our services and products, may impose costly fees and procedures on us, our MCAs or our MCPs, and may give a competitive advantage to larger companies with whom we compete. Applicable laws and regulations also impose many other compliance obligations, which may differ from country to country, including those relating to import and export control, anti-corruption, data privacy, and information security. Possible future changes to regulations and policies in the countries in which we operate may result in additional regulatory requirements or restrictions on the services and equipment we provide, which may have a material adverse effect on our business and operations. Although we believe that we, our MCAs, and our MCPs comply with applicable laws and regulations, and have obtained all the regulatory or other governmental approvals required to conduct our respective businesses as they are currently operated, it may not be possible to obtain, modify or maintain such approvals in the future. Moreover, future changes in applicable laws, regulations, and regulatory or governmental approval requirements may result in disruptions of our ability to provide some or all of the products and services we offer, or alternatively, result in added operational costs, which could materially harm our business.

The U.S. Departments of Justice, State and Treasury and other international regulatory agencies and authorities impose a broad range of criminal and civil penalties against companies and individuals who violate various lists of parties with whom engaging in business is prohibited or who engage in prohibited business activities, such as bribery and violations of export control laws. A violation of these laws, rules or regulations could have a material adverse effect on our ability to operate our business. Although we have implemented policies and processes to address these prohibited activities, we cannot guarantee that employees, partners, vendors, representatives or agents will not engage in conduct that would result in our being held responsible for the improper conduct. We have, in the past and may in the future, be subject to investigations by regulatory authorities, including the Department of Commerce's Bureau of Industry and Security. We believe that there is no pending investigation, claim or litigation that could have a material adverse effect on our operations.

We do not currently maintain in-orbit or other insurance for our OG1 or OG2 satellites.

We do not currently maintain in-orbit insurance coverage for our OG1 or OG2 satellites to address the risk of potential systemic anomalies, failures, collisions with our satellites or other satellites or debris, or catastrophic events affecting the existing satellite constellation. An uninsured failure of one or more of our satellites could have a material adverse effect on our financial condition and results of operations.

We do not maintain third-party liability insurance with respect to our satellites. Accordingly, we have no insurance to cover any third-party damages that may be caused by any of our satellites. If we experience significant uninsured losses, such events could have a material adverse impact on our business, financial condition and results of operations.

Certain areas of our business rely upon third-party wireless network service providers, which are potential competitors, to deliver existing and developing services.

Certain services we provide rely on our relationships with third-party wireless network service providers, including Verizon, AT&T, T-Mobile, Telefonica, Orange, Rogers and Vodafone with respect to cellular communications and Inmarsat with respect to ORBCOMM L-Band satellite services. Our ability to provide these services and grow our business depends on continued access to these wireless networks and our ability to purchase sufficient capacity at competitive pricing. Increases in the fees charged by cellular carriers for data transmission or changes in the cellular networks, such as a cellular carrier discontinuing support of the network currently used by our devices, thereby requiring retrofitting of our devices, could increase our costs and impact our profitability. In addition, our services depend on the continuing reliability and security of these third-party networks, which could be adversely affected by errors, defects, interrupted service and/or a breach of the network security. While our existing agreements have multiple year terms, certain of these wireless network service providers are, and in the future could become, competitors. This competition could adversely affect our relationships and their willingness to sell us airtime at commercially reasonable rates.

Significant interruptions, discontinuation or loss of services provided by Inmarsat plc and its subsidiaries or a change in our commercial relationship with the Inmarsat group could have a material adverse effect on our business.

The revenues generated by our provision of L-Band mobile satellite network services are materially dependent on the satellite network services provided to us by Inmarsat group. Consequently, any significant interruptions, discontinuation or loss of those services due to the temporary or permanent failure of Inmarsat satellites or associated Inmarsat terrestrial network facilities would negatively affect our ability to provide reliable service and could have a material adverse effect on our L-Band mobile satellite product and service revenues. Increases in the fees charged by Inmarsat or discontinuing the L-Band service used by our customers' fielded devices, thereby requiring retrofitting of our devices, would increase our costs and impact our profitability. Additionally, we cannot provide any assurance that our future commercial relationship or arrangements with Inmarsat will not change in a manner that has an adverse effect on our business.

If we fail to maintain proper and effective internal controls, our ability to produce accurate financial statements on a timely basis could be impaired.

We are subject to the reporting requirements of the Securities Exchange Act of 1934, the Sarbanes-Oxley Act of 2002, the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 and the rules and regulations of the U.S. Securities and Exchange Commission ("SEC") and The NASDAQ Stock Market ("NASDAQ"). The Sarbanes-Oxley Act requires, among other things, that we maintain effective disclosure controls and procedures and internal controls over financial reporting. We perform system and process evaluation and testing of our internal controls over financial reporting to allow management to report on the effectiveness of our internal controls over financial reporting in our Annual Reports on Form 10-K, as required by Section 404 of the Sarbanes-Oxley Act. If we are not able to comply with the requirements of Section 404 of the Sarbanes-Oxley Act in a timely manner, or if we are unable to maintain proper and effective internal controls, we may not be able to produce timely and accurate financial statements, and we may conclude that our internal controls over financial reporting are not effective. If that were to happen, the market

price of our stock could decline and we could be subject to sanctions or investigations by NASDAQ, the SEC or other regulatory authorities. Maintaining effective internal controls over financial reporting is necessary for us to produce reliable financial statements. If we fail to maintain effective controls over financial reporting in the future, it could result in a material misstatement of our financial statements that would not be prevented or detected on a timely basis and which could cause investors and other users to lose confidence in our financial statements.

If our estimates in accounting are inaccurate and our financial assumptions are proven wrong, our reported results may be different than the guidance provided to the market.

Our financial statements are prepared in accordance with accounting principles generally accepted in the United States (“GAAP”). As part of the preparation of these statements, we make assumptions, estimates and judgments about various entries, such as capital expenditures, anticipated revenue collection and recognition, impairment of long-lived assets such as goodwill, warranty reserves, debt service, employee compensation, and contingent liabilities. These entries are based on our judgment and observations of similar historical circumstances and what we believe to be reasonable under the circumstances. If the underlying assumptions upon which we rely are incorrect, the actual results of our operations could differ and require us to revise our financial statements, which could adversely affect our stock price. In addition, new accounting rules that may be established from time to time by various regulatory authorities including the IRS and SEC may require a revision to our financial statements that could adversely affect our reported financial results.

Risks Related to Our Technology

Satellites are subject to significant operating risks due to various types of potential anomalies and potential impacts of space debris or other spacecrafts.

Satellites utilize highly complex technology and operate in the harsh environment of space and, accordingly, are subject to significant operational risks while in orbit. These risks include malfunctions, or anomalies, that have occurred and may continue to occur in our satellites. In addition, satellites have a limited life capacity and they could become compromised over their designated operational life span. Some of the principal satellite anomalies include:

- Mechanical and electrical failures due to manufacturing error or defect, including:
 - Mechanical failures that degrade the functionality of a satellite, such as the failure of solar array panel drive mechanisms, rate gyros or momentum wheels;
 - Antenna failures and defects that degrade the communications capability of the satellite;
 - Circuit failures that reduce the power output of the solar array panels on the satellites;
 - Failure of the battery cells that power the payload and spacecraft operations during daily solar eclipse periods;
 - Power system failures that result in a shutdown or loss of the satellite;
 - Avionics system failures, including GPS, that degrade or cause loss of the satellite;
 - Altitude control system failures that degrade or cause the inoperability of the satellite;
 - Transmitter or receiver failures that degrade or cause the inability of the satellite to communicate with subscriber communicator units or GESs;
 - Communications system failures that affect overall system capacity;
 - Satellite computer or processor re-boots or failures that impair or cause the inoperability of the satellites; and
 - Radio frequency interference emitted internally or externally from the spacecraft affecting the communication links.
- Equipment degradation during the satellite’s lifetime, including:
 - Degradation of the batteries’ ability to accept a full charge;
 - Degradation of solar array panels due to radiation;
 - General degradation resulting from operating in the harsh space environment, such as from solar flares;
 - Degradation or failure of reaction wheels;
 - Degradation of the thermal control surfaces;
 - Degradation and/or corruption of memory devices; and
 - Propulsion system failures that degrade or cause the inability to reposition the satellite.

- Deficiencies of control or communications software, including:
 - Failure of the charging algorithm that may damage the satellite's batteries;
 - Problems with the communications and messaging servicing functions of the satellite;
 - Limitations on the satellite's digital signal processing capability that limit satellite communications capacity; and
 - Problems with the fault control mechanisms embedded in the satellite.

We have experienced, and may in the future experience, anomalies in some of the categories described above. The effects of these anomalies include, but are not limited to, failure of the satellite, degraded communications performance, reduced power available to the satellite in sunlight and/or eclipse, battery overcharging or undercharging and limitations on satellite communications capacity. Some of these effects may be increased during periods of greater message traffic and could result in our system requiring more than one attempt to send messages before they get through to our satellites. Although these multiple re-try effects do not result in lost messages, they could lead to increased messaging latencies for the end user and reduced throughput for our system. We consider a satellite "failed" only when it can no longer provide any communications service, and we do not intend to undertake further efforts to return it to service. See "ORBCOMM Communications System — System Status — ORBCOMM Network Capacity" for a description of our network capacity. While we have already implemented a number of system adjustments, we cannot provide assurance that these actions will succeed or adequately address the effects of any anomalies in a timely manner or at all.

Collisions with space debris or other spacecraft could materially affect system performance and our business. Our satellites operate at LEO altitudes, in a regime populated by other operational satellites, defunct satellites and other cataloged debris, and debris that is too small to be tracked, and do not have the ability to actively maneuver to avoid space debris or other satellites. Two major events have increased the LEO debris population: a deliberate Chinese ASAT test in 2007 and an accidental collision in 2009 between an operational Iridium satellite and a non-operational Russian satellite. While we coordinate with the Joint Space Operations Center as well as with other governmental and commercial spacecraft operators to limit the risk of collision, such risk cannot be fully eliminated.

While certain software deficiencies may be corrected remotely, most, if not all, of the satellite anomalies or debris collision damage cannot be corrected once the satellites are placed in orbit. See "ORBCOMM Communications System — System Status" for a description of the operational status and anomalies that affect our satellites. We may experience additional anomalies in the future, whether of the types described above or arising from the failure of other systems or components, and operational redundancy may not be available upon the occurrence of such anomalies.

When one or more of our satellites fail, we record an impairment charge in our statement of operations, which would have the effect of fully reducing the net book value of that satellite listed in our statement of operations to a zero value. Any such impairment charge would depress our net income for the reporting period in which the failure occurs, which was most recently the case in 2017 when we wrote off the net book value of three OG2 satellites.

Our products and services could fail to perform or perform at reduced levels of service because of technological malfunctions, satellite failures or deficiencies or events outside of our control, which would seriously harm our business and reputation.

Our products and services are exposed to the risks inherent in a large-scale, complex telecommunications system employing advanced technology. Any disruption to our services, information systems or communication networks or those of third parties into which our network connects, could result in the inability of our customers to receive our services for an indeterminate period of time. Satellite anomalies and other technical and operational deficiencies of our communications system described in this Annual Report on Form 10-K, could result in system failures or reduced levels of service. In addition, certain components of our system are located in foreign countries, and as a result, are potentially subject to governmental, regulatory or other actions in such countries which could force us to limit the operations of, or completely shut down, components of our system, including GESs or subscriber communicators. Any disruption to our services or extended periods of reduced levels of service could, and increased latencies in our satellite network delivering messages have caused and could continue to cause us to lose customers or revenue, result in delays or cancellations of future implementations of our products and services, result in failure to attract customers or could result in litigation, customer service or repair work that would involve substantial costs and distract management from operating our business. The failure of any of the diverse and dispersed elements of the system, including satellites, network control center or backup control center, GESs, gateway control centers or subscriber communicators, to function and coordinate as required could render the system unable to perform at the quality and capacity levels required for success. If the satellite network can no longer provide commercially acceptable service, our satellite subscriber communicators would no longer generate monthly service revenue. Any system failures, repeated product failures, shortened product life or extended reduced levels of service could reduce our sales, increase costs or result in warranty or liability claims and seriously harm our business.

Some of the hardware and software we use in operating our GESs and our customers' subscriber communicators were designed and manufactured over 15 years ago and could be more difficult and expensive to service, upgrade or replace.

Some of the hardware and software we use in operating our GESs and our customers' subscriber communicators were designed and manufactured over 15 years ago and portions are becoming obsolete. As they continue to age, they may become less reliable and will be more difficult and expensive to service, upgrade or replace. Although we maintain inventories of some spare parts for our GESs, it nonetheless may be difficult or impossible to obtain all necessary replacement parts for the hardware. Our business plan contemplates updating or replacing some of the hardware and software in our network, however, the age of our existing gateway hardware and software may present us with technical and operational challenges that complicate or otherwise make it infeasible to carry out our planned upgrades and replacements, and the expenditure of resources, both from a monetary and human capital perspective, may exceed our estimates. In addition, some of our customers have a GPS device that may no longer accurately reflect the correct date, which may prevent the data messaging to be triggered. Without upgrading and replacing this equipment, obsolescence of the technologies that we use could have a material adverse effect on our revenues, profitability and liquidity.

Technical or other difficulties with our GESs could harm our business.

The ongoing operations of our satellite constellation rely on the functionality of our GESs, some of which are owned and maintained by third parties. While we believe that the overall health of the majority of our GESs remains stable, we have experienced and may continue to experience technical difficulties or parts obsolescence with our GESs which negatively impact service in the region covered by that GES. Certain problems with these GESs have reduced and may continue to reduce their availability and negatively impact the performance of our system in that region. In addition, due to regulatory and licensing constraints in certain countries in which we operate, we are unable to wholly-own or majority-own some of the GESs in our system located outside the United States. As a result of these ownership restrictions, we rely on third parties to own and operate some of these GESs. If our relationship with these third parties deteriorates or where these third parties have been and may continue to be unable or unwilling to bear the cost of operating or maintaining the GESs, or if there are changes in the applicable domestic regulations that require us to give up any or all of our ownership interests in any of the GESs, our control over our satellites could be diminished and our business could be harmed.

The collection, storage, transmission, use and disclosure of user data and personal information could give rise to liabilities or additional costs as a result of laws, governmental regulations and evolving views of personal privacy rights.

We transmit, and in some cases store, end-user data, which may include personal information. In jurisdictions around the world, personal information is becoming increasingly subject to legislation and regulations intended to protect consumers' privacy and security. For example, effective January 1, 2020, the California Consumer Privacy Act became effective, and other privacy related regulations are pending in several other states such as New York and Nevada. Regulatory enforcement of the EU General Data Protection Regulation has begun resulting in significant fines for non-compliance. Other countries have recently adopted similar laws and regulations, including Brazil, Australia, Canada, and China. The interpretation of privacy and data protection laws and regulations regarding the collection, storage, transmission, use and disclosure of such information in some jurisdictions is unclear and evolving. These laws may be interpreted and applied in conflicting ways from each other and in a manner that is not consistent with our current data protection practices. Complying with these varying international requirements could cause us to incur additional costs and change our business practices. Because our services are accessible in many foreign jurisdictions, some of these jurisdictions may claim that we are required to comply with their laws, even where we have no local entity, employees or infrastructure. We could be forced to incur significant expenses if we were required to modify our products, our services or our existing security and privacy procedures in order to comply with new or expanded regulations. In addition, if end users allege that their personal information is not collected, stored, transmitted, used or disclosed appropriately or in accordance with our privacy policies or applicable laws, we could have liability to them, including claims and litigation resulting from such allegations. Any failure on our part to protect end users' privacy and data could result in a loss of user confidence, hurt our reputation and ultimately result in the loss of users. In addition, in the event that we suffer a loss or adverse event to our data storage or it is determined that our policies and procedures have failed to comply with evolving laws and regulations, we may be subject to significant regulatory investigations and fines or penalties. These laws, rules and regulations may further limit our ability to develop additional products or services that incorporate the data related to our business, including data analytics.

The failure of our information technology systems could disrupt our business operations which could have a material adverse effect on our business, financial condition and results of operations.

The operation of our business depends on our information technology systems. We rely on our information technology systems to effectively manage, among other things, our subsidiaries' customer interface as well as business data, communications, supply chain, inventory management, customer order entry and order fulfillment, processing transactions, summarizing and reporting results of operations, human resources benefits and payroll management, complying with regulatory, legal or tax requirements and other processes and data necessary to manage our business. We use technology to provide secure transmission of confidential information, including our business data and customer information. To achieve our strategic objectives and to remain competitive, we must continue to develop and enhance our information systems. This may require the acquisition of equipment and software and the development, either internally or through independent consultants, of new proprietary software. Our inability to design, develop, implement and utilize, in a cost-effective manner, information systems that provide the capabilities necessary for us to compete effectively, could make us less competitive, increase our costs and adversely affect our business. The failure of our information technology systems, whether ours or those of third parties with whom we contract to support the provision of our services, to perform as we anticipate could disrupt our business and could result in, among other things, transaction errors, processing inefficiencies, loss of data and the loss of sales and customers, which could cause our business and results of operations to suffer. In addition, our information technology systems may be vulnerable to damage or interruption from circumstances beyond our control, including, without limitation, fire, natural disasters, power outages, system failures, system conversions, security breaches, cyber-attacks, viruses and/or human error. In any such event, we could be required to make a significant investment to fix or replace our information technology systems, and we could experience interruptions in its ability to service our customers. Any such damage or interruption could have a material adverse effect on our business, financial condition and results of operations.

Security problems with our networks, data processing systems, software products, and those systems or services of our third-party providers may be vulnerable to security risks, could cause increased cyber-security protection costs and general service costs, harm our reputation, and result in liability and increased expense for litigation, regulatory fines and diversion of management time.

We process and retain large amounts of customer information. Our software products also enable our customers to store and process data. We have included security features in our products and processes that are intended to protect the privacy and integrity of data, including confidential client data, and we expect the secure transmission of data over public networks. Security for our products and processes is critical given the confidential nature of the information contained in our systems. We also rely on employees in our network operations centers, data centers, and support operations to follow our procedures when handling such information. However, our network and those of our third-party service providers (including data storage facilities), banks, and our customers may be vulnerable to unauthorized access, computer viruses and other security problems. It is possible that our security controls, our selection and training of employees, and other practices we follow may not prevent the improper disclosure of information. Persons who circumvent security measures could wrongfully obtain or use information on the network or cause interruptions, delays or malfunctions in our operations, or misappropriation of assets, any of which could have a material adverse effect on our business, financial condition and results of operations. Any unauthorized access, computer viruses, accidental or intentional release of confidential or personal information or other disruptions could result in increased costs, customer dissatisfaction leading to loss of customers and revenues, and fines and other liabilities. Also, such disclosure could harm our reputation and subject us to liability in regulatory proceedings and private litigation, resulting in increased costs or loss of revenue. Improper disclosure of corporate data could result in lawsuits or regulatory proceedings alleging damages and perceptions that our products and services do not adequately protect the privacy of customer data and could inhibit sales of our products and services. In addition, our customer and vendor contracts may not sufficiently protect us against third-party claims related to an incident. Defending these types of claims could result in increased expenses for litigation and claims settlement and a significant diversion of our management's attention. Additionally, our software products, the systems on which the products are used, and our processes may not be impervious to intentional break-ins ("hacking"), email spoofing, phishing, cyber-attacks or other disruptive disclosures or problems, whether as a result of inadvertent third-party action, employee action, malfeasance, or otherwise. Hacking, email spoofing, phishing, cyber-attacks or other disruptive problems could result in the diversion of our development resources, damage to our reputation, increased cyber-security protection costs and general service costs. Although we have implemented and intend to continue to implement security measures, these measures may prove to be inadequate and result in system failures and delays that could lower network operations center availability. These cyber-security events, any damage caused by them, or interruptions could have a material adverse effect on our business, financial condition and results of operations.

Risks Related to Our Debt

Our Indenture and Revolving Credit Agreement could restrict our business activities or our ability to execute our strategic objectives or adversely affect our financial performance.

On April 10, 2017, we entered into the Indenture and issued \$250.0 million of our 8.0% Senior Secured Notes that refinanced credit facilities in the aggregate principal amount of \$160.0 million. On December 18, 2017, we entered into the Revolving Credit Agreement that provides for the Revolving Credit Facility of up to \$25.0 million for working capital and general corporate purposes.

The Indenture, Revolving Credit Agreement and related security agreement contain covenants that may restrict our business activities or our ability to execute our strategic objectives, and our failure to comply with these covenants could result in a default under our indebtedness. Our inability to generate sufficient cash flow to satisfy interest payments and principal repayment at maturity, could adversely affect our financial condition, operating results and cash flows. The covenants in the Indenture, Revolving Credit Agreement and related security agreement limit our ability to, among other things, incur additional indebtedness and liens, sell, transfer, lease or otherwise dispose of our subsidiaries' assets, or merge or consolidate with other companies. We must also comply with an incurrence covenant of having available liquidity and not exceeding a specific leverage ratio. Failure to comply with the covenants could result in an event of default, which, if not cured or waived, could allow the noteholders or lenders, as applicable, to require repayment in full of all principal and interest outstanding. If we fail to repay such amounts, the noteholders or lenders, as applicable, may foreclose on substantially all of our assets which we have pledged. If we are unable to cure the default, we may need to repay the debt and find other sources of financing and there can be no assurance that we would have access to other sources of financing on acceptable terms, or at all.

Our substantial indebtedness may adversely affect our business, financial condition and operating results.

As of December 31, 2019, we have \$250.0 million in aggregate principal amount of total debt from the issuance of 8.0% Senior Secured Notes. On December 18, 2017, we also entered into the Revolving Credit Agreement for a Revolving Credit Facility of up to \$25.0 million, bearing interest at an alternative base rate or an adjusted LIBOR, plus an applicable margin of 1.50% in the case of alternative base rate loans and 2.50% in the case of adjusted LIBOR loans. If drawn, the Revolving Credit Facility would be pari passu with the \$250.0 million 8.0% Senior Secured Notes. Our level of indebtedness may have material adverse effects on our business, financial condition and operating results, including to:

- make it more difficult for us to satisfy our debt service obligations or refinance our indebtedness;
- require us to dedicate a substantial portion of our cash flows from operations to payments on our indebtedness, thereby reducing the availability of our cash flows to fund working capital, capital expenditures and other general operating requirements;
- limit our ability to obtain additional financing to fund our working capital requirements, capital expenditures, acquisitions, investments, debt service obligations and other general corporate requirements;
- restrict us from making strategic acquisitions, taking advantage of favorable business opportunities or executing our strategic priorities;
- place us at a relative competitive disadvantage compared to our competitors that have proportionately less debt;
- limit our flexibility to plan for, or react to, changes in our business and the industries in which we operate, which may adversely affect our operating results and ability to meet our debt service obligations;
- increase our vulnerability to the current and potentially more severe adverse general economic and industry conditions;
- limit our ability, or increase the cost, to refinance our indebtedness; and
- limit our ability to purchase the notes upon a change of control triggering event, or disposition of "substantially all" of our assets, as required by the indenture governing the Senior Secured Notes.

As a result of our indebtedness, we may be restricted in pursuing desirable business activities and in our operations, and as a result, our business and ability to repay the notes may be adversely affected. Despite our current level of indebtedness, we may still be able to incur substantially more debt. This could further exacerbate the risks that we and our subsidiaries face. We currently do not generate sufficient cash flow to repay the aggregate principal amount of our outstanding indebtedness which will require us to refinance our 8.0% Senior Secured Notes on or prior to their maturity date of April 1, 2024.

Risks Related to an Investment in Our Common Stock

The price of our common stock has been, and may continue to be, volatile and investments in our common stock may decline in value.

The trading price of our common stock has been and may continue to be volatile and purchasers of our common stock could incur substantial losses. Factors that could affect the trading price of our common stock include:

- liquidity of the market in, and demand for, our common stock;
- changes in expectations from securities analysts or investors as to our future financial performance or subscriber growth estimates, if any;
- actual or anticipated fluctuations in our or competitors' operating and financial results and overall market valuation;
- our financial or subscriber growth performance failing to meet the expectations of market analysts, investors or the guidance we provide to investors;
- investor perception of and confidence in capital markets and equity investments;
- our ability to raise additional funds to meet our capital needs;
- conditions and trends in the end markets we serve and changes in the estimation of the size and growth rate of these markets;
- announcements relating to our business or the business of our competitors, customers or suppliers;
- investor perception of our prospects, our industry and the markets in which we operate;
- changes in our pricing policies or the pricing policies of our competitors;
- loss of one or more of our significant customers;
- changes in key management personnel;
- failure of our satellites or any issues related to our products to perform as expected;
- changes in our credit rating or future prospects by rating agencies;
- the outcome of any litigation by or against us, including any judgments favorable or adverse to us;
- changes in governmental regulation, including the imposition of tariffs or other trade barriers; and
- general economic, political and other market conditions.

In addition, the stock market in general, and The Nasdaq Global Market and the market for telecommunications companies in particular, have experienced and may continue to experience extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of particular companies affected. These broad market and industry factors may materially harm the market price of our common stock, regardless of our operating performance. In the past, following periods of volatility in the market price of a company's securities, securities class-action litigation has often been instituted against that company. Such litigation has previously been instituted against us and could result in substantial costs and a diversion of management's attention and resources, which could have a material adverse effect on our business, financial condition, future results and cash flow.

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

Our quarterly operating results have fluctuated in the past and may fluctuate in the future as a result of a variety of factors, many of which are outside of our control, including the cyclical nature of the transportation and other markets we serve, and sales cycle lead time for large customers to evaluate, purchase and deploy IoT products and services. If our quarterly operating results fall below the expectations of securities analysts, investors or our guidance, the price of our stock could decline substantially. The following factors, among others, could cause fluctuations in our quarterly operating results:

- our ability to attract new customers and retain existing customers;
- our ability to accurately forecast business cycles in our target markets, customer sales cycles, and revenues and appropriately plan our expenses;

- the mix of our products and services sold, including any pricing changes passed on to customers or received from suppliers;
- our ability to introduce new features, including integration of our existing solutions with third-party software and devices;
- the cost and availability of components, including any changes to our sourcing or manufacturing partners;
- the actions of our competitors, including consolidation within the industry, pricing changes or the introduction of new products or services;
- our ability to effectively manage our growth;
- our ability to successfully manage any future acquisitions of businesses, solutions, or technologies;
- the timing and cost of developing or acquiring technologies, services, or businesses;
- service outages or security breaches and any related occurrences which could impact our reputation;
- trade protection measures, such as tariffs and duties, and import or export licensing requirements;
- fluctuations in foreign currency exchange rates;
- changes in government regulation affecting our business; and
- provision of solutions from an OEM-controlled channel, from which ORBCOMM may be excluded.

We believe that our quarterly operating results may vary significantly in the future and that period-to-period comparisons of our operating results may not be meaningful. The results of one quarter are not an indication of future performance.

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

The trading market for our common stock will continue to depend in part on the research and reports that securities or industry analysts publish about us or our business. If we do not continue to maintain adequate research coverage or if one or more of the analysts who covers us downgrades our stock or publishes inaccurate or unfavorable research about our business, our stock price would likely decline. If one or more of these analysts ceases coverage of our company or fails to publish reports on us regularly, demand for our stock could decrease, which could cause our stock price and trading volume to decline.

We are subject to anti-takeover provisions which could affect the price of our common stock.

Our amended and restated certificate of incorporation and our bylaws contain provisions that could make it difficult for a third party to acquire us without the consent of our board of directors. These provisions do not permit actions by our stockholders by written consent and require the approval of the holders of at least 66 2/3% of our outstanding common stock entitled to vote to amend certain provisions of our amended and restated certificate of incorporation and bylaws. In addition, these provisions include procedural requirements relating to stockholder meetings and stockholder proposals that could make stockholder actions more difficult. Our board of directors is classified into three classes of directors serving staggered, three-year terms and may be removed only for cause. Any vacancy on the board of directors may be filled only by the vote of the majority of directors then in office. Our board of directors has the right to issue preferred stock with rights senior to those of the common stock without stockholder approval, which could be used to dilute the stock ownership of a potential hostile acquirer, effectively preventing acquisitions that have not been approved by our board of directors. Delaware law also imposes some restrictions on mergers and other business combinations between us and any holder of 15% or more of our outstanding common stock. Although we believe these provisions provide for an opportunity to receive a higher bid by requiring potential acquirers to negotiate with our board of directors, these provisions apply even if the offer may be considered beneficial by some stockholders and may delay or prevent an acquisition of our company.

The future issuance of additional shares of our common stock could cause dilution of ownership interests and adversely affect our stock price.

We may in the future issue our previously authorized and unissued securities, resulting in the dilution of the ownership interests of our current stockholders. We are authorized to issue 250 million shares of common stock, of which approximately 78 million shares of voting common stock were issued and outstanding as of December 31, 2019 and approximately 172 million were available for future issuance. The potential issuance of such additional shares of common stock, whether directly or pursuant to any conversion right of any convertible securities, may create downward pressure on the trading price of our common stock. We may also issue additional shares of our common stock or other securities that are convertible into or exercisable for common stock to raise capital, acquire businesses or related assets, or other business purposes. Future sales of substantial amounts of common stock, or the perception that sales might occur, could have a material adverse effect on the price of our common stock.

We have issued, and may in the future issue, additional shares of preferred stock or other securities with greater rights than our common stock.

Subject to the rules of NASDAQ, our certificate of incorporation authorizes our board of directors to issue one or more series of preferred stock and set the terms of the preferred stock without seeking any further approval from holders of our common stock. Currently, there are 50 million shares of preferred stock authorized and approximately 41,000 shares of Series A convertible preferred stock were issued and outstanding as of December 31, 2019. Any preferred stock that is issued may rank ahead of our common stock in terms of dividends, priority and liquidation premiums and may have greater voting rights than holders of our common stock.

Our recently announced stock repurchase program could affect the price of our common stock, increase the volatility of our common stock and could diminish our cash reserves. Such repurchase program may be suspended or discontinued at any time, which may result in a decrease in the trading price of our common stock.

In August 2019, our Board of Directors approved a stock repurchase program to repurchase up to \$25.0 million of our outstanding common stock. This stock repurchase program does not obligate the Company to repurchase any dollar amount or number of shares of common stock and may be suspended or discontinued at any time, which could cause the market price of our common stock to decline. The number of shares and the timing of repurchases will be determined by management at its discretion and will depend on a number of factors, including, but not limited to, stock price, trading volume and general market conditions, along with working capital requirements, general business conditions, compliance with terms of our indebtedness, and other factors. We may effect repurchases under any stock repurchase program from time to time in the open market, in privately negotiated transactions or otherwise, including accelerated stock repurchase arrangements. Between August 2019 and December 31, 2019, we repurchased approximately \$9.0 million of common stock, with the remaining \$16.0 million authorized available for future repurchases of stock. Since the stock repurchase program has been and is expected to be funded through existing cash and cash equivalents, the stock repurchase program has reduced and could continue to reduce the amount of cash we have available to fund our operations, including product development, working capital, capital expenditures, acquisitions, and any other business purpose. There can be no assurance that any stock repurchases will enhance stockholder value because the market price of our common stock may decline below the levels at which we repurchased shares of common stock. Although our stock repurchase program is intended to enhance stockholder value, short-term stock price fluctuations could reduce the program's effectiveness.

We do not expect to pay dividends on our common stock in the foreseeable future.

We do not currently pay cash dividends on our common stock and, because we currently intend to retain all cash we generate to fund the growth of our business, we do not expect to pay dividends on our common stock in the foreseeable future. Any future dividend payments would be within the discretion of our board of directors and would depend on a variety of factors, including our results of operations, working capital requirements, capital expenditure requirements, financial condition, contractual restrictions, debt covenants, business opportunities, anticipated cash needs, provisions of applicable law and other factors that our board of directors may deem relevant. We may not generate sufficient cash from operations in the future to pay dividends on our common stock. Our intent not to pay dividends in the foreseeable future may make our common stock less attractive as an investment.

Item 1B. *Unresolved Staff Comments*

None.

Item 2. Properties

We currently lease the following properties for operations and administrative functions:

<u>Location</u>	<u>Real Property Owned or Leased</u>	<u>Lease Expiration</u>
Rochelle Park, New Jersey	Leased	March 2027
Sterling, Virginia	Leased	November 2025
Ottawa, Canada	Leased	February 2031
Kowloon, Hong Kong	Leased	January 2021
San Jose, California	Leased	January 2022
Hyderabad, India	Leased	June 2025
Pune, India	Leased	June 2020
Utica, New York	Leased	May 2024
Hoensbroek, The Netherlands	Leased	May 2022
Bonn, Germany	Leased	December 2024
Centurion, South Africa	Leased	February 2020
Galway, Ireland	Leased	September 2022
Salt Lake City, Utah	Leased	July 2021
Boca Raton, Florida	Leased	December 2027
Tokyo, Japan	Leased	September 2021

In addition, we currently own eleven GESs at the following locations, four situated on owned real property and seven on real property subject to leases:

<u>Gateway</u>	<u>Real Property Owned or Leased</u>	<u>Lease Expiration</u>
St. John's, Arizona	Owned	n/a
Arcade, New York	Owned	n/a
Curaçao	Owned	n/a
Rutherglen Vic, Australia	Owned	n/a
East Wenatchee, Washington	Leased	Month to Month
Ocilla, Georgia	Leased	May 2033
Kijal, Malaysia	Leased	August 2022
Hartebeesthoek, South Africa	Leased	December 2020
Kitaura-town, Japan	Leased	March 2023
Zona Franca de Justo Daract, Argentina	Leased	May 2022
Itaborai, Brazil	Leased	June 2024

We currently own or lease real property sufficient for our business operations, although we may need to purchase or lease additional real property in the future. We intend to renew all leases due to expire in 2020.

Item 3. Legal Proceedings

We are involved in various litigation matters involving claims incidental to our business and acquisitions, including employment matters, acquisition-related claims, patent infringement and contractual matters, among other issues. Management currently believes that the outcome of these proceedings, either individually or in the aggregate, will not have a material adverse effect on our business, results of operations or financial condition. We record reserves related to legal matters when losses related to such litigation or contingencies are both probable and reasonably estimable.

See “Note 14 – Commitments and Contingencies” in our audited consolidated financial statements included in Part II, Item 8 of this Annual Report on Form 10-K.

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*

Trading Market and Symbol of Our Common Stock

Our common stock trades on The Nasdaq Global Market under the symbol “ORBC”.

As of February 13, 2020, there were 195 holders of record of our common stock.

Dividend Payments and Policy

Common stock: We have never declared or paid cash dividends on shares of our common stock. Our board of directors currently intends to retain all available funds and future earnings to support operations and to finance the growth and development of our business and does not intend to pay cash dividends on our common stock for the foreseeable future. Our board of directors may, from time to time, examine our dividend policy and may, in its absolute discretion, change such policy. In addition, dividends are restricted by the covenants in our Indenture and Revolving Credit Agreement.

Series A convertible preferred stock: Pursuant to the terms of our Series A convertible preferred stock, the holders are entitled to receive a cumulative 4% annual dividend payable quarterly in additional shares of Series A convertible preferred stock. In 2019, we issued dividends of 1,182 preferred shares.

Issuer Repurchases

The table below sets forth information with respect to purchases of shares of our common stock made by or on our behalf during the three months ended December 31, 2019:

Issuer Purchases of Equity Securities ⁽¹⁾

Period	Total Number of Shares Purchased	Average Price Paid Per Share ⁽²⁾	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Maximum Approximate Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs
Balances at September 30, 2019			1,582,029	\$ 17,123,934
October 1 to October 31, 2019.....	258,579	\$ 4.67	1,840,608	\$ 15,907,726
November 1 to November 30, 2019.	43,903	\$ 3.92	1,884,511	\$ 15,734,142
December 1 to December 31, 2019..	45,903	\$ 3.84	1,930,414	\$ 15,556,383
Fourth quarter 2019 totals.....	<u>348,385</u>	<u>\$ 4.47</u>	<u>1,930,414</u>	

(1) On August 5, 2019, our Board of Directors authorized the repurchase of up to \$25.0 million of our common stock through various means, including open market transactions and privately negotiated transactions, until August 5, 2020. In addition, open market repurchases of common stock may be made pursuant to applicable security laws and regulations, including Rule 10b-18, as well as Rule 10b5-1 under the Securities Exchange Act of 1934, as amended.

(2) The average per-share cost for repurchases under the repurchase program from inception through December 31, 2019 was \$4.86.

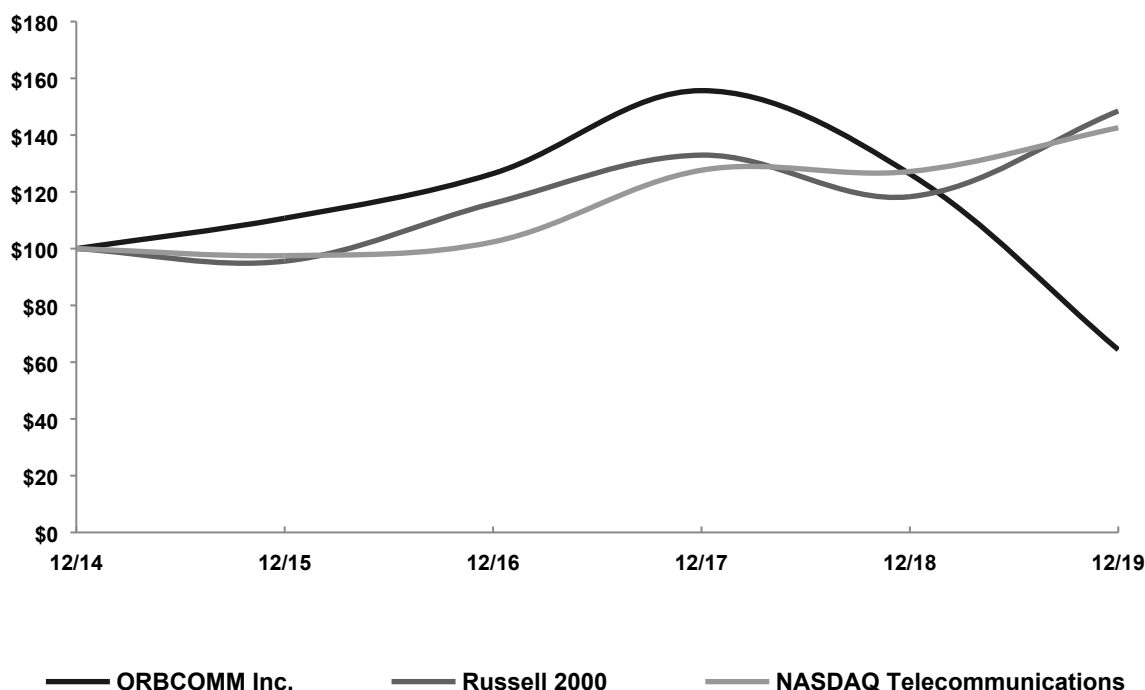
Stock Performance Graph

The graph set forth below compares the cumulative total shareholder return on our common stock between December 31, 2014 and December 31, 2019, with the cumulative total result of (i) the Russell 2000 Index and (ii) the NASDAQ Telecommunications Index, over the same period. This graph assumes the investment of \$100 on December 31, 2014 in our common stock, the Russell 2000 Index and the NASDAQ Telecommunication Index, and assumes the reinvestment of dividends, if any. The graph assumes the initial value of our common stock on December 31, 2014 was the closing sales price of \$6.54 per share.

The comparisons shown in the graph below are based on historical data. We caution that the stock price performance shown in the graph below is not necessarily indicative of, nor is it intended to forecast, the potential future performance of our common stock. Information used in the graph was obtained from Research Data Group, a source believed to be reliable, but we are not responsible for any errors or omissions in such information.

COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN*

Among ORBCOMM Inc., the Russell 2000 Index
and the NASDAQ Telecommunications Index



*\$100 invested on 12/31/14 in stock or index, including reinvestment of dividends.
Fiscal year ending December 31.

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(Amounts in dollars)

	12/14	12/15	12/16	12/17	12/18	12/19
ORBCOMM Inc.	100.00	110.70	126.45	155.66	126.30	64.37
Russell 2000	100.00	95.59	115.95	132.94	118.30	148.49
NASDAQ Telecommunications	100.00	97.52	102.36	127.62	127.16	142.60

Item 6. Selected Consolidated Financial Data

The following selected consolidated financial data should be read together with the information under “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and our consolidated financial statements and the related notes in this Annual Report on Form 10-K. We have derived the consolidated statement of operations data for the years ended December 31, 2019, 2018 and 2017 and the consolidated balance sheet data as of December 31, 2019 and 2018 from our audited consolidated financial statements, which are included elsewhere in this Annual Report on Form 10-K. We have derived the consolidated statement of operations data for the years ended December 31, 2016 and 2015 and the consolidated balance sheet data as of December 31, 2017, 2016 and 2015 from our consolidated financial statements, which are not included in this Annual Report on Form 10-K. Our historical results are not necessarily indicative of future results of operations.

Consolidated Statement of Operations Data:	Year Ended December 31,				
	2019(1)(2)	2018(1)(2)	2017(1)(2)	2016(1)(2)	2015(1)(3)
	(In thousands, except per share data)				
Service revenues	\$ 160,594	\$ 153,589	\$ 134,938	\$ 112,881	\$ 99,973
Product sales	111,419	122,551	119,282	73,863	78,320
Total revenues	272,013	276,140	254,220	186,744	178,293
Costs and expenses:					
Cost of services	52,264	53,184	50,548	37,913	34,109
Cost of product sales	78,377	93,444	99,640	55,037	56,413
Selling, general and administrative	69,590	66,988	55,753	46,915	44,395
Product development	14,720	13,405	8,941	6,252	6,469
Impairment charges	—	—	31,224	10,680	12,748
Depreciation and amortization	50,702	49,684	45,681	42,803	26,571
Acquisition-related and integration costs	788	1,624	3,315	1,630	4,803
Total costs and expenses	266,441	278,329	295,102	201,230	185,508
Income (loss) from operations	5,572	(2,189)	(40,882)	(14,486)	(7,215)
Other expense	(19,321)	(19,092)	(20,722)	(8,223)	(4,559)
Loss from continuing operations before income taxes	(13,749)	(21,281)	(61,604)	(22,709)	(11,774)
Income taxes	4,383	4,658	(409)	517	1,225
Net loss	(18,132)	(25,939)	(61,195)	(23,226)	(12,999)
Less: Net income attributable to the noncontrolling interests	291	305	89	285	252
Net loss attributable to ORBCOMM Inc.	<u>\$ (18,423)</u>	<u>\$ (26,244)</u>	<u>\$ (61,284)</u>	<u>\$ (23,511)</u>	<u>\$ (13,251)</u>
Net loss attributable to ORBCOMM Inc. common stockholders	<u>\$ (18,435)</u>	<u>\$ (26,262)</u>	<u>\$ (61,296)</u>	<u>\$ (23,525)</u>	<u>\$ (13,287)</u>
Per share information-basic:					
Net loss attributable to ORBCOMM Inc. common stockholders	<u>\$ (0.23)</u>	<u>\$ (0.34)</u>	<u>\$ (0.84)</u>	<u>\$ (0.33)</u>	<u>\$ (0.19)</u>
Per share information-diluted:					
Net loss attributable to ORBCOMM Inc. common stockholders	<u>\$ (0.23)</u>	<u>\$ (0.34)</u>	<u>\$ (0.84)</u>	<u>\$ (0.33)</u>	<u>\$ (0.19)</u>
Weighted average common shares outstanding:					
Basic	<u>79,259</u>	<u>77,603</u>	<u>72,882</u>	<u>70,907</u>	<u>70,419</u>
Diluted	<u>79,259</u>	<u>77,603</u>	<u>72,882</u>	<u>70,907</u>	<u>70,419</u>

	As of December 31,				
	2019(1)(2)(4)	2018(1)(2)	2017(1)(2) (In thousands)	2016(1)(2)	2015(1)(2)
Cash and cash equivalents	\$ 54,258	\$ 53,766	\$ 34,830	\$ 25,023	\$ 27,077
Working capital	115,199	104,068	74,282	37,882	38,646
Satellite network and other equipment, net	145,553	160,070	174,178	215,841	229,970
Goodwill	166,129	166,129	166,678	114,033	112,425
Intangible assets, net	73,280	86,264	99,339	82,545	93,172
Total assets	580,980	586,459	595,194	506,154	523,019
Note payable — related party	1,275	1,298	1,366	1,195	1,241
Notes payable, net of unamortized deferred issuance costs ...	246,683	245,907	245,131	147,458	146,548
Total equity	237,516	257,858	246,396	281,868	299,756

- (1) Amounts include the impact of several acquisitions of businesses. For more information regarding our acquisitions, refer to “Note 3 — Acquisitions” in our audited consolidated financial statements included in Part II, Item 8 of this Annual Report on Form 10-K.
- (2) On September 30, 2014, we entered into a credit agreement with Macquarie CAF LLC which provided secured credit facilities in an aggregate amount of \$160.0 million, providing for an initial term loan facility, a Term B2 term loan facility, a Term B3 term loan facility, and a revolving loan facility (our “Secured Credit Facilities”) in order to refinance our \$45.0 million 9.5% per annum senior notes. On October 10, 2014, we borrowed \$70.0 million under the initial term loan facility, a portion of which was used to repay in full our \$45.0 million 9.5% per annum senior notes, and \$10.0 million under the revolving credit facility. On December 30, 2014, we borrowed \$70.0 million under the Term B3 facility, which was used to partially fund the SkyWave Acquisition. On January 16, 2015, we borrowed \$10.0 million under the Term B2 facility, which was used to partially fund the acquisition of InSync Software Inc. (“InSync”).
- On April 10, 2017, we issued \$250.0 million aggregate principal amount of the Senior Secured Notes due 2024, the proceeds of which was used to repay in full our outstanding obligations under, and to terminate our \$150.0 million outstanding Secured Credit Facilities. For more information regarding the Senior Credit Facilities and Senior Secured Notes, refer to “Note 10 — Notes Payable” in our audited consolidated financial statements included in Part II, Item 8 of this Annual Report on Form 10-K.
- (3) We made certain reclassifications to prior period information to conform to the current period presentation, including the reclassification of depreciation and amortization from cost of services, cost of product sales, selling, general and administrative (“SG&A”) expenses and product development into its own caption. These reclassifications had no effect on previously reported net income.
- (4) Amounts include the impact of the implementation of Financial Accounting Standards Board (“FASB”) Accounting Standards Codification (“ASC”) Topic 842 “Leases” (“ASC 842”). For more information, refer to “Note 15 — Leases” in our audited consolidated financial statements included in Part II, Item 8 of this Annual Report on Form 10-K.

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

The following discussion and analysis should be read in conjunction with our Consolidated Financial Statements and Notes which appear elsewhere in this Annual Report on Form 10-K. This discussion contains forward-looking statements that involve risks, uncertainties and assumptions. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of various factors, including those set forth in Part I, Item 1A, “Risk Factors,” and elsewhere in this Annual Report on Form 10-K.

Overview

We are a global provider of industrial IoT solutions, including network connectivity, devices, device management and web reporting applications. These solutions enable optimal business efficiencies, increased asset utilization and reduced asset write-offs, helping customers realize benefits on a worldwide basis. Our industrial IoT products and services are designed to track, monitor, control and enhance security for a variety of assets, such as trailers, trucks, rail cars, sea containers, power generators, fluid tanks, marine vessels, diesel or electric powered generators (“gensets”), oil and gas wells, pipeline monitoring equipment, irrigation control systems, and utility meters, in the transportation and supply chain, heavy equipment, fixed asset monitoring and maritime industries, as well as for governments. Additionally, we provide satellite AIS data services to assist in vessel navigation and to improve maritime safety for government and commercial customers worldwide. Through two acquisitions in 2017, we added vehicle fleet management, as well as in-cab and vehicle fleet solutions to our transportation solution portfolio. We provide our services using multiple network platforms, including our own constellation of low-Earth orbit satellites and our accompanying ground infrastructure, as well as terrestrial-based cellular communication services obtained through reseller agreements with major cellular (Tier One) wireless providers. We also offer customer solutions utilizing additional satellite network service options that we obtain through service agreements we have entered into with third-party mobile satellite providers. Our satellite-based customer solution offerings use small, low power, mobile satellite subscriber communicators for remote asset connectivity, and our terrestrial-based solutions utilize cellular data modems with SIMs. We also resell service using the two-way Inmarsat plc satellite network to provide higher bandwidth, low-latency satellite products and services, leveraging our IsatDataPro technology. Our customer solutions provide access to data gathered over these systems through connections to other public or private networks, including the Internet. We are dedicated to providing what we believe are the most versatile, leading-edge industrial IoT solutions in our markets that enable our customers to run their businesses more efficiently.

2019 Strategic Transactions

During 2019, we completed the following strategic transactions that had an impact and will continue to have an impact on our results of operations:

Stock Repurchase Program

On August 5, 2019, our Board of Directors authorized a stock repurchase program under which we may repurchase up to \$25.0 million of our outstanding shares of common stock through open market transactions and privately negotiated transactions, until August 5, 2020. In addition, open market repurchases of common stock may be made pursuant to applicable securities laws and regulations, including Rule 10b-18, as well as Rule 10b5-1 under the Securities Exchange Act of 1934, as amended.

2018 Strategic Transactions

During 2018, we completed the following strategic transactions that had an impact and will continue to have an impact on our results of operations:

Public Offering

On April 10, 2018, we completed a public offering of 3,450,000 shares of our common stock, including 450,000 shares sold upon exercise in full of the underwriters’ option to purchase additional shares, at a price of \$8.60 per share. We received net proceeds of approximately \$28.0 million after deducting underwriters’ discounts and commissions and offering costs.

Shelf Registration

On April 13, 2018, we filed a shelf registration statement with the SEC, registering an unspecified amount of debt and/or equity securities that we may offer in one or more offerings on terms to be determined at the time of sale. The shelf registration statement was automatically effective upon filing and superseded and replaced our previous shelf registration statement declared effective on April 14, 2015, which was due to expire on April 14, 2018.

2017 Strategic Transactions

During 2017, we completed the following strategic transactions that had an impact and will continue to have an impact on our results of operations:

Acquisition of Blue Tree Systems Limited

On October 2, 2017, we purchased all of the issued share capital of Blue Tree for an aggregate consideration of (i) \$34.3 million in cash; (ii) issuance of 191,022 shares of our common stock, valued at \$10.47 per share, which reflected our common stock closing price one business day prior to the closing date; and (iii) additional consideration of up to \$5.8 million, subject to certain operational milestones. The Blue Tree Acquisition solidified our transportation product portfolio by adding truck in-cab and refrigerated fleet vehicle solutions to our cargo solution. For additional information regarding the Blue Tree Acquisition, refer to “Note 3 — Acquisitions” in our audited consolidated financial statements included in Part II, Item 8 of this Annual Report on Form 10-K.

Acquisition of inthinc, Inc.

On June 9, 2017, we completed the acquisition of substantially all of the assets of Inthinc for an aggregate consideration of (i) \$34.2 million in cash; (ii) issuance of 76,796 shares of our common stock, valued at \$9.95 per share; and (iii) additional consideration of up to \$25.0 million, subject to certain operational milestones. The acquisition of Inthinc allows us to offer fleet management and driver safety solutions to enterprises and industrial companies worldwide, who operate large commercial vehicle fleets. For additional information regarding the Inthinc Acquisition, refer to “Note 3 — Acquisitions” in our audited consolidated financial statements included in Part II, Item 8 of this Annual Report on Form 10-K.

Senior Secured Notes

On April 10, 2017, we issued \$250.0 million aggregate principal amount of 8.0% Senior Secured Notes due 2024. The Senior Secured Notes were issued pursuant to an Indenture, dated as of April 10, 2017, among us, the Guarantors and U.S. Bank National Association, as trustee and collateral agent. The Senior Secured Notes are unconditionally guaranteed on a senior secured basis by the Guarantors and are secured on a first priority basis by (i) pledges of capital stock of certain of our directly- and indirectly-owned subsidiaries; and (ii) substantially all of our and our Guarantors’ other property and assets, to the extent a first priority security interest is able to be granted or perfected therein, and subject, in all cases, to certain specified exceptions, and an intercreditor agreement with the collateral agent for our revolving credit facility described below. Interest payments are due on the Senior Secured Notes semi-annually in arrears on April 1 and October 1, beginning October 1, 2017.

On April 10, 2017, a portion of the proceeds of the issuance of the Senior Secured Notes was used to repay in full our outstanding obligations under, and to terminate our \$150.0 million outstanding Secured Credit Facilities incurred pursuant to the credit agreement entered into on September 30, 2014, resulting in an early payment fee of \$1.5 million and an additional expense associated with the remaining unamortized debt issuance cost of \$2.4 million.

Revolving Credit Facility

On December 18, 2017, we and certain of our subsidiaries entered into a Revolving Credit Agreement with JPMorgan Chase, as administrative agent and collateral agent. The Revolving Credit Agreement provides for a Revolving Credit Facility in an aggregate principal amount of up to \$25.0 million for working capital and general corporate purposes and matures on December 18, 2022. The Revolving Credit Facility will bear interest at an alternative base rate or an adjusted LIBOR, plus an applicable margin of 1.50% in the case of alternative base rate loans and 2.50% in the case of adjusted LIBOR loans. The Revolving Credit Facility is secured by a first priority security interest in substantially all of our and our subsidiaries’ assets under a security agreement among the Company, the applicable subsidiaries and JPMorgan Chase, subject to an intercreditor agreement with the indenture trustee for the Senior Secured Notes. The Revolving Credit Facility has no scheduled principal amortization until the maturity date. Subject to the terms set forth in the Revolving Credit Agreement, we may borrow, repay and reborrow amounts under the Revolving Credit Facility at any time prior to the maturity date.

Revenues

We derive service revenues primarily from monthly fees for industrial IoT connectivity services that consist of subscriber-based and recurring monthly usage fees for each subscriber communicator or SIM activated for use on our satellite network, as well as other satellite networks and cellular wireless networks that we resell to our customers (i.e., our MCPs, MCAs and direct customers). Usage fees are generally based upon the data transmitted by a customer and the overall number of subscriber communicators and/or SIMs activated by each customer and whether we provide services through our value-added portal. Service revenues are recognized on an accrual basis, as services are rendered, or on a cash basis, if collection from the customer is not reasonably assured at the time the service is provided. We also generate recurring AIS service revenues from subscription-based services supplying recurring AIS data services to customers and resellers, as well as data analytic service revenues from monthly subscription-based services supplying analytical data to our customers. In addition, we earn service revenues from optional, separately-priced extended warranty service agreements extending beyond the initial warranty period of typically one year; installation services; royalty fees from third parties for the use of our proprietary communications protocol, recognized at a point in time when the third party notifies us of the units it has manufactured and a unique serial number is assigned to each unit; and fees from providing engineering, technical and management support services to customers.

We derive product sales primarily from sales of industrial IoT telematics devices, modems and cellular wireless SIMs (for our terrestrial-communication services) to our resellers (i.e., our MCPs and MCAs) and direct customers. Revenues generated from product sales are either recognized when the products are shipped or when customers accept the product, depending on the specific contractual terms. Shipping costs billed to customers are included in product sales and the related costs are included as cost of product sales.

Revenues generated from leasing arrangements of subscriber communicators are recognized using the estimated selling price for each deliverable in the arrangement. Product and installation revenues associated with these arrangements are recognized upon shipment or installation of the subscriber communicator, depending on the specific contractual terms. Service and warranty revenues are recognized on an accrual basis, as services are rendered, or on a cash basis, if collection from the customer is not reasonably assured at the time the service is provided.

Amounts received prior to the performance of services under customer contracts are recognized as deferred revenues and revenue recognition is deferred until such time that all revenue recognition criteria have been met.

Costs and expenses

Direct costs

We operate a proprietary LEO satellite network and accompanying ground equipment, including fifteen GESs, three AIS data reception earth stations, and three regional gateway control centers. Our proprietary satellite-based communications system is typically characterized by high initial capital expenditures and relatively low marginal costs for providing service. We use as part of our solution, as well as resell, network connectivity for two other satellite networks and seven terrestrial network partners. Reselling network connectivity typically involves a cost for each device connected to the network system and the amount paid to each provider will vary. In addition, we incur costs associated with the installation services provided to our customers.

We primarily sell industrial IoT telematics devices and modems that we design and build using contract manufacturers. For each industrial IoT device and modem, we incur engineering costs, manufacturing costs, warehousing and shipping costs and inventory management costs.

Operating expenses

We incur expenses associated with sales, marketing and administrative expenses related to the operation of our business, including significant charges for depreciation and amortization of our satellite communications system and other acquired intellectual property and intangible assets we acquired or developed. We also incur engineering expenses developing and supporting the operation of our communications system and the early stage engineering work on new products and services that are not yet determined to be technologically feasible.

Acquisition-related and integration costs

Acquisition-related and integration costs include professional services expenses and identifiable integration costs directly attributable to our acquisitions. These costs were expensed as incurred and are reflected in acquisition-related and integration costs on our consolidated statements of operations.

Results of operations for the years ended December 31, 2019 and 2018

Revenue

The table below presents our revenues for the years ended December 31, 2019 and 2018, together with the percentage of total revenue represented by each revenue category (in thousands):

(In thousands)	Year Ended December 31,			
	2019		2018	
Service revenues.....	\$ 160,594	59.0%	\$ 153,589	55.6%
Product sales.....	111,419	41.0%	122,551	44.4%
	<u>\$ 272,013</u>	<u>100.0%</u>	<u>\$ 276,140</u>	<u>100.0%</u>

Total revenues for the year ended December 31, 2019 decreased \$4.1 million, or 1.5%, to \$272.0 million in 2019 from \$276.1 million in 2018.

Service revenues

(In thousands)	Year Ended December 31,		Change	
	2019	2018	Dollars	%
Recurring service revenues.....	\$ 155,284	\$ 148,367	\$ 6,917	4.7%
Other service revenues	5,310	5,222	88	1.7%
Total service revenues	<u>\$ 160,594</u>	<u>\$ 153,589</u>	<u>\$ 7,005</u>	<u>4.6%</u>

The increase in service revenue for the year ended December 31, 2019, compared to the prior year period, was primarily due to revenue generated from growth in billable subscriber communicators across our services.

As of December 31, 2019, including the communicator devices issued by Maersk Lines, we had approximately 2,657,000 billable subscriber communicators compared to approximately 2,374,000 billable subscriber communicators as of December 31, 2018, an increase of 11.9%. As of December 31, 2019, excluding the billable subscriber communicators issued by Maersk Lines described below, we had approximately 2,231,000 billable subscriber communicators. Separately, at year-end 2019, we deactivated approximately 85,000 non-revenue generating device communicators that were not actively transmitting data or were in a suspend/test mode. This action was performed in connection with our platform convergence project. Subsequent to these adjustments, we had approximately 2,144,000 billable subscriber communicators at December 31, 2019.

During 2019, we were notified that our program with Maersk Lines, through our contract with AT&T Services, Inc., would expire on December 31, 2019. This program provided us with total recurring service revenues of approximately \$3.0 million annually for engineering support services, with additional deferred revenues of approximately \$1.5 million recognized during the year ended December 31, 2019. In addition, we recorded \$0.5 million of other service revenues in the year ended December 31, 2019, related to device activations that had not been previously recognized. The contract was assumed as part of the WAM Technologies, LLC acquisition in 2015.

Service revenue growth can be impacted by the customary lag between subscriber communicator activations and recognition of service revenue from these units.

Product sales

(In thousands)	Year Ended December 31,		Change	
	2019	2018	Dollars	%
Product sales.....	\$ 111,419	\$ 122,551	\$ (11,132)	(9.1)%

The decrease in product sales for the year ended December 31, 2019, compared to the prior year period, was primarily due to a slowdown in the North American transportation market and timing of shipments associated with our existing and new customers during the 2019 period and the inclusion of significant product deployments during the year ended December 31, 2018 that did not recur at similar levels in 2019.

Cost of revenues, exclusive of depreciation and amortization

(In thousands)	Year Ended December 31,		Change	
	2019	2018	Dollars	%
Cost of services.....	\$ 52,264	\$ 53,184	\$ (920)	(1.7)%
Cost of product sales	78,377	93,444	(15,067)	(16.1)%

Cost of services is comprised of expenses to operate our network, such as payroll and related costs, including stock-based compensation, installation costs, and usage fees to third-party networks, but exclude depreciation and amortization discussed below. The decrease in cost of services for the year ended December 31, 2019, compared to the prior year period, was primarily due to the inclusion of non-recurring installation costs associated with significant product deployments during the year ended December 31, 2018 that did not recur at similar levels in 2019.

Cost of product sales includes the purchase price of subscriber communicators and SIMs sold, costs of warranty obligations, shipping charges, as well as operational costs to fulfill customer orders, including costs for employees and inventory management. The decrease in cost of product sales for the year ended December 31, 2019, compared to the prior year period, was primarily due to the decrease in product sales and the lower costs associated with new product offerings and the mix of product shipments.

Selling, general and administrative expenses

(In thousands)	Year Ended December 31,		Change	
	2019	2018	Dollars	%
Selling, general and administrative expenses	\$ 69,590	\$ 66,988	\$ 2,602	3.9%

SG&A expenses relate primarily to expenses for general management, sales and marketing, finance, audit and legal fees and general operating expenses. The increase in SG&A expenses for the year ended December 31, 2019, compared to the prior year period, was primarily due to reductions in contingent liabilities in 2018 to a larger extent than in the 2019 period.

Product development expenses

(In thousands)	Year Ended December 31,		Change	
	2019	2018	Dollars	%
Product development	\$ 14,720	\$ 13,405	\$ 1,315	9.8%

Product development expenses consist primarily of the expenses associated with our engineering efforts to establish technical feasibility, and the cost of third parties and internal staff to support our current applications. Product development expenses for the year ended December 31, 2019, compared to the prior year period, reflects increases in employee-related and outside labor costs, as well as other expenses as we continue to research new solutions and services for our customers.

Depreciation and amortization

(In thousands)	Year Ended December 31,		Change	
	2019	2018	Dollars	%
Depreciation and amortization	\$ 50,702	\$ 49,684	\$ 1,018	2.0%

The increase in depreciation and amortization for the year ended December 31, 2019, compared to the prior year period, was primarily due to higher depreciation associated with our capitalized costs attributable to the design, development and enhancements of our products and services sold to our customers and our internally developed software.

Acquisition-related and integration costs

(In thousands)	Year Ended December 31,		Change	
	2019	2018	Dollars	%
Acquisition-related and integration costs	\$ 788	\$ 1,624	\$ (836)	(51.5)%

Acquisition-related and integration costs include professional services expenses and identifiable integration costs directly attributable to our acquisitions. The decrease in acquisition-related and integration costs reflected lower acquisition and integration activity for the year ended December 31, 2019, compared to the prior year period.

Other income (expense)

Other income (expense) is comprised primarily of interest expense, foreign exchange gains and losses and interest income related to capital leases and from our cash and cash equivalents, which can consist of U.S. Treasuries and interest-bearing instruments.

(In thousands)	Year Ended December 31,		Change	
	2019	2018	Dollars	%
Interest income	\$ 1,957	\$ 1,918	\$ 39	2.0%
Other income (expense)	(129)	45	(174)	(386.7)%
Interest expense	(21,149)	(21,055)	(94)	0.4%
Total other expense	<u>\$ (19,321)</u>	<u>\$ (19,092)</u>	<u>\$ (229)</u>	<u>1.2%</u>

The increase in other expense for the year ended December 31, 2019, compared to the prior year, was primarily due to an increase in other income (expense) in 2019, related to foreign currency losses. We believe our foreign exchange exposure is limited as a majority of our revenue is collected in U.S. dollars.

Income taxes

In 2019, we recorded income taxes of \$4.4 million, which primarily included foreign income taxes of \$4.1 million from income generated by our international operations and \$0.3 million of income tax benefit related to amortization of tax goodwill generated from acquisitions.

In 2018, we recorded income taxes of \$4.7 million, which primarily included foreign income taxes of \$4.0 million from income generated by our international operations and \$0.7 million of income tax benefit related to amortization of tax goodwill generated from acquisitions.

Net loss

For the year ended December 31, 2019, we had a net loss of \$18.1 million compared to a net loss of \$25.9 million for the year ended December 31, 2018, primarily due to decreased costs associated with our products and services.

Noncontrolling interests

Noncontrolling interests relate to earnings and losses attributable to noncontrolling shareholders.

Net loss attributable to ORBCOMM Inc.

For the year ended December 31, 2019, we had a net loss attributable to our Company of \$18.4 million, compared to a net loss attributable to our Company of \$26.2 million for the year ended December 31, 2018.

For both of the years ended December 31, 2019 and 2018, the net loss attributable to our common stockholders considers dividends of less than \$0.1 million paid in shares of the Series A convertible preferred stock.

Results of operations for the years ended December 31, 2018 and 2017

Revenue

The table below presents our revenues for the years ended December 31, 2018 and 2017, together with the percentage of total revenue represented by each revenue category (in thousands):

(In thousands)	Year Ended December 31,			
	2018		2017	
Service revenues.....	\$ 153,589	55.6%	\$ 134,938	53.1%
Product sales.....	122,551	44.4%	119,282	46.9%
	<u>\$ 276,140</u>	<u>100.0%</u>	<u>\$ 254,220</u>	<u>100.0%</u>

Total revenues for the year ended December 31, 2018 increased \$21.9 million, or 8.6%, to \$276.1 million in 2018 from \$254.2 million in 2017.

Service revenues

(In thousands)	Year Ended December 31,		Change	
	2018	2017	Dollars	%
Recurring service revenues.....	\$ 148,367	\$ 126,540	\$ 21,827	17.2%
Other service revenues	5,222	8,398	(3,176)	(37.8)%
Total service revenues	<u>\$ 153,589</u>	<u>\$ 134,938</u>	<u>\$ 18,651</u>	<u>13.8%</u>

The increase in service revenues for the year ended December 31, 2018, compared to the prior year period, was primarily due to revenue generated from growth in billable subscriber communicators across our services and from inclusion of our 2017 acquisitions for a full year.

As of December 31, 2018, we had approximately 2,374,000 billable subscriber communicators compared to approximately 2,026,000 billable subscriber communicators as of December 31, 2017, an increase of 17.2%.

Service revenue growth can be impacted by the customary lag between subscriber communicator activations and recognition of service revenue from these units.

Product sales

(In thousands)	Year Ended December 31,		Change	
	2018	2017	Dollars	%
Product sales	\$ 122,551	\$ 119,282	\$ 3,269	2.7%

The increase in product sales for the year ended December 31, 2018, compared to the prior year period, was primarily due to the inclusion of our 2017 acquisitions for a full year. In addition, the year ended December 31, 2017 included significant product deployments to new customers, primarily 71,845 units to JB Hunt which did not recur at similar levels in the year ended December 31, 2018.

Costs of revenues, exclusive of depreciation and amortization

(In thousands)	Year Ended December 31,		Change	
	2018	2017	Dollars	%
Cost of services.....	\$ 53,184	\$ 50,548	\$ 2,636	5.2%
Cost of product sales	93,444	99,640	(6,196)	(6.2)%

Cost of services is comprised of expenses to operate our network, such as payroll and related costs, including stock-based compensation, installation costs, and usage fees to third-party networks, but excludes depreciation and amortization discussed below. The increase in cost of services for the year ended December 31, 2018, compared to the prior year period, was primarily due to an increase in billable subscribers and inclusion of our 2017 acquisitions for a full year.

Cost of product sales includes the purchase price of subscriber communicators and SIMs sold, costs of warranty obligations, shipping charges, as well as operational costs to fulfill customer orders, including costs for employees and inventory management. The decrease in cost of product sales for the year ended December 31, 2018, compared to the prior year period, was primarily due to lower costs associated with the new product offerings, the mix of product shipments and the costs associated with the product sales in the year ended December 31, 2017.

Selling, general and administrative expenses

(In thousands)	Year Ended December 31,		Change	
	2018	2017	Dollars	%
Selling, general and administrative expenses	\$ 66,988	\$ 55,753	\$ 11,235	20.2%

SG&A expenses relate primarily to expenses for general management, sales and marketing, finance, audit and legal fees and general operating expenses. The increase in SG&A expenses for the year ended December 31, 2018, compared to the prior year period, reflects increases in employee-related costs and other operating expenses, mainly related to our 2017 acquisitions, offset, in part, by a reduction of the contingent earn-out liability related to the acquisitions of Inthinc and Blue Tree.

Product development expenses

(In thousands)	Year Ended December 31,		Change	
	2018	2017	Dollars	%
Product development	\$ 13,405	\$ 8,941	\$ 4,464	49.9%

Product development expenses consist primarily of the expenses associated with our early stage engineering efforts to establish technical feasibility, and the cost of third parties and internal staff to support our current applications. The increase in product development expenses for the year ended December 31, 2018, compared to the prior year period, reflects increases in employee costs and other operating expenses, mainly related to our 2017 acquisitions.

Impairment charges — satellite network

(In thousands)	Year Ended December 31,		Change	
	2018	2017	Dollars	%
Impairment charges - satellite network	\$ —	\$ 31,224	\$ (31,224)	NM

Impairment charges relate to the impairment or loss of satellites on our proprietary network. The decrease for the year ended December 31, 2018, compared to the prior year period, was primarily due to the loss of three OG2 satellites during 2017. No impairment was recorded during 2018.

Depreciation and amortization

(In thousands)	Year Ended December 31,		Change	
	2018	2017	Dollars	%
Depreciation and amortization	\$ 49,684	\$ 45,681	\$ 4,003	8.8%

The increase in depreciation and amortization for the year ended December 31, 2018, compared to the prior year period, was primarily due to depreciation associated with our capitalized costs attributable to the design, development and enhancements of our products and services sold to our customers and our internally developed software offset, in part, by lower depreciation associated with our satellite network as a result of impairments incurred in 2017.

Acquisition-related and integration costs

(In thousands)	Year Ended December 31,		Change	
	2018	2017	Dollars	%
Acquisition-related and integration costs	\$ 1,624	\$ 3,315	\$ (1,691)	(51.0)%

Acquisition-related and integration costs include professional services expenses and identifiable integration costs directly attributable to our acquisitions. The decrease in acquisition-related and integration costs reflected lower acquisition and integration activity in the 2018 period compared to the prior year period.

Other income (expense)

Other income (expense) is comprised primarily of interest expense, foreign exchange gains and losses, interest income from our cash and cash equivalents, which can consist of U.S. Treasuries, interest bearing instruments, and our previously held investments in marketable securities consisting of U.S. government and agency obligations, corporate obligations and FDIC-insured certificates of deposit classified as held to maturity and interest income related to capital leases.

(In thousands)	Year Ended December 31,		Change	
	2018	2017	Dollars	%
Interest income	\$ 1,918	\$ 959	\$ 959	100.0%
Other income (expense)	45	(160)	205	(128.1)%
Interest expense	(21,055)	(17,653)	(3,402)	19.3%
Loss on debt extinguishment	—	(3,868)	3,868	NM
Total other expense	<u>\$ (19,092)</u>	<u>\$ (20,722)</u>	<u>\$ 1,630</u>	<u>(7.9)%</u>

The decrease in other expense for the year ended December 31, 2018, compared to the prior year, was primarily due to the loss on extinguishment of our Secured Credit Facilities with Macquarie CAF LLC incurred in the quarter ended June 30, 2017 and an increase in interest income mainly attributable to our lease receivable associated with customer product financing arrangements, offset, in part, by increased interest expense as a result of higher outstanding principal balances and higher interest rates associated with our Senior Secured Notes issued on April 10, 2017. We believe our foreign exchange exposure is limited as a majority of our revenue is collected in U.S. dollars.

Income taxes

In 2018, we recorded income taxes of \$4.7 million, which primarily included foreign income taxes of \$4.0 million from income generated by our international operations and \$0.7 million of income tax benefit related to amortization of tax goodwill generated from acquisitions.

In 2017, we recorded income taxes of \$(0.4) million, which primarily included foreign income taxes of \$1.7 million from income generated by our international operations and \$(2.1) million of income tax benefit related to the impact of the Tax Cuts and Jobs Act of 2017 on the amortization of tax goodwill generated from our acquisitions.

Net loss

For the year ended December 31, 2018, we had a net loss of \$25.9 million compared to a net loss of \$61.2 million for the year ended December 31, 2017. The 2018 period included a full year of increased interest expense arising from our Senior Secured Notes issued in April 2017 and increased SG&A and product development costs, while the 2017 period included the \$31.2 million satellite impairment loss and the \$3.9 million loss on extinguishment of debt related to our Secured Credit Facilities.

Noncontrolling interests

Noncontrolling interests relate to earnings and losses attributable to noncontrolling shareholders.

Net loss attributable to ORBCOMM Inc.

For the year ended December 31, 2018, we had a net loss attributable to our Company of \$26.2 million, compared to a net loss of \$61.3 million for the year ended December 31, 2017.

For both of the years ended December 31, 2018 and 2017, the net loss attributable to our common stockholders considers dividends of less than \$0.1 million, paid in shares of the Series A convertible preferred stock.

Liquidity and Capital Resources

Overview

Our liquidity requirements arise from our working capital needs, our obligations to make scheduled payments of interest on our indebtedness and our need to fund capital expenditures to support our current operations and to facilitate growth and expansion. We have financed our operations and expansion with cash flows from operating activities, sales of our common stock through public offerings and private placements of debt. At December 31, 2019, we had an accumulated deficit of \$210.9 million. Our primary sources of liquidity consist of cash and cash equivalents totaling \$54.3 million and an unused Revolving Credit Facility under the Revolving Credit Agreement, as described below, available for use for working capital and general business purposes, which we believe will be sufficient to provide working capital, make interest payments and make capital expenditures to support operations and facilitate growth and expansion for the next twelve months.

Operating activities

Cash provided by our operating activities in 2019 was \$30.1 million resulting from a net loss of \$18.1 million and cash used by working capital of \$10.3 million, offset by non-cash items including \$50.7 million for depreciation and amortization and \$6.2 million for stock-based compensation. Working capital activities primarily consisted of an increase in accounts receivable of \$5.2 million related to timing of collections and an increase of \$5.6 million in inventories.

Cash provided by our operating activities in 2018 was \$11.5 million resulting from a net loss of \$25.9 million and cash used by working capital of \$14.9 million, offset by non-cash items including \$49.7 million for depreciation and amortization and \$7.9 million for stock-based compensation. Working capital activities primarily consisted of a decrease of \$14.9 million in accounts payable and accrued liabilities primarily related to timing of payments and an increase in accounts receivable of \$14.0 million related to timing of collections, offset, in part, by a decrease of \$8.3 million in inventories and a decrease in prepaid expenses and other assets of \$4.0 million.

Cash used in our operating activities in 2017 was \$5.0 million resulting from a net loss of \$61.2 million and cash used by working capital of \$26.9 million, offset by non-cash items including \$45.7 million for depreciation and amortization, \$31.2 million for an impairment loss on our satellite network, \$5.7 million for stock-based compensation and \$3.1 million for amortization and write-off of deferred financing fees. Working capital activities primarily consisted of net uses of cash of \$16.9 million in inventories as a result of our increased business activities, increases in accounts receivable of \$10.0 million relating to timing of collections and an increase in prepaid expenses and other assets of \$10.5 million, offset, in part, by increases in accounts payable and accrued liabilities of \$12.2 million as a result of timing of invoices.

Investing activities

Cash used in our investing activities in 2019 was \$21.1 million, resulting from capital expenditures during the period.

Cash used in our investing activities in 2018 was \$21.5 million, resulting primarily from capital expenditures during the period.

Cash used in our investing activities in 2017 was \$95.9 million, resulting from \$67.9 million in cash consideration paid in connection with the Inthinc and Blue Tree Acquisitions and capital expenditures of \$27.4 million, including approximately \$4.0 million related to final payments for the OG2 program.

Financing activities

Cash used in our financing activities in 2019 was \$8.4 million, due to payments of \$9.4 million in purchases of common stock under our share repurchase program, offset, in part, by \$1.1 million in proceeds from the sale of common stock under the employee stock purchase plan.

Cash provided by our financing activities in 2018 was \$29.2 million, due to proceeds of \$28.0 million received from our April 2018 Public Offering and \$1.2 million from our employee stock purchase plan.

Cash provided by our financing activities in 2017 was \$110.3 million, primarily due to proceeds received from the issuance of our Senior Secured Notes of \$250.0 million, proceeds from the issuance of common stock in a private offering of \$15.0 million and proceeds from our employee stock purchase plan of \$1.0 million, offset, in part, by payment of \$5.4 million of debt issuance costs related to our Senior Secured Notes and the \$150.0 million repayment of our Secured Credit Facilities, as well as payments of contingent consideration of \$0.3 million in connection with a previous acquisition.

Future Liquidity and Capital Resource Requirements

We believe that our existing cash and cash equivalents along with expected cash flows from operating activities and additional funds available under our Revolving Credit Facility, will be sufficient over the next 12 months to provide working capital, cover interest payments on our debt facilities and fund growth initiatives and capital expenditures.

On April 10, 2017, we issued \$250.0 million aggregate principal amount of 8.0% Senior Secured Notes due 2024. The Senior Secured Notes were issued pursuant to an Indenture, dated as of April 10, 2017, among us, the Guarantors and U.S. Bank National Association, as trustee and collateral agent. The Senior Secured Notes are unconditionally guaranteed on a senior secured basis by the Guarantors, and are secured on a first priority basis by (i) pledges of capital stock of certain of our directly- and indirectly-owned subsidiaries; and (ii) substantially all of our and our Guarantors' other property and assets, to the extent a first priority security interest is able to be granted or perfected therein, and subject, in all cases, to certain specified exceptions, and an intercreditor agreement with the collateral agent for our Revolving Credit Facility described below. Interest payments are due on the Senior Secured Notes semi-annually in arrears on April 1 and October 1, beginning October 1, 2017.

We have the option to redeem some or all of the Senior Secured Notes at any time on or after April 1, 2020, at redemption prices set forth in the Indenture plus accrued and unpaid interest, if any, to the date of redemption. We also have the option to redeem some or all of the Senior Secured Notes at any time before April 1, 2020 at a redemption price of 100% of the principal amount of the Senior Secured Notes to be redeemed, plus a "make-whole" premium and accrued and unpaid interest, if any, to the date of redemption. In addition, at any time before April 1, 2020, we may redeem up to 35% of the aggregate principal amount of the Senior Secured Notes to be redeemed, plus accrued and unpaid interest, if any, to the date of redemption, with the proceeds from certain equity issuances.

The Indenture contains covenants that, among other things, limit us and our restricted subsidiaries' ability to: (i) incur or guarantee additional indebtedness; (ii) pay dividends, make other distributions or repurchase or redeem capital stock; (iii) prepay, redeem or repurchase certain indebtedness; (iv) make loans and investments; (v) sell, transfer or otherwise dispose of assets; (vi) incur or permit to exist certain liens; (vii) enter into certain types of transactions with affiliates; (viii) enter into agreements restricting our subsidiaries' ability to pay dividends; and (ix) consolidate, amalgamate, merge or sell all or substantially all of their assets; subject, in all cases, to certain specified exceptions. Such limitations have various exceptions and baskets as set forth in the Indenture, including the incurrence by us and our restricted subsidiaries of indebtedness under potential new credit facilities in the aggregate principal amount at any one time outstanding not to exceed \$50.0 million.

On April 10, 2017, a portion of the proceeds of the issuance of the Senior Secured Notes was used to repay in full our outstanding obligations under, and to terminate, our \$150.0 million outstanding Secured Credit Facilities incurred pursuant to the secured credit facilities credit agreement, resulting in an early payment fee of \$1.5 million and an additional expense associated with the remaining unamortized debt issuance cost of \$2.4 million.

On December 18, 2017, we and certain of our subsidiaries entered into the Revolving Credit Agreement with JPMorgan Chase, as administrative agent and collateral agent. The Revolving Credit Agreement provides for a Revolving Credit Facility in an aggregate principal amount of up to \$25.0 million for working capital and general corporate purposes and matures on December 18, 2022. The Revolving Credit Facility bears interest at an alternative base rate or an adjusted LIBOR, plus an applicable margin of 1.50% in the case of alternative base rate loans and 2.50% in the case of adjusted LIBOR loans. The Revolving Credit Facility is secured by a first priority security interest in substantially all of our and our subsidiaries' assets under a security agreement among the Company, the applicable subsidiaries and JPMorgan Chase, subject to an intercreditor agreement with the indenture trustee for the Senior Secured Notes. The Revolving Credit Facility has no scheduled principal amortization until the maturity date. Subject to the terms set forth in the Revolving Credit Agreement, we may borrow, repay and reborrow amounts under the Revolving Credit Facility at any time prior to the maturity date.

The Revolving Credit Agreement contains covenants that, among other things, limit our ability and our restricted subsidiaries' ability to: (i) incur or guarantee additional indebtedness; (ii) pay dividends, make other distributions or repurchase or redeem capital stock; (iii) prepay, redeem or repurchase certain indebtedness; (iv) make loans and investments; (v) sell, transfer or otherwise dispose of assets; (vi) incur or permit to exist certain liens; (vii) enter into certain types of transactions with affiliates; (viii) enter into agreements restricting our subsidiaries' ability to pay dividends; and (ix) consolidate, amalgamate, merge or sell all or substantially all of their assets; subject, in all cases, to certain specified exceptions. Such limitations have various baskets as set forth in the Revolving Credit Agreement.

At December 31, 2019, no amounts were outstanding under the Revolving Credit Facility. As of December 31, 2019, we were in compliance with all financial covenants under the Revolving Credit Agreement.

On June 9, 2017, we completed the Inthinc Acquisition for cash consideration of \$34.2 million, issuance of 76,796 shares of our common stock, valued at \$9.95 per share, and additional contingent consideration of up to \$25.0 million, subject to meeting certain operational milestones, payable in stock or a combination of cash and stock at our election.

On June 15, 2017, we completed a private placement of 1,552,795 shares of our common stock at a price of \$9.66 per share, calculated as 95% of the volume-weighted average trading price of our common stock for the 30 trading days ending on June 14, 2017, for which we received net proceeds of \$15.0 million.

On October 2, 2017, we purchased all of the shares of Blue Tree for an aggregate consideration of (i) \$34.3 million in cash; (ii) issuance of 191,022 shares of the Company's common stock, valued at \$10.47 per share, which reflected our common stock closing price one business day prior to the closing date; and (iii) additional consideration up to \$5.8 million based on Blue Tree achieving certain thresholds, payable in stock or a combination of cash and stock at our election.

On April 10, 2018, we completed a public offering of 3,450,000 shares of our common stock, including 450,000 shares sold upon exercise in full of the underwriters' option to purchase additional shares, at a price of \$8.60 per share. We received net proceeds of approximately \$28.0 million after deducting underwriters' discounts and commissions and offering costs.

On April 13, 2018, we filed a shelf registration statement with the SEC, registering an unspecified amount of debt and/or equity securities that we may offer in one or more offerings on terms to be determined at the time of sale. The shelf registration statement was automatically effective upon filing and superseded and replaced our previous shelf registration statement declared effective on April 14, 2015, which was due to expire on April 14, 2018.

Non-GAAP Financial Measures

EBITDA and Adjusted EBITDA

EBITDA is defined as earnings attributable to ORBCOMM Inc. before interest income (expense), provision for income taxes, depreciation and amortization, and loss on debt extinguishment. We believe EBITDA is useful to our management and investors in evaluating our operating performance because it is one of the primary measures we use to evaluate the economic productivity of our operations, including our ability to obtain and maintain our customers, our ability to operate our business effectively, the efficiency of our employees and the profitability associated with their performance. It also helps our management and investors to meaningfully evaluate and compare the results of our operations from period to period on a consistent basis by removing the impact of our financing transactions and the depreciation and amortization impact of capital investments from our operating results. In addition, our management uses EBITDA in presentations to our board of directors to enable it to have the same measurement of operating performance used by management and for planning purposes, including the preparation of our annual operating budget. We also believe Adjusted EBITDA, defined as EBITDA adjusted for stock-based compensation expense, noncontrolling interests, impairment loss, non-capitalized satellite launch and in-orbit insurance, and acquisition-related and integration costs, is useful to investors to evaluate our core operating results and financial performance because it excludes items that are significant non-cash or non-recurring expenses reflected in the consolidated statements of operations.

EBITDA and Adjusted EBITDA are not performance measures calculated in accordance with U.S. GAAP. While we consider EBITDA and Adjusted EBITDA to be important measures of operating performance, they should be considered in addition to, and not as substitutes for, or superior to, net loss or other measures of financial performance prepared in accordance with U.S. GAAP and may be different than EBITDA and Adjusted EBITDA measures presented by other companies.

The following table reconciles our net loss attributable to ORBCOMM Inc. to EBITDA and Adjusted EBITDA for the periods shown:

	Year Ended December 31,		
	2019	2018	2017
	(In thousands)		
Net loss attributable to ORBCOMM Inc.	\$ (18,423)	\$ (26,244)	\$ (61,284)
Income tax expense	4,383	4,658	(409)
Interest income	(1,957)	(1,918)	(959)
Interest expense	21,149	21,055	17,653
Loss on debt extinguishment	—	—	3,868
Depreciation and amortization	50,702	49,684	45,681
EBITDA	55,854	47,235	4,550
Stock-based compensation	6,180	7,910	5,673
Net income attributable to the noncontrolling interests	291	305	89
Acquisition-related and integration costs	788	1,624	3,315
Impairment charges	—	—	31,224
Adjusted EBITDA	<u>\$ 63,113</u>	<u>\$ 57,074</u>	<u>\$ 44,851</u>

For the year ended December 31, 2019 compared to the year ended December 31, 2018, EBITDA increased \$8.6 million, while net loss attributable to ORBCOMM Inc. improved \$7.8 million and Adjusted EBITDA increased \$6.0 million.

For the year ended December 31, 2018 compared to the year ended December 31, 2017, EBITDA increased \$42.7 million, while net loss attributable to ORBCOMM Inc. improved \$35.0 million and Adjusted EBITDA increased \$12.2 million.

Non-GAAP Gross Margin

Non-GAAP Service Gross Margin is defined as Non-GAAP Service gross profit divided by service revenues. Non-GAAP Service gross profit is defined as service revenues, minus cost of services (including depreciation and amortization expense) plus depreciation and amortization expense. Non-GAAP Product Gross Margin is defined as Non-GAAP Product gross profit divided by product sales. Non-GAAP Product gross profit is defined as product sales, minus cost of product sales (including depreciation and amortization expense) plus depreciation and amortization expense. We believe that Non-GAAP Service Gross Margin and Non-GAAP Product Gross Margin are useful to evaluate and compare the results of our operations from period to period on a consistent basis by removing the depreciation and amortization impact of capital investments from our operating results.

Non-GAAP Service Gross Margin and Non-GAAP Product Gross Margin are not performance measures calculated in accordance with U.S. GAAP. While we consider Non-GAAP Service Gross Margin and Non-GAAP Product Gross Margin to be important measures of operating performance, they should be considered in addition to, and not as substitutes for, or superior to, measures of financial performance prepared in accordance with U.S. GAAP and may be different than Non-GAAP Service Gross Margin and Non-GAAP Product Gross Margin measures presented by other companies.

The following tables reconcile GAAP Service Gross Margin to Non-GAAP Service Gross Margin and GAAP Product Gross Margin to Non-GAAP Product Gross Margin for the periods shown:

	Year Ended December 31,		
	2019	2018	2017
	(In thousands, except margin data)		
Service revenues	\$ 160,594	\$ 153,589	\$ 134,938
Minus - Cost of services, including depreciation and amortization expense	69,250	70,312	71,151
GAAP Service gross profit	<u>\$ 91,344</u>	<u>\$ 83,277</u>	<u>\$ 63,787</u>
Plus - Depreciation and amortization expense	16,986	17,128	20,603
Non-GAAP Service gross profit	<u>\$ 108,330</u>	<u>\$ 100,405</u>	<u>\$ 84,390</u>
GAAP Service Gross Margin	56.9%	54.2%	47.3%
Non-GAAP Service Gross Margin	67.5%	65.4%	62.5%

	Year Ended December 31,		
	2019	2018	2017
	(In thousands, except margin data)		
Product sales	\$ 111,419	\$ 122,551	\$ 119,282
Minus - Cost of product sales, including depreciation and amortization expense.....	81,006	96,686	102,381
GAAP Product gross profit.....	\$ 30,413	\$ 25,865	\$ 16,901
Plus - Depreciation and amortization expense.....	2,629	3,242	2,741
Non-GAAP Product gross profit.....	\$ 33,042	\$ 29,107	\$ 19,642
GAAP Product Gross Margin	27.3%	21.1%	14.2%
Non-GAAP Product Gross Margin.....	29.7%	23.8%	16.5%

GAAP Service Gross Margin, inclusive of depreciation and amortization expense, was 56.9% in the year ended December 31, 2019, compared to 54.2% in the prior year. Non-GAAP Service Gross Margin, excluding depreciation and amortization expense, was 67.5% in the year ended December 31, 2019, compared to 65.4% in the prior year. These improvements were due to bringing onboard new subscribers at higher margins and limiting product installations at negative margins compared to the prior year. GAAP Service Gross Margin, inclusive of depreciation and amortization expense, was 54.2% in the year ended December 31, 2018, compared to 47.3% in the prior year. Non-GAAP Service Gross Margin, excluding depreciation and amortization expense, was 65.4% in the year ended December 31, 2018, compared to 62.5% in the prior year. These improvements were due to bringing onboard new subscribers at higher margins compared to the prior year.

GAAP Product Gross Margin, inclusive of depreciation and amortization expense, was 27.3% in the year ended December 31, 2019, compared to 21.1% in the prior year. Non-GAAP Product Gross Margin, excluding depreciation and amortization expense, was 29.7% in the year ended December 31, 2019, compared to 23.8% in the prior year. These improvements were primarily due to a better mix of higher-margin products shipped in greater volumes compared to the prior year. GAAP Product Gross Margin, inclusive of depreciation and amortization expense, was 21.1% in the year ended December 31, 2018, compared to 14.2% in the prior year. Non-GAAP Product Gross Margin, excluding depreciation and amortization expense, was 23.8% in the year ended December 31, 2018, compared to 16.5% in the prior year. These improvements were primarily due to a better mix of higher-margin products shipped in greater volumes compared to the prior year.

Contractual Obligations

The following table summarizes our contractual obligations at December 31, 2019 and the effect those obligations are expected to have on our liquidity and cash flows in future periods:

	Payment Due by Period				
	Total	Less Than 1 Year	1 to 3 Years	3 to 5 Years	After 5 Years
Operating leases (1).....	\$ 25,020	\$ 3,972	\$ 7,312	\$ 6,438	\$ 7,298
Senior Secured Notes (2).....	250,000	—	—	250,000	—
Interest payments on Senior Secured Notes (3)	86,667	20,000	40,000	26,667	—
Carrier providers (4).....	106,980	8,091	12,037	12,646	74,206
	<u>\$ 468,667</u>	<u>\$ 32,063</u>	<u>\$ 59,349</u>	<u>\$ 295,751</u>	<u>\$ 81,504</u>

- (1) Amounts represent future minimum payments under operating leases for our office spaces and other facilities.
- (2) Amounts represent repayment of the principal of the Senior Secured Notes in April 2024 based on our outstanding long-term debt as of December 31, 2019.
- (3) Interest payments reflect borrowing rates for our outstanding long-term debt as of December 31, 2019.
- (4) Future amounts are based on assumed growth. We do not have a contractual commitment for our carriers, however there is no current expectation that we will stop using these carriers.

Off-Balance Sheet Arrangements

None.

Critical Accounting Policies and Estimates

Our discussion and analysis of our results of operations, liquidity and capital resources are based on our consolidated financial statements which have been prepared in conformity with GAAP. The preparation of these consolidated financial statements requires us to make certain estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and disclosure of contingent assets and liabilities. On an on-going basis, we evaluate our estimates and judgments, including those related to revenue recognition, accounts receivable, accounting for business combinations, goodwill, intangible assets, satellite network and other equipment, long-lived assets, capitalized development costs, income taxes, warranty costs, loss contingencies and the value of securities underlying stock-based compensation. We base our estimates on historical and anticipated results and trends and on various other assumptions that we believe are reasonable under the circumstances, including assumptions as to future events. These estimates form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. By their nature, estimates are subject to an inherent degree of uncertainty. Actual results may differ from our estimates and could have a significant adverse effect on our results of operations and financial position. We believe the following critical accounting policies affect our more significant estimates and judgments in the preparation of our consolidated financial statements.

Revenue recognition

We recognize revenues when persuasive evidence of an arrangement exists, delivery has occurred, the fee is fixed or determinable and collectability is reasonably assured. Our revenue recognition policy requires us to make significant judgments regarding the probability of collection of the resulting accounts receivable balance based on prior history and the creditworthiness of our customers. In instances where collection is not reasonably assured, revenue is recognized when we receive cash from the customer.

We derive recurring service revenues primarily from monthly fees for industrial IoT connectivity services that consist of subscriber-based and recurring monthly usage fees for each subscriber communicator or SIM activated for use on our satellite network, as well as other satellite networks and cellular wireless networks that we resell to our resellers, MCPs and MCAs, and direct customers. In addition, we earn recurring service revenues from providing AIS data services to government and commercial customers worldwide. AIS service revenues are generated over time from monthly subscription-based services supplying AIS data to our customers and resellers using the output method. We also earn recurring service revenues from activations of subscriber communicators and SIMs, optional separately-priced extended warranty service agreements extending beyond the initial warranty period of typically one year, which are billed to the customer upon shipment of a subscriber communicator.

Service revenues derived from usage fees are generally based upon the data transmitted by a customer, the overall number of subscriber communicators and/or SIMs activated by each customer, and whether we provide services through our value-added portal. Using the output method, these service revenues are recognized over time, as services are rendered, or at a point in time, based on the contract terms. Revenues from the activation of both subscriber communicators and SIMs are initially recorded as deferred revenues and are, thereafter, recognized on a ratable basis using a time-based output method, generally over three years, the estimated life of the subscriber communicator. Revenues from separately-priced extended warranty service agreements extending beyond the initial warranty period, typically one year, are initially recorded as deferred revenues and are, thereafter, recognized on a ratable basis using a time-based output method, generally over two to five years.

We earn other service revenues from installation services and engineering, technical and management support services. Revenues generated from installation services are recognized at a point in time using the output method when the services are completed. Revenues generated from engineering, technical and management support services are recognized over time as the service is provided. We also generate other service revenues through the sale of software licenses to our customers, which is recognized at a point in time using the output method when the license is provided to the customer.

Product sales are derived from sales of complete industrial IoT telematics devices, modems or cellular wireless SIMs (for our terrestrial-communication services) to our resellers (i.e., MCPs and MCAs) and direct customers. Product sales are recognized at a point in time when title transfers, when the products are shipped or when customers accept the products, depending on the specific contractual terms. Sales of subscriber communicators and SIMs are not subject to return, and title and risk of loss pass to the customer generally at the time of shipment.

Shipping costs billed to customers are included in product sales and the related costs are included as cost of product sales on our consolidated statements of operations.

We generate revenue from leasing arrangements of subscriber communicators, under FASB ASC 842, using the estimated selling prices for each of the deliverables recognized. Product and installation revenues associated with these arrangements are recognized upon shipment or installation of the subscriber communicator, depending on the specific contractual terms. Service and warranty revenues are recognized on an accrual basis, as services are rendered, or on a cash basis, if collection from the customer is not reasonably assured at the time the service is provided.

Revenue recognition for arrangements with multiple performance obligations

We enter into contracts with our customers that include multiple performance obligations, which typically include subscriber communicators, monthly usage fees and optional extended warranty service agreements. We evaluate each item to determine whether it represents a promise to transfer a distinct good or service to the customer and is therefore a separate performance obligation under FASB Accounting Standards Update (“ASU”) No. 2014-09 “Revenue from Contracts with Customers.” If a contract is separated into more than one performance obligation, we allocate the total transaction price to each performance obligation in an amount based on the estimated relative stand-alone selling prices of each performance obligation. We use an observable price to determine the stand-alone selling price for separate performance obligations when sold on its own or a cost-plus margin approach when one is not available.

If an arrangement provided to a customer has a significant and incremental discount on future revenue, such right is considered a performance obligation and a proportionate amount of the discount should be allocated to each element based on the relative stand-alone selling price of each element, regardless of the discount. We have determined that arrangements provided to our customers do not include significant and incremental discounts.

Accounts receivable

Accounts receivable are due in accordance with payment terms included in our negotiated contracts. Amounts due are stated net of an allowance for doubtful accounts. Accounts that are outstanding longer than the contractual payment terms are considered past due. We make ongoing assumptions and judgments relating to the collectability of our accounts receivable to determine our required allowances based on a number of factors such as the age of the receivable, credit history of the customer, historical experience and current economic conditions that may affect a customer’s ability to pay. Past experience may not be indicative of future collections; as a result, allowances for doubtful accounts may deviate from our estimates as a percentage of accounts receivable and sales.

Satellite network and other equipment, net

Satellite network and other equipment, net are stated at cost, less accumulated depreciation and amortization. We use judgment to determine the useful life of our satellite network based on the estimated operational lives of the satellites and periodic reviews of engineering data relating to the operation and performance of our satellite network.

Satellite network includes the costs of our constellation of satellites and the ground and control facilities, which consists of GESs, gateway control centers and the network control center.

As of December 31, 2019 and 2018, assets under construction primarily consisted of costs associated with acquiring, developing, enhancing and testing software and hardware for internal and external use that have not yet been placed into service.

Accounting for business combinations

We account for acquired businesses using the acquisition method of accounting, which requires that assets acquired and liabilities assumed be recorded at their respective fair values on the date of acquisition. The fair value of the consideration paid is assigned to the underlying net assets of the acquired business based on their respective fair values. Any excess of the purchase price over the estimated fair values of the net assets acquired is recorded to goodwill. Intangible assets are amortized over the expected life of the asset. We make significant assumptions and estimates in determining the preliminary estimated purchase price and the preliminary allocation of the estimated purchase in the consolidated financial statements. These preliminary estimates and assumptions are subject to change as we finalize the valuations. The final valuations may change significantly from the preliminary estimates. Fair value determinations and useful life estimates are based on, among other factors, estimates of expected future cash flows from revenues of the intangible assets acquired, estimates of appropriate discount rates used to calculate the present value of expected future cash flows, estimated useful lives of the intangible assets acquired and other factors. Although we believe the assumptions and estimates we have made have been reasonable and appropriate, they are based, in part, on historical experience, information obtained from the management of the acquired companies and future expectations. For these and other reasons, actual results may vary significantly from estimated results.

Contingent consideration

We determine the acquisition date fair value of contingent consideration obligations based on a probability-weighted income approach derived from milestone estimates and a probability assessment with respect to the likelihood of achieving contingent obligations. The fair value measurement is based on significant inputs not observable in the market and thus represents a Level 3 measurement as defined in FASB ASC Topic 820 “Fair Value Measurement.” At each reporting date, the contingent consideration obligation will be revalued to estimated fair value and changes in fair value will be reflected as income or expense in our consolidated statement of operations. Changes in the fair value of the contingent consideration obligations may result from changes in probability assumptions with respect to the likelihood of achieving the various contingent payment obligations. Adverse changes in assumptions utilized in our contingent consideration fair value estimates could result in an increase in our contingent consideration obligation and a corresponding charge to operating income.

Goodwill

Goodwill is not amortized, but is tested for impairment on an annual basis and between annual tests whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. Goodwill is tested at the reporting unit level, which is defined as an operating segment, or one level below the operating segment. We operate in one operating segment, which is our only reporting unit.

We test for an indication of goodwill impairment on November 30 of each year or when indicators of impairment exist, by comparing the fair value of our reporting unit to its carrying value. If there is an indication of impairment, we perform a “step two” test to measure the impairment. Impairments, if any, are recorded to the statement of operations in the period the impairment is recognized.

A significant amount of judgment is involved in determining if an indicator of impairment has occurred. Such indicators include a sustained and significant decline in our stock price and market capitalization, a decline in our expected future cash flows, a significant adverse change in legal factors or in the business climate and unanticipated competition. There was no goodwill impairment for the years ended December 31, 2019, 2018 and 2017.

Long-lived assets, including finite-lived intangible assets

Management reviews long-lived assets, including finite-lived intangible assets, whenever events or changes in circumstances indicate that the carrying amount of assets may not be recoverable. In connection with this review, we reevaluate the periods of depreciation and amortization. We recognize an impairment loss when the sum of the future undiscounted net cash flows expected to be realized from the asset is less than its carrying amount. If an asset is considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the asset exceeds its fair value, which is determined using projected discounted future net cash flows, using the appropriate discount rate. Our satellite constellation and related assets, including satellites under construction, are evaluated as a single asset group whenever facts or circumstances indicate that the carrying value may not be recoverable. If indicators of impairment are identified, recoverability of long-lived assets is measured by comparing their carrying amount to the projected cash flows the assets are expected to generate. Considerable judgment by us is necessary to estimate the fair value of the assets and accordingly, actual results could vary significantly from such estimates. Our most significant estimates and judgments relating to the long-lived asset impairments include the allocation of cash flows to assets or asset groups and, if required, an estimate of fair value for those assets or asset groups, the timing and amount of projected future cash flows and the discount rate selected to measure the risks inherent in future cash flows.

There was no impairment charge recorded relating to intangible assets for the years ended December 31, 2019, 2018 and 2017.

If a satellite were to fail during launch or while in orbit, the resulting loss would be charged to expense in the period it is determined that the satellite is not recoverable. The amount of any such loss would be reduced by the insurance proceeds, if any, estimated to be received. An impairment loss of \$31.2 million related to the loss of three OG2 satellites was recorded in the year ended December 31, 2017. There were no insurance proceeds associated with this loss because of the deductible under our in-orbit insurance coverage. There was no impairment charge recorded in the years ended December 31, 2019 and 2018.

Capitalized development costs

Judgments and estimates occur in the calculation of capitalized development costs. We evaluate and estimate when a preliminary project stage is completed and the point when the project is substantially complete and ready for use. We base our estimates and evaluations on engineering data. We capitalize the costs of acquiring, developing and testing software and hardware to meet our internal needs and for products and services that have not yet been placed into service. Capitalization of costs associated with software obtained or developed for internal use commences when both the preliminary project stage is completed and management has authorized further funding for the project, based on a determination that it is probable that the project will be completed and used to perform the function intended. Capitalized costs include only (1) the external direct cost of materials and services consumed in developing or obtaining internal-use software, and (2) payroll and payroll-related costs for employees who are directly associated with, and devote time to, a qualifying project, and (3) certain external software development costs upon the establishment of technological feasibility. Technological feasibility is considered to have occurred upon completion of either a detailed program design or a working model. Capitalization of such costs ceases no later than the point at which the project is substantially complete and ready for its intended use. Internal use software costs are amortized once the software is placed in service using the straight-line method over periods ranging from three to seven years. Product and service development costs are amortized over the estimated life of the product once it has been released for commercial sale.

Income taxes

We estimate our income taxes separately for each tax jurisdiction in which we conduct operations. This process involves estimating actual current tax expense and assessing temporary differences resulting from different treatment of items between book and tax, which results in deferred tax assets and liabilities. We recognize a change in tax rates on deferred tax assets and liabilities in income in the period that includes the enactment date. In determining the net deferred tax assets and valuation allowances, we are required to make judgments and estimates in assessing the realizability of the deferred tax assets. In assessing the realizability of our deferred tax assets, we consider whether it is more likely than not that some portion or all of the deferred tax assets will be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible.

We recognize the effect of tax law changes in the period of enactment. Changes in existing tax laws and rates, their related interpretations, and the uncertainty generated by the current economic environment may affect the amounts of our deferred tax liabilities or the valuations of our deferred tax assets over time. Our accounting for deferred tax consequences represents management's best estimate of future events that can be appropriately reflected in the accounting estimates.

We account for uncertainty in income tax positions using a two-step approach. The first step is to determine whether it is more likely than not that a tax position will be sustained upon examination, including resolution of any related appeals or litigation processes, based on the technical merits of the position. The second step is to measure the tax position at the largest amount of benefit that is greater than 50% likely of being realized upon ultimate settlement. Accounting for uncertainties in income taxes positions involves significant judgments by management.

Warranty costs

Warranty coverage is accrued upon product sales and provides for costs to replace or fix defective products. Our analysis of the warranty liabilities associated with the warranty coverage estimates them based on historical costs of the acquired companies to replace or fix products for customers, and may require additional liability for warranty coverage for other specific claims that are expected to be incurred within the warranty period, for which it is estimated that customers may have a warranty claim. Accrual estimates may differ from actual results and adjustments to the estimated warranty liability would be required.

Separately-priced extended warranty coverage is recorded as warranty revenue over the term of the extended warranty coverage and the related warranty costs during the coverage period are recorded as incurred.

Warranty coverage that includes additional services such as repairs or maintenance of the product is treated as a separate deliverable and the related warranty and repairs or maintenance costs are recorded as incurred.

Loss contingencies

We accrue for costs relating to litigation, claims and other contingent matters when such liabilities become probable and reasonably estimable. Such estimates may be based on advice from third parties or on management's judgment, as appropriate. Actual amounts paid may differ from amounts estimated, and such differences will be charged to operations in the period in which the final determination of the liability is made. There is significant uncertainty relating to the outcome of any potential legal actions and other claims and the difficulty of predicting the likelihood and range of the potential liability involved, coupled with the material impact on our results of operations that could result from legal actions or other claims and assessments.

Stock-based compensation

Our share-based compensation plans consist of the 2016 Long-Term Incentives Plan (the “2016 LTIP”) and the 2006 Long-Term Incentives Plan (the “2006 LTIP”), under which no further awards may be made. The 2016 LTIP, approved by our stockholders in April 2016, and the 2006 LTIP approved by our stockholders in April 2006, provide for the grants of non-qualified stock options, stock appreciation rights (“SARs”), common stock, restricted stock, restricted stock units (“RSUs”), performance units and performance shares to our employees and non-employee directors. We did not grant any stock options in 2019, 2018 and 2017.

We measure and recognize stock-based compensation expense for share-based payment awards to employees and directors based on estimated fair values on the date of grant. The value of the portion of the award that is ultimately expected to vest is recognized as expense over the requisite service period. For awards with performance conditions, an evaluation is made at the grant date and future periods as to the likelihood of the performance criteria being met. Compensation expense is adjusted in future periods for subsequent changes in the performance condition until the vesting date. We estimate forfeitures at the time of grant and revise, if necessary, in subsequent periods if actual forfeitures differ from those estimates.

For the years ended December 31, 2019, 2018 and 2017, we recognized \$6.2 million, \$7.9 million and \$5.7 million of stock-based compensation expense, respectively. As of December 31, 2019, we had an aggregate of \$6.8 million of unrecognized compensation costs for all share-based payment arrangements.

We expect that our planned use of share-based payment arrangements will continue to be a significant expense for us in future periods. We have not recognized, and do not expect to recognize in the near future, any significant tax benefit related to employee stock-based compensation expense as a result of the full valuation allowance on our net deferred tax assets and net operating loss carryforwards generated in the U.S.

The fair value of each time-based and performance-based SAR award is estimated on the date of grant using the Black-Scholes option pricing model with the assumptions described below for the periods indicated. Depending how long our common stock has been publicly traded at the grant date, the expected volatility was based either on (i) an average of our historical volatility over the expected terms of the SAR awards and comparable publicly traded companies’ historical volatility or (ii) our historical volatility over the expected terms of the SAR awards. We used the “simplified” method to determine the expected terms of SARs due to a limited history of exercises. Estimated forfeitures were based on voluntary and involuntary termination behavior as well as an analysis of actual forfeitures. The risk-free interest rate was based on the U.S. Treasury yield curve at the time of the grant over the expected term of the SAR grants. We did not grant time-based or performance-based SARs during the years ended December 31, 2019 and 2018.

	Year Ended December 31,		
	2019	2018	2017
Risk-free interest rate	None	None	2.10%
Expected life (years)	None	None	6.0
Estimated volatility factor	None	None	59.85%
Expected dividends	None	None	None

The grant date fair values of RSU awards granted in 2019, 2018 and 2017 were based upon the closing stock price of our common stock on the date of grant.

Recent accounting pronouncements

In February 2016, the FASB issued ASU No. 2016-02 “Leases (Topic 842)” (“ASU 2016-02”), which is effective for fiscal years beginning after December 15, 2018. ASU 2016-02 requires an entity to recognize assets and liabilities arising from a lease for both financing and operating leases, along with additional qualitative and quantitative disclosures. We adopted ASU 2016-02 prospectively as of January 1, 2019, the date of initial application. As part of the adoption, we elected the package of practical expedients, the short-term lease exemption and the practical expedient to not separate lease and non-lease components. We completed our comprehensive review of our lease portfolio for all lease types and embedded leases throughout each region. See also “Note 15 – Leases” in our audited consolidated financial statements included in Part II, Item 8 of this Annual Report on Form 10-K.

In January 2017, the FASB issued ASU No. 2017-04 “Intangibles – Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment” (“ASU 2017-04”), which is effective for fiscal years beginning after December 15, 2019. ASU 2017-04 removes Step 2 of the goodwill impairment test, which requires a hypothetical purchase price allocation. A goodwill impairment will now be the amount by which a reporting unit’s carrying value exceeds its fair value, not to exceed the carrying amount of goodwill. The adoption of this standard, which will be applied prospectively, is not expected to have a material impact on our consolidated financial statements.

In June 2016, the FASB issued ASU No. 2016-13 “Financial Instruments – Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments” (“ASU 2016-13”), which will be effective for fiscal years beginning after December 15, 2019. ASU 2016-13 introduces the current expected credit loss (CECL) model, which will require an entity to measure credit losses for certain financial instruments and financial assets. Upon initial recognition, an entity will be required to estimate a credit loss expected over the life of an exposure. The adoption of this standard is not expected to have a material impact on our consolidated financial statements.

Item 7A. *Quantitative and Qualitative Disclosures about Market Risks*

Effects of Inflation Risk

Overall, we believe that the impact of inflation risk on our business will not be significant.

Foreign Currency Risk

The majority of our revenues and expenses are transacted in U.S. dollars. Due to operations in Japan, Europe and Africa, we have foreign exchange exposures to non-U.S. dollar revenues. Due to operations in Canada, we have foreign exchange exposures to non-U.S. dollar expenses. For the years ended December 31, 2019 and 2018, revenues denominated in foreign currencies were approximately 9.9% and 14.9% of total revenues, respectively. For the year ended December 31, 2019, our revenues would have decreased by approximately 1.2% if the U.S. dollar would have strengthened by 10%.

We have assets and liabilities denominated in foreign currencies. At December 31, 2019, a hypothetical change in the fair value of these assets and liabilities from an increase (decrease) of 10% of the U.S. dollar would be an increase (decrease) of approximately \$2.0 million.

Concentration of Credit Risk

There were no customers who generated revenues greater than 10% of our consolidated total revenues for the years ended December 31, 2019 and 2018. For the year ended December 31, 2017, JB Hunt comprised 10.8% of our consolidated total revenues.

Item 8. *Financial Statements and Supplementary Data*

The consolidated financial statements of ORBCOMM Inc. and its subsidiaries, including the notes thereto and the report thereon, are presented beginning at page F-1 of this Annual Report on Form 10-K.

Item 9. *Changes in and Disagreements with Accountants on Accounting and Financial Disclosure*

None.

Item 9A. *Controls and Procedures*

(a) *Disclosure Controls and Procedures*

In connection with the preparation of this Annual Report on Form 10-K, we carried out an evaluation, under the supervision and with the participation of our management including our Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures as of December 31, 2019. The term “disclosure controls and procedures,” as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC’s rules and forms.

Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the Company’s management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on the evaluation of our disclosure controls and procedures as of December 31, 2019, our Chief Executive Officer and Chief Financial Officer concluded that, as of such date, our disclosure controls and procedures were effective.

(b) Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Exchange Act Rule 13a-15(f). Management, including our Chief Executive Officer and Chief Financial Officer, conducted an evaluation of the effectiveness of our internal control over financial reporting based upon criteria established in Internal Control – Integrated Framework (2013) by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this evaluation, management concluded that our internal control over financial reporting was effective as of December 31, 2019. The effectiveness of our internal control over financial reporting as of December 31, 2019 has been audited by Grant Thornton LLP, an independent registered public accounting firm, as stated in its attestation report which is included below.

(c) Changes in Internal Control over Financial Reporting

We reviewed our internal control over financial reporting at December 31, 2019. As a result of the acquisitions of Inthinc and Blue Tree, we continue to integrate certain business processes and systems of Inthinc and Blue Tree. Accordingly, certain changes have been made and will continue to be made to our internal controls over financial reporting until such time as these integrations are complete.

There have been no other changes in our internal control over financial reporting identified in an evaluation thereof that occurred during the last fiscal quarter of 2019 that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Report of Independent Registered Public Accounting Firm

Board of Directors and Shareholders
ORBCOMM Inc.

Opinion on internal control over financial reporting

We have audited the internal control over financial reporting of ORBCOMM Inc.(a Delaware corporation) and subsidiaries (the “Company”) as of December 31, 2019, based on criteria established in the 2013 *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (“COSO”). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, based on criteria established in the 2013 *Internal Control—Integrated Framework* issued by COSO.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (“PCAOB”), the consolidated financial statements of the Company as of and for the year ended December 31, 2019, and our report dated February 28, 2020 expressed an unqualified opinion on those financial statements.

Basis for opinion

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

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and limitations of internal control over financial reporting

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

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

/s/ GRANT THORNTON LLP
New York, New York
February 28, 2020

Item 9B. *Other Information*

None.

PART III

Item 10. *Directors and Executive Officers of the Registrant and Corporate Governance*

Identification of Directors

Reference is made to the information regarding directors under the heading “Election of Directors (Proposal 1)” in the Proxy Statement for our 2020 Annual Meeting of stockholders to be held on April 22, 2020 (our “2020 Proxy Statement”), which information is hereby incorporated by reference.

Identification of Executive Officers

Reference is made to the information regarding executive officers under the heading “Information About Our Executive Officers” in Part I, Item 1 of this Annual Report on Form 10-K.

Identification of Audit Committee and Audit Committee Financial Expert

Reference is made to the information regarding directors under the heading “Board of Directors and Committees — Audit Committee” in our 2020 Proxy Statement, which information is hereby incorporated by reference.

Material Changes to Procedures for Recommending Directors

Reference is made to the information regarding directors under the heading “Board of Directors and Committees — Nominating and Corporate Governance Committee” in our 2020 Proxy Statement, which information is hereby incorporated by reference.

Code of Ethics

We have adopted a code of ethics, or Code of Business Conduct, to comply with the rules of the SEC and NASDAQ. Our Code of Business Conduct applies to our directors, officers and employees, including our principal executive officer and senior financial officers. A copy of our Code of Business Conduct is maintained on our website at www.orbcomm.com.

Item 11. *Executive Compensation*

Reference is made to the information under the headings “Board of Directors and Committees — Compensation Committee Interlocks and Insider Participation,” “Compensation Discussion and Analysis,” “Compensation Committee Report” and “Compensation of Executive Officers” in our 2020 Proxy Statement, which information is hereby incorporated by reference.

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

Beneficial Ownership

Reference is made to the information under the heading “Security Ownership of Certain Beneficial Owners and Management” in our 2020 Proxy Statement, which information is hereby incorporated by reference.

Equity Compensation Plan Information

Reference is made to the information under the heading “Equity Compensation Plan Information” in our 2020 Proxy Statement, which information is hereby incorporated by reference.

Item 13. *Certain Relationships and Related Transactions, and Director Independence*

Reference is made to the information under the heading “Certain Relationships and Transactions with Related Persons” in our 2020 Proxy Statement, which information is hereby incorporated by reference.

Item 14. *Principal Accountant Fees and Services*

Reference is made to the information under the heading “Proposal to Ratify the Appointment of Independent Registered Public Accounting Firm (Proposal 2) — Principal Accountant Fees” in our 2020 Proxy Statement, which information is hereby incorporated by reference.

PART IV

Item 15. *Exhibits and Financial Statements Schedules*

(a)(1) Financial Statements

See Index to Consolidated Financial Statements appearing on page F-1.

(a)(2) Financial Statement Schedules

Schedule II- See Index to Consolidated Financial Statements appearing on page F-1

Financial statement schedules not filed herein have been omitted as they are not applicable or the required information or equivalent information has been included in the financial statements or the notes thereto.

(a)(3) Exhibits

Exhibit No.	Description
3.1	Restated Certificate of Incorporation of the Company, filed as Exhibit 3.1 to the Company's Annual Report on Form 10-K for the year ended December 31, 2006, is incorporated herein by reference.
3.2	Amended Bylaws of the Company, filed as Exhibit 3.2 to the Company's Annual Report on Form 10-K for the year ended December 31, 2006, is incorporated herein by reference.
3.3	Certificate of Designation of Series A Convertible Preferred Stock of ORBCOMM, filed as Exhibit 3.1 to the Company's Current Report on Form 8-K filed on May 20, 2011, is incorporated herein by reference.
4.1	Indenture, dated as of April 10, 2017, by and between the Company and U.S. Bank National Association, as trustee and collateral agent, filed as Exhibit 4.1 to the Company's Current Report on Form 8-K filed on April 12, 2017, is incorporated herein by reference.
4.2	Security Agreement, dated as of April 10, 2017, by and among the Company, the subsidiaries party thereto and U.S. Bank National Association, as collateral agent, filed as Exhibit 4.2 to the Company's Current Report on Form 8-K filed on April 12, 2017, is incorporated herein by reference.
4.3	Description of Registrant's Securities Registered Pursuant to Section 12 of the Securities Exchange Act of 1934.
*10.2	Non-Employee Director Deferred Compensation Plan, filed as Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2015, is incorporated herein by reference.
10.3	Form of Indemnification Agreement between the Company and the executive officers and directors of the Company, filed as Exhibit 10.13 to the Company's Registration Statement on Form S-1 (Registration No. 333-134088), is incorporated herein by reference.
10.4	Schedule identifying agreements substantially identical to the form of Indemnification Agreement.
*10.5	2016 Long-Term Incentives Plan, filed as Exhibit 99.1 to the Company's Current Report on Form 8-K filed on April 26, 2016, is incorporated herein by reference.
*10.5.1	Form of Restricted Stock Unit Award Agreement (including Restricted Stock Unit Award Agreement Terms and Conditions) under the Company's 2016 Long-Term Incentives Plan for awards made prior to December 1, 2018, filed as Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2016, is incorporated herein by reference.
*10.5.2	Form of Performance Unit Award Agreement under the Company's 2016 Long-Term Incentives Plan for awards made prior to December 1, 2018, filed as Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2016, is incorporated herein by reference.
*10.5.3	Form of Restricted Stock Unit Award Agreement (including Restricted Stock Unit Award Agreement Terms and Conditions) under the Company's 2016 Long-Term Incentives Plan for awards made on or after December 1, 2018, filed as Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2018, is incorporated herein by reference.

Exhibit No.	Description
*10.5.4	Form of Performance Unit Award Agreement under the Company's 2016 Long-Term Incentives Plan for awards made on or after December 1, 2018, filed as Exhibit 10.4 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2018, is incorporated herein by reference.
*10.5.5	Form of Stock Appreciation Right Award Agreement (including Stock Appreciation Right Award Agreement Terms and Conditions) under the Company's 2016 Long-Term Incentives Plan for awards made on or after December 1, 2018, filed as Exhibit 10.5 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2018, is incorporated herein by reference.
*10.6	2006 Long-Term Incentives Plan, as amended, filed as Exhibit 99 to the Company's Current Report on Form 8-K filed on May 3, 2011, is incorporated herein by reference.
*10.6.1	Form of Stock Appreciation Rights Award Agreement under the 2006 Long-Term Incentives Plan, filed as Exhibit 10.25 to the Company's Registration Statement on Form S-1 (Registration No. 333-134088), is incorporated herein by reference.
*10.7	Summary of Non-Employee Director Compensation, effective as of March 1, 2019, filed as Exhibit 10.7 to the Company's Annual Report on Form 10-K for the year ended December 31, 2018, is incorporated herein by reference.
*10.8.1	Employment Offer Letter of Michael W. Ford, dated as of August 20, 2018, filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed on August 21, 2018, is incorporated herein by reference.
*10.8.2	Severance Agreement and General Release of Claims, dated April 4, 2019, filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed on April 5, 2019, is incorporated herein by reference.
*10.9	Amended and Restated Employment Agreement between Marc J. Eisenberg and the Company, effective as of March 1, 2019, filed as Exhibit 10.10 to the Company's Annual Report on Form 10-K for the year ended December 31, 2018, is incorporated herein by reference.
*10.10	Amended and Restated Employment Agreement between John J. Stolte, Jr. and the Company, effective as of March 1, 2019, filed as Exhibit 10.11 to the Company's Annual Report on Form 10-K for the year ended December 31, 2018, is incorporated herein by reference.
*10.11	Amended and Restated Employment Agreement between Christian G. Le Brun and the Company, effective as of March 1, 2019, filed as Exhibit 10.12 to the Company's Annual Report on Form 10-K for the year ended December 31, 2018, is incorporated herein by reference.
*10.12	Amended and Restated Employment Agreement between Craig Malone and the Company, effective as of March 1, 2019, filed as Exhibit 10.13 to the Company's Annual Report on Form 10-K for the year ended December 31, 2018, is incorporated herein by reference.
*10.13	Employment Agreement between Constantine Milcos and the Company, effective as of November 1, 2019, filed as Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2019, is incorporated herein by reference.
10.17	Asset Purchase Agreement, dated June 9, 2017, among the Company, the sellers party thereto and inthinc Investors, L.P., in its capacity as stockholder representative, filed as Exhibit 99.2 to the Company's Current Report on Form 8-K filed on June 12, 2017, is incorporated herein by reference.
10.18	Senior Secured Revolving Credit Agreement, dated as of December 18, 2017, among the Company, the guarantors party thereto, the lenders party thereto and JPMorgan Chase Bank, N.A., as administrative agent and collateral agent, filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed on December 22, 2017, is incorporated herein by reference.
10.19	Security Agreement, dated as of December 18, 2017, among the Company, the subsidiaries party thereto and JPMorgan Chase Bank, N.A., as collateral agent, filed as Exhibit 10.2 to the Company's Current Report on Form 8-K filed on December 22, 2017, is incorporated herein by reference.
10.20	First Lien Intercreditor Agreement, dated as of December 18, 2017, among the Company, the other grantors party thereto, and U.S. Bank National Association, as the notes collateral agent and trustee for the indenture secured parties, filed as Exhibit 10.3 to the Company's Current Report on Form 8-K filed on December 22, 2017, is incorporated herein by reference.
21	Subsidiaries of the Company.

Exhibit No.	Description
23.1	Consent of Grant Thornton LLP, an independent registered public accounting firm.
24	Power of Attorney authorizing certain persons to sign this Annual Report on behalf of certain directors and executive officers of the Company.
31.1	Certification of the Chief Executive Officer and President required by Rule 13a-14(a).
31.2	Certification of the Executive Vice President and Chief Financial Officer required by Rule 13a-14(a).
32	Certification of the Chief Executive Officer and President and Executive Vice President and Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act.
101.INS	XBRL Instance Document — The Instance Document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.
101.SCH	Inline XBRL Taxonomy Extension Schema Document.
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document.
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document.
104	Cover Page Interactive Data File — The Cover Page Interactive Data File does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.
*	Management contract or compensatory plan or arrangement.
†	Portions of this exhibit have been omitted pursuant to a request for confidential treatment. The omitted portions have been separately filed with the SEC.

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, ORBCOMM Inc. has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, in the Township of Rochelle Park, State of New Jersey, on February 28, 2020.

ORBCOMM Inc.

By: /s/ Marc J. Eisenberg
 Marc J. Eisenberg
 Chief Executive Officer and President

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed on February 28, 2020 by the following persons in the capacities indicated:

Signature	Title
/s/ Marc J. Eisenberg Marc J. Eisenberg	Chief Executive Officer and President and Director (principal executive officer)
/s/ Jerome B. Eisenberg* Jerome B. Eisenberg	Chairman of the Board
/s/ Marco Fuchs* Marco Fuchs	Director
/s/ Timothy Kelleher* Timothy Kelleher	Director
/s/ John Major* John Major	Director
/s/ Karen Gould* Karen Gould	Director
/s/ Denise Gibson* Denise Gibson	Director
/s/ Constantine Milcos Constantine Milcos	Executive Vice President and Chief Financial Officer (principal financial officer and principal accounting officer)
*By: <u>/s/ Christian G. Le Brun</u> Christian G. Le Brun, Attorney-in-Fact**	

** By authority of the Power of Attorney filed as Exhibit 24 hereto.

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Report of Independent Registered Public Accounting Firm

Board of Directors and Shareholders
ORBCOMM Inc.

Opinion on the financial statements

We have audited the accompanying consolidated balance sheets of ORBCOMM Inc. (a Delaware corporation) and subsidiaries (the “Company”) as of December 31, 2019 and 2018, the related consolidated statements of operations, comprehensive (loss) income, changes in shareholders’ equity, and cash flows for each of the three years in the period ended December 31, 2019, and the related notes and financial statement schedule included under Item 15(a) (collectively referred to as the “financial statements”). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2019, in conformity with accounting principles generally accepted in the United States of America.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (“PCAOB”), the Company’s internal control over financial reporting as of December 31, 2019, based on criteria established in the 2013 *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (“COSO”), and our report dated February 28, 2020 expressed an unqualified opinion.

Changes in accounting principles

As discussed in Note 2 to the consolidated financial statements, the Company has changed its method of accounting for leases in fiscal year 2019 due to the adoption of the Accounting Standards Codification Topic 842, Leases.

Basis for opinion

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

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

Critical audit matter

The critical audit matter communicated below is a matter arising from the current period audit of the financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Determination of capitalized development costs

As discussed in Notes 2 and 6 to the consolidated financial statements, the Company capitalizes certain internal costs related to the design, development and enhancement of the Company’s products and services as well as internal-use software. The Company capitalized \$14 million of internal development costs during the year ended December 31, 2019. We identified that capitalization of software development internal costs to be a critical audit matter.

The principal consideration for our determination that capitalized internal cost of software development is a critical audit matter is the degree of subjectivity involved in assessing which projects met the capitalization criteria, based on the development stage of the project and the costs being capitalized.

Our audit procedures related to the capitalization of software development internal costs included the following, among others. We tested the design and operating effectiveness of internal controls over the Company's process to capitalize internal costs of software development, including controls to evaluate the nature of the costs incurred and assessing the development stage to determine which development projects met the capitalization criteria. We evaluated the Company's current year project capitalization conclusions based on an understanding of a sample of development projects and the associated software development activities, by working with relevant project management. We also assessed the reliability of the Company's conclusions through confirmations with a sample of individual developers regarding the nature of their development activities. We tested the underlying support for capitalized amounts by agreeing a sample of such amounts to supporting documentation.

We have served as the Company's auditor since 2015.

/s/ GRANT THORNTON LLP
New York, New York
February 28, 2020

ORBCOMM Inc.
Consolidated Balance Sheets
(in thousands, except par value and share data)

	December 31,	
	2019	2018
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 54,258	\$ 53,766
Accounts receivable, net of allowances for doubtful accounts of \$4,480 and \$4,072, respectively	60,595	57,665
Inventories	39,881	34,300
Prepaid expenses and other current assets	18,003	15,553
Total current assets	172,737	161,284
Satellite network and other equipment, net	145,553	160,070
Goodwill	166,129	166,129
Intangible assets, net	73,280	86,264
Other assets	23,149	12,603
Deferred income taxes	132	109
Total assets	<u>\$ 580,980</u>	<u>\$ 586,459</u>
LIABILITIES AND EQUITY		
Current liabilities:		
Accounts payable	\$ 16,722	\$ 15,527
Accrued liabilities	36,951	35,735
Current portion of deferred revenue	3,865	5,954
Total current liabilities	57,538	57,216
Note payable — related party	1,275	1,298
Notes payable, net of unamortized deferred issuance costs	246,683	245,907
Deferred revenue, net of current portion	6,771	5,471
Deferred tax liabilities	14,894	16,109
Other liabilities	16,303	2,600
Total liabilities	343,464	328,601
Commitments and contingencies		
Equity:		
ORBCOMM Inc. stockholders' equity		
Series A Convertible Preferred Stock, par value \$0.001; 1,000,000 shares authorized; 40,624 and 39,442 shares issued and outstanding at December 31, 2019 and December 31, 2018, respectively	406	394
Common stock, par value \$0.001; 250,000,000 shares authorized; 78,062,451 and 79,008,243 shares issued at December 31, 2019 and December 31, 2018, respectively	78	79
Additional paid-in capital	447,681	449,343
Accumulated other comprehensive loss	(1,013)	(381)
Accumulated deficit	(210,942)	(192,507)
Less treasury stock, at cost; 29,990 shares at December 31, 2018	—	(96)
Total ORBCOMM Inc. stockholders' equity	236,210	256,832
Noncontrolling interests	1,306	1,026
Total equity	237,516	257,858
Total liabilities and equity	<u>\$ 580,980</u>	<u>\$ 586,459</u>

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

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

	Year Ended December 31,		
	2019	2018	2017
Revenues:			
Service revenues	\$ 160,594	\$ 153,589	\$ 134,938
Product sales	111,419	122,551	119,282
Total revenues	<u>272,013</u>	<u>276,140</u>	<u>254,220</u>
Cost of revenues, exclusive of depreciation and amortization shown below:			
Cost of services	52,264	53,184	50,548
Cost of product sales	78,377	93,444	99,640
Operating expenses:			
Selling, general and administrative	69,590	66,988	55,753
Product development	14,720	13,405	8,941
Impairment charges - satellite network	—	—	31,224
Depreciation and amortization	50,702	49,684	45,681
Acquisition-related and integration costs	788	1,624	3,315
Income (loss) from operations	<u>5,572</u>	<u>(2,189)</u>	<u>(40,882)</u>
Other (expense) income:			
Interest income	1,957	1,918	959
Other income (expense)	(129)	45	(160)
Interest expense	(21,149)	(21,055)	(17,653)
Loss on debt extinguishment	—	—	(3,868)
Total other expense	<u>(19,321)</u>	<u>(19,092)</u>	<u>(20,722)</u>
Loss before income taxes	<u>(13,749)</u>	<u>(21,281)</u>	<u>(61,604)</u>
Income taxes	<u>4,383</u>	<u>4,658</u>	<u>(409)</u>
Net loss	<u>(18,132)</u>	<u>(25,939)</u>	<u>(61,195)</u>
Less: Net income attributable to the noncontrolling interests	291	305	89
Net loss attributable to ORBCOMM Inc.	<u>\$ (18,423)</u>	<u>\$ (26,244)</u>	<u>\$ (61,284)</u>
Net loss attributable to ORBCOMM Inc. common stockholders	<u>\$ (18,435)</u>	<u>\$ (26,262)</u>	<u>\$ (61,296)</u>
Per share information-basic:			
Net loss attributable to ORBCOMM Inc. common stockholders	<u>\$ (0.23)</u>	<u>\$ (0.34)</u>	<u>\$ (0.84)</u>
Per share information-diluted:			
Net loss attributable to ORBCOMM Inc. common stockholders	<u>\$ (0.23)</u>	<u>\$ (0.34)</u>	<u>\$ (0.84)</u>
Weighted average common shares outstanding:			
Basic	<u>79,259</u>	<u>77,603</u>	<u>72,882</u>
Diluted	<u>79,259</u>	<u>77,603</u>	<u>72,882</u>

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

ORBCOMM Inc.
Consolidated Statements of Comprehensive (Loss) Income
(in thousands)

	Year Ended December 31,		
	2019	2018	2017
Net loss	\$ (18,132)	\$ (25,939)	\$ (61,195)
Other comprehensive (loss) income — Foreign currency translation adjustments	(643)	(649)	1,342
Other comprehensive (loss) income	(643)	(649)	1,342
Comprehensive loss	(18,775)	(26,588)	(59,853)
Less comprehensive income attributable to noncontrolling interests	(280)	(293)	(86)
Comprehensive loss attributable to ORBCOMM Inc.	<u>\$ (19,055)</u>	<u>\$ (26,881)</u>	<u>\$ (59,939)</u>

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

ORBCOMM Inc.
Consolidated Statements of Cash Flows
(in thousands)

	Year Ended December 31,		
	2019	2018	2017
Cash flows from operating activities:			
Net loss	\$ (18,132)	\$ (25,939)	\$ (61,195)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities:			
Change in allowance for doubtful accounts	2,008	3,426	85
Depreciation and amortization	50,702	49,684	45,681
Impairment loss – satellite network	—	—	31,224
Change in the fair values of acquisition-related contingent consideration	(2,063)	(8,035)	(1,002)
Amortization and write-off of deferred debt fees	776	776	3,106
Stock-based compensation	6,180	7,910	5,673
Foreign exchange (gain) loss	(143)	59	299
Deferred income taxes	(1,213)	(1,491)	(2,047)
Other	2,240	—	—
Changes in operating assets and liabilities, net of acquisitions:			
Accounts receivable	(5,156)	(14,040)	(10,025)
Inventories	(5,607)	8,277	(16,922)
Prepaid expenses and other assets	2,432	3,994	(10,474)
Accounts payable and accrued liabilities	1,093	(14,876)	12,168
Deferred revenue	(783)	2,708	(1,653)
Other liabilities	(2,250)	(999)	41
Net cash provided by (used in) operating activities	<u>30,084</u>	<u>11,454</u>	<u>(5,041)</u>
Cash flows from investing activities:			
Acquisition of businesses, net of cash acquired	—	—	(67,911)
Capital expenditures	(21,067)	(22,198)	(27,360)
Other	—	650	(650)
Net cash used in investing activities	<u>(21,067)</u>	<u>(21,548)</u>	<u>(95,921)</u>

ORBCOMM Inc.
Consolidated Statements of Cash Flows
(in thousands)

	Year Ended December 31,		
	2019	2018	2017
Cash flows from financing activities:			
Proceeds from issuance of common stock	—	27,967	15,000
Proceeds from issuance of long-term debt	—	—	250,000
Payment under revolving credit facility	—	(14,000)	—
Proceeds from revolving credit facility	—	14,000	—
Cash paid for debt issuance costs	—	—	(5,359)
Proceeds from employee stock purchase plan	1,076	1,194	1,001
Purchases of common stock under share repurchase program	(9,444)	—	—
Principal payment of long-term debt	—	—	(150,000)
Payment of deferred purchase consideration	—	—	(347)
Net cash (used in) provided by financing activities	(8,368)	29,161	110,295
Effect of exchange rate changes on cash and cash equivalents	(157)	(131)	474
Net increase in cash and cash equivalents	492	18,936	9,807
Cash and cash equivalents:			
Beginning of year	53,766	34,830	25,023
End of year	<u>\$ 54,258</u>	<u>\$ 53,766</u>	<u>\$ 34,830</u>
Supplemental disclosures of cash flow information:			
Cash paid for:			
Interest	<u>\$ 20,000</u>	<u>\$ 20,036</u>	<u>\$ 12,911</u>
Income taxes	<u>\$ 4,810</u>	<u>\$ 5,532</u>	<u>\$ 805</u>
Supplemental cash flow disclosures (See Note 17)			

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

ORBCOMM Inc.
Consolidated Statements of Changes in Equity
Years Ended December 31, 2019, 2018 and 2017
(in thousands, except share data)

	Series A convertible Preferred stock		Common stock		Additional paid-in capital	Accumulated other comprehensive income (loss)	Treasury stock	Noncontrolling interests	Total equity
	Shares	Amount	Shares	Amount					
Balances, December 31, 2016	36,466	\$ 364	71,111,863	\$ 71	\$ 386,920	\$ (1,089)	29,990	\$ (96)	\$ 281,868
Vesting of restricted stock units	—	—	584,261	1	—	—	—	—	1
Stock-based compensation	—	—	—	—	5,086	—	—	—	5,086
Payment of contingent consideration	—	—	40,372	—	347	—	—	—	347
Issuance of common stock under employee stock purchase plan	—	—	—	—	—	—	—	—	—
Proceeds received from issuance of common stock in connection with a private offering	—	—	129,838	—	1,183	—	—	—	1,183
Issuance of common stock in connection with acquisitions	—	—	1,552,795	2	14,998	—	—	—	15,000
Exercise of SARs	—	—	267,818	—	2,764	—	—	—	2,764
Series A convertible preferred stock dividend	1,078	12	749,632	—	—	—	—	—	—
Net loss	—	—	—	—	—	(12)	—	—	(61,195)
Foreign currency translation adjustments	—	—	—	—	—	(61,284)	—	89	1,342
Balances, December 31, 2017	37,544	\$ 376	74,436,579	\$ 74	\$ 411,298	\$ 1,345	29,990	\$ (96)	\$ 246,396
Vesting of restricted stock units	—	—	581,013	1	—	—	—	—	1
Stock-based compensation	—	—	—	—	8,060	—	—	—	8,060
Issuance of common stock under employee stock purchase plan	—	—	—	—	—	—	—	—	—
Proceeds received from issuance of common stock, net of underwriters' discounts and commissions and offering costs of \$1,705	—	—	152,965	—	1,194	—	—	—	1,194
Common stock issued as payment for MPUs	—	—	3,450,000	3	27,964	—	—	—	27,967
Exercise of SARs	—	—	81,277	—	827	—	—	—	827
Series A convertible preferred stock dividend	1,898	18	306,409	1	—	—	—	—	1
Net loss	—	—	—	—	—	(18)	—	—	—
Foreign currency translation adjustments	—	—	—	—	—	(26,244)	—	305	(25,939)
Balances, December 31, 2018	39,442	\$ 394	79,008,243	\$ 79	\$ 449,343	\$ (637)	29,990	\$ (96)	\$ 257,858
Vesting of restricted stock units	—	—	673,296	1	—	(381)	—	—	1
Stock-based compensation	—	—	—	—	6,822	—	—	—	6,822
Issuance of common stock under employee stock purchase plan	—	—	—	—	—	—	—	—	—
Stock repurchases	—	—	250,432	—	1,076	—	—	—	1,076
Cancellation of treasury stock	—	—	(1,930,414)	(2)	(9,442)	—	—	—	(9,444)
Common stock cancellation for Inthinc Technologies, Inc. working capital debt reduction	—	—	(29,990)	—	(96)	—	(29,990)	96	—
Common stock issued as payment for MPUs	—	—	—	—	(525)	—	—	—	(525)
Exercise of SARs	—	—	60,885	—	503	—	—	—	503
Series A convertible preferred stock dividend	1,182	12	29,999	—	—	(12)	—	—	—
Net loss	—	—	—	—	—	(18,423)	—	—	—
Foreign currency translation adjustments	—	—	—	—	—	(632)	—	291	(18,132)
Balances, December 31, 2019	40,624	\$ 406	78,062,451	\$ 78	\$ 447,681	\$ (1,013)	—	\$ 1,306	\$ 237,516

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

Notes to Consolidated Financial Statements
(In thousands, except share and per share amounts)

Note 1. Organization and Business

ORBCOMM Inc. (“ORBCOMM” or the “Company”), a Delaware corporation, is a global provider of industrial Internet of Things (“IoT”) solutions, including network connectivity, devices, device management and web reporting applications. The Company’s industrial IoT products and services are designed to track, monitor, control and enhance security for a variety of assets, such as trailers, trucks, rail cars, sea containers, power generators, fluid tanks, marine vessels, diesel or electric powered generators (“gensets”), oil and gas wells, pipeline monitoring equipment, irrigation control systems and utility meters, in the transportation and supply chain, heavy equipment, fixed asset monitoring and maritime industries, as well as for governments. Additionally, the Company provides satellite Automatic Identification Service (“AIS”) data services to assist in vessel navigation and to improve maritime safety for government and commercial customers worldwide. Through two acquisitions in 2017, the Company added vehicle fleet management, as well as in-cab and vehicle fleet solutions to its transportation solution portfolio. The Company provides its services using multiple network platforms, including its own constellation of low-Earth orbit (“LEO”) satellites and accompanying ground infrastructure, as well as terrestrial-based cellular communication services obtained through reseller agreements with major cellular (Tier One) wireless providers. The Company also offers customer solutions utilizing additional satellite network service options that the Company obtains through service agreements entered into with multiple mobile satellite providers. The Company’s satellite-based customer solution offerings use small, low-power, mobile satellite subscriber communicators for remote asset connectivity, and the Company’s terrestrial-based solutions utilize cellular data modems with subscriber identity modules (“SIMs”). The Company also resells service using the two-way Inmarsat plc satellite network to provide higher bandwidth, low-latency satellite products and services, leveraging the Company’s IsatDataPro technology. The Company’s customer solutions provide access to data gathered over these systems via connections to other public or private networks, including the Internet. The Company is dedicated to providing what it believes are the most versatile, leading-edge industrial IoT solutions in its markets to enable its customers to run their businesses more efficiently.

Note 2. Summary of Significant Accounting Policies

Basis of presentation

The Company’s consolidated financial statements are prepared in accordance with accounting principles generally accepted in the United States (“U.S. GAAP”). In the opinion of management, the financial statements as of December 31, 2019 and 2018 and for the years ended December 31, 2019, 2018 and 2017 include all adjustments (including normal recurring accruals) necessary for a fair presentation of the consolidated financial position, results of operations, comprehensive income and cash flows for the periods presented. The accompanying consolidated financial statements include the accounts of the Company, its wholly-owned and majority-owned subsidiaries and investments in variable interest entities in which the Company is determined to be the primary beneficiary. All significant intercompany accounts and transactions have been eliminated in consolidation. The portions of majority-owned subsidiaries that the Company does not own are reflected as noncontrolling interests on the consolidated balance sheets.

Investments

Investments in entities over which the Company has the ability to exercise significant influence but does not have a controlling interest are accounted for under the equity method of accounting. The Company considers several factors in determining whether it has the ability to exercise significant influence with respect to investments, including, but not limited to, its direct and indirect ownership level in the voting securities, active participation on the board of directors, approval of operating and budgeting decisions and other participatory and protective rights. Under the equity method, the Company’s proportionate share of the net income or loss of such investees is reflected in the Company’s consolidated results of operations. When the Company does not exercise significant influence over the investee, the investment is accounted for under the cost method.

Although the Company owns interests in companies that it accounts for pursuant to the equity method, the investments in those entities had no carrying value as of December 31, 2019 and 2018. The Company has no guarantees or other funding obligations to those entities, and the Company had no equity in the earnings or losses of those investees for the years ended December 31, 2019, 2018 and 2017.

Use of estimates

The preparation of consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the reported amounts of revenues and expenses at the date of the consolidated financial statements and during the reporting periods, and to disclose contingent assets and liabilities at the date of the consolidated financial statements. Actual results could differ from those estimates. The most significant estimates relate to recognition of revenue, allowances over accounts receivable, reserves over inventory balances, the recognition and measurement of assets acquired and liabilities assumed in business combinations at fair value, assessment of indicators of goodwill impairment, determination of useful lives of the Company's satellite network and other equipment and intangible assets, the assessment of expected cash flows used in evaluating long-lived assets, including intangible assets, for impairment, the calculation of capitalized development costs, the assessment of the Company's incremental borrowing rate used to determine its right-of-use asset and lease liability, accounting for uncertainties in income tax positions, estimates associated with warranty costs and loss contingencies, estimates related to the recognition and subsequent valuation of contingent considerations and the value of securities underlying stock-based compensation.

Business combinations

The Company accounts for business combinations pursuant to Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") Topic 805 "Business Combinations," which requires that assets acquired and liabilities assumed be recorded at their respective fair values on the date of acquisition. The fair value of the consideration paid is assigned to the underlying net assets of the acquired business based on their respective fair values. Any excess of the purchase price over the estimated fair values of the net assets acquired is allocated to goodwill. The purchase price allocation process requires the Company to make significant assumptions and estimates in determining the purchase price and the fair value of assets acquired and liabilities assumed at the acquisition date. The Company's assumptions and estimates are subject to refinement and, as a result, during the measurement period, which may be up to one year from the acquisition date, the Company records adjustments to the assets acquired and liabilities assumed with the corresponding offset to goodwill. Upon conclusion of the measurement period, any subsequent adjustments are recorded to the Company's consolidated statements of operations. The Company's consolidated financial statements and results of operations reflect an acquired business after the completion of the acquisition.

Contingent consideration

The Company determines the acquisition date fair value of contingent consideration obligations based on a probability-weighted income approach derived from milestone estimates and a probability assessment with respect to the likelihood of achieving performance metrics. The fair value measurement is based on significant inputs not observable in the market and thus represents a Level 3 measurement as defined in FASB ASC Topic 820 "Fair Value Measurement." At each reporting date, the contingent consideration obligation is revalued to estimated fair value and any changes in fair value are reflected as income or expense in the Company's consolidated statement of operations. Changes in the fair value of the contingent consideration obligations may result from changes in probability assumptions with respect to the likelihood of achieving the various contingent payment obligations. Adverse changes in assumptions utilized in the Company's contingent consideration fair value estimates could result in an increase in the Company's contingent consideration obligation and a corresponding charge to operating income.

Acquisition-related and integration costs

Acquisition-related and integration costs include professional services expenses and identifiable integration costs directly attributable to acquisitions. For the years ended December 31, 2019, 2018 and 2017, the Company incurred acquisition-related and integration costs of \$788, \$1,624 and \$3,315, respectively. These costs were expensed as incurred and are reflected in acquisition-related and integration costs on the Company's consolidated statements of operations.

Revenue recognition

On January 1, 2018, the Company adopted FASB Accounting Standards Update ("ASU") No. 2014-09 "Revenue from Contracts with Customers" ("ASU 2014-09"). The Company reviewed its contract portfolio and determined its application of ASU 2014-09 did not have a material impact on the comparability of revenue recognized prior to the adoption of ASU 2014-09.

The Company derives recurring service revenues primarily from monthly fees for industrial IoT connectivity services that consist of subscriber-based and recurring monthly usage fees for each subscriber communicator or SIM activated for use on its satellite network, other satellite networks and cellular wireless networks that the Company resells to its resellers, Market Channel Partners (“MCPs”) and Market Channel Affiliates (“MCAs”), and direct customers. In addition, the Company earns recurring service revenues from subscription-based services providing recurring AIS data services to government and commercial customers worldwide. The Company also earns recurring service revenues from activations of subscriber communicators and SIMs, optional separately-priced extended warranty service agreements extending beyond the initial warranty period, typically one year, which are billed to the customer upon shipment of a subscriber communicator, and royalty fees relating to the manufacture of subscriber communicators under a manufacturing agreement.

Service revenues derived from usage fees are generally based upon the data transmitted by a customer, the overall number of subscriber communicators and/or SIMs activated by each customer, and whether the Company provides services through its value-added portal. Using the output method, these service revenues are recognized over time, as services are rendered, or at a point in time, based on the contract terms. AIS service revenues are generated over time from monthly subscription-based services supplying AIS data services to government and commercial customers worldwide, using the output method. Revenues from the activation of both subscriber communicators and SIMs are initially recorded as deferred revenues and are, thereafter, recognized on a ratable basis using a time-based output method, generally over three years, the estimated life of the subscriber communicator. Revenues from separately-priced extended warranty service agreements extending beyond the initial warranty period, typically one year, are initially recorded as deferred revenues and are, thereafter, recognized on a ratable basis using a time-based output method, generally over two to five years. The Company earns other service revenues from installation services and engineering, technical and management support services. Revenues generated from installation services are recognized at a point in time when the services are completed. Revenues generated from engineering, technical and management support services to customers are recognized over time as the service is provided. The Company also generates other service revenues through the sale of software licenses to its customers, which are recognized at a point in time when the license is provided to the customer.

Product sales are derived from sales of complete industrial IoT subscriber communicators, including telematics devices, modems, or cellular wireless SIMs (for the Company’s terrestrial-communication services) to the Company’s resellers (i.e., MCPs and MCAs) and direct customers. Product sales are recognized at a point in time when title transfers, when the products are shipped, or when customers accept the products, depending on the specific contractual terms. Sales of subscriber communicators and SIMs are not subject to return and title and risk of loss pass to the customer generally at the time of shipment.

Amounts received prior to the performance of services under customer contracts are recognized as deferred revenues and revenue recognition is deferred until such time that all revenue recognition criteria have been met. Deferred revenue as of December 31, 2019 and 2018 consisted of the following:

	December 31,	
	2019	2018
Service activation fees	\$ 3,007	\$ 2,813
Prepaid services	6,423	7,816
Extended warranty revenues	1,206	796
	10,636	11,425
Less current portion	(3,865)	(5,954)
Long-term portion	<u>\$ 6,771</u>	<u>\$ 5,471</u>

During the years ended December 31, 2019 and 2018, the Company recognized revenue of \$5,896 and \$5,236, respectively, which was included as deferred revenue as of December 31, 2018 and 2017.

Shipping costs billed to customers are included in product sales and the related costs are included as cost of product sales on the Company’s consolidated statements of operations.

The Company generates revenue from leasing arrangements of subscriber communicators, under FASB ASC Topic 842 “Leases” (“ASC 842”), using the estimated selling prices for each of the deliverables recognized. Product and installation revenues associated with these arrangements are recognized upon shipment or installation of the subscriber communicator, depending on the specific contractual terms. Service and warranty revenues are recognized on an accrual basis, as services are rendered, or on a cash basis, if collection from the customer is not reasonably assured at the time the service is provided.

The following table summarizes the components of revenue from contracts with customers, as well as revenue recognized under ASC 842:

	Year Ended December 31,		
	2019	2018	2017
Revenue from contracts with customers:			
Recurring service revenues.....	\$ 155,284	\$ 148,367	\$ 126,540
Other service revenues.....	5,310	5,222	8,398
Total service revenues	160,594	153,589	134,938
Product sales	105,660	117,018	112,942
Total revenue from contracts with customers	266,254	270,607	247,880
Product sales recognized under ASC 842	5,759	5,533	6,340
Total revenues	<u>\$ 272,013</u>	<u>\$ 276,140</u>	<u>\$ 254,220</u>

Revenue recognition for arrangements with multiple performance obligations

The Company enters into contracts with its customers that include multiple performance obligations, which typically include subscriber communicators, monthly usage fees and optional extended warranty service agreements. The Company evaluates each item to determine whether it represents a promise to transfer a distinct good or service to the customer and therefore is a separate performance obligation under ASU 2014-09. If a contract is separated into more than one performance obligation, the Company allocates the total transaction price to each performance obligation in an amount based on the estimated relative stand-alone selling price of each performance obligation. The Company uses an observable price to determine the stand-alone selling price for each separate performance obligation when sold on its own or a cost-plus margin approach when an observable price is not available.

If an arrangement provided to a customer has a significant and incremental discount on future revenue, such discount is considered a performance obligation and a proportionate amount of the discount would be allocated to each element based on the relative stand-alone selling price of each element, regardless of the discount. The Company has determined that arrangements provided to its customers do not include significant and incremental discounts.

Cost of revenues

The Company operates its own LEO satellite network and accompanying ground equipment, including fifteen gateway earth stations (“GESs”), three AIS data reception earth stations, and three regional gateway control centers. The Company’s proprietary satellite-based communications system is typically characterized by high initial capital expenditures and relatively low marginal costs for providing service. The Company resells network connectivity for two other satellite networks and seven terrestrial network partners. Reselling network connectivity typically involves a cost for each device connected to the network system and the amount paid to each provider will vary. Cost of services is comprised of expenses to operate the Company’s network, such as payroll and related costs, including stock-based compensation, installation costs, and usage fees to third-party networks.

The Company primarily sells industrial IoT telematics devices and modems that the Company designs and builds with contract manufacturers. Cost of product sales includes the purchase price of subscriber communicators and SIMs sold, costs of warranty obligations, shipping charges, as well as operational costs of the Company’s employees and inventory management to fulfill customer orders.

Foreign currency translation

The Company has foreign operations where the functional currency is the local currency. For these operations, assets and liabilities are translated using the end-of-period exchange rates and revenues, expenses and cash flows are translated using average rates of exchange for the period. Equity is translated at the rate of exchange at the date of the equity transaction. Translation adjustments are recognized in stockholders’ equity as a component of accumulated other comprehensive income (loss). Foreign currency transaction gains and losses related to assets and liabilities that are denominated in a currency other than the functional currency are included in other income (expense) on the consolidated statements of operations. Foreign currency translation gains and losses related to operational expenses denominated in a currency other than the functional currency are included in selling, general and administrative (“SG&A”) expenses on the consolidated statements of operations. For the years ended December 31, 2019, 2018 and 2017, the Company recorded a foreign currency translation loss of \$84, \$76, and \$374, respectively.

Fair value of financial instruments

The Company has no financial assets or liabilities that are measured at fair value on a recurring basis. However, if certain triggering events occur, the Company is required to evaluate the non-financial assets for impairment and any resulting asset impairment would require that a non-financial asset be recorded at fair value. FASB ASC Topic 820 “Fair Value Measurement Disclosure” prioritizes inputs used in measuring fair value into a hierarchy of three levels: Level 1- unadjusted quoted prices for identical assets or liabilities traded in active markets; Level 2- inputs other than quoted prices included within Level 1 that are either directly or indirectly observable; and Level 3- unobservable inputs in which little or no market activity exists, therefore requiring an entity to develop its own assumptions that market participants would use in pricing.

The carrying amounts of the Company’s financial instruments, including cash, accounts receivable and accounts payable approximated their fair values due to the short-term nature of these items. The fair value of the Senior Secured Notes, as defined below, is based on observable relevant market information. Fluctuation between the carrying amount and the fair value of the Senior Secured Notes for the period presented is associated with changes in market interest rates. The Company may redeem all or part of the Senior Secured Notes at any time or from time to time at its option at specified redemption prices that would include “make-whole” premiums. Refer to “Note 10 – Notes Payable” for more information.

The carrying amounts and fair values of the Company’s Senior Secured Notes are shown in the following table:

	<u>December 31, 2019</u>		<u>December 31, 2018</u>	
	<u>Carrying Amount</u>	<u>Fair Value</u>	<u>Carrying Amount</u>	<u>Fair Value</u>
Senior Secured Notes	\$ 250,000	\$ 241,875	\$ 250,000	\$ 255,000

The fair value of the note payable-related party, \$1,275 book value at December 31, 2019, has a de minimis value.

Cash and cash equivalents

The Company considers all liquid investments with original maturities of three months or less, at the time of purchase, to be cash equivalents. At December 31, 2019 and 2018, the Company had a cash and cash equivalents balance of \$54,258 and \$53,766, respectively.

Concentration of risk

The Company’s customers are primarily commercial organizations. Accounts receivable are generally unsecured.

Accounts receivable are due in accordance with payment terms set forth in contracts negotiated with customers. Amounts due from customers are stated net of an allowance for doubtful accounts. The Company determines its allowance for doubtful accounts by considering a number of factors, including the length of time accounts are past due, the customer’s current ability to pay its obligations to the Company and the condition of the general economy and the industry as a whole. The Company writes off accounts receivable when they are deemed uncollectible.

There were no customers who generated revenues greater than 10% of the Company’s consolidated total revenues for the years ended December 31, 2019 and 2018. For the year ended December 31, 2017, JB Hunt Transport Services, Inc. comprised 10.8% of the Company’s consolidated total revenues.

There were no customers who generated accounts receivable greater than 10% of the Company’s consolidated accounts receivable as of December 31, 2019 and 2018.

The Company is dependent on one vendor, Sanmina Corporation (“Sanmina”), a contract manufacturer with significant operations in Mexico, for the manufacture of subscriber communicators that the Company designs and sells. For the years ended December 31, 2019 and 2018, approximately \$75,068, or 67.4%, and \$73,476, or 60.0%, respectively, of the Company’s product sales was generated from the sale of the Company’s core products produced by Sanmina.

As of December 31, 2019, the Company did not maintain in-orbit insurance coverage for its ORBCOMM Generation 1 or ORBCOMM Generation 2 satellites to address the risk of potential systemic anomalies, failures or catastrophic events affecting its satellite constellation.

Inventories

Inventories are stated at the lower of cost or net realizable value, determined on a weighted average cost basis. At December 31, 2019 and 2018, inventory, net of inventory obsolescence, consisted primarily of finished goods and purchased parts to be utilized by its contract manufacturer totaling \$33,379 and \$27,701, respectively, and raw materials totaling \$6,502 and \$6,599, respectively. The Company reviews inventory quantities on hand, evaluates the realizability of inventories and adjusts the carrying value, as necessary, based on forecasted product demand. A provision, recorded in cost of product sales on the Company's consolidated statements of operations, is made for potential losses on slow-moving and obsolete inventories when identified.

Satellite network and other equipment, net

Satellite network and other equipment, net are stated at cost less accumulated depreciation and amortization. Major renewals and improvements are capitalized, while maintenance and repairs are charged to operations as incurred.

Depreciation and amortization are recognized using the straight-line method over the estimated useful lives of the assets. Leasehold improvements are amortized over the shorter of their useful life or their respective lease term. The following table provides the range of estimated useful lives used for each asset type:

	Useful Life (years)
Satellite network	10
Capitalized software.....	3-7
Computer hardware.....	3
Other	2-7

Satellite network includes costs of the constellation of satellites, and the ground and control facilities, consisting of GESs, gateway control centers and the network control center.

As of December 31, 2019 and 2018, assets under construction primarily consist of costs associated with acquiring, developing, enhancing and testing software and hardware for internal and external use that have not yet been placed into service.

Valuation of long-lived assets

Property and equipment and other long-lived assets are tested for impairment whenever events or changes in circumstances indicate that their carrying amounts may not be recoverable. The Company measures recoverability by comparing the carrying amounts of the assets to the projected undiscounted cash flows the assets are expected to generate. An impairment loss is recognized to the extent the carrying values exceed the fair values.

The Company's satellite constellation and related assets are evaluated as a single asset group whenever facts or circumstances indicate that the carrying values may not be recoverable. If indicators of impairment are identified, recoverability of long-lived assets is measured by comparing their carrying amounts to the projected cash flows the assets are expected to generate.

Determining whether an impairment has occurred typically requires the use of significant estimates and assumptions, including the allocation of cash flows to assets or asset groups and, if required, estimates of fair values for those assets or asset groups.

If a satellite were to fail while in orbit, the resulting loss would be charged to expense in the period it is determined that the satellite is not recoverable. The amount of any such loss would be reduced to the extent of insurance proceeds, if any, estimated to be received. During the year ended December 31, 2017, an impairment loss of \$31,224 was recorded to write off the net book value relating to the Company's in-orbit OG2 satellites. There was no impairment loss recorded for the years ended December 31, 2019 and 2018. See "Note 6 – Satellite Network and Other Equipment, Net" for additional details relating to the impairment of these satellites.

Capitalized development costs for internal and external use

The Company capitalizes the costs of acquiring, developing and testing software and hardware to meet the Company's internal needs and for products and services that have not yet been placed into service. Capitalization of costs associated with software obtained or developed for internal use commences when both the preliminary project stage is completed and management has authorized further funding for the project, based on a determination that it is probable that the project will be completed and used to perform the function intended. Capitalized costs include only (1) the external direct cost of materials and services consumed in developing or obtaining internal-use software, (2) payroll and payroll-related costs for employees who are directly associated with, and devote time to, a qualifying project, and (3) certain external software development costs upon the establishment of technological feasibility. Technological feasibility is considered to have occurred upon completion of either a detailed program design or a working model. Capitalization of such costs ceases no later than the point at which the project is substantially complete and ready for its intended use. Internal-use software costs are amortized once the software is placed in service using the straight-line method over periods ranging from three to seven years. Product and service development costs are amortized over the estimated life of the product once it has been released for commercial sale.

Capitalized patent defense costs

The Company capitalizes costs incurred in connection with the defense of a patent the Company owns when the defense against the alleged infringer is deemed probable of success, and the costs will increase the value of the patent.

Goodwill

Goodwill represents the excess of the purchase price over the underlying net tangible and intangible assets of the Company's acquisitions. Goodwill is not amortized, but is tested for impairment on an annual basis and between annual tests whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. Goodwill is tested at the reporting unit level, which is defined as an operating segment or one level below the operating segment. The Company operates in one reportable segment which is its only reporting unit.

The Company tests for an indication of goodwill impairment annually on November 30 or when an indicator of impairment exists, by comparing the fair value of the reporting unit to its carrying value. If there is an indication of impairment, the Company performs a "step two" test to measure the impairment. There was no impairment of goodwill for the years ended December 31, 2019, 2018 and 2017.

Intangible assets

Intangible assets that are not considered to have an indefinite life are amortized over their useful lives. Intangible assets include patents and technology, customer lists and trademarks. Intangible assets are amortized using the straight-line method over the estimated useful lives of the assets.

Impairment of long-lived assets

The Company reviews its long-lived assets and amortizable intangible assets whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. In connection with this review, the Company also re-evaluates the periods of depreciation and amortization for these assets. The Company recognizes an impairment loss when the sum of the future undiscounted net cash flows expected to be realized from the asset is less than its carrying amount. If an asset is considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the asset exceeds its fair value, which is determined using the projected discounted future net cash flows, using the appropriate discount rate.

Warranty costs

The Company accrues for warranty coverage on product sales estimated at the time of sale based on historical costs to repair or replace products for customers compared to historical product sales. The warranty accrual is included in accrued liabilities on the Company's consolidated balance sheets.

Separately-priced extended warranty coverage is recorded as warranty revenue over the term of the extended warranty coverage and the related warranty costs are recorded as incurred during the coverage period.

Warranty coverage that includes additional services, such as repairs and maintenance of the product, is treated as a separate performance obligation and the related warranty and repairs/maintenance costs are recorded as incurred.

Income taxes

The Company estimates its income taxes separately for each tax jurisdiction in which it conducts operations. This process involves estimating actual current tax expense and assessing temporary differences resulting from the different treatment of items between book and tax which results in deferred tax assets and liabilities. The Company recognizes in income a change in tax rates on deferred tax assets and liabilities in the period that includes the enactment date. Valuation allowances are established when realization of deferred tax assets is not considered more likely than not.

The Company recognizes the effect of tax law changes in the period of enactment. Changes in existing tax laws and rates, their related interpretations, and the uncertainty generated by the current economic environment may affect the amounts of the Company's deferred tax liabilities or the valuations of the Company's deferred tax assets over time. The Company's accounting for deferred tax consequences represents management's best estimate of future events that can be appropriately reflected in the accounting estimates.

In determining whether the realization of deferred tax assets is considered to be more likely than not, the Company assesses the realizability of the deferred tax assets on a jurisdiction-by-jurisdiction basis. This assessment is dependent upon past operating results and projected profitability. The weight given to the positive and negative evidence is commensurate with the extent to which the evidence is objectively verified.

The Company accounts for uncertainty in income tax positions using a two-step approach. The first step is to determine whether it is more likely than not that a tax position will be sustained upon examination, including resolution of any related appeals or litigation processes, based on the technical merits of the position. The second step is to measure the tax position at the largest amount of benefit that is greater than 50% likely of being realized upon ultimate settlement.

The Company recognizes interest and penalties related to uncertain tax positions in income tax expense.

Loss contingencies

The Company accrues for costs relating to litigation, claims and other contingent matters when such liabilities become probable and reasonably estimable. Such estimates may be based on advice from third parties or on management's judgment, as appropriate. Actual amounts paid may differ from amounts estimated, and such differences will be charged to operations in the period in which the final determination of the liability is made.

Pre-acquisition contingencies

The Company has evaluated pre-acquisition contingencies that existed as of the acquisition dates of the businesses acquired. If any pre-acquisition contingencies acquired as part of an acquisition become probable and estimable, the Company will record such amounts at fair market value in the measurement period, or the Company's results of operations after the measurement period, as applicable.

Stock-based compensation

The Company measures and recognizes stock-based compensation expense for equity-based payment awards made to employees and directors based on estimated fair values on the date of grant. For equity-based payment awards, the Company recognizes compensation expense over the service period, net of estimated forfeitures using the straight-line method. For awards with non-market performance conditions, an evaluation is made at the grant date and future periods as to the likelihood of the performance criteria being met. Compensation expense is adjusted for changes in the likelihood of achieving the performance condition until the vesting date. For liability-based awards with market performance conditions, compensation expense is revalued at the end of each quarter based on the awards' fair value using the graded vesting attribution method over the vesting period.

Recent accounting pronouncements

In February 2016, the FASB issued ASU No. 2016-02 "Leases (Topic 842)" ("ASU 2016-02"), which is effective for fiscal years beginning after December 15, 2018. ASU 2016-02 requires an entity to recognize assets and liabilities arising from a lease for both finance and operating leases, along with additional qualitative and quantitative disclosures. The Company adopted ASU 2016-02 prospectively as of January 1, 2019, the date of initial application. As part of the adoption, the Company elected the package of practical expedients, the short-term lease exemption and the practical expedient to not separate lease and non-lease components. The Company completed its comprehensive review of its lease portfolio for all lease types and embedded leases throughout each region. Adoption of the new standard resulted in the recording of operating right-of-use assets and lease liabilities of \$10,892 and \$13,825, respectively, as of January 1, 2019. Refer to "Note 15 – Leases" for more information.

In January 2017, the FASB issued ASU No. 2017-04 “Intangibles – Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment” (“ASU 2017-04”), which will be effective for fiscal years beginning after December 15, 2019. ASU 2017-04 removes Step 2 of the goodwill impairment test, which requires a hypothetical purchase price allocation. Under ASU 2017-04, goodwill impairment will be the amount by which a reporting unit’s carrying value exceeds its fair value, not to exceed the carrying amount of goodwill. The adoption of this standard, which will be applied prospectively, is not expected to have a material impact on the Company’s consolidated financial statements.

In June 2016, the FASB issued ASU No. 2016-13 “Financial Instruments – Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments” (“ASU 2016-13”), which will be effective for fiscal years beginning after December 15, 2019. ASU 2016-13 introduces the current expected credit loss (CECL) model, which will require an entity to measure credit losses for certain financial instruments and financial assets. Upon initial recognition, an entity will be required to estimate a credit loss expected over the life of an exposure. The adoption of this standard is not expected to have a material impact on the Company’s consolidated financial statements.

Note 3. Acquisitions

2017 Business Development

Blue Tree Systems Limited

On October 2, 2017, pursuant to a Share Purchase Agreement entered into by ORBCOMM Technology Ireland Limited, a wholly-owned subsidiary of the Company, and Blue Tree Systems Investment Limited, Investec Ventures Ireland Limited and certain individual sellers (collectively, the “Sellers”), the Company completed the acquisition of 100% of the outstanding shares of Blue Tree Systems Limited, for an aggregate consideration of (i) \$34,331 in cash; (ii) issuance of 191,022 shares of the Company’s common stock, valued at \$10.47 per share, which reflected the Company’s common stock closing price one business day prior to the closing date; and (iii) additional consideration up to \$5,750 based on Blue Tree Systems Limited achieving certain operational objections (the “Blue Tree Acquisition”).

Purchase Price Allocation

The Blue Tree Acquisition has been accounted for using the acquisition method of accounting. This method requires that assets acquired and liabilities assumed in a business combination be recognized at their fair values as of the acquisition date (the “Acquisition Method”). The excess of the preliminary purchase price over the preliminary net assets was recorded as goodwill. The preliminary allocation of the purchase price was based upon a preliminary valuation and the estimates and assumptions are subject to change during the one-year measurement period. The total consideration for the Blue Tree Acquisition was \$37,107, of which \$776 represents acquisition date contingent consideration at fair value, in a debt-free, cash-free transaction. During the year ended December 31, 2018, the Company recorded a measurement period adjustment related to certain working capital accounts, resulting in a decrease in goodwill of \$393. The purchase price allocation for the acquisition is as follows:

	Amount
Cash	\$ 656
Accounts receivable.....	2,335
Inventories	1,395
Prepaid expenses and other current assets.....	992
Property, plant and equipment.....	72
Intangible assets.....	12,020
Total identifiable assets acquired	17,470
Accounts payable.....	4,124
Accrued expenses	778
Deferred tax liability.....	1,503
Total liabilities assumed	6,405
Net identifiable assets acquired	11,065
Goodwill	26,042
Total purchase price	<u>\$ 37,107</u>

Intangible Assets

The estimated fair value of the technology and trademark intangible assets was determined using the “relief from royalty method” under the income approach, which is a valuation technique that provides an estimate of the fair value of an asset based on the costs savings that are available through ownership of the asset by the avoidance of paying royalties to license the use of the assets from another owner (the “Technology and Trademark Valuation Technique”). The estimated fair value of the customer lists was determined using the “excess earnings method” under the income approach, which represents the total income to be generated by the asset (the “Customer List Valuation Technique”). Some of the more significant assumptions inherent in the development of those asset valuations include the projected revenue associated with the asset, the appropriate discount rate to select in order to measure the risk inherent in each future cash flow stream, the assessment of each asset’s life cycle, as well as other factors. The discount rate used to arrive at the present value of the customer lists and technology at the acquisition date was 26.5%. The remaining useful lives of the technology and trademarks were based on historical product development cycles, the projected rate of technology migration and a market participant’s use of these intangible assets and the pattern of projected economic benefit of these intangible assets. The remaining useful lives of customer lists were based on the customer attrition and the projected economic benefit of these customers.

	Estimated Useful Life (years)	Amount
Customer lists.....	10	\$ 9,200
Technology.....	10	2,700
Trade name.....	1	120
		<u>\$ 12,020</u>

Goodwill

The Blue Tree Acquisition solidified the Company’s transportation offering of fleet management and driver safety solutions to enterprises and industrial companies around the world that operate large commercial vehicle fleets. These factors contributed to a preliminary estimated purchase price resulting in the recognition of goodwill. The goodwill attributable to the Blue Tree Acquisition is not deductible for tax purposes.

Indemnification Asset

In connection with the Share Purchase Agreement, the Company entered into an escrow agreement with the Sellers and an escrow agent. Under the terms of this escrow agreement, \$3,675 was placed in an escrow account through April 2019 to fund any indemnification obligations to the Company under the Share Purchase Agreement. Under the terms of the escrow agreement, as of any release date for any portion of the escrow account amount, the value of any then submitted and unresolved indemnification claims will be retained in the escrow account until such time as the applicable claims are resolved.

Contingent Consideration

Additional consideration was conditionally due to the Sellers upon achievement of certain financial milestones through December 2018. The fair value measurement of the contingent consideration obligation is determined using Level 3 unobservable inputs supported by little or no market activity based on the Company’s own assumptions. The estimated fair value of the contingent consideration was determined based on the Company’s preliminary estimates using the probability-weighted discounted cash flow approach. The financial milestone for this contingent consideration has not been met, and therefore, the Company recorded a reduction of the contingent liability of \$776 in SG&A expenses on the consolidated statement of operations for the year ended December 31, 2018.

inthinc Technology Solutions, Inc.

On June 9, 2017, pursuant to the asset purchase agreement (the “Asset Purchase Agreement”) entered into by the Company and inthinc, Inc., inthinc Technology Solutions, Inc., tiwi, Inc., inthinc Telematics, Inc., DriveAware, Inc., inthinc Chile, SP and inthinc Investors, L.P. (collectively, “Inthinc”), the Company completed the acquisition of Inthinc for an aggregate consideration of (i) \$34,236 in cash on a debt-free, cash-free basis; (ii) issuance of 76,796 shares of the Company’s common stock, valued at \$9.95 per share, which reflected a 20-trading day average price of the Company’s stock ending June 8, 2017; and (iii) additional contingent consideration of up to \$25,000, subject to certain operational milestones, payable in stock or a combination of cash and stock at the Company’s election (the “Inthinc Acquisition”).

Purchase Price Allocation

The Inthinc Acquisition has been accounted for using the Acquisition Method. The excess of the purchase price over the preliminary net assets was recorded as goodwill. The preliminary allocation of the purchase price was based upon a preliminary valuation and the estimates and assumptions are subject to change during the one-year measurement period. During the year ended December 31, 2018, the Company recorded a measurement period adjustment related to certain working capital accounts, resulting in a decrease in goodwill of \$156. The total consideration for the Inthinc Acquisition was \$44,835, of which \$9,835 represents acquisition date contingent consideration at fair value, in a debt-free, cash-free transaction. The purchase price allocation for the acquisition is as follows:

	<u>Amount</u>
Accounts receivable.....	\$ 2,652
Inventories	906
Prepaid expenses and other current assets.....	112
Property, plant and equipment.....	258
Lease receivable	5,067
Intangible assets.....	16,000
Total identifiable assets acquired	<u>24,995</u>
Accounts payable.....	4,613
Accrued expenses	275
Other current and non-current liabilities	1,326
Total liabilities assumed	<u>6,214</u>
Net identifiable assets acquired	18,781
Goodwill	26,054
Total purchase price	<u><u>\$ 44,835</u></u>

Intangible Assets

The estimated fair value of the technology intangible assets was determined using the “relief from royalty method” under the income approach, which is a valuation technique that provides an estimate of the fair value of an asset based on the costs savings that are available through ownership of the asset by the avoidance of paying royalties to license the use of the assets from another owner. The estimated fair value of the customer lists was determined using the Customer List Valuation Technique. Some of the more significant assumptions inherent in the development of those asset valuations include the projected revenue associated with the assets, the appropriate discount rate to select in order to measure the risk inherent in each future cash flow stream, the assessment of each asset’s life cycle, as well as other factors. The discount rate used to arrive at the acquisition date present value of the customer lists and technology was 12%. The remaining useful lives of the technology were based on historical product development cycles, the projected rate of technology migration and a market participant’s use of these intangible assets and the pattern of projected economic benefit of these intangible assets. The remaining useful lives of the customer lists were based on the customer attrition and projected economic benefit of these customers.

	<u>Estimated Useful Life (years)</u>	<u>Amount</u>
Customer lists.....	15	\$ 12,400
Technology.....	10	3,600
		<u><u>\$ 16,000</u></u>

Goodwill

The Inthinc Acquisition allows the Company to offer fleet management and driver safety solutions to enterprises and industrial companies around the world that operate large commercial vehicle fleets. These factors contributed to a preliminary estimated purchase price resulting in the recognition of goodwill. The goodwill attributable to the Inthinc Acquisition is deductible for tax purposes.

Indemnification Asset

In connection with the Asset Purchase Agreement, the Company entered into an escrow agreement with Inthinc and an escrow agent. Under the terms of this escrow agreement, \$1,000 was placed in an escrow account through September 9, 2019 to fund any working capital and indemnification obligations to the Company under the Asset Purchase Agreement. Under the terms of the escrow agreement, as of any release date for any portion of the escrow account amount, the value of any then submitted and unresolved indemnification claims would be retained in the escrow account until such time as the applicable claims are resolved. In the year ended December 31, 2018, the Company received \$1,000 from the escrow account to partially fund the working capital adjustment payment and indemnification obligations due to the Company and recorded a credit to SG&A expenses. In addition, the 76,796 shares of ORBCOMM common stock issued as part of the purchase price for Inthinc have been cancelled by the Company in partial payment of the working capital adjustment due to the Company, and the Company recorded a credit in the amount of \$526 to SG&A expenses in the quarter ended December 31, 2019 to reflect this cancellation.

Acquired Customer Product Obligation

As a result of the Inthinc Acquisition, the Company acquired customer product obligations on Inthinc's product sales. The Company's analysis of the customer product obligation is estimated based on Inthinc's historical costs to replace or fix products for customers, as well as installation costs associated with these obligations. On June 9, 2017, the Company had estimated additional product obligations of \$1,032 relating to customer product obligations it was investigating associated with the Inthinc Acquisition as a result of undisclosed commitments made by Inthinc prior to the Company's acquisition of Inthinc. As of December 31, 2019, the Company had no remaining liability on the consolidated balance sheet in connection with this acquired product liability obligation.

Contingent Consideration

Additional consideration was conditionally due to the Inthinc sellers upon achievement of certain financial milestones through June 2019. The fair value measurement of the contingent consideration obligation was determined using Level 3 unobservable inputs supported by little or no market activity and based on the Company's own assumptions. The estimated fair value of the contingent consideration was determined based on the Company's estimates using the probability-weighted discounted cash flow approach. As of December 31, 2019 and 2018, the Company recorded \$0 and \$2,063, respectively, in accrued liabilities on the consolidated balance sheets in connection with the contingent consideration. All four financial milestones for this additional consideration were not met. Therefore, the Company recorded a reduction of the contingent liability of \$2,063, \$7,250 and \$795 in SG&A expenses on the consolidated statements of operations for the years ended December 31, 2019, 2018 and 2017, respectively.

Note 4. Stock-Based Compensation

On April 20, 2016, the stockholders of the Company approved the ORBCOMM Inc. 2016 Long-Term Incentives Plan (the "2016 LTIP"). The 2016 LTIP replaces the Company's 2006 Long-Term Incentive Plan (the "2006 LTIP"). The number of shares authorized for delivery under the 2016 LTIP is 6,949,400 shares, including 1,949,400 shares that remained available under the 2006 LTIP as of February 17, 2016, plus any shares previously subject to awards under the 2006 LTIP that are cancelled, forfeited or lapse unexercised after that date. As of December 31, 2019, there were 1,433,931 shares available for grant under the 2016 LTIP.

For the years ended December 31, 2019, 2018 and 2017, the Company recognized stock-based compensation expense of \$6,180, \$7,910, and \$5,673, respectively. For the years ended December 31, 2019, 2018 and 2017, the Company capitalized stock-based compensation of \$650, \$503, and \$453, respectively. The Company has not recognized, and currently does not expect to recognize in the foreseeable future, any tax benefit related to stock-based compensation as a result of the full valuation allowance on its net deferred tax assets and its net operating loss carryforwards generated in the U.S.

The following table summarizes the components of stock-based compensation expense in the consolidated statements of operations for the years ended December 31, 2019, 2018 and 2017:

	Year Ended December 31,		
	2019	2018	2017
Cost of services	\$ 471	\$ 666	\$ 525
Cost of product sales	126	162	78
Selling, general and administrative	4,637	6,065	4,706
Product development	946	1,017	364
Total	<u>\$ 6,180</u>	<u>\$ 7,910</u>	<u>\$ 5,673</u>

As of December 31, 2019, the Company had unrecognized compensation costs for all share-based payment arrangements totaling \$6,847.

Time-Based Stock Appreciation Rights

A summary of the Company's time-based stock appreciation rights ("SARs") for the year ended December 31, 2019 is as follows:

	<u>Number of Shares</u>	<u>Weighted- Average Exercise Price</u>	<u>Weighted- Average Remaining Contractual Term (years)</u>	<u>Aggregate Intrinsic Value</u>
Outstanding at January 1, 2019	2,199,094	\$ 5.36		
Granted	—	—		
Exercised	(73,800)	2.76		
Forfeited or expired	—	—		
Outstanding at December 31, 2019	<u>2,125,294</u>	<u>\$ 5.35</u>	<u>2.76</u>	<u>\$ 1,432</u>
Exercisable at December 31, 2019	<u>2,095,294</u>	<u>\$ 5.43</u>	<u>2.70</u>	<u>\$ 1,477</u>
Vested and expected to vest at December 31, 2019	<u>2,125,294</u>	<u>\$ 5.35</u>	<u>2.76</u>	<u>\$ 1,432</u>

For the years ended December 31, 2019, 2018 and 2017, the Company recorded stock-based compensation expense of \$146, \$187 and \$589 related to these time-based SARs, respectively. As of December 31, 2019, there was no unrecognized compensation cost related to the SARs expected to be recognized.

The weighted-average grant date fair value of the time-based SARs granted in 2017 was \$4.85 per share. There were no time-based SARs granted during the years ended December 31, 2019 and 2018.

The intrinsic value of the time-based SARs exercised during the year ended December 31, 2019 was \$129.

Performance-Based Stock Appreciation Rights

A summary of the Company's performance-based SARs for the year ended December 31, 2019 is as follows:

	<u>Number of Shares</u>	<u>Weighted- Average Exercise Price</u>	<u>Weighted- Average Remaining Contractual Term (years)</u>	<u>Aggregate Intrinsic Value</u>
Outstanding at January 1, 2019	233,496	\$ 6.02		
Granted	—	—		
Exercised	—	—		
Forfeited or expired	—	—		
Outstanding at December 31, 2019	<u>233,496</u>	<u>\$ 6.01</u>	<u>3.62</u>	<u>\$ 202</u>
Exercisable at December 31, 2019	<u>233,496</u>	<u>\$ 6.01</u>	<u>3.62</u>	<u>\$ 202</u>
Vested and expected to vest at December 31, 2019	<u>233,496</u>	<u>\$ 6.01</u>	<u>3.62</u>	<u>\$ 202</u>

For the years ended December 31, 2019, 2018 and 2017, the Company did not record stock-based compensation expense related to performance-based SARs. As of December 31, 2019, there was no unrecognized compensation cost related to these SARs expected to be recognized.

There were no performance-based SARs granted during the years ended December 31, 2019, 2018 and 2017.

The intrinsic value of the performance-based SARs exercised during the year ended December 31, 2019 was \$0.

The fair value of each time-based and performance-based SAR award is estimated on the date of grant using the Black-Scholes option pricing model with the assumptions described below. For the period indicated, the expected volatility was based on the Company's historical volatility over the expected terms of the SAR awards. Estimated forfeitures were based on voluntary and involuntary termination behavior, as well as an analysis of actual forfeitures. The risk-free interest rate was based on the U.S. Treasury yield curve at the time of the grant over the expected term of the SAR grants. The Company did not grant time-based or performance-based SARs during the years ended December 31, 2019 and 2018.

	Year Ended December 31,		
	2019	2018	2017
Risk-free interest rate	None	None	2.10%
Expected life (years).....	None	None	6.0
Estimated volatility factor	None	None	59.85%
Expected dividends.....	None	None	None

Time-Based Restricted Stock Units

A summary of the Company's time-based restricted stock units ("RSUs") for the year ended December 31, 2019 is as follows:

	Shares	Weighted-Average Grant Date Fair Value
Balance at January 1, 2019	920,024	\$ 9.60
Granted.....	867,195	4.51
Vested.....	(475,384)	9.87
Forfeited or expired.....	(46,401)	8.85
Balance at December 31, 2019	<u>1,265,434</u>	<u>\$ 6.16</u>

For the years ended December 31, 2019, 2018 and 2017, the Company recorded stock-based compensation expense related to the time-based RSUs of \$3,972, \$4,627 and \$3,084, respectively. As of December 31, 2019, \$3,849 of total unrecognized compensation cost related to these RSUs is expected to be recognized through September 2022.

Performance-Based Restricted Stock Units

A summary of the Company's performance-based RSUs for the year ended December 31, 2019 is as follows:

	Shares	Weighted-Average Grant Date Fair Value
Balance at January 1, 2019	613,605	\$ 9.44
Granted.....	748,792	3.99
Vested.....	(262,685)	9.90
Forfeited or expired.....	(31,903)	9.44
Balance at December 31, 2019	<u>1,067,809</u>	<u>\$ 6.28</u>

For the years ended December 31, 2019, 2018 and 2017, the Company recorded stock-based compensation expense of \$1,769, \$2,478 and \$955 related to the performance-based RSUs, respectively. As of December 31, 2019, \$2,998 of total unrecognized compensation cost related to these RSUs is expected to be recognized through March 2021.

The fair values of the time-based and performance-based RSU awards are based upon the closing stock price of the Company's common stock on the date of grant.

Market Performance Units

The Company grants Market Performance Units (“MPUs”) to its senior executives based on stock price performance over a three-year period measured on December 31 of each year in the performance period. The MPUs will vest in equal installments at the end of each year in the performance period only if the Company satisfies the stock price performance targets and the senior executives continue their employment through the dates the Compensation Committee has determined that the targets have been achieved. The value of the MPUs that will be earned each year ranges up to 15% of each of the senior executive’s base salaries in the year of the grant depending on the Company’s stock price performance target for that year. The value of the MPUs can be paid in either cash, common stock or a combination of cash and common stock, at the Company’s discretion. The MPUs are classified as a liability on the consolidated balance sheets and are revalued at the end of each reporting period based on the awards’ fair value over a three-year period.

As of December 31, 2019, the Compensation Committee determined that the fiscal year 2019 stock price performance targets were not achieved for the 2019, 2018 and 2017 MPUs with respect to the 2019 performance year.

As the MPUs contain both performance and service conditions, they have been treated as a series of three separate awards, or tranches, for purposes of recognizing stock-based compensation expense. The Company recognizes stock-based compensation expense on a tranche-by-tranche basis over the requisite service period for that specific tranche. The Company estimated the fair values of the MPUs using a Monte Carlo simulation model that used the following assumptions:

	Year Ended December 31,		
	2019	2018	2017
Risk-free interest rate	1.59% to 1.62%	2.46% to 2.63%	1.76% to 1.98%
Estimated volatility factor	40.0% to 55.0%	29.0% to 32.0%	27.0% to 31.0%
Expected dividends	None	None	None

For the years ended December 31, 2019, 2018 and 2017, the Company recorded stock-based compensation expense related to these MPUs of \$9, \$346 and \$862, respectively.

As of December 31, 2019, the Company recorded \$0 and \$28 in accrued liabilities and other non-current liabilities related to the MPUs, respectively, on the consolidated balance sheet. As of December 31, 2018, the Company recorded \$527 and \$131 in accrued liabilities and other non-current liabilities related to the MPUs, respectively, on the consolidated balance sheet.

In January 2019, the Company issued 60,885 shares of common stock as payment in connection with MPUs for achieving the fiscal year 2018, 2017 and 2016 MPU awards’ stock performance targets with respect to the 2018 performance year.

In January 2018, the Company issued 81,277 shares of common stock as payment in connection with MPUs for achieving the fiscal year 2017, 2016 and 2015 MPU awards’ stock performance targets with respect to the 2017 performance year.

Employee Stock Purchase Plan

On February 16, 2016, the Company’s board of directors adopted the ORBCOMM Inc. Employee Stock Purchase Plan (“ESPP”), which was approved by the Company’s shareholders on April 20, 2016. Under the terms of the ESPP, 5,000,000 shares of the Company’s common stock are available for issuance and eligible employees may have up to 10% of their gross pay deducted from their payroll, up to a maximum of \$25 per year, to purchase shares of ORBCOMM common stock at a discount of up to 15% of its fair market value, subject to certain conditions and limitations. Purchases of shares of ORBCOMM common stock under the ESPP are made twice a year at six month intervals. For the years ended December 31, 2019, 2018 and 2017, the Company recorded stock-based compensation expense of \$284, \$272 and \$183, respectively, related to the ESPP. For the year ended December 31, 2019, 136,729 shares and 113,703 shares of the Company’s common stock were purchased under the ESPP at a price of \$3.45 and \$5.68 per share, respectively. For the year ended December 31, 2018, 71,440 shares and 81,525 shares of the Company’s common stock were purchased under the ESPP at a price of \$8.06 and \$8.21 per share, respectively.

Note 5. Net Income (Loss) Attributable to ORBCOMM Inc. Common Stockholders

The Company accounts for earnings per share (“EPS”) in accordance with ASC Topic 260 “Earnings Per Share” (“ASC 260”) and related guidance, which requires two calculations of EPS to be disclosed: basic and diluted. The numerator in calculating basic and diluted EPS is an amount equal to the net income (loss) attributable to ORBCOMM Inc. common stockholders for the periods presented. The denominator in calculating basic EPS is the weighted average shares outstanding for the respective periods. The denominator in calculating diluted EPS is the weighted average shares outstanding, plus the dilutive effect of stock option grants, unvested SAR and RSU grants and shares of Series A convertible preferred stock for the respective periods. The following table sets forth the basic and diluted EPS calculations for the years ended December 31, 2019, 2018 and 2017:

	Year Ended December 31,		
	2019	2018	2017
Net loss attributable to ORBCOMM Inc. common stockholders	\$ (18,435)	\$ (26,262)	\$ (61,296)
Weighted average number of common shares outstanding:			
Basic number of common shares outstanding	79,259	77,603	72,882
Dilutive effect of grants of stock options, unvested SARs and RSUs and shares of Series A convertible preferred stock	—	—	—
Diluted number of common shares outstanding	79,259	77,603	72,882
Earnings per share:			
Basic	\$ (0.23)	\$ (0.34)	\$ (0.84)
Diluted	\$ (0.23)	\$ (0.34)	\$ (0.84)

The computation of net loss attributable to ORBCOMM Inc. common stockholders for the years ended December 31, 2019, 2018 and 2017 is as follows:

	Years Ended December 31,		
	2019	2018	2017
Net loss attributable to ORBCOMM Inc.	\$ (18,423)	\$ (26,244)	\$ (61,284)
Preferred stock dividends on Series A convertible preferred stock	(12)	(18)	(12)
Net loss attributable to ORBCOMM Inc. common stockholders	\$ (18,435)	\$ (26,262)	\$ (61,296)

Note 6. Satellite Network and Other Equipment, Net

Satellite network and other equipment, net consisted of the following:

	December 31,	
	2019	2018
Land	\$ 381	\$ 381
Satellite network	198,746	195,886
Capitalized software	83,320	67,509
Computer hardware	6,528	5,850
Other	7,787	5,610
Assets under construction	13,832	12,489
	310,594	287,725
Less: accumulated depreciation and amortization	(165,041)	(127,655)
	<u>\$ 145,553</u>	<u>\$ 160,070</u>

During the years ended December 31, 2019, 2018 and 2017, the Company capitalized internal costs attributable to the design, development and enhancement of the Company’s products and services that have not yet been placed into service and internal-use software in the amounts of \$13,945, \$12,817 and \$12,776, respectively.

Depreciation and amortization expense for the years ended December 31, 2019, 2018 and 2017 was \$37,717, \$36,609 and \$33,889, respectively, including amortization of internal-use software of \$3,117, \$3,433 and \$6,186 for the years ended December 31, 2019, 2018 and 2017, respectively.

For the years ended December 31, 2019, 2018 and 2017, 45%, 47% and 61% of depreciation and amortization expense, respectively, relate to cost of services and 7%, 9% and 8%, respectively, relate to cost of product sales, as these assets support the Company's revenue generating activities.

As of December 31, 2019 and 2018, assets under construction primarily consisted of costs associated with acquiring, developing, enhancing and testing software and hardware for internal and external use that have not yet been placed into service.

One OG2 satellite that was launched in December 2015 experienced a solar array anomaly in July 2016 that resulted in the satellite entering a safe mode and being taken out of commercial service. This satellite had previously been intermittently providing AIS service and regularly communicating with the ground infrastructure. In April 2017, communication was lost with this OG2 satellite. The Company's satellite engineering team developed and uploaded new software designed to prevent a similar solar array anomaly from occurring on other OG2 satellites.

In June 2017, there was a loss of communication with the prototype OG2 satellite that was launched in December 2015, and in July 2017 there was a loss of communication with an OG2 satellite that was launched in July 2014. The Company recorded a non-cash impairment charge of \$31,224 in the quarter ended September 30, 2017 to write-off the net book value of the three OG2 satellites. In addition, the Company decreased satellite network and other equipment by \$39,576 and the associated accumulated depreciation by \$8,352 to remove the assets as of September 30, 2017.

In October 2018, the Company experienced a communication issue with an additional OG2 satellite. The Company remains in operational control of this satellite and is developing new software in an attempt to restore AIS and/or messaging services.

Note 7. Goodwill and Intangible Assets

Goodwill represents the excess of the purchase price of an acquired business over the estimated fair values of the underlying net tangible and intangible assets. Goodwill is allocated to the Company's one reportable segment which is its only reporting unit. Goodwill consisted of the following:

	2019	2018
Balance at January 1,.....	\$ 166,129	\$ 166,678
Measurement period adjustments.....	—	(549)
Balance at December 31,.....	<u>\$ 166,129</u>	<u>\$ 166,129</u>

During the year ended December 31, 2019, there were no changes to goodwill.

During the year ended December 31, 2018, the following key items impacted goodwill:

- The Company recorded measurement period adjustments to the preliminary purchase price allocation of the Blue Tree Acquisition of \$393.
- The Company recorded measurement period adjustments to the preliminary purchase price allocation of the Inthinc Acquisition of \$156.

Intangible assets, net consisted of the following:

	Useful life (years)	December 31, 2019			December 31, 2018		
		Cost	Accumulated amortization	Net	Cost	Accumulated amortization	Net
Customer lists	5 - 15	\$113,357	\$ (50,457)	\$ 62,900	\$113,357	\$ (39,966)	\$ 73,391
Patents and technology	3 - 10	23,424	(13,044)	10,380	23,424	(10,551)	12,873
Trade names and trademarks	1 - 2	3,003	(3,003)	—	3,003	(3,003)	—
		<u>\$139,784</u>	<u>\$ (66,504)</u>	<u>\$ 73,280</u>	<u>\$139,784</u>	<u>\$ (53,520)</u>	<u>\$ 86,264</u>

At December 31, 2019, the weighted-average amortization period for the intangible assets was 10.5 years. At December 31, 2019, the weighted-average amortization periods for customer lists, patents and technology and trade names and trademarks were 10.9, 9.3 and 1.2 years, respectively.

Amortization expense for the years ended December 31, 2019, 2018 and 2017 was \$12,985, \$13,075 and \$11,792, respectively.

Estimated future amortization expense for intangible assets is as follows:

	December 31, 2019
2020	12,721
2021	12,112
2022	11,686
2023	11,408
2024	11,122
Thereafter	14,231
	<u>\$ 73,280</u>

Note 8. Accrued Liabilities

Accrued liabilities consisted of the following:

	December 31, 2019	December 31, 2018
Accrued compensation and benefits	\$ 7,751	\$ 9,367
Accrued warranty obligations.....	6,526	5,624
Acquired customer product liabilities.....	—	546
Corporate income tax payable	2,341	1,521
Contingent consideration amount.....	—	2,063
VAT payable.....	2,614	2,286
Accrued satellite network and other equipment	247	227
Accrued inventory purchases.....	448	219
Accrued interest expense	5,000	5,000
Accrued professional fees.....	329	303
Accrued airtime charges	1,818	901
Short-term lease liability.....	2,608	—
Other accrued expenses	7,269	7,678
	<u>\$ 36,951</u>	<u>\$ 35,735</u>

Changes in accrued warranty obligations consisted of the following:

	2019	2018
Balance at January 1,	\$ 5,624	\$ 4,153
Warranty liabilities assumed from acquisitions.....	—	151
Reduction of warranty liabilities assumed in connection with acquisitions	(476)	(486)
Warranty expense	3,604	3,878
Warranty charges	(2,226)	(2,072)
Balance at December 31,	<u>\$ 6,526</u>	<u>\$ 5,624</u>

Note 9. Note Payable — Related Party

In connection with the acquisition of a majority interest in Satcom International Group plc in 2005, the Company recorded an indebtedness to OHB Technology A.G. (formerly known as OHB Teledata A.G.), a stockholder of the Company. At December 31, 2019 and 2018, the principal balance of the note payable was €1,138, with a carrying value of \$1,275 and \$1,298, respectively. The carrying value was based on the note's estimated fair value at the time of acquisition. The difference between the carrying value and principal balance was being amortized to interest expense over the six-year estimated life, which ended on September 30, 2011. This note does not bear interest and has no fixed repayment term. Repayment of the note will be made from the distribution profits (as defined in the note agreement) of ORBCOMM Europe LLC, a wholly-owned subsidiary of the Company. The note has been classified as long-term, as the Company does not expect any repayments to be required prior to December 31, 2020.

Note 10. Notes Payable

Senior Secured Notes

On April 10, 2017, the Company issued \$250,000 aggregate principal amount of 8.0% senior secured notes due 2024 (the “Senior Secured Notes”). The Senior Secured Notes were issued pursuant to an indenture, dated as of April 10, 2017, among the Company, certain of its domestic subsidiaries party thereto (the “Guarantors”) and U.S. Bank National Association, as trustee and collateral agent (the “Indenture”). The Senior Secured Notes are unconditionally guaranteed on a senior secured basis by the Guarantors, and are secured on a first priority basis by (i) pledges of capital stock of certain of the Company’s directly and indirectly owned subsidiaries; and (ii) substantially all of the other property and assets of the Company and the Guarantors, to the extent a first priority security interest is able to be granted or perfected therein, and subject, in all cases, to certain specified exceptions, and an intercreditor agreement with the collateral agent for the Company’s revolving credit facility described below. Interest payments are due on the Senior Secured Notes semi-annually in arrears on April 1 and October 1, beginning October 1, 2017.

The Company has the option to redeem some or all of the Senior Secured Notes at any time on or after April 1, 2020, at redemption prices set forth in the Indenture plus accrued and unpaid interest, if any, to the date of redemption. The Company also has the option to redeem some or all of the Senior Secured Notes at any time before April 1, 2020 at a redemption price of 100% of the principal amount of the Senior Secured Notes to be redeemed, plus a “make-whole” premium and accrued and unpaid interest, if any, to the date of redemption. In addition, at any time before April 1, 2020, the Company may redeem up to 35% of the aggregate principal amount of the Senior Secured Notes to be redeemed, plus accrued and unpaid interest, if any, to the date of redemption, with the proceeds from certain equity issuances.

The Indenture contains covenants that, among other things, limit the Company’s and its restricted subsidiaries’ ability to: (i) incur or guarantee additional indebtedness; (ii) pay dividends, make other distributions or repurchase or redeem capital stock; (iii) prepay, redeem or repurchase certain indebtedness; (iv) make loans and investments; (v) sell, transfer or otherwise dispose of assets; (vi) incur or permit to exist certain liens; (vii) enter into certain types of transactions with affiliates; (viii) enter into agreements restricting the Company’s subsidiaries’ ability to pay dividends; and (ix) consolidate, amalgamate, merge or sell all or substantially all of their assets; subject, in all cases, to certain specified exceptions. Such limitations have various exceptions and baskets as set forth in the Indenture, including the incurrence by the Company and its restricted subsidiaries of indebtedness under potential new credit facilities in the aggregate principal amount at any one time outstanding not to exceed \$50,000.

In connection with the issuance of the Senior Secured Notes, the Company incurred debt issuance costs of approximately \$5,431. For each of the years ended December 31, 2019 and 2018, amortization of the debt issuance costs was \$776. The Company recorded charges of \$20,776 to interest expense on its consolidated statements of operations for each of the years ended December 31, 2019 and 2018, related to interest expense and amortization of debt issuance costs associated with the Senior Secured Notes.

Termination of Secured Credit Facilities

On April 10, 2017, a portion of the proceeds from the issuance of the Senior Secured Notes was used to repay in full the Company’s outstanding obligations under the Company’s \$150,000 outstanding credit facilities incurred pursuant to the Secured Credit Facilities Credit Agreement, as defined below, and to terminate the agreement, resulting in an early payment fee of \$1,500 and an additional expense associated with the remaining unamortized debt issuance cost and fees of \$2,368.

Revolving Credit Facility

On December 18, 2017, the Company and certain of its subsidiaries entered into a senior secured revolving credit agreement (the “Revolving Credit Agreement”) with JPMorgan Chase Bank, N.A. (“JPMorgan Chase”) as administrative agent and collateral agent. The Revolving Credit Agreement provides for a revolving credit facility (the “Revolving Credit Facility”) in an aggregate principal amount of up to \$25,000 for working capital and general corporate purposes and matures on December 18, 2022. The Revolving Credit Facility will bear interest at an alternative base rate or an adjusted LIBOR, plus an applicable margin of 1.50% in the case of alternative base rate loans and 2.50% in the case of adjusted LIBOR loans. The Revolving Credit Facility is secured by a first priority security interest in substantially all of the Company’s and its subsidiaries’ assets under a security agreement among the Company, its subsidiaries and JPMorgan Chase, subject to an intercreditor agreement with the indenture trustee for the Senior Secured Notes. The Revolving Credit Facility has no scheduled principal amortization until the maturity date. Subject to the terms set forth in the Revolving Credit Agreement, the Company may borrow, repay and reborrow amounts under the Revolving Credit Facility at any time prior to the maturity date.

The Revolving Credit Agreement contains customary representations and warranties, conditions to funding, covenants and events of default. The Revolving Credit Agreement contains covenants that, among other things, limit the Company's and its restricted subsidiaries' ability to: (i) incur or guarantee additional indebtedness; (ii) pay dividends, make other distributions or repurchase or redeem capital stock; (iii) prepay, redeem or repurchase certain indebtedness; (iv) make loans and investments; (v) sell, transfer or otherwise dispose of assets; (vi) incur or permit to exist certain liens; (vii) enter into certain types of transactions with affiliates; (viii) enter into agreements restricting the Company's subsidiaries' ability to pay dividends; and (ix) consolidate, amalgamate, merge or sell all or substantially all of their assets; subject, in all cases, to certain specified exceptions. Such limitations have various baskets as set forth in the Revolving Credit Agreement.

At December 31, 2019, no amounts were outstanding under the Revolving Credit Facility. As of December 31, 2019, the Company was in compliance with all financial covenants under the Revolving Credit Agreement.

Secured Credit Facilities

On September 30, 2014, the Company entered into a credit agreement (the "Secured Credit Facilities Credit Agreement") with Macquarie CAF LLC ("Macquarie" or the "Lender") in order to refinance the Company's \$45,000 9.5% per annum Senior Notes (the "Senior Notes"). Pursuant to the Secured Credit Facilities Credit Agreement, the Lender provided secured credit facilities (the "Secured Credit Facilities") in an aggregate amount of \$160,000 comprised of (i) a term loan facility in an aggregate principal amount of up to \$70,000 (the "Initial Term Loan Facility"); (ii) a \$10,000 revolving credit facility (the "Prior Revolving Credit Facility"); (iii) a term loan facility in an aggregate principal amount of up to \$10,000 (the "Term B2 Facility"), the proceeds of which were drawn and used on January 16, 2015 to partially finance the acquisition of InSync Software, Inc. in 2015; and (iv) a term loan facility in an aggregate principal amount of up to \$70,000 (the "Term B3 Facility"), the proceeds of which were drawn on December 30, 2014 and used on January 1, 2015 to partially finance the acquisition of SkyWave Mobile Communications, Inc. Proceeds of the Initial Term Loan Facility and Prior Revolving Credit Facility were funded on October 10, 2014 and were used to repay in full the Company's Senior Notes and pay certain related fees, expenses and accrued interest, as well as for general corporate purposes.

The Secured Credit Facilities had a maturity of five years after the initial fund date of the Initial Term Loan Facility and were subject to mandatory prepayments in certain circumstances. The Secured Credit Facilities bore interest, at the Company's election, of a per annum rate equal to either (a) a base rate plus 3.75% or (b) LIBOR plus 4.75%, with a LIBOR floor of 1.00%.

In connection with entering into the Secured Credit Facilities Credit Agreement, and the subsequent funding of the Initial Term Loan Facility, Prior Revolving Credit Facility, Term B2 Facility and Term B3 Facility, the Company incurred debt issuance costs of approximately \$4,481. For the year ended December 31, 2017, amortization of the debt issuance costs of \$229 was recorded in interest expense on the consolidated statement of operations. The Company recorded a charge of \$2,642 to interest expense on its consolidated statement of operations for the year ended December 31, 2017 related to interest expense and amortization of debt issuance costs associated with the Term B2 and Term B3 Facilities and the Initial Term Loan Facility and Prior Revolving Credit Facility after the OG2 satellites were placed in service on March 1, 2016.

Note 11. Stockholders' Equity

Preferred Stock

The Company currently has 50,000,000 shares of preferred stock authorized.

Series A Convertible Preferred Stock

The Company currently has 1,000,000 shares of Series A convertible preferred stock authorized. As part of the purchase price for the acquisition of StarTrak Systems LLC in 2011, the Company issued 183,550 shares of Series A convertible preferred stock, of which 40,624 shares remain outstanding as of December 31, 2019.

Key terms of the Series A convertible preferred stock are as follows:

Dividends

Holders of the Series A convertible preferred stock are entitled to receive a cumulative 4% dividend annually (calculated on the basis of the redemption price of \$10.00 per share) payable quarterly in additional shares of the Series A convertible preferred stock. During the years ended December 31, 2019 and 2018, the Company issued dividends in the amounts of 1,182 and 1,898 shares to the holders of the Series A convertible preferred stock, respectively. As of December 31, 2019, dividends in arrears were \$8.

Conversion

Shares of the Series A convertible preferred stock are convertible into 1.66611 shares of common stock: (i) at the option of the holder at any time or (ii) at the option of the Company beginning six months from the issuance date and if the average closing market price for the Company's common stock for the preceding twenty consecutive trading days equals or exceeds \$11.20 per share.

Voting

Each share of the Series A convertible preferred stock is entitled to one vote for each share of common stock into which the preferred stock is convertible.

Liquidation

In the event of any liquidation, sale or merger of the Company, the holders of the Series A convertible preferred stock are entitled to receive prior to and in preference over the holders of the common stock an amount equal to \$10.00 per share plus unpaid dividends.

Redemption

The Series A convertible preferred stock may be redeemed by the Company for an amount equal to the issuance price of \$10.00 per share plus all unpaid dividends at any time after two years from the issuance date.

Common Stock

As of December 31, 2019, the Company has reserved 14,945,281 shares of common stock for future issuances related to employee stock compensation plans.

On August 5, 2019, the Company's Board of Directors authorized a stock repurchase program under which the Company may repurchase up to \$25,000 of the Company's outstanding shares of common stock through open market transactions and privately negotiated transactions, until August 5, 2020. In addition, open market repurchases of common stock may be made pursuant to applicable securities laws and regulations, including Rule 10b-18, as well as Rule 10b5-1 under the Securities Exchange Act of 1934, as amended. During the year ended December 31, 2019, the Company repurchased 1,930,414 shares at an average share price of \$4.86. As of December 31, 2019, authorization for approximately \$15,556 of the Company's common stock remained available for future purchases under the repurchase program.

On April 10, 2018, the Company completed a public offering of 3,450,000 shares of its common stock, including 450,000 shares sold upon exercise in full of the underwriters' option to purchase additional shares, at a price of \$8.60 per share. The Company received net proceeds of approximately \$28,000 after deducting underwriters' discounts and commissions and offering costs.

On April 13, 2018, the Company filed a shelf registration statement with the Securities Exchange Commission, registering an unspecified amount of debt and/or equity securities that the Company may offer in one or more offerings on terms to be determined at the time of sale. The shelf registration statement was automatically effective upon filing and superseded and replaced the Company's previous shelf registration statement declared effective on April 14, 2015, which was due to expire on April 14, 2018.

Note 12. Segment Information

The Company operates in one reportable segment, industrial IoT services. Other than satellites in orbit, goodwill and intangible assets, long-lived assets outside of the United States are not significant. The Company's foreign exchange exposure is limited as approximately 82% of the Company's consolidated revenue is collected in U.S. dollars. The following table summarizes revenues on a percentage basis by geographic region, based on the region in which the customer is located.

	Year Ended December 31,		
	2019	2018	2017
United States.....	51%	63%	78%
South America	11%	10%	7%
Japan	7%	5%	2%
Europe.....	19%	15%	9%
Other	12%	7%	4%
	<u>100%</u>	<u>100%</u>	<u>100%</u>

Note 13. Income Taxes

The following is a summary of the Company's provision for income taxes for the years ended December 31, 2019, 2018 and 2017:

	Year Ended December 31,		
	2019	2018	2017
Current			
Federal	\$ 129	\$ 95	\$ 26
State	109	4	106
International.....	5,389	6,137	1,757
Total	<u>5,627</u>	<u>6,236</u>	<u>1,889</u>
Deferred			
Federal	(1,796)	(5,754)	(6,231)
State	(517)	107	(2,340)
International.....	(1,430)	(2,055)	(185)
Valuation allowance	2,499	6,124	6,458
Total	<u>(1,244)</u>	<u>(1,578)</u>	<u>(2,298)</u>
Income taxes	<u>\$ 4,383</u>	<u>\$ 4,658</u>	<u>\$ (409)</u>

United States and foreign income (loss) before income taxes for the years ended December 31, 2019, 2018 and 2017 is as follows:

	Year Ended December 31,		
	2019	2018	2017
United States	\$ (29,378)	\$ (33,786)	\$ (69,333)
Foreign	15,629	12,505	7,729
Total.....	<u>\$ (13,749)</u>	<u>\$ (21,281)</u>	<u>\$ (61,604)</u>

The components of net deferred tax assets (liabilities) are as follows:

	December 31,	
	2019	2018
Deferred tax assets:		
Acquisition-related costs	\$ 396	\$ 441
Deferred revenues	2,319	2,300
Allowance for doubtful accounts	1,193	1,274
Inventory	1,762	1,709
Deferred compensation	2,499	2,614
Bonus accrual	711	874
Vacation accrual	216	191
Lease liability	4,201	—
Deferred rent	3	551
Warranty accrual	1,514	1,374
Accrued expenses	484	466
Satellite network and other property	5,353	8,051
Foreign tax credit	1,449	1,487
Alternative minimum tax credit	325	325
Tax loss carryforwards and credits	34,945	29,129
Other	15	12
Total deferred tax assets	57,385	50,798
Deferred tax liabilities:		
Intangible assets	(13,512)	(15,292)
Right of use asset	(3,487)	—
Goodwill	(6,178)	(5,035)
Total deferred tax liabilities	(23,177)	(20,327)
Net deferred tax assets before valuation allowance	34,208	30,471
Less valuation allowance	(48,970)	(46,471)
Net deferred tax assets (liabilities)	(14,762)	(16,000)
Deferred tax assets, non-current	132	109
Deferred tax liabilities, non-current	(14,894)	(16,109)
Net deferred tax liabilities	\$ (14,762)	\$ (16,000)

Income taxes differ from the amount computed by applying the statutory U.S. federal income tax rate because of the effect of the following items:

	Year Ended December 31,		
	2019	2018	2017
Income tax expense at U.S. statutory rate	\$ (2,887)	\$ (4,468)	\$ (20,946)
State income taxes, net of federal benefit	(423)	103	(2,261)
Effect of foreign subsidiaries	1,783	1,841	(283)
Tax credits	(672)	(660)	(686)
Global intangible low-taxed income inclusion	2,744	2,141	—
Other permanent items	783	(199)	(2,374)
Change in uncertain tax positions	—	346	—
True-up from prior years	512	(571)	—
Change in domestic tax rate	—	—	19,353
Other	44	1	330
Change in valuation allowance	2,499	6,124	6,458
Income tax	<u>\$ 4,383</u>	<u>\$ 4,658</u>	<u>\$ (409)</u>

On December 22, 2017, new federal tax reform legislation was enacted in the United States, resulting in significant changes from previous tax law. The U.S. Tax Cuts and Jobs Act of 2017 (the “2017 Tax Act”) reduced the federal corporate income tax rate to 21% from 35% effective January 1, 2018. The 2017 Tax Act also changes the taxation of foreign earnings, and companies generally will not be subject to United States federal income taxes upon the receipt of dividends from foreign subsidiaries and will not be permitted foreign tax credits related to such dividends. Additionally, upon enactment, there is a one-time deemed repatriation tax on undistributed foreign earnings and profits (the “transition tax”).

The key impacts of the 2017 Tax Act on the Company’s financial statements were the re-measurement of deferred tax balances to the new corporate tax rate and the calculation of any impacts of the transition tax. The re-measurement of the deferred tax balances to the new corporate rate is complete and those amounts are not provisional.

Although the Company has taxable earnings and profits from its foreign subsidiaries, the Company had no cash tax payments for the transition tax. The amount of taxable foreign earnings and profits was significantly less than the Company’s expected tax losses for 2017, therefore, the Company utilized these losses to offset the income inclusion regarding the transition tax. The Company has determined that it will elect an accounting policy to treat tax on global intangible low-taxed income inclusions under the 2017 Tax Act as a period cost when incurred.

As part of the Company’s accounting for the acquisitions, a portion of the purchase price was allocated to goodwill. The acquired goodwill is deductible for tax purposes and amortized over fifteen years for income tax purposes. Under GAAP, the acquired goodwill is not amortized in the Company’s financial statements. As such, a deferred income tax expense and a deferred tax liability arise as a result of the tax deductibility for this amount for tax purposes but not for financial statement purposes. The resulting deferred tax liability, which is expected to continue to increase over time, will remain on the Company’s balance sheet indefinitely unless there is an impairment of the asset. As a result of the 2017 Tax Act and the changes it made to net operating loss carryforward rules, the Company is now able to use the above deferred tax liability as a source of future taxable income in evaluating the need for a valuation allowance. This change resulted in a deferred tax benefit of \$1,693 during the year ended December 31, 2017.

As of December 31, 2019 and 2018, the Company maintained a valuation allowance against all of its net deferred tax assets, excluding goodwill, attributable to operations in the United States as the realization was not considered more likely than not.

The net change in the total valuation allowance for the years ended December 31, 2019, 2018 and 2017 was \$2,499, \$6,124 and \$6,458, respectively.

On January 1, 2017, the Company adopted ASU No. 2016-09 “Improvements to Employee Share-Based Payment Accounting.” Prior to adopting the ASU, the Company recognized tax benefits associated with the exercise of SARs and stock options and vesting of RSUs directly to stockholders’ equity only when the tax benefit reduces income tax payable on the basis that a cash tax savings has occurred. As a result of adopting this ASU the Company recognized the benefit of net operating loss carryforwards that were created as a result of previous windfall tax deductions. The gross amount of windfall deductions that were previously not recognized was approximately \$6,529. Due to a full valuation allowance, the recognition of the benefit for the windfall deductions did not have any impact to the consolidated balance sheet or consolidated statement of operations for the years ended December 31, 2019 and 2018.

As of December 31, 2019 and 2018, the Company had potentially utilizable federal net operating loss carryforwards of \$125,870 and \$108,746, respectively. As of December 31, 2019 and 2018, the Company had potentially utilizable state net operating loss carryforwards of \$159,083 and \$232,256, respectively. The federal net operating loss carryforwards expire at various times through 2037 for losses incurred prior to January 1, 2018. All federal net operating losses incurred after January 1, 2018 have an indefinite life. The state net operating loss carryforwards expire at various times through 2039 for states that do not follow the federal rule having an indefinite life for losses incurred after 2018. As of December 31, 2019 and 2018, the Company had potentially utilizable foreign net operating loss carryforwards of \$14,035 and \$15,989, respectively. The foreign net operating loss carryforwards expire on various dates through 2039.

The utilization of the Company’s net operating losses may be subject to a substantial limitation due to the “change of ownership provisions” under Section 382 of the Internal Revenue Code and similar state provisions. Such limitation may result in the expiration of the net operating loss carryforwards before their utilization.

As of December 31, 2019, the Company has not provided deferred income taxes on the undistributed earnings of its foreign subsidiaries. The amount of such earnings was \$21,677. These earnings have been permanently reinvested and the Company does not plan to initiate action that would precipitate the payment of income taxes thereon. It is not practicable to estimate the amount of additional tax that might be payable on these undistributed earnings.

The following table is a reconciliation of the beginning and ending amounts of unrecognized tax benefits:

	2019	2018	2017
Balance at January 1,	\$ 1,202	\$ 856	\$ 856
Additions for tax positions related to prior years	9	398	—
Additions for tax positions related to current year	—	—	—
Reductions for tax positions of prior years	(355)	(52)	—
Settlements	(33)	—	—
Balance at December 31,	<u>\$ 823</u>	<u>\$ 1,202</u>	<u>\$ 856</u>

No interest and penalties related to unrecognized tax benefits were accrued during the years ended December 31, 2019, 2018, and 2017. Interest and penalties are not reflected in the table above and are included in income tax expense.

As of December 31, 2019, \$775 of the unrecognized tax benefits have been recorded as a reduction to the Company's federal and state net operating loss carryforwards in deferred tax assets. Due to the existence of the Company's valuation allowance, these unrecognized tax benefits, if recognized, would not impact the Company's effective income tax rate. The Company is also subject to examinations in its material non-U.S. jurisdictions for 2015 and later years. The Company does not expect any significant changes to its unrecognized tax positions during the next twelve months.

Note 14. Commitments and Contingencies

Legal Proceedings

From time to time, the Company is involved in various litigation matters involving claims incidental to its business and acquisitions, including employment matters, acquisition related claims, patent infringement and contractual matters, among other issues. While the outcome of any such litigation matters cannot be predicted with certainty, management currently believes that the outcome of these proceedings, including the matters described below, either individually or in the aggregate, will not have a material adverse effect on its business, results of operations or financial condition. The Company records reserves related to legal matters when losses related to such litigation or contingencies are both probable and reasonably estimable.

Airtime credits

In 2001, in connection with the organization of ORBCOMM Europe and the reorganization of the ORBCOMM business in Europe, the Company agreed to grant certain country representatives in Europe approximately \$3,736 in airtime credits. The Company has not recorded the airtime credits as a liability for the following reasons: (i) the Company has no obligation to pay the unused airtime credits if they are not utilized; and (ii) the airtime credits are earned by the country representatives only when the Company generates revenue from the country representatives. The airtime credits have no expiration date. Accordingly, the Company is recording airtime credits as services are rendered and these airtime credits are recorded net of revenues from the country representatives. For the years ended December 31, 2019, 2018 and 2017, airtime credits used totaled approximately \$30, \$30, and \$31, respectively. As of December 31, 2019 and 2018, unused credits granted by the Company were approximately \$1,918 and \$1,948, respectively.

Agreements with carrier data providers

The Company has contractual minimum payments under the terms of its agreements with certain carrier data providers. Based on the number of subscribers as of December 31, 2019, future minimum payments for the years ending December 31, 2020, 2021, 2022 and 2023 are \$8,091, \$5,944, \$6,093 and \$6,245, respectively.

Note 15. Leases

In February 2016, the FASB issued ASU 2016-02, which is effective for fiscal years beginning after December 15, 2018. The Company adopted ASU 2016-02 prospectively as of January 1, 2019, the date of initial application, and therefore prior comparative periods were not adjusted. Rent expense for the years ended December 31, 2018 and 2017 was approximately \$4,020 and \$3,401, respectively, and was recognized on a straight-line basis over the lease term under ASC Topic 840 "Leases."

Lessee

The Company determines whether an arrangement is a lease at inception. The Company has operating leases for land, office space, data centers and storage facilities, as well as office equipment and vehicles. The Company's leases have remaining lease terms of less than one year to 13 years, some of which include options to extend the lease term for up to five years, and some of which include options to terminate the lease within one year. The Company considered these options in determining the lease term used to establish the Company's right-of-use assets and lease liabilities. The Company's lease agreements do not contain any material residual value guarantees or material restrictive covenants.

Right-of-use ("ROU") assets represent the Company's right to use an underlying asset for the lease term and lease liabilities represent the Company's obligation to make lease payments arising from the lease. Operating lease ROU assets and operating lease liabilities are recognized at the lease commencement date based on the present value of the future lease payments over the lease term. The operating lease ROU assets also include any lease payments made in advance of lease commencements and exclude lease incentives. The lease terms used in the calculations of the operating ROU assets and operating lease liabilities include options to extend or terminate the lease when the Company is reasonably certain that it will exercise those options. Lease expense for lease payments is recognized on a straight-line basis over the lease term.

As the Company's leases do not provide an implicit rate, the Company uses its incremental borrowing rate based on the information available at commencement date in determining the present value of lease payments.

The Company has lease agreements with lease and non-lease components, which are generally not accounted for separately.

Components of lease expense are as follows:

	Year Ended December 31, 2019
Operating lease cost.....	\$ 3,925

The Company has lease arrangements which are classified as short-term in nature. These leases meet the criteria for operating lease classification. In addition, the Company has variable lease costs associated with certain leases. Lease costs associated with the short-term leases and variable lease components, included in SG&A expenses on the Company's consolidated statements of operations during the year ended December 31, 2019, are not material.

Supplemental cash flow information and non-cash activity related to the Company's operating leases are as follows:

	Year Ended December 31, 2019
Operating cash flow information:	
Cash paid for amounts included in the measurement of lease liabilities	\$ 4,178
Non-cash activity:	
Right-of-use assets obtained in exchange for lease obligations	\$ 18,659

Supplemental balance sheet information related to the Company's operating leases is as follows:

	Balance Sheet Classification	December 31, 2019
Right-of-use assets	Other assets	\$ 15,894
Current lease liabilities	Accrued liabilities	2,608
Non-current lease liabilities	Other liabilities.....	16,266

Weighted-average remaining lease term and discount rate for the Company's operating leases are as follows:

	December 31, 2019
Weighted-average remaining lease term (in years).....	7.11
Weighted-average discount rate.....	8.0%

Maturities of lease liabilities by fiscal year for the Company's operating leases are as follows:

	December 31, 2019
2020.....	\$ 3,972
2021.....	3,854
2022.....	3,458
2023.....	3,309
2024.....	3,129
Thereafter	7,244
Total lease payments	24,966
Less: Imputed interest	(6,092)
Present value of lease liabilities	<u>\$ 18,874</u>

Lessor

Although most of the Company's revenue from its product sales comes from the sale of subscriber communicators, the Company also leases some subscriber communicators to certain customers. The Company determines the existence of a lease when the customer controls the use of the identified product for a period of time defined in the lease agreement. The Company's leases range in duration between three to five years, with payment generally collected in monthly installments. Refer to "Note 2 – Summary of Significant Accounting Policies" for more information.

The Company classifies these leases as sales-type leases and recognizes revenue and cost of product sales upon delivery or installation, depending on the specific contractual terms. The Company's leases include certain termination fees, as defined in the lease agreements, and do not typically include purchase rights at the end of the lease.

Note 16. Employee Incentive Plan

The Company maintains a 401(k) plan. All employees who have been employed for three months or longer are eligible to participate in the plan. Employees may contribute up to 15% of eligible compensation to the plan, subject to certain limitations. The Company has the option of matching up to 50% of the amount contributed by each employee, up to 6% of the employee's compensation. In addition, the plan contains a discretionary contribution component pursuant to which the Company may make an additional annual contribution. Contributions vest over a five-year period from the employee's date of employment. For the years ended December 31, 2019, 2018 and 2017, the Company made contributions of \$1,189, \$1,104 and \$766, respectively.

Note 17. Supplemental Disclosure of Noncash Investing and Financing Activities

	Year Ended December 31,		
	2019	2018	2017
Investing activities:			
Acquisition-related contingent consideration	\$ —	\$ —	\$ 10,611
Common stock issued in connection with the acquisition of businesses	—	—	2,764
Capital expenditures incurred not yet paid	1,082	344	755
Stock-based compensation included in capital expenditures	650	502	453
Financing activities:			
Common stock issued as form of payment for MPUs	503	827	—
Common stock issued as payment for contingent consideration	—	—	347
Series A convertible preferred stock dividend paid-in-kind	12	18	12

Note 18. Quarterly Financial Data (Unaudited)

	<u>First Quarter</u>	<u>Second Quarter</u>	<u>Third Quarter</u>	<u>Fourth Quarter</u>
2019				
Revenues.....	\$ 66,035	\$ 67,103	\$ 69,193	\$ 69,682
Income (loss) from operations.....	(79)	(196)	2,290	3,557
Net loss attributable to ORBCOMM Inc.....	(5,490)	(6,419)	(4,013)	(2,501)
Net loss per common share-basic:				
Net loss attributable to ORBCOMM Inc.....	(0.07)	(0.08)	(0.05)	(0.03)
Net loss per common share-diluted:				
Net loss attributable to ORBCOMM Inc.....	(0.07)	(0.08)	(0.05)	(0.03)
Weighted-average shares outstanding (in thousands):				
Basic	79,387	79,688	79,695	78,275
Diluted	79,387	79,688	79,695	78,275
2018				
Revenues.....	\$ 67,973	\$ 70,788	\$ 71,042	\$ 66,337
Income (loss) from operations.....	(4,228)	(1,184)	2,484	739
Net loss attributable to ORBCOMM Inc.....	(10,086)	(7,222)	(3,295)	(5,641)
Net loss per common share-basic:				
Net loss attributable to ORBCOMM Inc.....	(0.13)	(0.09)	(0.04)	(0.07)
Net loss per common share-diluted:				
Net loss attributable to ORBCOMM Inc.....	(0.13)	(0.09)	(0.04)	(0.07)
Weighted-average shares outstanding (in thousands):				
Basic	74,729	78,079	78,649	78,895
Diluted	74,729	78,079	78,649	78,895

Schedule II — Valuation and Qualifying Accounts

Description	Col. B Balance at Beginning of the Period	Col. C		Col. D Deductions	Col. E Balance at End of the Period
		Charged to Costs and Expenses	Charged to Other Accounts		
		(Amounts in thousands)			
Year ended December 31, 2019					
Allowance for doubtful receivables.....	\$ 4,072	2,008	1,600 ⁽¹⁾	—	\$ 4,480
Deferred tax asset valuation allowance	\$ 46,471	2,499	—	— ⁽²⁾	\$ 48,970
Year ended December 31, 2018					
Allowance for doubtful receivables.....	\$ 400	3,426	(246) ⁽¹⁾	—	\$ 4,072
Deferred tax asset valuation allowance	\$ 40,347	6,124	—	— ⁽²⁾	\$ 46,471
Year ended December 31, 2017					
Allowance for doubtful receivables.....	\$ 1,057	85	742 ⁽¹⁾	—	\$ 400
Deferred tax asset valuation allowance	\$ 32,550	6,458	—	1,339 ⁽²⁾	\$ 40,347

(1) Amounts relate to write-offs net of recoveries.

(2) Amounts relate to deferred tax assets acquired in acquisitions.

**CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER
PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Marc J. Eisenberg, certify that:

1. I have reviewed this annual report on Form 10-K of ORBCOMM 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 controls 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.

/s/ Marc J. Eisenberg

Marc J. Eisenberg
President and Chief Executive Officer
(Principal Executive Officer)
Date: February 28, 2020

**CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER
PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Constantine Milcos, certify that:

1. I have reviewed this annual report on Form 10-K of ORBCOMM 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 controls 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.

/s/ Constantine Milcos

Constantine Milcos
Executive Vice President and
Chief Financial Officer
(Principal Financial Officer and Principal Accounting
Officer)
Date: February 28, 2020

**CERTIFICATION OF CHIEF EXECUTIVE OFFICER AND CHIEF FINANCIAL OFFICER
PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report on Form 10-K of ORBCOMM Inc. for the year ended December 31, 2019 as filed with the Securities and Exchange Commission on the date hereof, Marc J. Eisenberg, as President and Chief Executive Officer and Constantine Milcos, as Executive Vice President and Chief Financial Officer, each hereby certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

1. The Annual Report on Form 10-K fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Annual Report on Form 10-K fairly presents, in all material respects, the financial condition and results of operations of ORBCOMM Inc.

/s/ Marc J. Eisenberg

Marc J. Eisenberg
President and Chief Executive Officer
(Principal Executive Officer)

Date: February 28, 2020

/s/ Constantine Milcos

Constantine Milcos
Executive Vice President and Chief Financial Officer
(Principal Financial Officer and Principal Accounting Officer)

Date: February 28, 2020

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2019

CORPORATE OFFICERS

Marc J. Eisenberg

Chief Executive Officer and President

Constantine “Dean” Milcos

Executive Vice President and Chief Financial Officer

Christian G. Le Brun

Executive Vice President and General Counsel

Craig E. Malone

Executive Vice President, Product Development

John J. Stolte, Jr.

Executive Vice President, Technology and Operations

BOARD OF DIRECTORS

Jerome B. Eisenberg

Chairman of the Board

Marc J. Eisenberg

Chief Executive Officer and President

Marco Fuchs

Chief Executive Officer and Chairman of the Managing Board of OHB SE

Denise Gibson

Co-Founder and Chairman of Ice Mobility

Karen Gould

Executive Vice President and Chief Financial Officer of The Turner Corporation

Timothy Kelleher

Managing Partner of Silver Canyon Group, LLC

John Major

President of MTSG

GENERAL INFORMATION

Company Contact Information:

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Rochelle Park, NJ 07662

US toll-free: 800-ORBCOMM

Outside the US: +1-703-433-6300

www.orbcomm.com

Transfer Agent and Registrar:

Computershare

462 South 4th Street, Suite 1600

Louisville, KY 40202

US toll-free: 800-522-6645

Outside the US: +1-201-680-6578

www.computershare.com/investor

Stock Exchange:

Common Stock (Symbol: ORBC)

NASDAQ Global Market

Independent Registered Public Accounting Firm:

Grant Thornton LLP

757 Third Avenue

New York, NY 10017

www.grantthornton.com

Annual Meeting:

The company's annual meeting of shareholders will be held at its Florida office:

2700 North Military Trail, Suite 410

Boca Raton, FL 33431

at 8:00 a.m., on Wednesday, April 22, 2020.



395 W. Passaic Street, Third Floor
Rochelle Park, NJ 07662

1.800.ORBCOMM
703.433.6300

www.orbcomm.com

