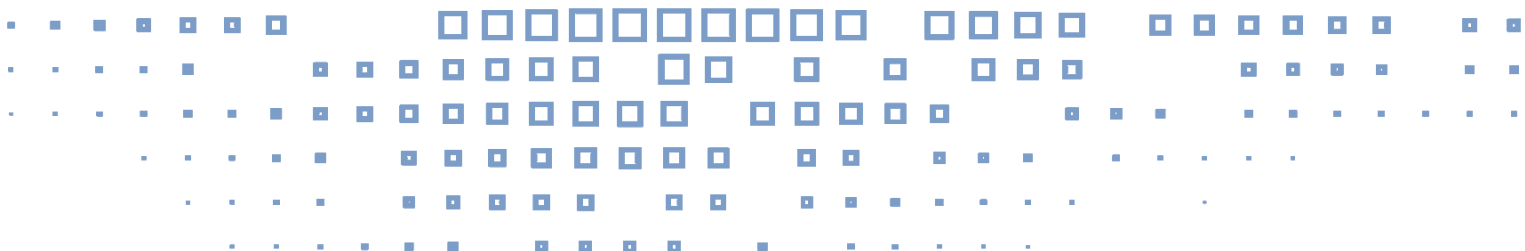




ANNUAL REPORT 2018





April 30, 2019

Dear shareholder,

I would like to start by thanking the board for giving me the opportunity to serve you as President & CEO of Bsquare. I look forward to delivering on our commitments to our customers and business partners, creating an environment that can attract and retain the brightest minds in the industry, and most importantly building value and restoring the confidence of our shareholders.

2018 was a year of transition for Bsquare Corporation. In May of 2018 president & CEO Jerry Chase stepped down, and the board appointed Kevin Walsh as acting CEO while they initiated a search for a permanent chief executive officer. At that time Andrew Harries became executive chairman, increasing his involvement in day-to-day management. The changes were a recognition by the board of directors that the DataV IoT software-as-a-service (SaaS) business was not progressing as quickly as the prior leadership had projected. 2018 also saw changes to the board of directors of Bsquare: in June Ryan Vardeman, principal and co-founder of Palogic Value Management, LP, was appointed; in August Robert Peters, also of Palogic, joined following the resignation of Robert DeSantis; and finally, in November, Davin Cushman, CEO of Ignite Technologies, was appointed, replacing long-time board member Kendra VanderMeulen.

In an interim capacity Kevin Walsh was tasked with reducing spending on DataV software development and exploring options for transitioning the DataV SaaS-only model to combination of software and professional services. The board of directors also directed Kevin to further explore partnering opportunities with Amazon and Microsoft as their cloud and Internet of Things (IoT) strategies seemed synergistic with Bsquare's DataV Industrial Internet of Things (IIoT) strategy.

Total revenue for 2018 was \$73.4 million, down 9% from 2017 revenue of \$80.8M. Gross profit was \$15.5 million, a decrease of 14% from 2017. Total operating expenses for 2018 increased to \$29.4 million, up \$1.9 million from \$27.5 million in 2017. The rate of expense growth in 2018 of \$1.9 million was substantially lower than expense growth in 2017 of \$10.5 million. Net loss for 2018 was \$13.7 million, or \$1.08 per share, compared to a net loss of \$9.1 million, or \$0.72 per share, in 2017. Adjusted EBITDAS* was negative \$8.9 million for 2018 compared to negative \$7.0 million in 2017.

On March 10, 2019 the board appointed me president and CEO of Bsquare. As I shared in the press release at the time, I believe Bsquare's legacy as an embedded software and professional service provider, our success with early industrial IOT customers, and our relationships with Microsoft and Amazon Web Services provide a strong foundation upon which to build our business moving forward.

I look forward to working with the board of directors and the Bsquare team to build a future founded on integrity, innovation, collaboration with our customers and partners, and fiscal responsibility that builds value for our shareholders.

Warm regards,

Handwritten signature of Ralph C. Derrickson in black ink.

Ralph C Derrickson
President and Chief Executive Officer

Handwritten signature of Andrew S.G. Harries in black ink.

Andrew S.G. Harries
Chairman of the Board

** Adjusted EBITDAS is a non-GAAP measure. Reconciliation to our comparable GAAP measure is contained in our Annual Report on Form 10-K filed with the SEC on March 4, 2019.*

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM 10-K

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

For the fiscal year ended December 31, 2018

OR

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

For the transition period from _____ to _____

Commission file number: 000-27687

BSQUARE CORPORATION

(Exact name of registrant as specified in its charter)

Washington
(State or other jurisdiction of
incorporation or organization)

91-1650880
(I.R.S. Employer
Identification Number)

110 110th Avenue NE, Suite 300, Bellevue, Washington 98004
(Address of principal executive offices, including zip code)

Registrant's telephone number, including area code: (425) 519-5900

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

| <u>Title of each class</u> | <u>Name of each exchange on which registered</u> |
|----------------------------|--|
| Common Stock, no par value | The NASDAQ Stock Market LLC (NASDAQ Global Market) |

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

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

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

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

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

The aggregate market value of common stock held by non-affiliates of the registrant on June 30, 2018 was approximately \$27.5 million and was determined using the closing price of our common stock on that same date per the NASDAQ Global Market (\$2.70) and excludes 2,529,104 shares of Common Stock held by directors, officers and shareholders whose beneficial ownership exceeded 5% of the registrant's Common Stock outstanding. The number of shares owned by such persons was determined based upon information supplied by such persons and upon Schedules 13D and 13G, if any, filed with the SEC. Exclusion of shares held by any person should not be construed to indicate that such person possesses the power, direct or indirect, to direct or cause the direction of the management or policies of the registrant, that such person is controlled by or under common control with the registrant, or that such person is an affiliate for any other purpose. There were 12,712,134 shares of our Common Stock outstanding as of June 30, 2018.

The number of shares of common stock outstanding as of January 31, 2019: 12,778,823

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the definitive proxy statement to be delivered to shareholders in connection with the 2019 annual meeting of shareholders are incorporated by reference into Part III of this Annual Report on Form 10-K.

BSQUARE CORPORATION

FORM 10-K

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PART I

Item 1. *Business.*

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K contains "forward-looking statements" within the meaning of the safe-harbor provisions of the U.S. Private Securities Litigation Reform Act of 1995. Forward-looking statements can often be identified by words such as: "expect," "believe," "estimate," "plan," "strategy," "future," "potential," "continue," "may," "should," "will," and similar references to future periods. Examples include, among others, statements about: expected future growth and operating results, such as revenue and earnings; anticipated levels of capital and other expenditures; future market demand, opportunities and conditions; our belief that we have sufficient liquidity to fund our business operations for at least the next 12 months; expectations of the effect on our financial condition of claims, litigation, contingent liabilities and supplier audits; and strategies for customer retention, growth, new product and service developments, and market position.

Forward-looking statements are neither historical facts nor assurances about future performance. Instead, they are only predictions, based on current beliefs, expectations and assumptions about the future of our business and other future conditions. Forward-looking statements are subject to known and unknown risks, uncertainties and changes in circumstances that are difficult to predict and many of which are outside of our control. Actual events and results may differ materially. Therefore, you should not rely on any of these forward-looking statements.

Any forward-looking statement made by us in this report is based only on information available to us on the date of this report. Except as may be required by law, we undertake no obligation to publicly update any forward-looking statement, whether as a result of new information, future developments or otherwise.

Our forward-looking statements can be affected by inaccurate assumptions we might make or by known or unknown risks, uncertainties and other factors. We discuss many of these risks, uncertainties and other factors in this Annual Report on Form 10-K in greater detail under the Item 1A — "Risk Factors." We caution readers that our business and financial performance are subject to substantial risks and uncertainties.

BUSINESS

Overview

As used in this Annual Report on Form 10-K, "we," "us," "our", "the Company" and "BSQUARE" refer to BSQUARE Corporation.

Since our inception, our business has largely been focused on providing software solutions (historically, including reselling software from Microsoft Corporation ("Microsoft")) and related engineering services to businesses that develop, market and sell dedicated-purpose standalone intelligent systems. Examples of dedicated-purpose standalone intelligent systems include smart, connected computing devices such as smart phones, set-top boxes, point-of-sale terminals, kiosks, tablets and handheld data collection devices, as well as smart vending machines, ATM machines, digital signs and in-vehicle telematics and entertainment devices. We focus on systems that utilize various Microsoft Windows Embedded operating systems as well as devices running other popular operating systems such as Android, Linux, and QNX, and that are usually connected to a network via a wired or wireless connection. Our customers include world-class original equipment manufacturers ("OEMs"), original design manufacturers ("ODMs"), corporate enterprises ("Enterprises"), silicon vendors ("SVs") and peripheral vendors. A significant portion of our business historically has also been focused on reselling software from Microsoft, from which a majority of our revenue currently continues to be derived.

Beginning in early 2014, we initiated development efforts focused on new proprietary software products addressing the Industrial Internet of Things ("IIoT") market, extracting data from uniquely identifiable devices and applying advanced analytics and machine learning to the data in order to derive meaningful and actionable insights. We believe the work we have engaged in since our inception—namely adding intelligence to discrete standalone devices and systems—embodies much of what is central to the core functionality of IIoT. These software development efforts have driven a new business initiative for BSQUARE, which we refer to as DataV™. Our DataV solution includes software products, applications and services that are designed to turn raw IIoT device data into meaningful and actionable data for our customers.

We began marketing DataV late in the first quarter of 2016 and announced our first three major customer bookings later that year, which comprised software licensing, software maintenance and related systems integration services. During 2017, we began selling data analytics services and DataV application pilots to major industrial customers primarily in the transportation, oil and gas and manufacturing vertical markets. One of these pilots led to a multi-year software-as-a-service ("SaaS") agreement in 2018. The remaining pilots were completed and while no additional licensing arrangements resulted from these pilots, we believe there may be future opportunities with a number of these customers.

We believe that IIoT represents a large, expanding addressable market. We also believe that many potential customers need assistance with their digital transformation activities prior to making long-term solutions commitments, and that these IIoT related services may provide us an inroad to eventual DataV software and services sales. Developing, selling and implementing DataV was our primary focus through 2018. While we will continue to market our DataV software, in 2019 we intend to expand our efforts to market IIOT related services that may or may not include DataV. We will continue to invest in the development of our DataV software in support of existing customer commitments and new customer opportunities. We intend to continue to run our legacy software resale business to maximize cash flow for the foreseeable future. Our legacy professional engineering services business is now managed as a part of our overall services business, which we anticipate will increasingly serve our DataV software and IIOT services customers. We were incorporated in the State of Washington in July 1994. Our principal office is located at 110 110th Avenue NE, Suite 300, Bellevue, Washington 98004, and our telephone number is (425) 519-5900.

Industry Background

The IIoT market continues to emerge and evolve. We continue to believe it presents a large market opportunity for sales of both our software and related services. This market includes consumer, business, government and industrial segments. It encompasses services, software, hardware, connectivity and cloud providers as well as systems integrators. While larger research firms do not yet widely track the size of the IIoT market, available research indicates to us that over time, the deployment of hundreds of billions of connected devices may generate substantial economic value.

The IIoT marketplace is currently being influenced by the following factors:

- Development of machine learning and data analytics software that advances the understanding of complex systems but lacks the capability to effectively process the proliferation of resulting data. This provides an opportunity for solutions such as DataV to develop models of complex mechanical equipment that can be used for predictive reasoning;
- Nearly ubiquitous wireless connectivity, including near-field communications (or NFC), Bluetooth, Wi-Fi and cellular, allowing connectivity and data exchange with large populations of small, remote, and frequently mobile devices;
- Increasing competitive pressures that are forcing a wide array of businesses to invest in automation as a way to improve productivity, reduce costs, and enhance the value of their own offerings; and
- The increasing availability of inexpensive cloud computing and storage capabilities able to scale to the extent likely to be demanded by IIoT.

Sources of Revenue

Our revenue in 2017 and 2018 was derived from the following sources:

| | Year Ended December 31, | |
|--|-------------------------|------------------|
| | 2018 | 2017 |
| (In thousands, except percentages) | | |
| Software revenue: | | |
| Third-party software | \$ 61,159 | \$ 65,755 |
| Proprietary software | 3,954 | 4,646 |
| Professional engineering service revenue | 8,301 | 10,410 |
| Total revenue | <u>\$ 73,414</u> | <u>\$ 80,811</u> |
| As a percentage of total revenue: | | |
| Third-party software revenue | 83% | 81% |
| Proprietary software revenue | 5% | 6% |
| Professional engineering service revenue | 11% | 13% |

Software

DataV Software

DataV is BSQUARE's proprietary comprehensive software solution which addresses a variety of business use cases specific to IIoT applications, including:

- **Predictive Failure:** By employing machine learning and advanced data analytics, DataV can predict, with varying levels of accuracy, future operational conditions for equipment or devices that are part of the overall IIoT system. For many industrial concerns, the operational condition of greatest interest is a failure state. By being able to predict failures before they occur, DataV customers can take steps to remediate the condition more quickly, less expensively and with less operational disruption.
- **Adaptive Diagnostics:** For equipment that has already failed, DataV can dynamically proscribe diagnostic and repair steps that have the highest probability of quickly and more cost-effectively resolving the problem. DataV employs machine learning, data analytics, and historical repair data to help customers identify underperforming assets and proscribe remediation steps to optimize performance.
- **IIoT Device Management:** The spread of data-generating devices in IIoT systems introduces a new set of operational problems for industrial concerns. DataV can facilitate IIoT device management, including software and configuration updates, over large-scale populations of connected devices.

Our DataV solution is designed to be implemented in a wide variety of industrial sectors and vertical markets, including commercial transportation, oil and gas extraction, manufacturing, water and power and other vertical markets. These industrial sectors share common operational characteristics, such as the dependence on complex capital equipment where the cost of failure or sub-optimal performance is relatively high. In other cases, our customers are seeking new revenue-generating products or services to enhance operating profitability. We currently provide DataV software through a SaaS model.

We began marketing DataV in early 2016 and secured three contracts for deployment. The first order was from PACCAR, Inc., a heavy-duty truck manufacturer, to employ adaptive diagnostics in order to more rapidly service and repair trucks. This order, valued at \$4.3 million, included a perpetual license for DataV, as well as custom systems integration services and annual software maintenance fees. The second DataV order was from Itron, Inc., a large global manufacturer of electric, water, and gas meters for utilities as well as smart city solutions, and targeted IIoT device management. This order, valued at \$4.8 million, included \$1.9 million for the first year and a \$2.9 million four-year extension option, and included a subscription license to use DataV in addition to maintenance and systems integration services. In November 2017, Itron exercised its extension option and renewed its DataV subscription. The third DataV order was from a global provider of candy and beverages to help fulfill their smart vending initiative to add intelligence and to better track in real time, existing fleets of vending machines. This deployment was rolled out in phases beginning in the first quarter of 2018 in selected European geographies.

In 2017, we entered into 19 DataV pilots. In early 2018, one of these pilots led to a multi-year SaaS and related services agreement, initially valued at \$2.6 million, with a Fortune 100 global brand to employ DataV to manage a large fleet of distributed equipment. The remaining pilots were completed and, while no additional licensing arrangements transpired from these pilots, we believe there may be future opportunities with a number of these customers. In 2019, as we begin to increasingly focus on selling our IIoT-related services, we intend to limit our investments in DataV software solutions and applications to meet clear customer demand.

Other Proprietary Software

Apart from DataV, we currently offer the following proprietary software products:

- **HTML5 Rendering Engine**—Our HTML5 Rendering Engine is based on the open-source WebKit platform that is maintained by a number of leading internet and device companies. Using WebKit, device makers can create portable applications and user interfaces for their devices using the industry-standard HTML5 markup language; and
- **TestQuest™ 10**—TestQuest 10 is our testing automation tool that provides customers with a complete test solution that brings together everything necessary to test connected devices, including tools to create and manage test cases, a platform that allows teams to collaborate on test development, and a reporting tool that allows customers to analyze test results.

By the end of 2016, we had reduced our research and development efforts on these products as our focus has shifted to our DataV solution.

Third-Party Software

We have distribution agreements with multiple third-party software vendors. Our ability to resell these third-party software products, whether as stand-alone products or in conjunction with our own proprietary software and engineering service offerings, provides our customers with a comprehensive solution source for their device project needs. Our primary third-party software offerings include the following:

- For over 20 years, we have been a Microsoft authorized Value-Added Provider (“VAP”) of Windows Embedded operating systems and toolkits for the complete line of Windows Embedded products, including major product families such as Windows Embedded Compact, Windows Embedded Standard and Windows Embedded Server. Effective March 1, 2019, pursuant to a new Global Partnership Agreement with Microsoft, we are authorized to sell Windows Embedded operating systems in Canada, the United States, Argentina, Brazil, Chile, Mexico, Peru, Venezuela, Puerto Rico, Cuba, Haiti, Dominican Republic, Jamaica, Trinidad and Tobago, Guadeloupe, Martinique, Bahamas, Barbados, Saint Lucia, Curacao, Aruba, Saint Vincent and the Grenadines, U.S. Virgin Islands, Grenada, Dominica, Cayman Islands, Saint Kitts and Nevis, Sint Maarten, Turks and Caicos Islands, Saint Martin, British Virgin Islands, Sint Eustatius, Saba, Anguilla, Montserrat, Colombia, Saint Barthelemy, Antigua and Barbuda. Of our total revenue, 75% in 2018 and 70% in 2017 resulted from the sale of Windows Embedded operating systems. Our existing distribution agreement for sales of Windows Embedded operating systems in the European Union (“E.U.”), the European Free Trade Association, Turkey and Africa, from which we generated approximately 3.7% of our third-party software sales in 2018, expires on June 30, 2019 and will not be renewed thereafter.
- We have been a Microsoft authorized VAP of Windows Mobile operating systems since November 2009. Along with Windows Mobile operating systems, we also sell Microsoft’s Office Mobile product. We are currently authorized to sell Windows Mobile operating systems and related products in North America, South America, Central America (excluding Cuba), Japan, Taiwan, and the region comprised of Europe, the Middle East, and Africa (“EMEA”). Of our total revenue in 2018, 6% was generated through the sale of Windows Mobile operating systems, compared to 10% in 2017. Our current distribution agreements related to Windows Mobile operating systems expire on April 30, 2022;
- We are an authorized distributor for Adobe Flash technologies and Adobe Reader. We have the right to distribute Adobe Flash Lite licenses on a worldwide basis; and
- We are an authorized distributor of Intel Corporation’s Embedded Security product in North America.

The sale of Microsoft operating systems has accounted for substantially all of our third-party software revenue historically, including approximately 97% of third-party software revenue in 2018 and 98% in 2017.

Professional Engineering Services

Traditional Professional Engineering Services (PES)

Our traditional services business has served hundreds of customers for over two decades. This work is concentrated on embedded software engineering for small, remote devices. Customers engage us for engineering services due to our extensive experience in the areas of device software development and testing, as well as embedded and mobile operating systems. We believe that engaging us on a new device design typically results in shorter development cycles and reduced time-to-market, lower overall costs to complete projects, and enhanced product robustness and features, which a customer may otherwise have been unable to achieve.

Revenue from professional engineering services derived from our engagement with a national Fortune 100 brand was \$4.2 million, or 50%, of total revenue from these services in 2018, and \$3.7 million, or 36%, of total professional engineering services revenue in 2017.

Revenue derived from our engagement with Google was \$1.0 million, or 12%, of our total revenue from professional engineering services in 2018 and \$2.9 million, or 28% of such revenue in 2017.

IoT-Related Services

Upon launching of our DataV software solutions in 2016, we also began providing integration and customization services as a significant element of each software sale. These services are required to integrate DataV into the customer’s environment, develop custom applications that use DataV, and, in many cases, operate the DataV solution for the customer. DataV services account for roughly half of the contract value of our DataV deployments, based on our understanding of customer needs ahead of their readiness to address digital transformation.

In late 2018 we launched a new services offering focused on helping businesses employ IIoT-enabled remote devices, integrate these devices into cloud IIoT services offered by Amazon Web Services (“AWS”) and Microsoft Azure, apply machine learning and advanced analytics to the data generated by these remote devices, and operationalize resulting insights.

Starting in 2019, IIoT-related services will become our primary sales focus and will include the following service offerings:

- data science consulting;
- IIoT edge integration;
- AWS IIoT integration;
- Azure IIoT integration;
- managed hosting;
- development operations consulting; and
- custom application development.

We manage all professional services activities under one operating umbrella.

Strategy

Our strategy is to expand our IIoT service offerings building on our historic business selling embedded system software, our traditional engineering services business, and as a complement to our software sales. We will continue to invest in the development of our proprietary software, including DataV in support of existing customer commitments and new customer opportunities. We intend to leverage our long-standing relationship with Microsoft selling embedded system software and build on that relationship in partnership with Microsoft’s Azure and IIoT sales and marketing teams. We will also build on our new relationship with the AWS team.

Relationship with Microsoft

We have a long-standing relationship with Microsoft and this relationship is important to the continuing success of our business. Our credentials as a Microsoft partner include:

- We have been one of Microsoft’s largest distributors of Windows Embedded operating systems for over 20 years;
- We have been a distributor of Microsoft’s Windows Mobile operating systems since November 2009;
- We were the OED Americas Channel Sales & Marketing Award recipient for Distributor Sales Excellence in 2013;
- We are a Silver Data Analytics partner;
- We are a Silver Data Platform partner;
- We are a Co-Sell Ready ISV Partner for Microsoft; and
- Microsoft has engaged us from time to time on various engineering service engagements.

We work closely with Microsoft executives, developers, product managers and sales personnel. We leverage these relationships in a variety of ways, including:

- We gain early access to new Microsoft embedded software and other technologies;
- We leverage co-marketing resources, content and strategies from Microsoft, including market development funds, to support our own marketing and sales efforts;
- We participate in Microsoft-sponsored trade shows, seminars, and other events;
- We receive sales leads from Microsoft; and
- We receive rebates from Microsoft based upon the achievement of predefined sales objectives.

See Item 1A, “Risk Factors,” for more information regarding our relationship with Microsoft.

Sales and Marketing

We market our products and professional engineering services utilizing a direct sales model. We have sales personnel throughout the United States and in the United Kingdom. Historically, we have not made significant use of resellers, channel partners, representative agents or other indirect channels. In late 2018 we entered into a three-year Strategic Collaboration Agreement with AWS. This agreement provides funding for research and development and sales and marketing programs that are intended to help accelerate the growth of IoT business initiatives for both us and AWS. As part of this agreement, AWS became the preferred cloud provider for DataV customers. Additionally, in late 2018 we expanded our partnership with Microsoft to include distribution of Windows Embedded operating systems to include new partners within the Microsoft IoT ecosystem and Azure IoT cloud integration services. Key elements of our sales and marketing strategy include direct marketing, content marketing, trade shows, event marketing, public relations, analyst relations, social media properties, customer and strategic alliance partner co-marketing programs and a comprehensive website.

Research and Development

During 2018, substantially all of our research and development personnel were dedicated to the design, development and release of DataV software. Moving into 2019, we intend to limit our investments in DataV software to meet clear customer demand, drawing down personnel dedicated to DataV software development and increasing personnel dedicated to delivering IIoT-related services.

Customers

Targeted customers for DataV services and software solutions include large industrial concerns that either manufacture capital assets, such as a heavy-duty commercial truck manufacturer, or rely on the widespread deployment of capital assets in the operation of their businesses, such as a large for-hire fleet operator. DataV customers may also include manufacturers incorporating DataV within their own offerings in order to enhance capabilities, such as an electric meter manufacturer developing smart grid technology for power utilities.

Customers purchasing third-party software and our other proprietary software solutions and professional engineering services include leading OEMs, ODMs, Enterprises, SVs and peripheral vendors. Representative customers include Honeywell International, Inc., Hewlett Packard, Google, Elo Touch Solutions, Mitsubishi Electric Corporation, Oracle, Omnicell, and several industrial handset companies.

Competition

The IIoT market is still emerging but is already becoming increasingly competitive. Our competitors in this space include, or we anticipate could include, the following:

- Large, established enterprise software and solution providers such as IBM, SAS, Oracle and SAP;
- Cloud IIoT providers such as AWS and Microsoft Azure. Although we are closely partnered with AWS and Microsoft, there are elements of their solutions with which we compete directly;
- Mid-sized companies engaged in business transitions similar to our own, including PTC ThingWorx; and
- Startups funded to enter the IIoT market, including C3IOT and others.

In addition, we anticipate that we will encounter increasing competition in the growing IIoT market from a number of additional software and service providers as we continue to focus on this market in 2019 and beyond and as we expand our focus on providing IIoT-related service offerings.

The market for device software and engineering services is competitive. We face competition from the following:

- Our current and potential customers' internal engineering and research and development departments, which may seek to provide their own IIoT-related services and/or develop their own software solutions which could compete with our IIoT service offerings and proprietary software products;
- Engineering service firms, including off-shore development companies, such as Adeneo, SymphonyTeleca and Wipro;
- ODMs, particularly those in Taiwan and China, with their own software development capabilities;
- Contract manufacturers with their own software development capabilities;

- Mobile and embedded test automation providers including Perfecto Mobile, mVerify, JAMO Solutions, SmartBear Software (AutomatedQA), TestPlant (eggPlant) and Keynote, as well as our customers' and potential customers' internally created tools and manual testing capabilities;
- Microsoft Windows Embedded and Windows Mobile operating system distributors such as Arrow Electronics, Inc. Avnet, Inc. and Synnex Corporation; and
- Marketing agencies and specialized vendors who provide mobile application services.

Some of our competitors focus on only one aspect of our business or offer complementary products that can be integrated with our products. As we develop and bring to market new software products and service offerings, we may begin competing with companies with which we have not previously competed. Further, as we expand the geographic markets into which we sell our services and software solutions, or increase our penetration therein, we may expect to increasingly compete with companies with which we have not previously competed. It is also likely that new competitors will enter the market or that our competitors will form alliances, including alliances with AWS or Microsoft, that may enable them to rapidly increase their market share. New competitors may have lower overhead than we do and may be able to undercut our pricing. We expect that competition will increase as other established and emerging companies enter the connected device market, and as new products and technologies are introduced.

Neither AWS nor Microsoft has agreed to any exclusive arrangement with us, nor has either agreed not to compete against us. Amazon may decide to focus on providing products or services that compete directly with our products and services or partnering with other solution providers that compete with us. Microsoft may decide to bring in-house more of the core-embedded development services and expertise that we currently provide, possibly resulting in reduced software and service revenue opportunities for us. The barrier to entering the market as a provider of Microsoft-based smart connected systems software and services is low. In addition, Microsoft has created marketing programs to encourage systems integrators to work on Windows operating system software and services, including in the evolving IIoT market. These systems integrators may be given substantially the same access by Microsoft to Microsoft technology as we are.

International Operations

Our international operations outside of North America consist principally of engineering services operations in Taipei, Taiwan and Trowbridge, England. Prior to mid-2018 we also maintained a sales and sales support office in Tokyo, Japan. Because our OEM Distribution Agreement with Microsoft for the sale of Microsoft Windows Embedded operating systems (e.g. Windows Embedded Compact) was previously restricted to North America, the majority of our revenue continues to be generated from North America. Revenue generated from customers located outside of North America was approximately 6% of total revenue in both 2018 and 2017. Our distribution rights for Microsoft Windows Embedded products in the E.U., the European Free Trade Association, Turkey and Africa expires on June 30, 2019 and will not be renewed; accordingly, we do not plan to make additional sales and marketing investments during 2019 in those regions.

See Item 1A, "Risk Factors," and Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations," for more information regarding our international operations.

Personnel

Our headcount by area was as follows:

| | December 31, | |
|---|--------------|------|
| | 2018 | 2017 |
| Professional engineering services..... | 36 | 51 |
| Sales, marketing and administrative | 40 | 78 |
| Research and product development | 63 | 63 |
| Total employees..... | 139 | 192 |
| Contractors (primarily professional engineering services) | 12 | 6 |
| Total headcount..... | 151 | 198 |

Of the total headcount at December 31, 2018, 106 were located in North America, 19 in Taiwan and 26 in the United Kingdom. As conditions necessitate, professional engineering service employees may perform research and development activities and vice versa.

Intellectual Property and Other Proprietary Rights

In general, we strive to protect our intellectual property rights through patent, copyright, trademark and trade secret laws and through contractual arrangements. However, we cannot be certain that our efforts will be effective to prevent the misappropriation of our intellectual property, or to prevent the development and design by others of products or technologies similar to, or competitive with, those developed by us.

Additionally, because a significant portion of our revenue relates to the sale of third-party software products, we also rely on our partners, particularly Microsoft, to appropriately protect their own intellectual property.

As of January 31, 2019, we had fourteen pending United States (“US”) patent applications related to DataV, in addition to nine issued US patents related to other products and services. We also have a number of registered trademarks in various jurisdictions. We will continue to pursue appropriate protections for our intellectual property.

See Item 1A, “Risk Factors,” for more information regarding our intellectual property and other proprietary rights.

Available Information

We electronically file with or furnish to the Securities and Exchange Commission (“SEC”) our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to those reports pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934. We make available on our website at www.bsquare.com, free of charge, copies of these reports, as soon as reasonably practicable after electronically filing such reports with, or furnishing them to the SEC. The information contained in, or that can be accessed through, our website is not part of, and is not incorporated into, this Annual Report on Form 10-K or any of our other reports filed with or furnished to the SEC.

Item 1A. Risk Factors.

As discussed under Item 1 of Part I, “Business—Cautionary Note Regarding Forward-Looking Statements,” our actual results could differ materially from those expressed in our forward-looking statements. Factors that might cause or contribute to such differences include, but are not limited to, those discussed below. Additional risks and uncertainties not presently known to us, or that we currently deem immaterial but later emerge as material, may also impair our business operations. If any of the following risks occur, our business, financial condition, operating results, cash flows and the trading price of our common stock could be materially adversely affected.

Risks Related to IIoT Services and DataV Solutions

Beginning in early 2014, we initiated development efforts focused on new proprietary software products addressing the IIoT market. We launched our DataV solution, which includes software products, applications and services that are designed to render raw IIoT device data into meaningful and actionable data for our customers, late in the first quarter of 2016. Developing, selling and implementing DataV was our primary focus through late 2018, representing a transition away from dependence on resale software and professional engineering services toward increased reliance on our own proprietary software and related systems integration services. However, during the fourth quarter of 2018, in response to near-term customer demand and in an effort to improve our profitability, we revised our growth strategy to focus on expanding our IIoT-related service offerings while at the same time reducing further investments in the development of our DataV software. We believe that by first offering customers our IIoT-related service offerings, we may generate additional opportunities to sell our DataV software to such customers. The following risks related to our IIoT-related services and DataV solution may negatively impact our business and operating results.

If our IIoT-related service offerings fail to gain or maintain traction with potential customers, or if we are not successful in converting these opportunities to fully paid DataV licenses, our business would be negatively impacted.

Our strategy to focus on expanding our IIoT-related service offerings is subject to a number of risks, including the following:

- The significant investment of time and financial and other corporate resources required;
- Customer acceptance of our IIoT service offerings;
- Our IIoT service offerings are distinctly different from our traditional engineering services, and our engineers may not have the depth of required experience and we may be unable to hire additional engineers to perform these services;
- Our current sales team may not be able to sell our IIoT service offerings and we may not be able to hire sufficient additional sales personnel;
- Because IIoT- services is a relatively new service offering, the sales cycle may be longer than we anticipate;
- We may be unable to grow our IIoT-related services business rapidly enough to contribute to profitability during 2019;

- If we are unable to generate IIoT service revenue, we may be required to reduce our engineering staff, which would result in the loss of skilled engineers and could adversely impact our ability to develop DataV software in the future; and
- Even if we are successful in selling our IIoT-related services to existing or new customers, we may not be successful in selling our higher-margin DataV software to such customers.

Our ability to maintain and grow our higher-margin proprietary software revenue is contingent on the success of DataV, our proprietary business-focused IIoT software solution. If our DataV software fails to gain or maintain traction with potential customers, or if we are not otherwise successful in developing competitive product offerings that keep pace with technological changes and needs, our business would be negatively impacted.

Proprietary software product revenue provides us with much higher gross profit margins than we typically receive from either our third-party software products or our engineering service offerings and provides other advantages as well. During 2018 and 2017, we invested significant resources in developing and marketing our proprietary DataV solution. Our DataV customer engagements typically commence with an initial proof-of-concept (POC) or pilot project, after which our objective is to convert these customers to a fully paid license of our DataV products and services. However, our DataV software has gained customer traction more slowly than anticipated, and we have not been successful in converting our customers from POCs and pilots to fully paid licenses. Although we have recently revised our growth strategy to focus first on offering our IIoT-related services, there can be no assurance that we will be able to convert customers of our IIoT-related services to fully paid DataV licenses. We have previously made significant investments in the development and marketing of our DataV software, and may continue to do so in the future, which will increase our operating expenses. There can be no assurance that our DataV software will achieve market acceptance or that there will be sufficient revenue generated by sales of our DataV software. The failure to successfully market and sell our DataV software would materially and adversely impact our revenue and operating results.

The IIoT is an emerging market that has not evolved as we anticipated, and there can be no assurance that the IIoT market will evolve as we expect, or that we will be successful in capitalizing on opportunities in this market.

We are currently devoting significant effort and resources to market and sell our IIoT-related services and DataV software to customers within the IIoT market. IIoT is an emerging and evolving market with many potential industry participants and customers, as well as undefined market opportunities and risks. To date, this market has not evolved as we anticipated and may not ultimately evolve as we expect, and our efforts to capitalize on these evolving market opportunities may not be successful in the near term, or at all. If the IIoT market does not materialize as we anticipate, or if our products and services do not achieve market acceptance, our business, financial condition, and operating results would be adversely affected, any of which would likely cause our stock price to decline.

The long sales cycle of our products and services makes our revenue susceptible to fluctuations.

Our recent experience with DataV has shown that the DataV sales cycle can run six to eighteen months because the expense and complexity of the software and service offerings we sell generally require a lengthy customer approval process. Although we anticipate that the sales cycle for our IIoT service offerings may not be as lengthy, there can be no assurance that this will be the case. The sales cycle for our services and products is subject to a number of significant risks over which we have little or no control, including:

- Customers' budgetary constraints and internal acceptance review procedures;
- The effects of economic uncertainties;
- The timing of budget cycles; and
- The timing of customers' competitive evaluation processes.

In addition, to successfully sell our software and engineering service offerings, we must frequently educate our potential customers about the full benefits of our software and services, which can require significant time and expense. This is particularly true given the early stage of the IIoT market. If our sales cycle further lengthens unexpectedly, or if we are unsuccessful in selling our IIoT service offerings or converting customers to fully paid licenses, it would adversely affect the timing and amount of our revenue and our ability to sell higher-margin products, which would adversely impact our business and profitability.

Our DataV operating results have fluctuated significantly and are expected to continue to fluctuate.

Our DataV revenue has not grown as quickly as anticipated which has caused our stock price to decline, and our DataV operating results may continue to fluctuate, which could cause our stock price to continue to decline. Some of the important factors that may cause our DataV operating results to fluctuate include the following:

- The uncertainty and lack of predictability of the new and evolving IIoT market;
- The extent of customer acceptance of our DataV solution;
- Our ability to sell our IIoT-related service offerings and convert such customers to fully paid DataV licenses;
- The degree of conversion of customers from POCs and pilots to fully paid DataV licenses; and
- The timing of recognition of DataV product and services revenue.

These and other factors make it difficult to forecast our quarterly and annual financial results. Many of these factors are not within our control, and the occurrence of one or more of them might cause our operating results to fluctuate and vary widely from our financial forecasts. As such, we believe that quarter-to-quarter comparisons of our operating results may not be meaningful and should not be relied upon as an indication of future performance. Moreover, we may also fail to meet or exceed the expectations of securities analysts or investors, and the market price of our common stock could decline.

Our relationship with AWS is non-exclusive and may not evolve and grow as we anticipate.

We have entered into a non-exclusive Strategic Collaboration Agreement with AWS as our preferred cloud services provider. However, AWS is not obligated to use, market or sell our products or services and can terminate the agreement upon 90 days' notice. If our relationship with AWS does not evolve and grow as we anticipate, our business would be adversely impacted.

If our security measures or those of third-party data center hosting facilities, cloud computing platform providers, or other service partners are breached or unauthorized access is otherwise obtained to our customers' data, our data or our information technology ("IT") systems, our or our customers' confidential or personal information may be compromised or misappropriated, our products and services offerings may be perceived as not being secure, customers may curtail or stop using our products and services, and we may incur significant legal and financial liability.

Our products and services involve the storage and transmission of customers' proprietary data and personal information, and security breaches could result in a risk of loss of this data or information, litigation and possible liability. While we have security measures in place, they may be breached as a result of third-party action, including intentional misconduct by computer hackers, employee error, malfeasance or otherwise and result in someone obtaining unauthorized access to our IT systems, our customers' data or our data, including our intellectual property and other confidential business information. Additionally, third parties may attempt to fraudulently induce employees or customers into disclosing sensitive personal information such as user names, passwords or other information in order to gain access to our customers' data, our data or our IT systems. Because the techniques used to obtain unauthorized access, or to sabotage systems, change frequently and generally are not recognized until launched against a target, we may be unable to anticipate these techniques or to implement adequate preventative measures. In addition, our customers may authorize third-party technology providers to access their customer data, and some of our customers may not have adequate security measures in place to protect their data. Because we do not control the IT security of our customers or third-party technology providers, or of the processing of such data by third-party technology providers, we cannot ensure the integrity or security of such transmissions or processing. Malicious third parties may also conduct attacks designed to temporarily deny customers access to our products and services. Any security breach could result in a loss of confidence in the security of our products and services, damage our reputation, negatively impact our future sales, disrupt our business and lead to legal liability.

Interruptions or delays in services from third-party data center hosting facilities or cloud computing platform providers could impair the delivery and availability of our products and services and harm our business.

We currently serve certain of our customers through third-party data center hosting facilities and cloud computing platform providers located in the United States and other countries. Any damage to, or failure of, these systems generally could result in interruptions in the availability of our products and services. We have from time to time experienced, and may continue to experience, such interruptions, which could cause us to issue credits or pay penalties, cause customers to terminate their subscriptions, and adversely affect our customer attrition rates and our ability to attract new customers, all of which would reduce our revenue. Our business would also be harmed if our customers and potential customers believe our product and services offerings are unreliable. Despite contract provisions to protect us, customers may look to us to support and provide warranties for these third-party systems, which may expose us to potential claims, liabilities and obligations for technology or services we did not develop or sell, all of which could harm our business. Further, third-party software and cloud platforms that we currently or may in the future utilize may not continue to be available at reasonable prices, on commercially reasonable terms, or may become unavailable. Any of these outcomes could significantly increase our expenses and result in delays in the provisioning of our products and services until we are able to procure alternative solutions, either by developing equivalent technology or, if available, obtaining such technology through purchase or license from other third parties.

We do not control the operation or security of any of these hosting facilities or cloud computing platforms, and they may be vulnerable to damage or interruption from earthquakes, floods, fires, power loss, telecommunications failures and similar events. They may also be subject to break-ins, sabotage, intentional acts of vandalism and similar misconduct, as well as local administrative actions, changes to legal or permitting requirements and litigation to stop, limit or delay operation. Despite precautions taken by providers of these facilities and platforms, the occurrence of a natural disaster or an act of terrorism, a decision to close the facilities or platforms without adequate notice or other unanticipated problems at these facilities or platforms could result in lengthy interruptions in or cessation of our services.

Privacy concerns and laws, evolving regulation of cloud computing, cross-border data transfer restrictions and other domestic or foreign regulations may limit the use and adoption of our products and services and adversely affect our business.

Regulation related to the provision of services on the internet is evolving and increasing, as federal, state and foreign governments continue to adopt new laws and regulations addressing data privacy and the collection, processing, storage and use of personal information, such as the E.U.'s Data Protection Directive and General Data Protection Regulation ("GDPR") and the California Consumer Privacy Act ("CCPA"). Further, laws and regulations are increasingly aimed at the use of personal information for marketing purposes, such as the E.U.'s ePrivacy Directive and ePrivacy Regulation. Country-specific laws and regulations are subject to new and differing interpretations and may be inconsistent among jurisdictions. Existing laws and regulations, as well as future requirements, could reduce demand for our products and services or restrict our ability to store and process data or, in some cases, impact our ability to offer our products and services in certain locations or our customers' ability to deploy our solutions globally. The costs of compliance with and other burdens imposed by laws, regulations and standards such as GDPR and CCPA may also limit the use and adoption of our products and services, reduce overall demand for our products and services, lead to significant fines, penalties or liabilities for noncompliance, or slow the pace at which we close sales transactions, any of which could harm our business. Furthermore, concerns regarding data privacy may cause our customers' customers to resist providing the data necessary to allow our customers to use our products and services effectively. Even the perception that the privacy of personal information is not satisfactorily protected or does not meet regulatory requirements could inhibit sales of our products and services and could limit adoption of our cloud-based solutions.

Microsoft-Related Risk Factors

Because we provide software and services to customers building devices utilizing Microsoft's Windows Embedded and Windows Mobile operating systems, as well as the fact that a significant portion of our revenue is derived from the sale of Microsoft Windows Embedded and Windows Mobile operating systems, Microsoft has a significant direct and indirect influence on our business. The following Microsoft-related risks may negatively impact our business and operating results.

If we do not maintain our distribution relationship with Microsoft, our revenue would decrease, and our business would be adversely affected.

Effective March 1, 2019, pursuant to a new Global Partnership Agreement with Microsoft, we are authorized to sell Windows Embedded operating systems in Canada, the United States, Argentina, Brazil, Chile, Mexico, Peru, Venezuela, Puerto Rico, Cuba, Haiti, Dominican Republic, Jamaica, Trinidad and Tobago, Guadeloupe, Martinique, Bahamas, Barbados, Saint Lucia, Curacao, Aruba, Saint Vincent and the Grenadines, U.S. Virgin Islands, Grenada, Dominica, Cayman Islands, Saint Kitts and Nevis, Sint Maarten, Turks and Caicos Islands, Saint Martin, British Virgin Islands, Sint Eustatius, Saba, Anguilla, Montserrat, Colombia, Saint Barthelemy, Antigua and Barbuda. Our existing distribution agreement for sales of Windows Embedded operating systems in E.U., the European Free Trade Association, Turkey and Africa, from which we generated approximately 3.7% of our third-party software sales in 2018, expires on June 30, 2019 and will not be renewed thereafter. We have also entered into ODAs with Microsoft pursuant to which we are licensed to sell Microsoft Windows Mobile operating systems to customers in North America, South America, Central America (excluding Cuba), Japan, Taiwan, Europe, the Middle East, and Africa. The ODAs to sell Windows Mobile operating systems are effective through April 30, 2022.

We generated \$59.5 million and \$64.4 million of revenue in 2018 and 2017, respectively, through our sales of Microsoft operating systems and expect this revenue stream to continue in 2019, although potentially at a declining rate. If the new GPA or any of our other ODAs are terminated by Microsoft (which Microsoft can do unilaterally) or not renewed, third-party software revenue and resulting gross profit could decrease significantly and our operating results would be negatively impacted. Future renewals by Microsoft, if any, could be on less favorable terms, which could also negatively impact our business and operating results.

Microsoft can change its product pricing at any time, and unless we are able to pass through price increases to our customers, our revenue, gross profit and operating results would be negatively impacted. Further, Microsoft currently offers a rebate program in conjunction with our resale activities in which we earn money for achieving certain predefined objectives. If Microsoft changed the way that rebates are earned by eliminating or negatively modifying the rebate program, our gross profit and operating results

would be negatively impacted. We qualified for rebate credits from Microsoft of \$2.4 million and \$1.7 million in 2018 and 2017, respectively, 30% of which was credited against product invoices and accounted for as a reduction in cost of sales, with the remaining portion as a reduction in marketing expense if and when qualified expenditures are made and claimed.

In January 2019, Microsoft changed the way a portion of its earned rebate may be claimed. The process previously in place under its 2018 program for claiming 30% of the rebates against product invoices was changed; these earned rebate amounts are now credited to the Microsoft Azure Sponsorship program and claimed upon delivery of approved Azure programs. We joined this sponsorship program in January 2019; if we are unable to complete enough qualified Azure programs during each qualification period, we may not be able to claim all or a portion of this rebate.

Our business and results of operations could be negatively impacted by changes Microsoft implements in its pricing of its operating systems.

Microsoft implemented significant pricing changes for its operating systems products, including ending its design registration pricing discounts, terminating its OEM Volume Royalty Program and changing the aggregate volume price structure and product royalties for existing Windows Embedded products effective January 1, 2016, and Microsoft could make further pricing changes in the future. These changes have altered the competitive dynamics because the same pricing discounts are available to all distributors of these Microsoft products. As a distributor of Microsoft products, this impacts both the sales prices we charge our customers and the cost of goods sold we incur for many of the Microsoft products we sell. The amount and impact of these changes to our revenue and gross profit are not determinable; however, they may negatively impact our operating results in future reporting periods. The sale of Microsoft operating systems represented approximately 81% and 80% of our total revenue and approximately 57% and 54% of our total gross margin for the years ended December 31, 2018 and 2017, respectively.

Microsoft has audited our records under the ODAs in the past and may audit our records again in the future, and any negative audit results could result in additional charges and/or the termination of our distributor relationship with Microsoft.

There are provisions in the ODAs that require us to maintain certain internal records and processes for auditing purposes. Non-compliance with these or other contractual requirements could result in the termination of our distributor relationship with Microsoft. Microsoft concluded audits of our records pertaining to the ODAs in 2009 and 2006, neither of which had material findings. It is possible that future audits could result in charges due to any material findings that are found. We may also be contractually liable for payment of royalties to Microsoft in the event that certificates of authenticity are lost, damaged or stolen.

Our business and results of operations would be adversely impacted if Microsoft decided to provide Windows Embedded or Windows Mobile operating systems free of charge to customers.

Microsoft offers certain consumer Windows phone and tablet-based operating systems to customers free of charge, subject to certain limitations. While we do not distribute these operating systems today under our ODAs with Microsoft, if Microsoft were to offer, free of charge, operating systems that we do distribute, our business and results of operations would be adversely impacted.

In recent years, the markets for Windows Embedded and Windows Mobile operating systems have declined; if the markets for these operating systems continue to decline or decline more rapidly than anticipated, our business and operating results would be materially harmed.

A significant portion of our revenue to date has been generated by software and services targeted at customers and devices running various Microsoft Windows Embedded and Windows Mobile operating systems. In recent years, the markets for these systems have declined. If the markets for these operating systems continue to decline or decline more rapidly than anticipated, our business and operating results would be negatively impacted. Continued market acceptance of Microsoft Windows Embedded and Windows Mobile operating systems will depend on many factors, including:

- Microsoft's development and support of various Windows Embedded and Windows Mobile markets. As the developer and primary promoter of Windows Embedded and Windows Mobile operating systems, if Microsoft were to decide to discontinue or lessen its support of these operating systems, potential customers could select competing operating systems, which could reduce the demand for our Microsoft Windows Embedded and Windows Mobile software products and engineering services, from which a significant portion of our revenue continues to be generated;
- The ability of the Microsoft Windows Embedded and Windows Mobile operating systems to compete against existing and emerging operating systems for the smart connected systems market, including iOS from Apple, Inc.; VxWorks and Linux from WindRiver Systems Inc.; Android from Google Inc.; QNX from BlackBerry Limited; and other proprietary operating systems. Microsoft Windows Embedded and Windows Mobile operating systems may be unsuccessful in capturing or retaining a significant share of the smart connected systems market in the future;

- The acceptance by customers of the mix of features and functions offered by Microsoft Windows Embedded and Windows Mobile operating systems; and
- The willingness of software developers to continue to develop and expand the applications running on Microsoft Windows Embedded and Windows Mobile operating systems. To the extent that software developers write applications for competing operating systems that are more attractive to users than those available on Microsoft Windows Embedded and Windows Mobile operating systems, this could cause potential customers to select competing operating systems.

General Business-Related Risk Factors

Our marketplace is extremely competitive, which may result in price reductions, lower gross profit margins and loss of market share.

The IIoT market is still emerging but is already becoming increasingly competitive. Our competitors in this space include, or we anticipate could include, the following:

- Large, established enterprise software and solution providers such as IBM, SAS, Oracle and SAP;
- Cloud IIoT providers such as AWS and Microsoft Azure. Although we are closely partnered with AWS and Microsoft, there are elements of their solutions with which we compete directly;
- Mid-sized companies engaged in business transitions similar to our own, including PTC ThingWorx; and
- Startups funded to enter the IIoT market, including C3IoT and others.

In addition, we anticipate that we will encounter increasing competition in the growing IIoT market from a number of additional software and service providers as we continue to focus on this market in 2019 and beyond, and as we expand our focus on providing IIoT-related service offerings.

The market for device software and engineering services is extremely competitive. We face competition from the following:

- Our current and potential customers' internal engineering and research and development departments, which may seek to provide their own IIoT services and/or develop their own software solutions which could compete with our IIoT-related service offerings and proprietary software products;
- Engineering service firms, including off-shore development companies, such as Adeneo, SymphonyTeleca and Wipro;
- ODMs, particularly those in Taiwan and China, with their own software development capabilities;
- Contract manufacturers with their own software development capabilities;
- Mobile and embedded test automation providers including Perfecto Mobile, mVerify, JAMO Solutions, SmartBear Software (AutomatedQA), TestPlant (eggPlant) and Keynote, as well as our customers' and potential customers' internally created tools and manual testing capabilities;
- Microsoft Windows Embedded and Windows Mobile operating system distributors such as Arrow Electronics, Inc. Avnet, Inc. and Synnex Corporation; and
- Marketing agencies and specialized vendors who provide mobile application services.

Some of our competitors focus on only one aspect of our business or offer complementary products that can be integrated with our products. As we develop and bring to market new software products and service offerings, we may begin competing with companies with which we have not previously competed. Further, as we expand the geographic markets into which we sell our services and related software solutions, or increase our penetration therein, we may expect to increasingly compete with companies with which we have not previously competed. It is also likely that new competitors will enter the market or that our competitors will form alliances, including alliances with AWS or Microsoft, that may enable them to rapidly increase their market share. New competitors may have lower overhead than we do and may be able to undercut our pricing. We expect that competition will increase as other established and emerging companies enter the connected device market, and as new products and technologies are introduced.

Neither AWS nor Microsoft has agreed to any exclusive arrangement with us, nor has either agreed not to compete with us. Amazon may decide to focus on providing products or services that compete directly with our products and services or partnering with other solution providers that compete with us. Microsoft may decide to bring more of the core embedded development services and expertise that we provide in-house, possibly resulting in reduced software and service revenue opportunities for us. The

barrier to entering the market as a provider of Microsoft-based smart connected system software and services is low. In addition, Microsoft has created marketing programs to encourage systems integrators to work on Windows Embedded and Windows Mobile operating system software and services, including in the evolving IIoT market. These systems integrators may be given substantially the same access by Microsoft to Microsoft technology as we are.

Management turnover creates uncertainties and could harm our business.

We have had significant changes in executive leadership in the past including in our executive management team and at the Board level, and more could occur. Changes to strategic or operating goals, which can often occur with the appointment of new executives and Board members, can create uncertainty, may negatively impact our ability to execute quickly and effectively, and may ultimately be unsuccessful. In addition, leadership transition periods are often difficult as the new executives and Board members gain detailed knowledge of our operations, and friction can result from changes in strategy and management style. Management turnover inherently causes some loss of institutional knowledge, which can negatively affect strategy and execution. Until we integrate new personnel, and unless they are able to succeed in their positions, we may be unable to successfully manage and grow our business, and our financial condition and profitability may suffer.

Further, to the extent we experience additional management turnover, competition for top management is high and it may take months to find a candidate that meets our requirements. If we are unable to attract and retain qualified management personnel, our business could suffer.

Because competition for technology industry employees is intense, we may not be able to attract and retain the highly skilled employees we need to support our operations and grow our business.

In the technology industry generally, and in the greater Seattle area in particular, there is intense competition for software engineers, as well as for technology sales and operations personnel. We may not be successful in attracting or retaining such qualified personnel. If we fail to attract new personnel or to retain and motivate our current personnel, our business would be harmed.

We depend on our direct sales force to achieve planned revenue growth in the future, and if our sales force is not successful, our financial condition will be harmed.

We sell our solutions primarily through our direct sales force. During 2018 we experienced turnover in our sales team. In addition, we have recently revised our growth strategy to focus on expanding our IIoT service offerings and our current sales team may not have the requisite expertise to sell our IIoT service offerings. Our ability to achieve planned revenue growth in the future will depend upon the success of our direct sales force and our ability to adapt our sales efforts to address the evolving markets for our solutions. We may not be able to attract or retain sufficient sales personnel in a timely fashion, or at all. If our direct sales force does not perform as expected, our business, financial condition, and operating results could be adversely affected.

Our operating results may be adversely affected by changing economic and market conditions and the uncertain geopolitical environment.

Uncertain economic and political conditions in the U.S. and worldwide have from time to time contributed, and may continue to contribute, to volatility in the technology industries at large, particularly in an emerging market such as IIoT. These factors could potentially result in reduced demand for our products and services as a result of constraints on IT-related capital spending by our customers; purchasing delays; payment delays adversely affecting our cash flow and revenue; and difficulty in accurate budgeting and planning. If global economic and market conditions, or economic conditions in key markets, remain uncertain or deteriorate, we may experience material impacts on our business, operating results and financial condition.

Our business and operations would be adversely impacted in the event of a failure or interruption of our IT infrastructure.

The proper functioning of our own IT infrastructure is critical to the efficient operation and management of our business. Our IT is vulnerable to cyberattacks, computer viruses, worms and other malicious software programs, physical and electronic break-ins, sabotage and similar disruptions from unauthorized tampering with our computer systems. We believe that we have adopted appropriate measures to mitigate potential risks to our technology infrastructure and our operations from these IT-related and other potential disruptions. However, given the unpredictability of the timing, nature and scope of such disruptions, we could potentially be subject to downtimes, operational delays, other detrimental impacts on our operations or ability to provide products and services to our customers, the compromising of confidential or personal information, destruction or corruption of data, security breaches, other manipulation or improper use of our systems and networks, financial losses from remedial actions, loss of business or potential liability, and/or damage to our reputation, any of which could have a material adverse effect on our cash flows, competitive position, financial condition or results of operations.

We may be subject to product liability, infringement or other legal claims that could result in significant costs.

Our software license and service agreements with our customers typically contain provisions designed to limit our exposure to potential product liability, infringement and other legal claims. It is possible, however, that these provisions may be ineffective under the laws of certain jurisdictions or that our customers may not agree to these limitations. Although we have not experienced any product liability or infringement claims to date, as our business focus continues to transition to the sale of our own proprietary products, the sale and support of our products and services may be subject to such claims in the future. There is a risk that any such claims or liabilities may exceed, or fall outside, the scope of our insurance coverage, and we may be unable to obtain adequate liability insurance in the future. A product liability, infringement or other legal claim brought against us, whether successful or not, could negatively impact our business and operating results.

Our business and results of operations would be adversely impacted in the event that we incur business losses that are not covered by or exceed our existing business insurance coverage.

We are insured against certain business risks and liabilities under our corporate insurance policies. However, to the extent that we incur losses in connection with our business that are not covered by our existing insurance policies or that exceed our existing policy coverage, our business and results of operations would be adversely impacted.

Changing growth strategies, negative business conditions, changes in useful lives, and other factors may negatively affect the carrying value of the intangible assets and goodwill we have acquired.

We evaluate goodwill and intangible assets for impairment on an annual basis or more frequently when an event occurs, or circumstances change that indicate that the carrying value may not be recoverable. Reductions in operating cash flows or projected cash flows of our reporting units could result in an impairment charge that would negatively impact our operating results. For example, we performed our annual goodwill assessment for 2018 in the fourth quarter of 2018 and determined that the carrying value of goodwill was impaired. As a result, an impairment charge of \$3.7 million was recorded. Further, business conditions and other factors may also require us to reassess the useful lives associated with intangible assets.

Past acquisitions have proven difficult to integrate, and future acquisitions, if any, could disrupt our business, dilute shareholder value and negatively affect our operating results and may not accrete to our revenue or other operating results or to our business generally.

We have acquired the technologies, assets and/or operations of other companies in the past and may acquire or make investments in companies, products, services and technologies in the future as part of our growth strategy. If we fail to properly evaluate, integrate and execute on our acquisitions and investments, our business and prospects may be seriously harmed. In addition, acquisitions may not be as accretive to our revenue or other operating results as expected. To successfully complete an acquisition, we must properly evaluate the business, technology, market and management team of the acquisition target, accurately forecast the financial impact of the transaction, including accounting charges and transaction expenses, integrate and retain personnel, combine potentially different corporate cultures and effectively integrate products, research and development, sales, marketing and support operations. If we fail to do any of these, we may suffer losses and impair relationships with our employees, customers and strategic partners. Additionally, acquisition activities may distract management from day-to-day operations. We also may be unable to maintain consistently uniform standards, controls, procedures and policies across our entire business as a result, and significant additional demands may be placed on our management and our operations, information services and financial, legal and marketing resources. Finally, acquired businesses may result in unexpected liabilities and contingencies, which may involve compliance with foreign laws, payment of taxes, labor negotiations or other unknown costs and expenses, which could be significant.

We may not be able to raise additional capital if required to support our business, and the issuance of additional equity or convertible debt securities would result in the dilution of our existing shareholders.

Our investment in our DataV business has resulted in a decrease in our cash, cash equivalents and investments from approximately \$24.7 million at December 31, 2017 to approximately \$16.9 million (including \$0.5 million in restricted cash) at December 31, 2018. Although we have recently revised our growth strategy to focus on expanding our IIoT-related service offerings while at the same time reducing investments in the development of our DataV software, we expect to incur additional product development expenses through mid-2019 to complete current projects. If we need to raise additional operating capital to fund our operations, it may be difficult and costly to access the public equity and debt capital markets. In the past, our stock has traded at low volumes and overall investor confidence in the stock market could falter. This could make it difficult or impossible to sell additional shares of our stock in the public market. In addition, it may be difficult and costly to obtain commercial debt financing and we may be unable to borrow funds at acceptable cost, or at all, should the need arise. If we are unable to raise capital as necessary, it may adversely affect our ability to invest in products or fund operations, which would materially harm our business and negatively affect operating results. If we decide to raise additional funds by issuing equity or convertible debt securities, the ownership percentages of our existing shareholders would be reduced.

Our common stock has experienced and may continue to experience price and volume fluctuations, which could lead to costly litigation for us and make an investment in us less appealing.

Stock markets are subject to significant price and volume fluctuations that may be unrelated to the operating performance of particular companies and the market price of our common stock may therefore frequently change as a result. In addition, the market price of our common stock has fluctuated and may continue to fluctuate substantially due to a variety of other factors, including quarterly fluctuations in our results of operations (including as a result of fluctuations in our revenue recognition), our ability to execute on our current growth strategy in a timely fashion, announcements about technological innovations or new products or services by us or our competitors, market acceptance of new products and services offered by us, developments in the IIoT market, changes in our relationships with our suppliers or customers, our ability to meet analysts' expectations, changes in the information technology environment, changes in earnings estimates by analysts, sales of our common stock by existing holders and the loss of key personnel. In the past, following periods of volatility in the market price of a company's stock, class action securities litigation has often been instituted against such companies. Such litigation, if instituted against us, could result in substantial costs and diversion of management's attention and resources, which would materially adversely affect our business, financial condition and operating results.

We could become subject to taxation in jurisdictions in which we do not believe we currently have tax nexus, which could expose us to additional tax liability that we have not been subject to in the past.

We make sales in many jurisdictions across the United States. We believe we do not have nexus in most of these jurisdictions and, therefore, we believe we are not subject to sales, franchise, income and other state and local taxes in such jurisdictions. However, if we are determined to have tax nexus in other jurisdictions (as a result of more aggressive interpretations of nexus by taxing jurisdictions or otherwise) and we are unable to pass through this cost to our customers, our tax expense will increase which will negatively affect our results of operations. Further, because state and local tax laws are becoming increasingly complex, we anticipate that our cost to monitor our state and local tax compliance will increase which will negatively affect our results of operations. Additionally, there can be no assurance that we do not currently have unknown tax exposure in a state or local tax jurisdiction because of recent tax law changes of which we are unaware, and the resulting liability could be significant and would negatively affect our results of operations.

There may be restrictions on the use of our net operating loss and tax credit carryforwards due to a tax law "ownership change."

We did not generate taxable income in 2017 or 2018 and, as a result, we were unable to use our net operating loss and tax credit carryforwards with respect to such tax years. In addition, Sections 382 and 383 of the Internal Revenue Code restrict the ability of a corporation that undergoes an ownership change to use net operating loss and tax credit carryforwards. At December 31, 2018, we had approximately \$73.4 million of federal and \$9.0 million of state net operating loss carryforwards and \$3.3 million of tax credit carryforwards. Of the federal net operating loss carryforwards, an aggregate of \$36.3 million will expire in 2022 and 2023 and we may not generate sufficient taxable income prior to such time in order to fully utilize our net operating loss and tax credit carryforwards before they expire. Moreover, under the applicable tax rules, an ownership change occurs if greater than five percent shareholders of an issuer's outstanding common stock collectively increase their ownership percentage by more than 50 percentage points over a rolling three-year period. As of December 31, 2017, we performed analyses of possible ownership changes which included consideration of a third-party study, and do not believe that an ownership change, as defined by Section 382, has occurred. However, if a tax law ownership change has occurred of which we are not aware, or if a tax law ownership change occurs in the future, we may have to adjust the valuation of our deferred tax assets and could be at risk of having to pay income taxes notwithstanding the existence of our sizable carryforwards. Further, to the extent that we have utilized our carryforwards from prior years, the existence of a previous tax law ownership change that we did not account for could result in liability for back taxes, interest, and penalties. If we are unable to utilize our carryforwards and/or if we previously utilized carryforwards to which we were not entitled, it would negatively impact our business, financial condition and operating results.

Changes in our effective tax rate may impact our results of operations.

We are subject to taxes in the U.S. and other jurisdictions. Tax rates in these jurisdictions may be subject to significant change due to economic and/or political conditions. A number of other factors may also impact our future effective tax rate including:

- the jurisdictions in which profits are determined to be earned and taxed;
- the resolution of issues arising from tax audits with various tax authorities;
- changes in valuation of our deferred tax assets and liabilities;
- increases in expenses not deductible for tax purposes, including write-offs of acquired intangibles and impairment of goodwill in connection with acquisitions;

- changes in availability of tax credits, tax holidays, and tax deductions;
- changes in share-based compensation; and
- changes in tax laws or the interpretation of such tax laws and changes in generally accepted accounting principles.

In December 2017, the President signed into law new legislation that significantly revised the Internal Revenue Code. The recently enacted federal income tax law, among other things, contained significant changes to corporate taxation, including reduction of the corporate tax rate from a top marginal rate of 35% to a flat rate of 21% beginning in 2018, limitation of the tax deduction for interest expense to 30% of adjusted earnings, limitation of the deduction for net operating losses to 80% of current year taxable income and elimination of net operating loss carrybacks, one time taxation of offshore earnings at reduced rates regardless of whether they are repatriated, immediate deductions for certain new investments instead of deductions for depreciation expense over time, and modifying or repealing many business deductions and credits (including reducing the business tax credit for certain clinical testing expenses incurred in the testing of certain drugs for rare diseases or conditions). Notwithstanding the reduction in the corporate income tax rate, the overall impact of the new federal tax law remains uncertain and our business and financial condition could be adversely affected. In addition, it is uncertain if and to what extent various states will conform to the newly enacted federal tax law. The impact of this tax reform on holders of our common stock is also uncertain and could be adverse. We urge shareholders to consult with their legal and tax advisors with respect to this legislation and the potential tax consequences of investing in or holding our common stock.

Intellectual Property-Related Risk Factors

Our software and service offerings could infringe the intellectual property rights of third parties, which could expose us to additional costs and litigation and could adversely affect our ability to sell our products and services or cause shipment delays or stoppages.

It is difficult to determine whether our software products, including DataV, and engineering services infringe third-party intellectual property rights, particularly in a rapidly evolving technological environment in which technologies often overlap and where there may be numerous patent applications pending, many of which are confidential when filed. If we were to discover that one of our software products or service offerings, or a product based on one of our reference designs, violated a third party's proprietary rights, we may not be able to obtain a license on commercially reasonable terms, or at all, to continue offering that product or service. Similarly, third parties may claim that our current or future software products and services infringe their proprietary rights, regardless of whether such claims have merit. Any such claims could increase our costs and negatively impact our business and operating results. In certain cases, we have been unable to obtain indemnification against claims that third-party technology incorporated into our software products and services infringe the proprietary rights of others. However, any indemnification we do obtain may be limited in scope or amount. Even if we receive broad third-party indemnification, these entities may not have the financial capability to indemnify us in the event of infringement. In addition, in some circumstances we are required to indemnify our customers for claims made against them that are based on our software products or services. There can be no assurance that infringement or invalidity claims related to the software products and services we provide or arising from the incorporation by us of third-party technology and claims for indemnification from our customers resulting from such claims, will not be asserted or prosecuted against us. Some of our competitors have, or are affiliated with companies with, substantially greater resources than we have, and these competitors may be able to sustain the costs of complex intellectual property litigation to a greater degree and for longer periods of time than we could. In addition, we expect that software developers will be increasingly subject to infringement claims as the number of products and competitors in the software industry grows, and as the functionality of products in different industry segments increasingly overlap. Such claims, even if not meritorious, could result in the expenditure of significant financial and managerial resources in addition to potential product redevelopment costs and delays. Furthermore, if we were unsuccessful in resolving a patent or other intellectual property infringement action claim against us, we may be prohibited from developing or commercializing certain of our technologies and products, or delivering services based on the infringing technology, unless we obtain a license from the holder of the patent or other intellectual property rights. There can be no assurance that we would be able to obtain any such license on commercially favorable terms, or at all. If such license were not obtained, we would be required to cease these related business operations, which could negatively impact our business, revenue and operating results.

If we fail to adequately protect our intellectual property rights, competitors may be able to use our technology or trademarks, which could weaken our competitive position, reduce our revenue and increase our costs.

If we fail to adequately protect our intellectual property, our competitive position could be weakened, and our revenue and operating results adversely affected. We rely primarily on confidentiality policies and procedures and contractual provisions as well as a combination of patent, copyright, trade secret and trademark laws, to protect our intellectual property. These laws, policies and procedures provide only limited protection. It is possible that another party could obtain patents that block our use of some, or all,

of our software products and services, including DataV. If that occurred, we would need to obtain a license from the patent holder or design around those patents. The patent holder may or may not choose to make a license available to us on acceptable terms, or at all. Similarly, it may not be possible to design around a blocking patent. In general, there can be no assurance that our efforts to protect our intellectual property rights through patent, copyright, trade secret and trademark laws will be effective to prevent misappropriation of our technology, or to prevent the development and design by others of products or technologies similar to or competitive with those developed by us.

We license our computer source code to customers. There can be no assurance that customers with access to our source code will comply with the license terms or that we will discover any violations of the license terms or, in the event of discovery of violations, that we will be able to successfully enforce the license terms and/or recover the economic value lost from such violations. To license some of our software products, we rely in part on “shrink-wrap” and “click wrap” licenses that are not signed by the end user and, therefore, may be unenforceable under the laws of certain jurisdictions. As with other software, our software products are susceptible to unauthorized copying and uses that may go undetected, and policing such unauthorized use is difficult. A significant portion of our marks include the word “BSQUARE.” Other companies use forms of “BSQUARE” in their marks alone, or in combination with other words, and we cannot prevent all such third-party uses. We license certain trademark rights to third parties. Such licensees may not abide by our compliance and quality control guidelines with respect to such trademark rights. Any of these outcomes could negatively impact our brand, dilute its recognition in the marketplace, or confuse potential customers, all of which could harm our business.

The computer software market is characterized by frequent and substantial intellectual property litigation, which is often complex and expensive, and involves a significant diversion of resources and uncertainty of outcome. Litigation may be necessary in the future to enforce our intellectual property or to defend against a claim of infringement or invalidity. Litigation could result in substantial costs and the diversion of resources and could negatively impact our business and operating results.

Our software or hardware products or the third-party hardware or software integrated with our products or delivered as part of our service offerings may suffer from defects or errors that could impair our ability to sell our products and services.

Software and hardware components as complex as those needed for dedicated purpose intelligent systems frequently contain errors or defects, especially when first introduced or when new versions are released. We have had to delay commercial release of certain versions of our products until problems were corrected and, in some cases, have provided product enhancements to correct errors in released products. Some of our contracts require us to repair or replace products that fail to work. To the extent that we repair or replace products, our expenses may increase. In addition, it is possible that by the time defects are fixed, the market opportunity may decline which may result in lost revenue. Moreover, to the extent that we provide increasingly complex and comprehensive products and services, particularly those focused on IIoT hardware, and rely on third-party manufacturers and suppliers to manufacture these products, we will be dependent on the ability of such third-party manufacturers and suppliers to correct, identify and prevent manufacturing errors or defects. Errors or defects that are discovered after commercial release could result in loss of revenue or delay in market acceptance, diversion of development resources, damage to our reputation and increased service and warranty costs, all of which could negatively impact our business and operating results.

If we are unable to license key software from third parties, our business could be harmed.

We sometimes integrate third-party software with our proprietary software and engineering service offerings or sell such third-party software offerings on a standalone basis (e.g. Microsoft Windows Embedded and Mobile operating systems under our ODAs with Microsoft). If our relationships with these third-party software vendors were to deteriorate, or be eliminated in their entirety, we might be unable to obtain licenses on commercially reasonable terms, if at all. In the event that we are unable to obtain these third-party software offerings, we would be unable to continue to generate revenue from our reseller relationships or, with respect to our proprietary software and engineering services offerings, we would be required to develop this technology internally, assuming it was economically or technically feasible, or seek similar software offerings from other third parties assuming there were competing offerings in the marketplace, which could delay or limit our ability to introduce enhancements or new products, or to continue to sell existing products and engineering services, thereby negatively impacting our revenue and operating results.

Governance-Related Risk Factors

It might be difficult for a third party to acquire us even if doing so would be beneficial to our shareholders.

Certain provisions of our articles of incorporation, bylaws and Washington law may discourage, delay or prevent a change in the control of us or a change in our management, even if doing so would be beneficial to our shareholders. Our Board of Directors has the authority under our articles of incorporation to issue preferred stock with rights superior to the rights of the holders of common stock. As a result, preferred stock could be issued quickly and easily with terms calculated to delay or prevent a change in control of our company or make removal of our management more difficult. In addition, our Board of Directors is divided into three classes. The directors in each class serve for three-year terms, one class being elected each year by our shareholders. This system of

electing and removing directors may discourage a third party from making a tender offer or otherwise attempting to obtain control of our company because it generally makes it more difficult for shareholders to replace a majority of our directors. In addition, Chapter 19 of the Washington Business Corporation Act generally prohibits a “target corporation” from engaging in certain significant business transactions with a defined “acquiring person” for a period of five years after the acquisition, unless the transaction or acquisition of shares is approved by a majority of the members of the target corporation’s Board of Directors prior to the time of acquisition. This provision may have the effect of delaying, deterring or preventing a change in control of our company. The existence of these anti-takeover provisions could also limit the price that investors might be willing to pay in the future for shares of our common stock.

International Operations-Related Risk Factors

Our international operations expose us to greater intellectual property, management, collections, regulatory and other risks.

Customers outside of North America generated 6% of our total revenue both 2018 and 2017. We currently have sizable operations outside of North America in Taiwan and the United Kingdom (“U.K.”). Our international activities and operations expose us to a number of risks, including the following:

- Greater difficulty in protecting intellectual property due to less stringent foreign intellectual property laws and enforcement policies;
- Longer collection cycles than we typically experience in North America;
- Unfavorable changes in regulatory practices and tariffs;
- Compliance with complex regulatory regimes or restrictions on import and export of our goods and services;
- Complex and/or adverse tax laws and/or changes thereto. Additionally, we may be subject to income, withholding and other taxes for which we may realize no current benefit despite the existence of significant net operating loss and tax credit carryforwards in the U.S.;
- Loss or reduction of withholding tax exemptions;
- The impact of fluctuating exchange rates between the U.S. dollar and foreign currencies;
- General economic and political conditions in international markets which may differ from those in the U.S.;
- Increased exposure to potential liability under the Foreign Corrupt Practices Act;
- Added cost and administrative burden associated with creating and operating business structures in other jurisdictions;
- Potential labor costs and risks associated with employees and labor laws in other geographies; and
- The inherent risks of working in a certain highly regulated and/or controlled economies where relationships between company management and government officials is critical to timely processing of approvals required to conduct business.
- In addition, on June 23, 2016, the U.K. held a referendum in which voters approved an exit from the E.U., commonly referred to as “Brexit”. As a result of the referendum, the British government began negotiating the terms of the U.K.’s future relationship with the E.U. Although it remains unknown what those terms will be, it is possible that there will be greater restrictions on imports and exports between the U.K. and E.U. countries and increased regulatory complexities, which could adversely impact our operations and business in both the U.K. and the E.U.

These risks could have a material adverse effect on the financial and managerial resources required to operate our foreign offices, as well as on our future international revenue, which could negatively impact our business and operating results.

As our customers seek more cost-effective locations to develop and manufacture their products, particularly overseas locations, our ability to continue to sell our software products and services to these customers could be adversely affected, which could negatively impact our revenue and operating results.

Due to competitive and other pressures, some of our customers have moved, and others may seek to move, the development and manufacturing of their smart, connected systems to overseas locations, which may limit our ability to sell our software and services to these customers. As an example, under our ODAs with Microsoft, we are currently only able to sell Microsoft Windows Embedded operating systems to our customers in the United States, Canada, the Caribbean (excluding Cuba), Mexico, the E.U. (through June 30, 2019) and the European Free Trade Association. If our customers, or potential customers, move their manufacturing overseas to locations in which our business may be limited, we may be less able to remain competitive, which could negatively impact our revenue and operating results.

Item 1B. *Unresolved Staff Comments.*

Not applicable.

Item 2. *Properties.*

As of December 31, 2018, our corporate headquarters had 24,061 square feet of leased space in a single location in Bellevue, Washington. The lease term ends in May 2020.

In North America, we also lease office space in Boston, Massachusetts. We lease office space overseas in Taipei, Taiwan; and Trowbridge, England, U.K. We believe that our facilities have sufficient capacity to support our current operational needs as well as short-term growth plans.

Item 3. *Legal Proceedings.*

None.

Item 4. *Mine Safety Disclosures.*

Not applicable.

PART II

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

Market Information

Our common stock is traded on the NASDAQ Global Market under the symbol "BSQR."

Holder

As of January 31, 2019, there were 112 holders of record of our common stock. Because many shares of our common stock are held by brokers and other institutions on behalf of shareholders, we are unable to determine the total number of shareholders represented by these holders of record.

Item 6. *Selected Financial Data.*

Not applicable.

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

The following Management’s Discussion and Analysis of Financial Condition and Results of Operations should be read in conjunction with our consolidated financial statements and related notes. This Management’s Discussion and Analysis of Financial Condition and Results of Operations may contain some statements and information that are not historical facts but are forward-looking statements. For a discussion of these forward-looking statements, and of important factors that could cause results to differ materially from the forward-looking statements contained in this report, see Item 1 of Part I, “Business—Cautionary Note Regarding Forward-Looking Statements,” and Item 1A of Part I, “Risk Factors.”

Overview

Since our inception, our business has largely been focused on providing software solutions (including reselling software from Microsoft Corporation (“Microsoft”)) and related engineering services to businesses that develop, market and sell dedicated-purpose standalone intelligent systems. Examples of dedicated-purpose standalone intelligent systems include smart, connected computing devices such as smart phones, set-top boxes, point-of-sale terminals, kiosks, tablets and handheld data collection devices, as well as smart vending machines, ATM machines, digital signs and in-vehicle telematics and entertainment devices. We focus on systems that utilize various Microsoft Windows Embedded operating systems as well as devices running other popular operating systems such as Android, Linux, and QNX, and that are usually connected to a network via a wired or wireless connection. Our customers include world-class original equipment manufacturers (“OEMs”), original design manufacturers (“ODMs”), corporate enterprises (“Enterprises”), silicon vendors (“SVs”) and peripheral vendors. A significant portion of our business historically has also been focused on reselling software from Microsoft, from which a majority of our revenue currently continues to be derived.

Beginning in early 2014, we initiated development efforts focused on new proprietary software products addressing the Industrial Internet of Things (“IIoT”) market, extracting data from uniquely identifiable devices and applying advanced analytics and machine learning to the data in order to derive meaningful and actionable insights. While IIoT is a relatively new market, we believe the work we have engaged in since our inception—namely adding intelligence to discrete standalone devices and systems—embodies much of what is central to the core functionality of IIoT. These software development efforts have driven a new business initiative for BSQUARE, which we refer to as DataV™. Our DataV solution includes software products, applications and services that are designed to turn raw IIoT device data into meaningful and actionable data for our customers.

We began marketing DataV late in the first quarter of 2016 and announced our first three major customer bookings later that year which comprised software licensing, software maintenance and related systems integration services. During 2017 we began selling data analytics services and DataV application pilots to major industrial customers primarily in the transportation, oil and gas, and manufacturing vertical markets. One of these pilots led to a multi-year SaaS and related services agreement in 2018. The remaining pilots were completed, and while no additional licensing arrangements resulted from these pilots, we believe there may be future opportunities with a number of these customers.

We believe that IIoT represents a large, expanding addressable market. We also believe that many potential customers need assistance with their digital transformation activities prior to making long-term solutions commitments, and that these IIoT related services may provide us an inroad to eventual DataV software and services sales. Developing, selling and implementing DataV was our primary focus through 2018. While we will continue to market our DataV software, in 2019 we intend to expand our efforts to market IIoT related services that may or may not include DataV. We will continue to invest in the development of our DataV software in support of existing customer commitments and new customer opportunities. We intend to continue to run our legacy software resale business to maximize cash flow for the foreseeable future. Our legacy professional engineering services business is now managed as a part of our overall services business, which we anticipate will increasingly serve our DataV software and IIoT services customers.

Critical Accounting Judgments

Revenue recognition

We recognize revenue when control of the promised goods or services is transferred to our customers, in an amount that reflects the consideration that we expect to receive in exchange for those goods or services. We generate all of our revenue from contracts with customers.

Third-party software

We sell third-party software licenses based upon a customer purchase order, shipping a certificate of authenticity (“COA”) to satisfy this single performance obligation. These shipments are also subject to limited return rights; historically, returns have averaged less than one-quarter of one percent. We recognize revenue from third-party products at the time of shipment when the customer accepts control of the COA.

Proprietary software

We sell our proprietary software products to customers under a contract or by purchase order. Our DataV software contracts generally include professional services, a perpetual or term license and support and maintenance. In contracts with multiple performance obligations, we identify each performance obligation and evaluate whether the performance obligations are distinct within the context of the contract at contract inception. Performance obligations that are not distinct at contract inception are combined. Contracts that include software customization may result in the combination of the customization services with the software license as one distinct performance obligation. The transaction price is generally in the form of a fixed fee at contract inception. Certain DataV contracts also include variable consideration in the form of royalties earned when customers meet contractual volume thresholds. We allocate the transaction price to each distinct performance obligation based on the estimated standalone selling price for each performance obligation. We then look to how control of the software transfers to the customer in order to determine the timing of revenue recognition. In contracts that include customer acceptance, we recognize revenue when we have delivered the software and received customer acceptance. We recognize revenue from support and maintenance over the service delivery period. We recognize revenue from royalties in the period of usage.

Our non-DataV software products generally do not include customization or modification services and are sold in the form of term licenses. These software licenses represent one distinct performance obligation. Revenue is recognized when the software is delivered to the customer.

There are two items involving revenue recognition on DataV software contracts that require us to make more difficult and subjective judgments: the determination of which performance obligations are distinct within the context of the overall contract and the estimated standalone selling price of each performance obligation. In instances where our DataV contracts include significant customization or modification services, the customization and modification services are generally combined with the software license and recorded as one distinct performance obligation. We estimate the standalone selling price of each performance obligation based on either a cost-plus-margin approach or an adjusted market assessment approach. In instances where we have observable selling prices for professional services and support and maintenance, we may apply the residual approach to estimate the standalone selling price of software licenses.

Professional engineering services

We enter into contracts for professional engineering services, including for our IIoT-related service offerings, that include software development and customization. We identify each performance obligation in our professional engineering services contracts at contract inception. The contracts generally include project deliverables specified by each customer. The performance obligations in the contracts are generally combined into one deliverable. The contract pricing is either at stated billing rates per service hour and material costs or at a fixed amount. Services provided under professional engineering contracts generally result in the transfer of control of the applicable deliverable over time. We recognize revenue on service contracts based on time and materials as we have the right to invoice. We recognize revenue on fixed fee contracts on the proportion of labor hours expended to the total hours expected to complete the contract performance obligation. Certain professional engineering contracts include substantive customer acceptance provisions, in which case, we recognize revenue upon customer acceptance.

The determination of the total labor hours expected to complete the performance obligations on fixed fee contracts involves significant judgment. We incorporate revisions to hour and cost estimates when the causal facts become known. In certain situations, when it is impractical for us to reasonably measure the outcome of a performance obligation, and where we anticipate that we will not incur a loss, an adjusted cost-based input method is used for revenue recognition. Equal amounts of revenue and cost are recognized during the contract period, and profit is recognized when the project is completed and accepted.

We measure our estimate of completion on fixed-price contracts, which in turn determines the amount of revenue we recognize, based primarily on actual hours incurred to date and our estimate of remaining hours necessary to complete the contract. These estimates factor in such variables as the remaining tasks, the complexity of the tasks, the contracted quality of the software to be provided, the customer's estimated delivery date, integration of third-party software and quality thereof and other factors. Every fixed-price contract requires various approvals within our company, including by our Chief Executive Officer if significant. This approval process takes into consideration several factors, including the complexity of engineering required. Historically, our estimation processes related to fixed-price contracts have been accurate based on the information known at the time of the reporting of our results. However, percentage-of-completion estimates require significant judgment. During the year ended December 31, 2018, we delivered professional engineering services under four fixed-price service contracts. The estimated remaining labor hours and costs to complete these contracts represent management's best estimates based on the facts and circumstances as of the filing of this report. If there are changes to the underlying facts and circumstances, we record the revisions to our calculations in the period the changes are noted. For illustrative purposes only, if we were 10% under in our estimate of remaining labor hours and costs on the fixed-bid contracts active during the year ended December 31, 2018, our revenue could have been overstated by approximately \$15,000 for 2018.

Intangible assets and goodwill

We evaluate our intangible assets for indications of impairment whenever events or changes in circumstances indicate that the carrying value may not be recoverable. Our intangible assets consist of customer relationships arising from business acquisitions. We periodically assess the value of our intangible assets. Factors that could trigger an impairment analysis include significant under-performance relative to historical or projected future operating results, significant changes in the manner of our use of the acquired assets or the strategy for our overall business or significant negative industry or economic trends. If this evaluation indicates that the value of the intangible asset may be impaired, we assess the likelihood of recoverability of the net carrying value of the asset over its remaining useful life. If this assessment indicates that the intangible asset is not recoverable, based on the estimated undiscounted future cash flows of the technology over the remaining useful life, we reduce the net carrying value of the related intangible asset to fair value.

We evaluate goodwill for impairment annually during the fourth quarter or more frequently when an event occurs, or circumstances change that indicate that the carrying value may not be recoverable. We have three reporting units for the purpose of evaluating goodwill for impairment—third-party software, proprietary software and professional engineering services. See Note. 14, Information about Operating Segments and Geographic Areas in the Notes to our Consolidated Financial Statements in Item 8.

For reporting units that carry goodwill, we test for impairment by performing an optional qualitative assessment to determine whether the fair value of the reporting unit is more likely than not less than the carrying amount. Alternatively, at our option, we can forego performing the qualitative assessment and proceed directly to perform the quantitative impairment test by comparing the fair value of the reporting unit with its carrying amount, including goodwill, and recording a goodwill impairment charge for the excess. Any such impairment charges could be significant and have a material adverse effect on our reported financial results.

Taxes

As part of the process of preparing our consolidated financial statements, we are required to estimate income taxes in each of the countries and other jurisdictions in which we operate. This process involves estimating our current tax expense together with assessing temporary differences resulting from the differing treatment of items for tax and accounting purposes. These differences result in deferred tax assets and liabilities. Net operating losses and tax credits, to the extent not already utilized to offset taxable income or income taxes, also give rise to deferred tax assets. We must then assess the likelihood that any deferred tax assets will be realized from future taxable income, and, to the extent we believe that recovery is not likely, we must establish a valuation allowance. We are required to use judgment as to the appropriate weighting of all available evidence when assessing the need for the establishment or the release of valuation allowances. As part of this analysis, we examine all available evidence on a jurisdiction-by-jurisdiction basis and weigh the positive and negative information when determining the need for full or partial valuation allowances. The evidence considered for each jurisdiction includes, among other items, (i) the historical levels of income or loss over a range of time periods that extends beyond the two years presented, (ii) the historical sources of income and losses, (iii) the expectations and risk associated with underlying estimates of future taxable income, (iv) the expectations and risk associated with new product offerings and uncertainties with the timing of future taxable income, and (v) prudent and feasible tax planning strategies. Significant judgment is required in determining our provision for income taxes, deferred tax assets and liabilities and any valuation allowance recorded against our deferred tax assets. We estimate the valuation allowance related to our deferred tax assets on a quarterly basis.

Our sales may be subject to other taxes, particularly withholding taxes, due to our sales to customers in countries other than the United States. The tax regulations governing withholding taxes are complex, causing us to have to make assumptions about the appropriate tax treatment. Further, we make sales in many jurisdictions across the United States, where tax regulations are varied and complex. We must therefore continue to analyze our state tax exposure and determine what the appropriate tax treatments are, and make estimates for sales, franchise, income and other state taxes.

Results of Operations

The following table presents our summarized results of operations for the periods indicated. Our historical operating results are not necessarily indicative of the results for any future period.

| (In thousands, except percentages) | Year Ended December 31, | | | |
|------------------------------------|-------------------------|-------------------|-------------------|----------|
| | 2018 | 2017 | \$ Change | % Change |
| Revenue..... | \$ 73,414 | \$ 80,811 | \$ (7,397) | (9)% |
| Cost of revenue | 57,904 | 62,689 | (4,785) | (8)% |
| Gross profit..... | 15,510 | 18,122 | (2,612) | (14)% |
| Operating expenses..... | 29,441 | 27,543 | 1,898 | 7% |
| Loss from operations..... | (13,931) | (9,421) | (4,510) | 48% |
| Other income, net | 207 | 214 | (7) | (3)% |
| Loss before income taxes | (13,724) | (9,207) | (4,517) | 49% |
| Income tax (expense) benefit..... | (13) | 149 | (162) | (109)% |
| Net loss..... | <u>\$ (13,737)</u> | <u>\$ (9,058)</u> | <u>\$ (4,679)</u> | 52% |

Revenue

We generate revenue from the sale of software, both our own proprietary software and third-party software that we resell, and the sale of professional engineering services. Total revenue decreased in 2018 compared to 2017, primarily due to lower sales of Microsoft Windows Embedded and Mobile operating systems and lower professional engineering service revenue, predominantly in North America. Additionally, we recognized approximately \$3.0 million in DataV software revenue in 2017 that did not recur in 2018.

One customer, Honeywell International, Inc., accounted for 10% and 15% of total revenue in 2018 and 2017, respectively. No other customers accounted for 10% or more of total revenue in those periods.

Additional revenue details were as follows:

| (In thousands, except percentages) | Year Ended December 31, | | | |
|--|-------------------------|------------------|-------------------|----------|
| | 2018 | 2017 | \$ Change | % Change |
| Revenue: | | | | |
| Third-party software | \$ 61,159 | \$ 65,755 | \$ (4,596) | (7)% |
| Proprietary software..... | 3,954 | 4,646 | (692) | (15)% |
| Professional engineering service revenue | 8,301 | 10,410 | (2,109) | (20)% |
| Total revenue..... | <u>\$ 73,414</u> | <u>\$ 80,811</u> | <u>\$ (7,397)</u> | (9)% |
| As a percentage of total revenue: | | | | |
| Third-party software revenue | 83% | 81% | | |
| Proprietary software revenue..... | 5% | 6% | | |
| Professional engineering service revenue | 11% | 13% | | |

Total revenue consists of sales of third-party software and revenue realized from sales of our own proprietary software products, which include software license sales and support and maintenance revenue, and professional engineering services that support proprietary DataV software customers and legacy service customers.

Third-party software revenue decreased in 2018 compared to 2017, driven primarily by lower sales of Microsoft Windows Embedded operating systems. Sales of Microsoft operating systems represented approximately 81% and 80% of our total revenue and 57% and 54% of our total gross profit for 2018 and 2017, respectively.

Proprietary software revenue also decreased in 2018 compared to 2017, primarily due to lower DataV software revenue recognized in 2018 due to the timing of license acceptance as well as a decrease in legacy software products revenue. We expect that revenue from sales of both DataV and our other proprietary software will continue to fluctuate in timing and amount in future periods and will decline over time as they approach the end of their respective life cycles.

Professional engineering service revenue decreased in 2018 compared to 2017, due to declines in service revenue generated in North America, Asia and Europe with the completion in early 2017 of several existing customer projects and a shift in our sales generation priorities and staffing to DataV software and service solutions. Our largest professional engineering customers in 2018 were Coca-Cola and Google. We expect professional engineering service revenue to grow over time as we continue our strategic focus on DataV and other IIoT-related service offerings. We will continue to serve our legacy services customers as long as our contracts are profitable, and such revenue will continue to vary in timing and amounts.

Gross profit and gross margin

Cost of software revenue consists primarily of the cost of third-party software products payable to third-party vendors and support costs associated with our proprietary software products. Cost of service revenue consists primarily of salaries and benefits, contractor costs and re-billable expenses, related facilities and depreciation costs, and amortization of certain intangible assets related to acquisitions.

Gross profit and gross margin were as follows:

| (In thousands, except percentages) | Year Ended December 31, | | | % Change (1) |
|---|-------------------------|-----------|------------|-----------------|
| | 2018 | 2017 | \$ Change | |
| Third-party software gross profit..... | \$ 9,751 | \$ 10,594 | \$ (843) | (8)% |
| Third-party software gross margin..... | 16% | 16% | - | (—)% |
| Proprietary software gross profit..... | \$ 3,560 | \$ 4,483 | \$ (923) | (21)% |
| Proprietary software gross margin..... | 90% | 96% | - | (6)% |
| Professional engineering service gross profit | \$ 2,199 | \$ 3,045 | \$ (846) | (28)% |
| Professional engineering service gross margin | 26% | 29% | - | (3)% |
| Total gross profit..... | \$ 15,510 | \$ 18,122 | \$ (2,612) | (14)% |
| Total gross margin..... | 21% | 22% | - | (1)% |

(1) For gross margin, amounts represent percentage point change.

Third-party software gross profit declined in 2018 compared to 2017, primarily as a result of lower third-party software sales, but gross margins were relatively stable. We experienced increased competition with respect to a number of larger third-party software accounts during 2018 as price protections under the Microsoft volume pricing arrangement, which ended in 2016, reduced per account revenue from these accounts. The per account revenue reductions were more heavily weighted to lower margin customers, resulting in slightly improved gross margins in 2017 and 2018. Gross profit on third-party software was positively impacted in 2018 and 2017 by rebate credits we received from Microsoft for the sale of Windows Embedded operating systems earned through the achievement of defined objectives. In accordance with Microsoft rebate program rules, we allocate 30% of rebates to reduce cost of sales, with the remaining 70% to offset qualified marketing expenses in the period the expenditures are incurred. Under the Microsoft rebate program, we recorded \$718,000 and \$499,000 of rebates in 2018 and 2017, respectively, which were accounted for as reductions in cost of revenue. Additionally, we recorded \$0.7 million in rebates in 2018 and 2017, which were accounted for as reductions in marketing expenses. There was a balance of approximately \$329,000 in outstanding rebates for which we qualified as of December 31, 2018. If qualified program expenditures are made, these will be accounted for as reductions in marketing expenses in the period in which such expenditures are made.

Proprietary software gross profit and gross margin decreased in 2018 compared to 2017, due to lower DataV software revenue recognized in 2018 due to the timing of license acceptance as well as a decrease in legacy software products revenue. We anticipate that software gross profit and gross margin will continue to fluctuate in future periods due to the timing of DataV software revenue recognition.

Professional engineering service gross profit and gross margin decreased in 2018 compared to 2017, primarily due to incurring certain fixed costs that were supported by lower revenue in 2018 compared to 2017.

Operating expenses

Operating expenses were as follows:

| (In thousands, except percentages) | Year Ended December 31, | | | |
|--|-------------------------|------------------|-----------------|----------|
| | 2018 | 2017 | \$ Change | % Change |
| Operating expenses: | | | | |
| Selling, general and administrative..... | \$ 17,074 | \$ 20,982 | \$ (3,908) | (19)% |
| Research and development | 8,629 | 6,561 | 2,068 | 32% |
| Goodwill impairment | 3,738 | - | 3,738 | 100% |
| Total operating expenses..... | <u>\$ 29,441</u> | <u>\$ 27,543</u> | <u>\$ 1,898</u> | 7% |
| As a percentage of total revenue: | | | | |
| Selling, general and administrative..... | 23% | 26% | | |
| Research and development | 12% | 8% | | |
| Goodwill impairment | 5% | - | | |

Selling, general and administrative

Selling, general and administrative (“SG&A”) expenses consist primarily of salaries and related benefits, commissions and bonuses for our sales, marketing and administrative personnel and related facilities and depreciation costs, as well as professional services fees (e.g., consulting, legal, audit and tax). SG&A expenses decreased in 2018 compared to 2017, due to lower spending across the board for sales, marketing and customer support, finance, legal and executive areas.

Research and development

Research and development (“R&D”) expenses consist primarily of salaries and benefits for software development and quality assurance personnel, contractor and consultant costs and related facilities and depreciation costs. R&D expenses increased in 2018 compared to 2017, due to higher spending for continued development of our DataV software product line.

Goodwill impairment

Goodwill impairment expense resulted from our annual goodwill assessment in the fourth quarter of 2018, where the carrying value of goodwill was determined to be fully impaired, resulting in an impairment charge of \$3.7 million.

Other income and loss

Other income and loss consists primarily of interest income on our cash and investments, gains and losses we may recognize on our investments, gains and losses on foreign exchange transactions and other items. The decrease in 2018 compared to 2017 was primarily due to lower total interest earned on our cash and investments and foreign exchange rate fluctuations.

Income taxes

Income tax expense for 2018 related to state and local income taxes. Income tax benefit for 2017 related to discrete items (including U.K. stock compensation tax benefits, a U.K. net operating loss carryback, an international tax reserve release and a refund of U.S. alternative minimum tax as a result of an amended return), partially offset by Japan tax expense.

Liquidity and Capital Resources

As of December 31, 2018, we had \$16.9 million of cash, cash equivalents and investments (including \$0.5 million in restricted cash), compared to \$24.8 million at December 31, 2017, reflecting a net use of approximately \$7.8 million in cash, cash equivalents and investments. We generally invest our excess cash in high quality marketable investments. These investments generally include corporate notes and bonds, commercial paper and money market funds, although specific holdings can vary from period to period depending upon our cash requirements. Our investments held at December 31, 2018 had minimal default risk and short-term maturities.

Operating activities used cash of approximately \$7.4 million in 2018, which included a net loss of \$13.7 million, partially offset by non-cash adjustments of \$5.1 million and a working capital contribution of approximately \$1.3 million. Operating activities used cash of approximately \$8.2 million in 2017, which included a net loss of approximately \$9.1 million, partially offset by non-cash adjustments of approximately \$2.4 million and a working capital usage of approximately \$1.5 million.

Investing activities provided cash of approximately \$5.1 million in 2018, primarily due to net cash inflows on short-term investments of \$5.5 million, partially offset by capital expenditures of \$0.5 million. Investing activities provided cash of approximately \$6.5 million in 2017, primarily due to net cash inflows on short-term investments of \$7.0 million, partially offset by capital expenditures of \$0.4 million.

Financing activities provided no cash in 2018 and \$0.2 million in 2017 resulting from the exercise of stock options.

We believe that our existing cash, cash equivalents and investments will be sufficient to meet our needs for working capital and capital expenditures for at least the next 12 months.

Contractual commitments

Future operating lease commitments were as follows as of December 31, 2018 (in thousands):

| | | |
|-------------|----|--------------|
| 2019 | \$ | 1,195 |
| 2020 | | 623 |
| 2021 | | 60 |
| Total | \$ | <u>1,878</u> |

Recently Issued Accounting Standards

See Note 1, “Summary of Significant Accounting Policies” in the Notes to Consolidated Financial Statements in Item 8.

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

Not applicable.

Item 8. Financial Statements and Supplementary Data.

**BSQUARE CORPORATION
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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders
BSQUARE Corporation

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of BSQUARE Corporation (the “Company”) as of December 31, 2018 and 2017, the related consolidated statements of operations and comprehensive loss, shareholders’ equity, and cash flows for the years then ended, and the related notes (collectively referred to as the “consolidated financial statements”). In our opinion, the consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Company as of December 31, 2018 and 2017, and the consolidated results of its operations and its cash flows for the years then ended, in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

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

We conducted our 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 consolidated financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company’s internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures to respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Moss Adams LLP

Seattle, Washington

March 1, 2019

We have served as the Company’s auditor since 2006.

BSQUARE CORPORATION
CONSOLIDATED BALANCE SHEETS
(In thousands, except share amounts)

| | December 31, | |
|---|--------------|-----------|
| | 2018 | 2017 |
| ASSETS | | |
| Current assets: | | |
| Cash and cash equivalents..... | \$ 10,005 | \$ 12,859 |
| Restricted cash..... | 263 | — |
| Short-term investments..... | 6,409 | 11,895 |
| Accounts receivable, net of allowance for doubtful accounts of \$40 at December 31, 2018 and \$50 at December 31, 2017..... | 11,581 | 18,014 |
| Prepaid expenses and other current assets..... | 685 | 548 |
| Contract assets | 1,053 | 937 |
| Total current assets..... | 29,996 | 44,253 |
| Restricted cash, long term..... | 263 | — |
| Equipment, furniture and leasehold improvements, net..... | 911 | 989 |
| Deferred tax assets..... | 7 | — |
| Intangible assets, net..... | 267 | 365 |
| Goodwill | — | 3,738 |
| Other non-current assets including contract assets..... | 550 | 89 |
| Total assets | \$ 31,994 | \$ 49,434 |
| LIABILITIES AND SHAREHOLDERS' EQUITY | | |
| Current liabilities: | | |
| Third-party software fees payable..... | \$ 7,620 | \$ 10,547 |
| Accounts payable..... | 565 | 375 |
| Accrued compensation | 1,629 | 2,266 |
| Other accrued expenses | 653 | 681 |
| Deferred rent, current portion | 347 | 339 |
| Deferred revenue, current portion..... | 1,652 | 3,219 |
| Total current liabilities | 12,466 | 17,427 |
| Deferred rent..... | 150 | 516 |
| Deferred revenue | 1,037 | 61 |
| Commitments and contingencies (Note 9) | | |
| Shareholders' equity: | | |
| Preferred stock, no par: 10,000,000 shares authorized; no shares issued and outstanding..... | — | — |
| Common stock, no par: 37,500,000 shares authorized; 12,777,573 issued and outstanding at December 31, 2018 and 12,664,489 issued and outstanding at December 31, 2017 | 138,280 | 137,622 |
| Accumulated other comprehensive loss | (926) | (916) |
| Accumulated deficit..... | (119,013) | (105,276) |
| Total shareholders' equity | 18,341 | 31,430 |
| Total liabilities and shareholders' equity | \$ 31,994 | \$ 49,434 |

See notes to consolidated financial statements.

BSQUARE CORPORATION
CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS
(In thousands, except per share amounts)

| | Year Ended December 31, | |
|--|-------------------------|-------------------|
| | 2018 | 2017 |
| Revenue: | | |
| Third-party software..... | \$ 61,159 | \$ 65,755 |
| Proprietary software | 3,954 | 4,646 |
| Professional engineering service | 8,301 | 10,410 |
| Total revenue | <u>73,414</u> | <u>80,811</u> |
| Cost of revenue: | | |
| Third-party software..... | 51,408 | 55,161 |
| Proprietary software | 394 | 163 |
| Professional engineering service | 6,102 | 7,365 |
| Total cost of revenue | <u>57,904</u> | <u>62,689</u> |
| Gross profit | 15,510 | 18,122 |
| Operating expenses: | | |
| Selling, general and administrative | 17,074 | 20,982 |
| Research and development | 8,629 | 6,561 |
| Goodwill impairment..... | 3,738 | — |
| Total operating expenses..... | <u>29,441</u> | <u>27,543</u> |
| Loss from operations..... | (13,931) | (9,421) |
| Other income, net | 207 | 214 |
| Loss before income taxes | (13,724) | (9,207) |
| Income tax (expense) benefit..... | (13) | 149 |
| Net loss..... | <u>\$ (13,737)</u> | <u>\$ (9,058)</u> |
| Basic loss per share | \$ (1.08) | \$ (0.72) |
| Diluted loss per share..... | \$ (1.08) | \$ (0.72) |
| Shares used in per share calculations: | | |
| Basic..... | 12,712 | 12,594 |
| Diluted | 12,712 | 12,594 |
| Comprehensive loss: | | |
| Net loss | \$ (13,737) | \$ (9,058) |
| Other comprehensive income (loss): | | |
| Foreign currency translation, net of tax | (17) | 25 |
| Unrealized gain on investments, net of tax | 7 | — |
| Total other comprehensive income (loss)..... | <u>(10)</u> | <u>25</u> |
| Comprehensive loss | <u>\$ (13,747)</u> | <u>\$ (9,033)</u> |

See notes to consolidated financial statements.

BSQUARE CORPORATION
CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY
(In thousands, except share amounts)

| | Preferred Stock | | Common Stock | | Accumulated Other Comprehensive | Accumulated | Total |
|--|-----------------|--------|--------------|------------|---------------------------------------|--------------|-------------------------|
| | Shares | Amount | Shares | Amount | Income (Loss) | Deficit | Shareholders' Equity |
| Balance as of December 31, 2016 | - | \$ - | 12,532,348 | \$ 135,660 | \$ (941) | \$ (96,607) | \$ 38,112 |
| Cumulative effect of accounting changes | - | \$ - | - | \$ - | \$ 15 | \$ 389 | 404 |
| Exercise of stock options | - | - | 54,692 | 174 | - | - | 174 |
| Share-based compensation, including issuance of restricted stock..... | - | - | 77,449 | 1,757 | - | - | 1,757 |
| Net loss..... | - | - | - | - | - | (9,058) | (9,058) |
| Foreign currency translation adjustment, net of tax..... | - | - | - | 31 | 10 | - | 41 |
| Balance as of December 31, 2017 | - | - | 12,664,489 | 137,622 | (916) | (105,276) | 31,430 |
| Exercise of stock options | - | - | 2,422 | 9 | - | - | 9 |
| Share-based compensation, including issuance of restricted stock..... | - | - | 113,535 | 678 | - | - | 678 |
| Shares of restricted stock withheld for taxes | - | - | (2,873) | (10) | - | - | (10) |
| Net loss..... | - | - | - | - | - | (13,737) | (13,737) |
| Foreign currency translation adjustment, net of tax..... | - | - | - | (19) | (17) | - | (36) |
| Unrealized gain on investments, net of tax..... | - | - | - | - | 7 | - | 7 |
| Balance as of December 31, 2018 | - | \$ - | 12,777,573 | \$ 138,280 | \$ (926) | \$ (119,013) | \$ 18,341 |

See notes to consolidated financial statements.

BSQUARE CORPORATION
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)

| | Year Ended December 31, | |
|--|-------------------------|------------|
| | 2018 | 2017 |
| Cash flows from operating activities: | | |
| Net loss | \$ (13,737) | \$ (9,058) |
| Adjustments to reconcile net loss to net cash from operating activities: | | |
| Depreciation and amortization | 639 | 634 |
| Stock-based compensation | 678 | 1,757 |
| Goodwill impairment | 3,738 | - |
| Deferred income taxes | — | (16) |
| Changes in operating assets and liabilities: | | |
| Accounts receivable, net | 6,433 | 2,814 |
| Prepaid expenses and other assets | (115) | 331 |
| Contract assets | (644) | 149 |
| Third-party software fees payable | (2,927) | (4,284) |
| Accounts payable and accrued expenses | (475) | 317 |
| Deferred revenue | (591) | (547) |
| Deferred rent | (358) | (320) |
| Net cash used by operating activities | (7,359) | (8,223) |
| Cash flows from investing activities: | | |
| Purchases of equipment and furniture | (463) | (439) |
| Proceeds from maturities of short-term investments | 18,125 | 33,532 |
| Purchases of short-term investments | (12,595) | (26,544) |
| Net cash provided by investing activities | 5,067 | 6,549 |
| Cash flows from financing activities—proceeds from exercise of stock options | 9 | 202 |
| Effect of exchange rates on cash | (45) | 19 |
| Net decrease in cash, restricted cash, and cash equivalents | (2,328) | (1,453) |
| Cash, restricted cash, and cash equivalents, beginning of year | 12,859 | 14,312 |
| Cash, restricted cash, and cash equivalents, end of year | \$ 10,531 | \$ 12,859 |
| Supplemental cash flow information: | | |
| Cash paid for income taxes | \$ 75 | \$ 256 |

See notes to consolidated financial statements.

BSQUARE CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Description of Business and Accounting Policies

Description of business

BSQUARE Corporation (“BSQUARE”) was incorporated in Washington State in July 1994. Since our inception, our business has largely been focused on providing software solutions (including reselling software from Microsoft Corporation (“Microsoft”)) and related engineering services to businesses that develop, market and sell dedicated-purpose standalone intelligent systems. Examples of dedicated-purpose standalone intelligent systems include smart, connected computing devices such as smart phones, set-top boxes, point-of-sale terminals, kiosks, tablets and handheld data collection devices, as well as smart vending machines, ATM machines, digital signs and in-vehicle telematics and entertainment devices.

Beginning in early 2014, we initiated development efforts focused on new proprietary software products addressing the Industrial Internet of Things (“IIoT”) market, extracting data from uniquely identifiable devices and applying advanced analytics and machine learning to the data in order to derive meaningful and actionable insights. We believe that IIoT represents a large, expanding addressable market. We also believe that many potential customers need assistance with their digital transformation activities prior to making long-term solutions commitments, and that these IIoT related services may provide us an inroad to eventual DataV software and services sales. Developing, selling and implementing DataV was our primary focus through 2018. While we will continue to market our DataV software, in 2019 we intend to expand our efforts to market IIoT related services that may or may not include DataV. We will continue to invest in the development of our DataV software in support of existing customer commitments and new customer opportunities. We intend to continue to run our legacy software resale business to maximize cash flow for the foreseeable future. Our legacy professional engineering services business is now managed as a part of our overall services business, which we anticipate will increasingly serve our DataV software and IIoT services customers.

Basis of consolidation

The consolidated financial statements include the accounts of BSQUARE and our wholly owned subsidiaries. All intercompany balances and transactions have been eliminated.

Recently adopted accounting standards

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”), simplifying how an entity is required to test goodwill for impairment by eliminating step two from the goodwill impairment test as referenced in Accounting Standards Codification (“ASC”) 350, Intangibles – Goodwill and Other (“ASC 350”). As a result, an entity should perform an annual or interim goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount, recognizing an impairment charge for the amount by which the carrying amount exceeds the fair value of the reporting unit. Any impairment loss recognized should not exceed the total amount of goodwill allocated to that reporting unit. ASU 2017-04 is effective for fiscal years and interim periods within those years beginning after December 15, 2019, with early adoption permitted on testing dates after January 1, 2017. We elected to early adopt this ASU as of January 1, 2018 on a prospective basis for annual or interim goodwill impairment tests performed after that date. We chose to early adopt this ASU in order to perform our annual goodwill impairment test by comparing the fair value of the professional engineering service reporting unit to its carrying value to assess impairment. When performing our annual impairment test in the fourth quarter of 2018, we recorded a goodwill impairment charge of \$3.7 million. See Note 6, Goodwill and Intangible Assets.

In November 2016, the FASB issued ASU 2016-18, Statement of Cash Flows (Topic 230), Restricted Cash, with respect to amending the statement of cash flows explanations to require that amounts generally described as restricted cash and restricted cash equivalents are included with cash and cash equivalents when recording the beginning-of-period and end-of-period amounts shown on the statement of cash flows. The amendments do not provide a definition of restricted cash or restricted cash equivalents. We adopted the amendments in the fourth quarter of 2018.

Use of estimates

Preparing financial statements requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses. Examples include provisions for bad debts and income taxes, estimates of progress on professional engineering service arrangements, bonus accruals, fair value of intangible assets and property and equipment, fair values of stock-based awards and the fair values of acquired assets and liabilities, among other estimates. Actual results may differ from these estimates.

Income (loss) per share

We compute basic per share amounts using the weighted average number of common shares outstanding during the period and exclude any dilutive effects of common stock equivalent shares, such as options and restricted stock units (“RSUs”). We consider RSUs as outstanding and include them in the computation of basic income or loss per share only when vested. We compute diluted per share amounts using the weighted average number of common shares outstanding plus common stock equivalent shares outstanding during the period using the treasury stock method. We exclude common stock equivalent shares from the computation if their effect is anti-dilutive. Unvested but outstanding RSUs are included in the diluted per share calculation. In a period where we are in a net loss position, the diluted loss per share is computed using the basic share count.

The following table presents a reconciliation of the number of shares used in the calculation of basic and diluted per share amounts (in thousands):

| | Year Ended December 31, | |
|--|-------------------------|---------------|
| | 2018 | 2017 |
| Weighted average common shares outstanding, basic..... | 12,712 | 12,594 |
| Dilutive potential common shares..... | — | — |
| Weighted average common shares outstanding, diluted..... | <u>12,712</u> | <u>12,594</u> |

Common stock equivalent shares of approximately 1,714,000 and 1,227,000 were excluded from the computation of diluted per share amounts for the years ended December 31, 2018 and 2017, respectively, because their effect was anti-dilutive.

Cash, cash equivalents and investments

We invest our excess cash primarily in highly liquid debt instruments of U.S. government agencies and municipalities, debt instruments issued by foreign governments, corporate commercial paper, money market funds, and corporate debt securities. We classify all highly liquid investments with stated maturities of three months or less from date of purchase as cash equivalents and all highly liquid investments with stated maturities of greater than three months as short-term investments.

Short-term investments consist entirely of marketable securities, which are all classified as available-for-sale securities and are recorded at their estimated fair value. We determine the appropriate classification of our investments at the time of purchase and reevaluate such designation at each balance sheet date. We may or may not hold securities with stated maturities greater than 12 months until maturity. As we view these securities as available to support current operations, we classify securities with maturities less than 12 months as short-term investments. We carry these securities at fair value and report the unrealized gains and losses, net of taxes, as a component of shareholders’ equity, except for unrealized losses determined to be other than temporary, which are recorded in other expense.

Restricted cash

Restricted cash represents two deposits at a financial institution; one held as security on a letter of credit expiring during 2020 on our headquarters lease obligation, the other held as security on our corporate credit card line.

Financial instruments and concentrations of risk

Financial instruments that potentially subject us to concentrations of credit risk consist principally of cash, cash equivalents, short-term investments, and accounts receivable.

Allowance for doubtful accounts

We record accounts receivable at the invoiced amount net of an estimated allowance for doubtful accounts to reserve for potentially uncollectible receivables. We review customers that have past due invoices to identify specific customers with known disputes or collectability issues. In determining the amount of the allowance, we make judgments about the creditworthiness of significant customers based on ongoing credit evaluations.

Equipment, furniture and leasehold improvements

We account for equipment, furniture and leasehold improvements at cost less accumulated depreciation and amortization. We compute depreciation of equipment and furniture using the straight-line method over the estimated useful lives of the assets, generally three years. Leasehold improvements are amortized using the straight-line method over the shorter of the lease term or estimated useful lives, ranging from two to ten years. We expense maintenance and repair costs as incurred. When assets are retired or otherwise disposed of, gains or losses are included in the consolidated statements of operations. When facts and circumstances indicate that the value of long-lived assets may be impaired, we perform an evaluation of recoverability comparing the carrying value of the asset to projected undiscounted future cash flows. Upon indication that the carrying value of such assets may not be recoverable, we recognize an impairment loss as a charge against current operations based on the difference between the carrying value of the asset and its fair value.

Intangible assets

Intangible assets were recorded in connection with business acquisitions and are stated at estimated fair value at the time of acquisition less accumulated amortization. We amortize our acquired intangible assets using the straight-line method using lives ranging from one to ten years. We review intangible assets for impairment whenever events or changes in circumstances indicate the carrying amount of an asset may not be recoverable. We measure recoverability of these assets by comparing the carrying amounts to the future undiscounted cash flows the assets are expected to generate. If intangible assets are considered impaired, the impairment to be recognized equals the amount by which the carrying value of the asset exceeds its fair market value.

Goodwill

We evaluate goodwill for impairment annually during the fourth quarter or more frequently when an event occurs, or circumstances change that indicate that the carrying value may not be recoverable. We have three reporting units for the purpose of evaluating goodwill for impairment—third-party software, proprietary software and professional engineering services. See Note 14, “Information about Operating Segments and Geographic Areas.”

For reporting units that carry goodwill, we test for impairment by performing an optional qualitative assessment to determine whether the fair value of the reporting unit is more likely than not less than the carrying amount. If we determine that the fair value of the reporting unit is more likely greater than its carrying amount, we test for impairment by comparing the fair value of the reporting unit to the carrying value, including goodwill, recording an impairment charge for the excess. Alternatively, at our option, we can forego performing the qualitative assessment and proceed directly to perform the impairment test by comparing the fair value of the reporting unit with its carrying amount, including goodwill, and recording an impairment charge for the excess.

Third-party software fees payable

We record all fees payable and accrued liabilities related to the sale of third-party software, such as Microsoft Windows Embedded and Windows Mobile operating systems, as third-party software fees payable.

Research and development

Costs incurred internally in researching and developing a computer software product are charged to expense until technological feasibility has been established for the product. Once technological feasibility is established, all software costs would be capitalized until the product is available for general release to customers. Judgment is required in determining when technological feasibility of a product is established. Generally, this would be reached after all high-risk development issues have been resolved through coding and testing and would occur shortly before the product is released. Research and development expense was \$8.6 million and \$6.6 million in 2018 and 2017, respectively

Internally-developed software

We capitalize payroll and benefits costs incurred internally during the application development stage of developing a computer software product for general release to customers. Amortization of costs incurred after this point is included in cost of revenue over the estimated life of the products. As of December 31, 2018 and 2017, we recorded net capitalized costs of \$945,000 and \$0 in 2018 and 2017, respectively. Net capitalized costs as of December 31, 2018 have been classified on our consolidated balance sheets as follows: \$329,000 is classified as equipment, furniture, and leasehold improvements, net, \$226,000 is classified as contract assets and \$390,000 is classified as other long-term assets, including contract assets.

Advertising costs

All costs of advertising, including cooperative marketing arrangements, are expensed as incurred. Advertising expense was \$171,000 and \$388,000 in 2018 and 2017, respectively.

Stock-based compensation

The estimated fair value of stock-based awards is recognized as compensation expense over the requisite service period, net of estimated forfeitures. We estimate forfeitures of stock-based awards based on historical experience and expected future activity. The fair value of RSUs is determined based on the number of shares granted and the quoted price of our common stock on the date of grant. The fair value of stock options is estimated at the grant date based on the fair value of each vesting tranche as calculated by the Black-Scholes-Merton (“BSM”) option-pricing model. The BSM model requires various highly judgmental assumptions including expected volatility and option life. If any of the assumptions used in the BSM model change significantly, stock-based compensation expense may differ materially in the future from that recorded in the current period.

Comprehensive loss

Comprehensive loss refers to net loss and other revenue, expenses, gains and losses that, under generally accepted accounting principles, are recorded as an element of shareholders' equity but are excluded from the calculation of net loss.

Income taxes

We are subject to income taxes in the U.S. and certain foreign jurisdictions. Significant judgment is required in determining our provision for income taxes. We compute income taxes using the asset and liability method, under which deferred income taxes are provided for on the temporary differences between the financial reporting basis and the tax basis of our assets and liabilities. Our deferred tax amounts are measured using currently enacted tax rates that are expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled.

We apply judgment as to the appropriate weighting of all available evidence when assessing the need for the establishment or the release of valuation allowances. As part of this analysis, we examine all available evidence on a jurisdiction-by-jurisdiction basis and weigh the positive and negative information when determining the need for full or partial valuation allowances. The evidence considered for each jurisdiction includes, among other items, (i) the historical levels of income or loss over a range of time periods that extends beyond the two years presented, (ii) the historical sources of income and losses, (iii) the expectations and risk associated with underlying estimates of future taxable income, (iv) the expectations and risk associated with new product offerings and uncertainties with the timing of future taxable income, and (v) prudent and feasible tax planning strategies. Based on the analysis conducted as of December 31, 2018, we determined that we would not release, in full or in part, the valuation allowance against our U.S. gross deferred tax assets.

We recognize tax benefits from an uncertain position only if it is "more likely than not" that the position is sustainable, based on its technical merits. The tax benefit of a qualifying position is the largest amount of tax benefit that is greater than fifty percent likely of being realized upon ultimate settlement with a taxing authority having full knowledge of all relevant information. Interest and penalties related to uncertain tax positions are classified in the consolidated financial statements as income tax expense.

Foreign currency

The functional currency of foreign subsidiaries is their local currency. Accordingly, assets and liabilities are translated into U.S. dollars at exchange rates in effect at the balance sheet date. Resulting translation adjustments are included in other comprehensive loss and accumulated other comprehensive loss, a separate component of shareholders' equity. The net gains and losses resulting from foreign currency transactions are recorded in the period incurred and were not significant for any of the periods presented.

Revenue recognition

The following is a description of principal activities from which we generate revenue. Revenue is recognized when control of the promised goods or services is transferred to our customers, in an amount that reflects the consideration that we expect to receive in exchange for those goods or services. We generate all of our revenue from contracts with customers.

Third-party software

We sell third-party software licenses based upon a customer purchase order, shipping a certificate of authenticity ("COA") to satisfy this single performance obligation. These shipments are also subject to limited return rights; historically, returns have averaged less than one-quarter of one percent. In accordance with Topic 606, we will continue to recognize revenue from third-party products at the time of shipment when the customer accepts control of the COA.

Proprietary software

We sell our proprietary software products to customers under a contract or by purchase order. Our DataV software contracts generally include professional services, a perpetual or term license and support and maintenance. In contracts with multiple performance obligations, we identify each performance obligation and evaluate whether the performance obligations are distinct within the context of the contract at contract inception. Performance obligations that are not distinct at contract inception are combined. Contracts that include software customization may result in the combination of the customization services with the software license as one distinct performance obligation. The transaction price is generally in the form of a fixed fee at contract inception. Certain DataV contracts also include variable consideration in the form of royalties earned when customers meet contractual volume thresholds. We allocate the transaction price to each distinct performance obligation based on the estimated standalone selling price for each performance obligation. We then look to how control transfers to the customer in order to determine the timing of revenue recognition. In contracts that include customer acceptance, we recognize revenue when we have delivered the software and received customer acceptance. We recognize revenue from support and maintenance performance obligations over the service delivery period. We recognize revenue from royalties in the period of usage.

Our non-DataV software products generally do not include customization or modification services and are sold in the form of term licenses. These software licenses represent only one distinct performance obligation. Revenue is recognized when the software is delivered to the customer.

There are two items involving revenue recognition on DataV software contracts that require us to make more difficult and subjective judgments: the determination of which performance obligations are distinct within the context of the overall contract and the estimated standalone selling price of each performance obligation. In instances where our DataV contracts include significant customization or modification services, the customization and modification services are generally combined with the software license and recorded as one distinct performance obligation. We estimate the standalone selling price of each performance obligation based on either a cost-plus-margin approach or an adjusted market assessment approach. In instances where we have observable selling prices for professional services and support and maintenance, we may apply the residual approach to estimate the standalone selling price of software licenses.

Professional engineering services

We enter into contracts for professional engineering services, including for our IIoT-related service offerings, that include software development and customization. We have certain legacy contracts to deliver other engineering services to customers that we will continue to serve as long as they are profitable; some of our legacy services customers may become DataV customers. To date, the majority of our DataV services contracts are fixed fee pilot programs. We identify each performance obligation in our professional engineering services contracts at contract inception. The contracts generally include project deliverables specified by each customer. The performance obligations in the contracts are generally combined into one deliverable. The contract pricing is either at stated billing rates per service hour and material costs or at a fixed amount. Services provided under the majority of our professional engineering contracts generally result in the transfer of control of the applicable deliverable over time. For most legacy service contracts, we recognize revenue on service contracts based on time and materials as we have the right to invoice. We recognize revenue on fixed fee contracts on the proportion of labor hours expended (under Topic 606, the 'input method') to the total hours expected to complete the contract performance obligation. Certain professional engineering contracts include substantive customer acceptance provisions, in which case we recognize revenue upon customer acceptance. For most DataV pilot service contracts we recognize revenue upon completion of the pilot.

For contracts that require the input method for revenue recognition, the determination of the total labor hours expected to complete the performance obligations on fixed fee contracts involves significant judgment. We incorporate revisions to hour and cost estimates when the causal facts become known. In certain situations, when it is impractical for us to reasonably measure the outcome of a performance obligation, and where we anticipate that we will not incur a loss, an adjusted cost-based input method is used for revenue recognition. Equal amounts of revenue and cost are recognized during the contract period, and profit is recognized when the project is completed and accepted.

Recently issued accounting pronouncements

In February 2016, the FASB issued ASU No. 2016-02, "Leases" ("ASU 2016-02"), to make leasing activities more transparent and comparable, requiring most leases to be recognized by lessees on their balance sheets as right-of-use assets, along with corresponding lease liabilities. ASU 2016-02 is effective for annual periods beginning after December 31, 2018 and interim periods within that year, with early adoption permitted. We expect to adopt ASU 2016-02 effective January 1, 2019 and elect the modified retrospective transition method, recording a cumulative-effect adjustment as of that date and presenting comparative prior year periods in accordance with ASC Topic 840.

On the date of adoption, we expect to record a cumulative adjustment to recognize new net lease liabilities of approximately \$1.7 million to \$1.8 million and new right-of-use ("ROU") assets of approximately \$1.2 million to \$1.3 million, for operating leases on our consolidated balance sheets, based on the present value of remaining rental payments for existing operating leases. As part of adoption, we also plan to de-recognize approximately \$0.5 million in deferred rent. We do not expect adoption to have a material impact on our consolidated statements of operations and comprehensive loss or shareholders' equity. However, adoption will create additional disclosures, including changes to non-cash disclosures on our consolidated statements of cash flows. We currently expect to elect the short-term lease recognition exemption for our facility rental and equipment leases (all leases that qualify), which means that we will not recognize ROU assets or lease liabilities for existing short-term leases as of the date of adoption. In addition, we expect to apply a package of practical expedients to forego reassessing:

- whether any expired or existing contracts are or contain leases,
- lease classification for any expired or existing leases, and
- initial direct costs for any existing leases.

2. Revenue Recognition

On January 1, 2017, we adopted Topic 606, applying the modified retrospective method to all contracts that were not completed as of that date. We recorded an increase to opening equity of \$404,000 as of January 1, 2017 due to the cumulative impact of adopting Topic 606. There was no tax effect on the cumulative impact adjustment due to the valuation allowance on our net deferred tax asset.

Disaggregation of revenue

The following table provides information about disaggregated revenue by primary geographical market, major product line and timing of revenue recognition, and includes a reconciliation of the disaggregated revenue with reportable segments (in thousands):

| | Year Ended December 31, 2018 | | | | |
|--|------------------------------|-------------------------|-------------------|--|------------------|
| | Third-Party Software | Proprietary Software | Total Software | Professional Engineering Service | Total |
| Primary geographical markets: | | | | | |
| North America..... | \$ 58,523 | \$ 3,305 | \$ 61,828 | \$ 7,260 | \$ 69,088 |
| Europe..... | 2,239 | 115 | 2,354 | 701 | 3,055 |
| Asia..... | 397 | 534 | 931 | 340 | 1,271 |
| Total | <u>\$ 61,159</u> | <u>\$ 3,954</u> | <u>\$ 65,113</u> | <u>\$ 8,301</u> | <u>\$ 73,414</u> |
| Major products/services lines: | | | | | |
| Third-party software | \$ 61,159 | \$ - | \$ 61,159 | \$ - | \$ 61,159 |
| Proprietary software..... | - | 3,954 | 3,954 | - | 3,954 |
| Professional engineering services..... | - | - | - | 8,301 | 8,301 |
| Total | <u>\$ 61,159</u> | <u>\$ 3,954</u> | <u>\$ 65,113</u> | <u>\$ 8,301</u> | <u>\$ 73,414</u> |
| Timing of revenue recognition: | | | | | |
| Transferred at a point in time | \$ 61,035 | \$ 2,967 | \$ 64,002 | \$ 1,592 | \$ 65,594 |
| Transferred over time | 124 | 987 | 1,111 | 6,709 | 7,820 |
| Total | <u>\$ 61,159</u> | <u>\$ 3,954</u> | <u>\$ 65,113</u> | <u>\$ 8,301</u> | <u>\$ 73,414</u> |

Contract Balances

The following table provides information about receivables, contract assets and contract liabilities from contracts with customers (in thousands):

| | December 31, 2018 | December 31, 2017 |
|--|-------------------|-------------------|
| Receivables | \$ 11,581 | \$ 18,014 |
| Short-term contract assets | 1,053 | 937 |
| Long-term contract assets | 528 | 30 |
| Short-term contract liabilities (deferred revenue) | 1,652 | 3,219 |
| Long-term contract liabilities (deferred revenue) | 1,037 | 61 |

We receive payments from customers based upon contractual billing schedules. Accounts receivable are recorded when the right to consideration becomes unconditional. Contract assets include amounts related to our contractual right to consideration for completed performance objectives not yet invoiced and deferred contract acquisition costs, which are amortized along with the associated revenue. Contract liabilities include payments received in advance of performance under the contract and are realized with the associated revenue recognized under the contract. We had no asset impairment charges related to contract assets in the period.

Significant changes in contract assets and liabilities balances were as follows (in thousands):

| | December 31, 2018 | |
|---|-------------------|-------------------------------------|
| | Contract Assets | Contract Liabilities ⁽¹⁾ |
| Revenue recognized that was included in the contract liability at beginning of the period | \$ - | \$ 3,663 |
| Transferred to receivables from contract assets recognized at beginning of the period | \$ 263 | \$ - |
| ⁽¹⁾ Comprised of deferred revenue | | |

Contract acquisition costs

In connection with the adoption of Topic 606, we are required to capitalize certain contract acquisition costs consisting primarily of commissions paid when contracts are signed. As of January 1, 2017, the date we adopted Topic 606, we capitalized \$292,000 in contract acquisition costs related to contracts that were not completed. For contracts that have a duration of less than one year, we follow a Topic 606 practical expedient and expense these costs when incurred. For contracts with lives exceeding one year, as is more common with our DataV software bookings, we record these costs in proportion to each completed contract performance obligation. During the years ended December 31, 2018 and December 31, 2017, we recorded \$128,000 and \$168,000 in amortization of capitalized contract acquisition costs, respectively. There were no impairment losses recorded related to costs capitalized. Contract acquisition costs capitalized during the years ended December 31, 2018 and December 31, 2017 were \$748,000 and \$87,000, respectively.

Performance obligations

We did not recognize any revenue from performance obligations satisfied in previous periods.

The following table includes estimated revenue expected to be recognized in the future related to performance obligations that are unsatisfied or partially unsatisfied at the end of the reporting period, in thousands. The estimated revenue does not include contracts with original durations of one year or less, amounts of variable consideration attributable to royalties, or contract renewals that were unexercised as of December 31, 2018.

| | 2019 | 2020 | 2021 | 2022 |
|---|-------|-------|-------|------|
| Third-party software | \$ 51 | \$ 14 | \$ - | \$ - |
| Proprietary software | 2,215 | 2,415 | 1,240 | 196 |
| Professional engineering services | - | - | - | - |

Practical expedients and exemptions

We generally expense sales commissions when incurred because the amortization period would have been less than one year. We record these costs within selling, general and administrative expenses.

3. Cash and Investments

Cash, cash equivalents, restricted cash, and short-term investments consisted of the following (in thousands):

| | December 31, | |
|---|------------------|------------------|
| | 2018 | 2017 |
| Cash..... | \$ 6,780 | \$ 6,340 |
| Cash equivalents (see detail in Note 4)..... | 3,225 | 6,519 |
| Restricted cash..... | 263 | - |
| Restricted cash, long-term (see detail in Note 4) | 263 | - |
| Total cash, cash equivalents and restricted cash as presented in the statement of cash flows..... | 10,531 | 12,859 |
| Short-term investments (see detail in Note 4) | 6,409 | 11,895 |
| Total cash, cash equivalents, restricted cash and short-term investments | <u>\$ 16,940</u> | <u>\$ 24,754</u> |

4. Fair Value Measurements

We measure our cash equivalents, restricted cash, and short-term investments at fair value. Fair value is an exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or a liability. A three-tier fair value hierarchy is established as a basis for considering such assumptions and for inputs used in the valuation methodologies in measuring fair value:

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

Level 2: Directly or indirectly observable market-based inputs or unobservable inputs used in models or other valuation methodologies.

Level 3: Unobservable inputs that are not corroborated by market data. The inputs require significant management judgment or estimation.

We classify our cash equivalents, restricted cash, and short-term investments within Level 1 or Level 2 because our cash equivalents and short-term investments are valued using quoted market prices or alternative pricing sources and models utilizing market observable inputs. We review the pricing techniques and methodologies of the independent pricing service for Level 2 investments and believe that the policies adequately consider market activity, either based on specific transactions for the security valued or based on modeling of securities with similar credit quality, duration, yield and structure that were recently traded.

Assets and liabilities measured at fair value on a recurring basis were as follows (in thousands):

| | December 31, 2018 | | |
|---|---|--|------------------|
| | Quoted Prices in Active Markets for Identical Assets (Level 1) | Direct or Indirect Observable Inputs (Level 2) | Total |
| Assets | | | |
| Cash equivalents: | | | |
| Money market funds | \$ 1,277 | \$ - | \$ 1,277 |
| Corporate commercial paper | - | 1,198 | 1,198 |
| Corporate debt | - | 750 | 750 |
| Total cash equivalents | 1,277 | 1,948 | 3,225 |
| Restricted cash: | | | |
| Money market funds..... | 526 | | 526 |
| Short-term investments: | | | |
| Corporate commercial paper | - | 3,874 | 3,874 |
| Corporate debt | - | 2,535 | 2,535 |
| Total short-term investments | - | 6,409 | 6,409 |
| Total assets measured at fair value | <u>\$ 1,803</u> | <u>\$ 8,357</u> | <u>\$ 10,160</u> |

| | December 31, 2017 | | |
|---|---|--|------------------|
| | Quoted Prices in Active Markets for Identical Assets (Level 1) | Direct or Indirect Observable Inputs (Level 2) | Total |
| Assets | | | |
| Cash equivalents: | | | |
| Money market funds | \$ 2,274 | \$ - | \$ 2,274 |
| Corporate commercial paper | - | 3,245 | 3,245 |
| Corporate debt | - | 1,000 | 1,000 |
| Total cash equivalents | 2,274 | 4,245 | 6,519 |
| Short-term investments: | | | |
| Corporate commercial paper | - | 5,480 | 5,480 |
| Corporate debt | - | 6,415 | 6,415 |
| Total short-term investments | - | 11,895 | 11,895 |
| Total assets measured at fair value | <u>\$ 2,274</u> | <u>\$ 16,140</u> | <u>\$ 18,414</u> |

As of December 31, 2018 and 2017, contractual maturities of our short-term investments were less than one year, and gross unrealized gains and losses on those investments were not material.

5. Equipment, Furniture and Leasehold Improvements

Equipment, furniture, and leasehold improvements consisted of the following (in thousands):

| | December 31, | |
|--|---------------|---------------|
| | 2018 | 2017 |
| Computer equipment and software | \$ 1,637 | \$ 1,819 |
| Office furniture and equipment | 302 | 321 |
| Leasehold improvements | 1,163 | 1,189 |
| Software development costs | 329 | — |
| Total | 3,431 | 3,329 |
| Less: accumulated depreciation and amortization | (2,520) | (2,340) |
| Equipment, furniture and leasehold improvements, net | <u>\$ 911</u> | <u>\$ 989</u> |

Depreciation and amortization expense related to these assets was \$541,000 and \$536,000 in 2018 and 2017, respectively.

6. Goodwill and Intangible Assets

Goodwill was recorded in connection with the September 2011 acquisition of MPC Data, Ltd. (renamed BSQUARE EMEA, Ltd. in 2015), a United Kingdom based provider of software engineering services. The excess of the acquisition consideration over the fair value of net assets acquired was recorded as goodwill and is included within the professional engineering services (“PES”) reporting unit.

For 2018, we performed our annual goodwill assessment in the fourth quarter of 2018. We chose to forego performing the qualitative assessment and proceeded directly to performing the quantitative impairment test by comparing the fair value of our PES reporting unit with its carrying value, including goodwill, recording an impairment charge for the excess. When performing the assessment, we determined the fair value of our PES reporting unit based on our forecast of future revenue and expense cash flow streams. Based on the uncertainty of future sales for new PES services and the results of this assessment, we determined that the carrying value of goodwill was impaired. As a result, an impairment charge of \$3.7 million was recorded.

For 2017, we performed our annual impairment assessment in the fourth quarter of 2017; no impairment was indicated and there was no change to the carrying amount of goodwill.

The carrying value of goodwill consisted of the following (in thousands):

| | <u>Cost</u> | <u>Impairment Loss</u> | <u>Net Carrying Value</u> |
|---|-------------|------------------------|---------------------------|
| Reconciliation of Goodwill carrying amount: | | | |
| Balance at December 31, 2018 | \$ 3,738 | \$ (3,738) | \$ - |
| Balance at December 31, 2017 | \$ 3,738 | \$ - | \$ 3,738 |

Intangible assets relate to customer relationships that we acquired from TestQuest, Inc. in November 2008 and from the acquisition of BSQUARE EMEA, Ltd. in September 2011 and were as follows (in thousands):

| | <u>Gross Carrying Amount</u> | <u>Accumulated Amortization</u> | <u>Net Carrying Value</u> |
|---------------------------------------|------------------------------|---------------------------------|---------------------------|
| Customer relationships: | | | |
| Balance as of December 31, 2018 | \$ 1,275 | \$ (1,008) | \$ 267 |
| Balance as of December 31, 2017 | \$ 1,275 | \$ (910) | \$ 365 |

Amortization expense was \$98,000 for both 2018 and 2017. Amortization expense in future periods is expected to be as follows (in thousands):

| | |
|-------------|---------------|
| 2019 | 98 |
| 2020 | 98 |
| 2021 | 71 |
| Total | <u>\$ 267</u> |

7. Other Income and Loss

Other income and loss consisted of the following (in thousands):

| | <u>Year Ended December 31,</u> | |
|---------------------------|--------------------------------|---------------|
| | <u>2018</u> | <u>2017</u> |
| Interest income | \$ 207 | \$ 238 |
| Other income (loss) | - | (24) |
| Total | <u>\$ 207</u> | <u>\$ 214</u> |

8. Income Taxes

Pre-tax loss consisted of the following (in thousands):

| | Year Ended December 31, | |
|---------------|-------------------------|-------------------|
| | 2018 | 2017 |
| U.S. | \$ (13,081) | \$ (8,885) |
| Foreign | (643) | (322) |
| Total | <u>\$ (13,724)</u> | <u>\$ (9,207)</u> |

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

| | Year Ended December 31, | |
|-----------------------|-------------------------|-----------------|
| | 2018 | 2017 |
| Current taxes: | | |
| Federal | \$ - | \$ (79) |
| State and local | 13 | (1) |
| Foreign | - | (42) |
| Current taxes | 13 | (122) |
| Deferred taxes: | | |
| Federal | - | - |
| State and local | - | - |
| Foreign | - | (27) |
| Deferred taxes | - | (27) |
| Total | <u>\$ 13</u> | <u>\$ (149)</u> |

Net deferred tax assets and liabilities consisted of the following (in thousands):

| | December 31, | |
|---|--------------|-------------|
| | 2018 | 2017 |
| Depreciation and amortization | \$ 48 | \$ 238 |
| Accrued expenses and reserves | 47 | 148 |
| Deferred revenue | (63) | 508 |
| Net operating loss carryforwards | 17,443 | 14,561 |
| Research and development credit carryforwards | 3,337 | 3,037 |
| Stock-based compensation | 1,006 | 940 |
| Other | 19 | 10 |
| Gross deferred tax assets | 21,837 | 19,442 |
| Less: valuation allowance | (21,830) | (19,442) |
| Net deferred tax assets (liability) | <u>\$ 7</u> | <u>\$ -</u> |

Net deferred tax assets and liabilities were recorded as follows (in thousands):

| | December 31, | |
|---|--------------|-------------|
| | 2018 | 2017 |
| Deferred tax assets, non-current | \$ 7 | \$ - |
| Deferred tax liability, non-current | - | - |
| Net deferred tax assets (liability) | <u>\$ 7</u> | <u>\$ -</u> |

The Tax Cuts and Jobs Act was enacted on December 22, 2017 (the "Tax Act") and introduced significant changes to U.S. income tax law. Our accounting for the elements of the Tax Act that were effective for 2017 is complete and its impact is reflected in our 2017 and 2018 consolidated financial statements.

The Tax Act reduced the US federal corporate tax rate from 35% in 2017 to 21% beginning in 2018. The anticipated impact of the Tax Act for us was an \$8.9 million reduction in our net deferred tax assets in 2017 to reflect the new statutory rate. The rate adjustment to the deferred tax assets, a discrete item for the quarter, was fully offset by a decrease in the valuation allowance so there was no rate impact to us.

Effective in 2018, companies may be subject to global intangible low tax income (“GILTI”) which is a tax on foreign income in excess of a deemed return on tangible assets of foreign corporations. Due to the complexity of the GILTI tax rules, companies are allowed to make an accounting policy choice of either (1) treating taxes due on future U.S. inclusions in taxable income related to GILTI as a current-period expense when incurred or (2) factoring such amounts into a company’s measurement of its deferred taxes. We are electing to treat taxes due on future U.S. inclusions in taxable income related to GILTI as a current-period expense when incurred, and therefore there was no impact to our deferred tax rate in 2017.

As of December 31, 2018, our deferred tax assets were primarily the result of U.S. net operating loss, research and development credit carryforwards and stock-based compensation expense. We have applied a full valuation allowance against the U.S. deferred tax assets in the U.S. and foreign jurisdictions.

We use judgment as to the appropriate weighting of all available evidence when assessing the need for the establishment or the release of valuation allowances. As part of this analysis, we examine all available evidence on a jurisdiction-by-jurisdiction basis and weigh the positive and negative information when determining the need for full or partial valuation allowances. The evidence considered for each jurisdiction includes, among other items, (i) the historical levels of income or loss over a range of time periods that extends beyond the two years presented, (ii) the historical sources of income and losses, (iii) the expectations and risk associated with underlying estimates of future taxable income, (iv) the expectations and risk associated with new product offerings and uncertainties with the timing of future taxable income, and (v) prudent and feasible tax planning strategies. Based on the analysis conducted as of December 31, 2018, we determined that we would not release, in full or in part, the valuation allowance against our U.S. gross deferred tax assets.

The provision for income taxes differed from the amount of expected income tax expense determined by applying the applicable U.S. statutory federal income tax rate to pre-tax loss as follows (in thousands, except percentages):

| | Year Ended December 31, | | | |
|--|-------------------------|---------------|-----------------|-------------|
| | 2018 | | 2017 | |
| U.S. Federal tax benefit at statutory rates | \$ (2,889) | 21.0% | \$ (3,130) | 34.0% |
| Impact of: | | | | |
| Tax credits | (517) | 3.8% | (376) | 4.1% |
| State income tax | 10 | (0.1)% | (1) | 0.0% |
| International operations | 30 | (0.2)% | 168 | (1.8)% |
| Stock-based compensation | 2 | (—)% | (130) | 1.4% |
| Valuation allowance | 2,280 | (16.6)% | (5,688) | 61.8% |
| Expiration of tax attributes | 217 | (1.6)% | - | (—)% |
| Impact of tax reform | - | (—)% | 8,929 | (97.0)% |
| Goodwill impairment | 784 | (5.7)% | - | (—)% |
| Other, net | 96 | (0.7)% | 79 | (0.9)% |
| Tax expense (benefit) and effective tax rate | <u>\$ 13</u> | <u>(0.1)%</u> | <u>\$ (149)</u> | <u>1.6%</u> |

At December 31, 2018, we had approximately \$73.4 million of federal and \$9.0 million of state net operating loss carryforwards, which have begun to expire. Of the federal net operating loss carryforwards, approximately \$36.3 million will expire in 2022 and 2023. We also have approximately \$3.3 million of tax credit carryforwards, which begin to expire in 2019. Use of these carryforwards may subject us to an annual limitation due to Section 382 of the U.S. Internal Revenue Code that restricts the ability of a corporation that undergoes an ownership change to use its carryforwards. Under the applicable tax rules, an ownership change occurs if holders of more than five percent of an issuer’s outstanding common stock, collectively, increase their ownership percentage by more than 50 percentage points over a rolling three-year period. We have performed analyses of possible ownership changes in the past, which included consideration of third-party studies, and do not believe that an ownership change of more than 50 percentage points has occurred.

We have evaluated all the material income tax positions taken on our income tax filings to various tax authorities, and we determined that we did not have unrealized tax benefits related to uncertain tax positions recorded at December 31, 2018 or 2017.

Because of net operating loss and tax credit carryforwards, substantially all of our tax years remain open and subject to examination.

9. Commitments and Contingencies

Contractual commitments

Our commitments include obligations under operating leases, which expire through 2021. We have lease commitments for office space in Bellevue, Washington; Taipei, Taiwan; and Trowbridge, UK. We also lease office in Boston, Massachusetts.

Rent expense was approximately \$0.9 million in 2018 and \$1.0 million in 2017.

As of December 31, 2018 we had approximately \$263,000 held as collateral on a letter of credit with JPMorgan Chase Bank, N.A. (the "Bank") under the terms of our headquarters facility lease, which was recorded as restricted cash, long-term. Additionally, we had approximately \$263,000 held as collateral at the Bank supporting our credit card line, which was been recorded as restricted cash.

Future operating lease commitments are as follows (in thousands):

| | | |
|-------------|----|--------------|
| 2019 | \$ | 1,195 |
| 2020 | | 623 |
| 2021 | | 60 |
| Total | \$ | <u>1,878</u> |

Loss contingencies

From time to time, we are subject to legal proceedings, claims, and litigation arising in the ordinary course of business including tax assessments. We defend ourselves vigorously against any such claims. When (i) it is probable that an asset has been impaired, or a liability has been incurred and (ii) the amount of the loss can be reasonably estimated, we record the estimated loss. We provide disclosure in the notes to the consolidated financial statements for loss contingencies that do not meet both of these conditions if there is a reasonable possibility that a loss may have been incurred that would be material to the financial statements. Significant judgment is required to determine the probability that a liability has been incurred and whether such liability is reasonably estimable. We base accruals made on the best information available at the time, which can be highly subjective. The final outcome of these matters could vary significantly from the amounts included in the accompanying consolidated financial statements.

10. Shareholders' Equity

Equity compensation plans

We have a stock plan (the "Stock Plan") and an inducement stock plan for newly hired employees (the "Inducement Plan") (collectively the "Plans"). Under the Plans, stock options may be granted with a fixed exercise price that is equivalent to the fair market value of our common stock on the date of grant. These options have a term of up to 10 years and vest over a predetermined period, generally four years. Incentive stock options granted under the Stock Plan may only be granted to our employees. The Plans also allow for awards of non-qualified stock options, stock appreciation rights, restricted and unrestricted stock awards, and RSUs.

Stock-based compensation

The estimated fair value of stock-based awards is recognized as compensation expense over the vesting period of the award, net of estimated forfeitures. We estimate forfeitures based on historical experience and expected future activity. The fair value of RSUs is determined based on the number of shares granted and the quoted price of our common stock on the date of grant. The fair value of stock options is estimated at the grant date based on the fair value of each vesting tranche as calculated by the Black-Scholes-Merton ("BSM") option-pricing model. The BSM model requires various highly judgmental assumptions including expected volatility and option life. If any of the assumptions used in the BSM model change significantly, stock-based compensation expense may differ materially in the future from that recorded in the current period. The fair values of our stock option grants were estimated with the following weighted average assumptions:

| | Year Ended December 31, | |
|-------------------------------|-------------------------|-----------|
| | 2018 | 2017 |
| Dividend yield | 0% | 0% |
| Expected life | 6.1 years | 6.5 years |
| Expected volatility | 56% | 52% |
| Risk-free interest rate | 2.6% | 1.7% |

The impact on our results of operations from stock-based compensation expense was as follows (in thousands, except per share amounts):

| | Year Ended December 31, | |
|---|-------------------------|-----------------|
| | 2018 | 2017 |
| Cost of revenue— professional engineering service | \$ 28 | \$ 107 |
| Selling, general and administrative | 460 | 1,414 |
| Research and development..... | 190 | 236 |
| Total stock-based compensation expense | <u>\$ 678</u> | <u>\$ 1,757</u> |
| Per basic share | \$ 0.05 | \$ 0.14 |
| Per diluted share | \$ 0.05 | \$ 0.14 |

Stock option activity

The following table summarizes stock option activity:

| | Number of Shares | Weighted Average Exercise Price | Weighted Average Remaining Contractual Life (in years) | Aggregate Intrinsic Value |
|---|------------------|---------------------------------|--|---------------------------|
| Balance at December 31, 2016..... | 1,846,768 | \$ 4.84 | 8.19 | |
| Granted..... | 248,100 | \$ 5.18 | | |
| Exercised..... | (54,692) | \$ 3.66 | | |
| Forfeited | (91,411) | \$ 5.31 | | |
| Expired | (36,604) | \$ 5.83 | | |
| Balance at December 31, 2017 | 1,912,161 | \$ 4.88 | 7.61 | |
| Granted..... | 316,393 | \$ 3.63 | | |
| Exercised..... | (2,422) | \$ 3.59 | | |
| Forfeited | (434,374) | \$ 4.88 | | |
| Expired | (401,746) | \$ 4.27 | | |
| Balance at December 31, 2018..... | <u>1,390,012</u> | \$ 4.77 | 6.83 | \$ — |
| Vested and expected to vest at December 31, 2018..... | 1,293,384 | \$ 4.79 | 6.70 | \$ — |
| Exercisable at December 31, 2018 | 929,224 | \$ 4.86 | 6.05 | \$ — |

At December 31, 2018, total compensation cost related to stock options granted but not yet recognized was approximately \$521,986, net of estimated forfeitures. This cost will be amortized on the straight-line method over a weighted-average period of approximately 1.2 years.

The following table summarizes certain additional information about stock options:

| | Year Ended December 31, | |
|---|-------------------------|------------|
| | 2018 | 2017 |
| Weighted average grant-date fair value for options granted during the year..... | \$ 1.81 | \$ 2.62 |
| Vested options in-the-money | — | 603,925 |
| Aggregate intrinsic value of options exercised during the year | \$ 1,853 | \$ 104,512 |

The aggregate intrinsic value represents the difference between the exercise price of the underlying options and the quoted price of our common stock for the number of options that were exercised during the periods indicated. We issue new shares of common stock upon exercise of stock options.

Restricted stock unit activity

The following table summarizes RSU activity:

| | Number of Shares | Weighted Average Award Price |
|---|---------------------|---------------------------------|
| Unvested at December 31, 2016..... | 119,606 | \$ 5.60 |
| Granted..... | 79,819 | \$ 4.98 |
| Vested..... | (82,457) | \$ 5.39 |
| Forfeited..... | - | \$ - |
| Unvested at December 31, 2017..... | 116,968 | \$ 5.33 |
| Granted..... | 251,371 | \$ 2.72 |
| Vested..... | (113,535) | \$ 4.19 |
| Forfeited..... | (68,288) | \$ 4.30 |
| Unvested at December 31, 2018..... | 186,516 | \$ 2.87 |
| Expected to vest after December 31, 2018..... | 165,952 | \$ 2.84 |

At December 31, 2018, total compensation cost related to RSUs granted but not recognized was approximately \$236,000, net of estimated forfeitures. This cost will be amortized on the straight-line method over a weighted-average period of approximately 0.5 years.

Common stock reserved for future issuance

The following table summarizes our shares of common stock reserved for future issuance under the Plans as of December 31, 2018:

| | |
|--|-----------|
| Stock options outstanding..... | 1,390,012 |
| Restricted stock units outstanding..... | 186,515 |
| Stock options available for future grant..... | 1,525,900 |
| Common stock reserved for future issuance..... | 3,102,427 |

11. Employee Benefit Plan

We maintain a Profit Sharing and Deferred Compensation Plan, The BSQUARE Corporation 401(k) Plan and Trust (the "Profit Sharing Plan") under Section 401(k) of the Internal Revenue Code. Substantially all full-time employees are eligible to participate in the Profit-Sharing Plan. We typically elect to match the participants' contributions to the Profit-Sharing Plan up to a certain amount subject to vesting. Participants will receive their share of the value of their investments, and any applicable vested match, upon retirement or termination. We made matching contributions of \$439,000 and \$410,000 in 2018 and 2017, respectively.

12. Significant Concentrations

Significant customer

Honeywell International, Inc. and affiliated entities ("Honeywell") accounted for revenue and accounts receivable as follows (in thousands, except percentages):

| | Year Ended December 31, | |
|---|-------------------------|-----------|
| | 2018 | 2017 |
| Honeywell revenue..... | \$ 7,013 | \$ 12,278 |
| As a percentage of total revenue..... | 10% | 15% |
| | December 31, | |
| | 2018 | 2017 |
| Honeywell accounts receivable..... | \$ 2,758 | \$ 8,659 |
| As a percentage of total accounts receivable..... | 24% | 48% |

No other customer accounted for 10% or more of total revenue in 2018 or 2017 or 10% or more of total accounts receivable at December 31, 2018 or 2017.

Significant supplier

Effective March 1, 2019, pursuant to a new Global Partnership Agreement with Microsoft, we are authorized to sell Windows Embedded operating systems in Canada, the United States, Argentina, Brazil, Chile, Mexico, Peru, Venezuela, Puerto Rico, Cuba, Haiti, Dominican Republic, Jamaica, Trinidad and Tobago, Guadeloupe, Martinique, Bahamas, Barbados, Saint Lucia, Curacao, Aruba, Saint Vincent and the Grenadines, U.S. Virgin Islands, Grenada, Dominica, Cayman Islands, Saint Kitts and Nevis, Sint Maarten, Turks and Caicos Islands, Saint Martin, British Virgin Islands, Sint Eustatius, Saba, Anguilla, Montserrat, Colombia, Saint Barthelemy, Antigua and Barbuda. Our existing distribution agreement for sales of Windows Embedded operating systems in the E.U., the European Free Trade Association, Turkey and Africa, from which we generated approximately 3.7% of our third-party software sales in 2018, expires on June 30, 2019 and will not be renewed thereafter. We have also entered into ODAs with Microsoft pursuant to which we are licensed to sell Microsoft Windows Mobile operating systems to customers in North America, South America, Central America (excluding Cuba), Japan, Taiwan, Europe, the Middle East, and Africa. The ODAs to sell Windows Mobile operating systems are effective through April 30, 2022.

Software sales under these agreements constitute a significant portion of our software revenue and total revenue. There is no automatic renewal provision in any of these agreements, and these agreements can be terminated unilaterally by Microsoft at any time.

Microsoft currently offers a rebate program to sell Microsoft Windows Embedded operating systems pursuant to which we earn money for achieving certain predefined objectives. In accordance with Microsoft rebate program rules, we allocate 30% of rebates to reduce cost of sales, with the remaining 70% to offset qualified marketing expenses in the period the expenditures are claimed and approved.

Under this rebate program, we recorded rebate credits as follows (in thousands):

| | Year Ended December 31, | |
|---------------------------------------|-------------------------|--------|
| | 2018 | 2017 |
| Reductions to cost of revenue | \$ 718 | \$ 499 |
| Reductions to marketing expense | \$ 682 | \$ 658 |

There was a balance of approximately \$329,000 in outstanding rebate credits for which we qualified as of December 31, 2018. If qualified program expenditures are made, these will be accounted for as reductions in marketing expense in the period in which such expenditures are made.

13. Credit Agreement

Line of credit

In September 2015, we entered into a two-year unsecured line of credit agreement (the "Credit Agreement") with JPMorgan Chase Bank, N.A. in the principal amount of up to \$12.0 million. In September 2016, the Credit Agreement was modified to extend the final due date an additional year to September 2018, at which point it expired. No borrowings were ever outstanding under the Credit Agreement.

14. Information about Operating Segments and Geographic Areas

Our chief operating decision-makers (i.e. our Chief Executive Officer and certain direct reports) review financial information presented on a consolidated basis, accompanied by disaggregated information for purposes of allocating resources and evaluating financial performance. There are no segment managers who are held accountable by our chief operating decision-makers, or anyone else, for operations, operating results, or planning for levels or components below the consolidated unit level. We operate within a single industry segment of computer software and services. We have three major product lines—third-party software, proprietary software and professional engineering service—each of which we consider to be operating and reportable segments. We do not allocate costs other than direct cost of goods sold to the segments or produce segment income statements. We do not produce asset information by reportable segment, and it is not presented here. The following table sets forth profit and loss information about our segments (in thousands):

| | Year Ended December 31, | |
|-----------------------------------|-------------------------|------------|
| | 2018 | 2017 |
| Third-party software: | | |
| Revenue..... | \$ 61,159 | \$ 65,755 |
| Cost of revenue | 51,408 | 55,161 |
| Gross profit | 9,751 | 10,594 |
| Proprietary software: | | |
| Revenue..... | 3,954 | 4,646 |
| Cost of revenue | 394 | 163 |
| Gross profit | 3,560 | 4,483 |
| Professional Engineering Service: | | |
| Revenue..... | 8,301 | 10,410 |
| Cost of revenue | 6,102 | 7,365 |
| Gross profit | 2,199 | 3,045 |
| Total gross profit | 15,510 | 18,122 |
| Operating expenses..... | 29,441 | 27,543 |
| Other income, net | 207 | 214 |
| Income tax (expense) benefit..... | (13) | 149 |
| Net loss | \$ (13,737) | \$ (9,058) |

Revenue by geography is based on the sales region of the customer. The following tables set forth revenue and long-lived assets by geographic area (in thousands):

| | Year Ended December 31, | |
|-------------------------------|-------------------------|-----------|
| | 2018 | 2017 |
| Total revenue: | | |
| North America | \$ 69,088 | \$ 76,062 |
| Asia | 1,271 | 1,644 |
| Europe | 3,055 | 3,105 |
| Total revenue..... | \$ 73,414 | \$ 80,811 |
| | | |
| | December 31, | |
| | 2018 | 2017 |
| Long-lived assets: | | |
| North America | \$ 1,578 | \$ 991 |
| Asia | 91 | 76 |
| Europe | 4,023 | 4,114 |
| Total long-lived assets | \$ 5,692 | \$ 5,181 |

15. Quarterly Financial Information (Unaudited)

| Condensed Consolidated Statements of Operations | | | | |
|---|---------------------------------------|------------|------------|------------|
| 2018 | | | | |
| | Q1 | Q2 | Q3 | Q4 |
| | (in thousands, except per share data) | | | |
| Revenue | \$ 20,678 | \$ 19,203 | \$ 16,694 | \$ 16,839 |
| Gross profit | \$ 5,200 | \$ 3,261 | \$ 3,359 | \$ 3,690 |
| Loss from operations | \$ (2,478) | \$ (3,718) | \$ (2,132) | \$ (5,603) |
| Net loss | \$ (2,434) | \$ (3,683) | \$ (2,087) | \$ (5,533) |
| Basic loss per share | \$ (0.19) | \$ (0.29) | \$ (0.16) | \$ (0.43) |
| Diluted loss per share | \$ (0.19) | \$ (0.29) | \$ (0.16) | \$ (0.43) |
| Shares used in per share calculations: | | | | |
| Basic | 12,673 | 12,697 | 12,721 | 12,755 |
| Diluted | 12,673 | 12,697 | 12,721 | 12,755 |

| 2017 | | | | |
|--|---------------------------------------|------------|------------|------------|
| | Q1 | Q2 | Q3 | Q4 |
| | (in thousands, except per share data) | | | |
| Revenue | \$ 22,841 | \$ 18,848 | \$ 19,653 | \$ 19,469 |
| Gross profit | \$ 6,253 | \$ 3,873 | \$ 4,380 | \$ 3,616 |
| Income (loss) from operations | \$ 41 | \$ (2,619) | \$ (2,546) | \$ (4,297) |
| Net income (loss) | \$ 202 | \$ (2,560) | \$ (2,468) | \$ (4,232) |
| Basic income (loss) per share | \$ 0.02 | \$ (0.20) | \$ (0.20) | \$ (0.33) |
| Diluted income (loss) per share | \$ 0.02 | \$ (0.20) | \$ (0.20) | \$ (0.33) |
| Shares used in per share calculations: | | | | |
| Basic | 12,550 | 12,577 | 12,607 | 12,640 |
| Diluted | 12,848 | 12,577 | 12,607 | 12,640 |

| Condensed Consolidated Balance Sheets | | | | |
|--|----------------|-----------|--------------|-------------|
| 2018 | | | | |
| | March 31 | June 30 | September 30 | December 31 |
| | (in thousands) | | | |
| Cash, cash equivalents, restricted cash and short-term investments | \$ 21,435 | \$ 17,861 | \$ 17,271 | \$ 16,940 |
| Total current assets | \$ 39,913 | \$ 35,514 | \$ 32,102 | \$ 29,996 |
| Total assets | \$ 45,110 | \$ 41,000 | \$ 37,648 | \$ 31,994 |
| Total current liabilities | \$ 15,289 | \$ 14,189 | \$ 12,744 | \$ 12,466 |
| Total shareholders' equity | \$ 29,340 | \$ 25,635 | \$ 23,858 | \$ 18,341 |

| 2017 | | | | |
|--|----------------|-----------|--------------|-------------|
| | March 31 | June 30 | September 30 | December 31 |
| | (in thousands) | | | |
| Cash, cash equivalents, restricted cash and short-term investments | \$ 30,984 | \$ 27,296 | \$ 26,758 | \$ 24,754 |
| Total current assets | \$ 49,092 | \$ 47,077 | \$ 45,021 | \$ 44,253 |
| Total assets | \$ 54,403 | \$ 52,395 | \$ 50,247 | \$ 49,434 |
| Total current liabilities | \$ 14,310 | \$ 14,445 | \$ 14,351 | \$ 17,427 |
| Total shareholders' equity | \$ 39,206 | \$ 37,099 | \$ 35,238 | \$ 31,430 |

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

None.

Item 9A. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

We maintain disclosure controls and procedures that are designed to ensure that the information required to be disclosed in the reports that we file or submit under the Securities Exchange Act of 1934 (“Exchange Act”) is recorded, processed, summarized and reported within the time periods specified in the SEC’s rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure. In connection with the preparation of this Annual Report on Form 10-K, our management carried out an evaluation, under the supervision and with the participation of our Chief Executive Officer and Chief Financial Officer, as of December 31, 2018, of the effectiveness of the design and operation of our disclosure controls and procedures, as such term is defined under Rule 13a-15(e) and 15d-15(e) under the Exchange Act. Based upon this evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective as of December 31, 2018.

Management’s Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Our internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of our financial reporting and the preparation of our financial statements for external purposes in accordance with generally accepted accounting principles. Internal control over financial reporting is defined in Rules 13a-15(f) and 15d-15(f) promulgated under the Exchange Act and includes those policies and procedures that: (a) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of our assets; (b) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that our receipts and expenditures are being made only in accordance with authorizations of our management and directors; and (c) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on our financial statements. All internal controls, no matter how well designed, have inherent limitations. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation.

Our management assessed the effectiveness of our internal control over financial reporting as of December 31, 2018. In making this assessment, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission in *Internal Control—Integrated Framework (2013)*.

Based on its assessment, our management concluded that, as of December 31, 2018, our internal control over financial reporting was effective.

Changes in Internal Control over Financial Reporting

There have been no changes in our internal control over financial reporting during the fourth quarter of 2018 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

None.

PART III

Item 10. *Directors, Executive Officers and Corporate Governance*

Certain information required by this Item regarding our directors and executive officers and will be included in our definitive proxy statement for our 2019 annual meeting of shareholders which will be filed with the SEC no later than 120 days after December 31, 2018 (our “2019 Proxy Statement”), under the captions “Nominees and Continuing Directors” and “Executive Officers,” and such information is incorporated herein by this reference.

The information required by this Item regarding compliance by our directors, executive officers and holders of ten percent of a registered class of our equity securities with Section 16(a) of the Securities Exchange Act of 1934 will be included in our 2019 Proxy Statement under the caption “Section 16(a) Beneficial Ownership Reporting Compliance,” and such information is incorporated herein by this reference.

The remaining information required by this Item will be included in our 2019 Proxy Statement under the caption “Corporate Governance,” and such information is incorporated herein by this reference.

Item 11. *Executive Compensation*

The information required by this Item will be included in our 2019 Proxy Statement under the captions “Corporate Governance” and “Executive Officer Compensation,” and such information is incorporated herein by this reference.

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

The information required by this Item regarding equity compensation plan information will be included in our 2019 Proxy Statement under the caption “Equity Compensation Plan Information,” and such information is incorporated herein by this reference.

The information required by this Item regarding security ownership will be included in our 2019 Proxy Statement under the caption “Security Ownership of Principal Shareholders, Directors and Management,” and such information is incorporated herein by this reference.

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

The information required by this Item will be included in our 2019 Proxy Statement under the captions “Corporate Governance” and “Certain Relationships and Related Transactions,” and such information is incorporated herein by this reference.

Item 14. *Principal Accounting Fees and Services*

The information required by this Item with respect to principal accounting fees and services will be included in our 2019 Proxy Statement under the captions “Ratify Appointment of Independent Registered Public Accounting Firm” and “Independent Auditors,” and such information is incorporated herein by this reference.

PART IV

Item 15. *Exhibits, Financial Statement Schedules*

(a) **Financial Statements and Schedules**

1. *Financial Statements*

See "Index to Consolidated Financial Statements" in Part II Item 8 of this report.

2. *Financial Statement Schedules*

Financial statement schedules not included herein have been omitted because they are either not required, not applicable, or the information is otherwise included herein.

3. *Exhibits*

Exhibits are incorporated herein by reference or are filed with this report as indicated below.

(b) Exhibits

| Exhibit Number | Description | Filed or | Incorporated by Reference | | | |
|----------------|---|--------------------|---------------------------|-------------|----------|------------|
| | | Furnished Herewith | Form | Filing Date | Exhibit | File No. |
| 3.1 | Amended and Restated Articles of Incorporation | | S-1 | 8/17/1999 | 3.1(a) | 333-85351 |
| 3.1(a) | Articles of Amendment to Amended and Restated Articles of Incorporation | | 10-Q | 8/7/2000 | 3.1 | 000-27687 |
| 3.1(b) | Articles of Amendment to Amended and Restated Articles of Incorporation | | 8-K | 10/11/2005 | 3.1 | 000-27687 |
| 3.2 | Bylaws and all amendments thereto | | 10-K | 3/19/2003 | 3.2 | 000-27687 |
| 10.1(1) | Fourth Amended and Restated Stock Plan, as amended | | S-8 | 8/8/2017 | 4.1 | 333-219799 |
| 10.1(a)(1) | Form of Stock Option Agreement | | 10-Q | 8/9/2012 | 10.19(a) | 000-27687 |
| 10.1(b)(1) | Form of Restricted Stock Grant Agreement | | 10-Q | 8/9/2012 | 10.19(b) | 000-27687 |
| 10.1(c)(1) | Form of Restricted Stock Unit Agreement | | 10-Q | 8/9/2012 | 10.19(c) | 000-27687 |
| 10.2(1) | 2011 Inducement Award Plan | | 10-Q | 11/10/2011 | 10.1 | 000-27687 |
| 10.2(a)(1) | Form of Stock Option Agreement under the 2011 Inducement Award Plan | | 10-Q | 11/10/2011 | 10.1(a) | 000-27687 |
| 10.2(b)(1) | Form of Restricted Stock Unit Agreement under the 2011 Inducement Award Plan | | 10-K | 2/19/2015 | 10.2(b) | 000-27687 |
| 10.3(1) | Form of Indemnification Agreement | | 10-K | 2/21/2017 | 10.3 | 000-27687 |
| 10.4 | Office Lease Agreement between WA—110 Atrium Place, L.L.C. and BSQUARE Corporation | | 10-K | 3/30/2004 | 10.19 | 000-27687 |
| 10.4(a) | First Amendment to Office Lease with Talon Portfolio Services LLC dated August 26, 2013 and effective June 1, 2013 | | 8-K | 8/30/2013 | 10.1 | 000-27687 |
| 10.5(1) | Employment Letter Agreement with Kevin T. Walsh dated June 26, 2015 | | 10-Q | 8/13/2018 | 10.2 | 000-27687 |
| 10.6(1) | Amendment to employment letter agreement with Kevin T. Walsh dated November 6, 2018 | X | | | | |
| 10.7(1) | Employment Letter Agreement with Peter J. Biere dated November 28, 2016 | | 10-K | 2/21/2017 | 10.6 | 000-27687 |
| 10.8(1) | Employment Letter Agreement dated February 23, 2017 with Scott B. Caldwell | | 10-Q | 5/15/2017 | 10.2 | 000-27687 |
| 10.9(1) | Employment letter agreement with Giles Frith dated August 31, 2016 | | 10-Q | 8/13/2018 | 10.3 | 000-27687 |
| 10.10(1) | Amendment to employment letter agreement with Giles Frith dated June 5, 2018 | | 10-Q | 8/13/2018 | 10.4 | 000-27687 |
| 10.11(1) | Employment letter agreement with Ralph Derrickson dated February 4, 2019 | X | | | | |
| 10.12(2) | Microsoft OEM Distribution Agreement for Software Products for Embedded Systems with Microsoft Licensing, GP effective July 1, 2014 | | 10-Q | 8/14/2014 | 10.1 | 000-27687 |
| 10.13 | Board Observer Agreement with Palogic Value Fund, L.P, Palogic Value Management, L.P. and Palogic Capital Management, LLC dated June 25, 2018 | | 8-K | 6/26/2018 | 10.1 | 000-27687 |
| 21.1 | Subsidiaries of the registrant | X | | | | |
| 23.1 | Consent of Independent Registered Public Accounting Firm | X | | | | |
| 31.1 | Certification of Chief Executive Officer pursuant to Exchange Act Rule 13a-14(a) under the Securities and Exchange Act of 1934 | X | | | | |
| 31.2 | Certification of Chief Financial Officer pursuant to Exchange Act Rule 13a-14(a) under the Securities and Exchange Act of 1934 | X | | | | |
| 32.1 | Certification of Chief Executive Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 | X | | | | |
| 32.2 | Certification of Chief Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 | X | | | | |

| Exhibit Number | Description | Filed or Furnished Herewith | Incorporated by Reference | | | |
|-------------------|--|-----------------------------------|---------------------------|-------------|---------|----------|
| | | | Form | Filing Date | Exhibit | File No. |
| 101.INS | XBRL Instance Document | X | | | | |
| 101.SCH | XBRL Taxonomy Extension Schema Document | X | | | | |
| 101.CAL | XBRL Taxonomy Extension Calculation Document | X | | | | |
| 101.DEF | XBRL Taxonomy Extension Definitions | X | | | | |
| 101.LAB | XBRL Taxonomy Extension Label Document | X | | | | |
| 101.PRE | XBRL Taxonomy Extension Presentation Document | X | | | | |

(1) Indicates a management contract or compensatory plan or arrangement.

(2) Confidential treatment has previously been granted by the SEC for certain portions of the referenced exhibit.

(c) Financial Statement Schedules

None.

Item 16. Form 10-K Summary

Not applicable.



BSQUARE CORPORATION
110 110TH AVENUE NE, SUITE 300, BELLEVUE, WASHINGTON 98004

NOTICE OF ANNUAL MEETING OF SHAREHOLDERS
TO BE HELD ON June 11, 2019

TO BSQUARE SHAREHOLDERS:

Notice is hereby given that the 2019 Annual Meeting of Shareholders of BSQUARE Corporation, a Washington corporation (the "Company"), will be held on Tuesday, June 11, 2019 at 10:00 a.m., local time. The meeting will be held at our offices at 110 110th Avenue NE, Suite 300, Bellevue, Washington 98004, for the following purposes:

1. To elect Davin W. Cushman, Mary Jesse and Robert J. Peters as Class I Directors to serve for the ensuing three years and until their successors are duly elected and qualified;
2. To conduct an advisory vote on executive compensation;
3. To conduct an advisory vote on the frequency of future advisory votes on executive compensation;
4. To ratify the appointment of Moss Adams LLP as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2019; and
5. To transact such other business as may properly come before the meeting or any adjournment or adjournments thereof.

The foregoing items of business are more fully described in the Proxy Statement accompanying this Notice.

The Board of Directors has fixed the close of business on April 9, 2019 as the record date for the determination of shareholders entitled to vote at this meeting. Only shareholders of record at the close of business on April 9, 2019 are entitled to receive notice of, and to vote at, the meeting and any adjournment thereof.

All shareholders are invited to attend the meeting in person. However, to ensure your representation at the meeting, you are urged to mark, sign, date and return the enclosed proxy card as promptly as possible in the postage-prepaid envelope enclosed for that purpose. Any shareholder attending the meeting may vote in person even if the shareholder has previously returned a proxy.

By Order of the Board of Directors

A handwritten signature in black ink, appearing to read 'Peter Biere', written over a light grey circular stamp.

Peter J. Biere
Chief Financial Officer, Secretary and Treasurer
Bellevue, Washington
April 29, 2019

Important Notice Regarding the Availability of Proxy Materials for the Shareholder Meeting to Be Held on June 11, 2019: The proxy statement and annual report to shareholders are available at www.bsquare.com/proxy.

BSQUARE CORPORATION
110 110TH AVENUE NE, SUITE 300, BELLEVUE, WASHINGTON 98004

PROXY STATEMENT
FOR THE 2019 ANNUAL MEETING OF SHAREHOLDERS

PROCEDURAL MATTERS

General

The enclosed proxy is solicited by the Board of Directors of BSQUARE Corporation, a Washington corporation. The proxy is for use at the 2019 Annual Meeting of Shareholders (the "Annual Meeting") to be held on Tuesday, June 11, 2019 at 10:00 a.m. local time, and at any adjournment thereof, for the purposes set forth in the proxy and in the accompanying Notice of Annual Meeting of Shareholders. The Annual Meeting will be held at our principal executive offices at 110 110th Avenue NE, Suite 300, Bellevue, Washington 98004. Our telephone number at our principal executive offices is (425) 519-5900. As used in this proxy statement, "we," "us," "our" and the "Company" refer to BSQUARE Corporation.

These proxy solicitation materials were first mailed on or about April 29, 2019 to all shareholders entitled to vote at the Annual Meeting.

Record Date and Outstanding Shares

Only shareholders of record at the close of business on April 9, 2019 (the "record date") are entitled to receive notice of and to vote at the Annual Meeting. Our only outstanding voting securities are shares of common stock, no par value. As of the record date, 12,823,298 shares of our common stock were issued and outstanding, held by 112 shareholders of record.

Revocability of Proxies

Any proxy may be revoked by the person giving it at any time prior to its use. To do so, the shareholder must either: (i) deliver a written instrument revoking the proxy to our Corporate Secretary, at the address referenced above or (ii) deliver a duly executed proxy bearing a later date (in either case no later than the close of business on June 10, 2019); or (iii) attend the Annual Meeting and vote in person.

Voting and Solicitation

Each holder of common stock is entitled to one vote for each share held.

This solicitation of proxies is made by our Board of Directors, and all related costs will be borne by us. We may reimburse brokerage firms and other persons representing beneficial owners of shares for their expenses in forwarding solicitation material to such beneficial owners. Proxies may also be solicited by certain of our directors, officers or administrative employees without the payment of any additional consideration. Solicitation of proxies may be made by mail, by telephone, by email, in person or otherwise.

Shareholders of Record and "Street Name" Holders

Where shares are registered directly in the holder's name, that holder is the shareholder of record with respect to those shares. If shares are held by an intermediary, such as in a stock brokerage account or by a bank, trust or other nominee, then the broker, bank, trust or other nominee is considered the shareholder of record as to those shares. Those shares are said to be held in "street name" on behalf of the beneficial owner of the shares. Street name holders generally cannot directly vote their shares and must instead instruct the broker or other nominee on how to vote their shares using the voting instruction form provided by that broker or other nominee. Many brokers also offer the option of giving voting instructions over the internet or by telephone. Instructions for giving your vote as a street-name holder are provided on your voting instruction form.

Quorum; Abstentions; Broker Non-Votes

At the Annual Meeting, an inspector of elections will determine the presence of a quorum and tabulate the results of the voting by shareholders. A quorum exists when holders of a majority of the total number of outstanding shares of common stock that are entitled to vote at the Annual Meeting are present at the Annual Meeting in person or by proxy. A quorum is necessary for the transaction of business at the Annual Meeting.

Broker non-votes can occur as to shares held in street name. This is the case when a broker or other nominee submits a proxy for the Annual Meeting but does not vote on a particular proposal because that broker or other nominee does not have discretionary voting power with respect to that proposal and has not received instructions from the beneficial owner. Under the current rules that govern brokers and other nominee holders of record, if you do not give instructions to your broker or other nominee, they will be able to vote your shares only with respect to proposals for which they have discretionary voting authority.

The election of directors (Proposal No. 1), the advisory vote on the compensation of our named executive officers (Proposal No. 2) and the advisory vote on the frequency of future advisory votes on the compensation of our named executive officers (Proposal No. 3) are proposals for which brokers do not have discretionary voting authority. If you do not instruct your broker how to vote on these proposals, your broker will not vote on them and those non-votes will be counted as broker non-votes. The ratification of the appointment of Moss Adams LLP as our independent registered public accounting firm (Proposal No. 4) is considered discretionary and your brokerage firm will be able to vote on this proposal even if it does not receive instructions from you, as long as it holds your shares in its name.

Abstentions and broker non-votes are treated as shares present for determining whether there is a quorum for the transaction of business at the Annual Meeting. Abstentions and broker non-votes are not counted for determining the number of votes cast, and therefore will not affect the outcome of the vote on any of the proposals in this proxy statement.

Required Votes and Voting

Assuming that a quorum is present at the Annual Meeting, the following votes will be required:

- With regard to Proposal No. 1, the three nominees for election to the Board of Directors who receive the greatest number of votes cast “for” the election of the directors by the shares present, in person or by proxy, will be elected to the Board of Directors. Shareholders are not entitled to cumulate votes in the election of directors.
- With regard to Proposals Nos. 2 and 4, approval of each of the proposals requires that the votes cast in favor of the proposal exceed the votes cast against it.
- With regard to Proposal No. 3, the option of one year, two years, or three years that receives the highest number of votes cast will be the frequency for the advisory vote on executive compensation that is selected by the shareholders.

All shares entitled to vote and represented by properly executed, unrevoked proxies received before the Annual Meeting will be voted at the Annual Meeting in accordance with the instructions given on those proxies. If no instructions are given on a properly executed proxy, the shares represented by that proxy will be voted as follows:

FOR the director nominees named in Proposal No. 1 of this proxy statement;

FOR Proposal No. 2, to approve the compensation of our named executive officers as disclosed in this proxy statement;

FOR “one year” on Proposal No. 3 regarding the proposed frequency of future advisory votes on executive compensation; and

FOR Proposal No. 4, to ratify the appointment of Moss Adams LLP as our independent registered public accounting firm.

If any other matters are properly presented for consideration at the Annual Meeting, which may include, for example, a motion to adjourn the Annual Meeting to another time or place (including, without limitation, for the purpose of soliciting additional proxies), the persons named in the enclosed proxy and acting thereunder will have discretion to vote on those matters as they deem advisable. We do not currently anticipate that any other matters will be raised at the Annual Meeting.

Deadlines for Receipt of Shareholder Proposals

Shareholder proposals may be included in our proxy statement and form of proxy for an annual meeting so long as they are provided to us on a timely basis and satisfy the other conditions set forth in Rule 14a-8 under the Securities Exchange Act of 1934, as amended, regarding the inclusion of shareholder proposals in company-sponsored proxy materials. We currently anticipate holding our 2020 annual meeting of shareholders in June 2020, although the Board may decide to schedule the meeting for a different date. For a shareholder proposal to be considered pursuant to Rule 14a-8 for inclusion in our proxy statement and form of proxy for the annual meeting to be held in 2020, we must receive the proposal at our principal executive offices, addressed to our Secretary, no later than December 31, 2019. Submitting a shareholder proposal does not guarantee that it will be included in our proxy statement and form of proxy.

In addition, a shareholder proposal that is not intended for inclusion in our proxy statement and form of proxy under Rule 14a-8 (including director nominations) shall be considered “timely” within the provisions of our Bylaws and may be brought before the 2020 annual meeting of shareholders provided that we receive information and notice of the proposal in compliance with the requirements set forth in our Bylaws, addressed to our Secretary at our principal executive offices, no later than March 13, 2020. A copy of the full text of our Bylaws may be obtained by writing to our Secretary at our principal executive offices.

We strongly encourage any shareholder interested in submitting a proposal to contact our Secretary in advance of these deadlines to discuss any proposal he or she is considering, and shareholders may want to consult knowledgeable counsel with regard to the detailed requirements of applicable securities laws. All notices of shareholder proposals, whether or not intended to be included in our proxy materials, should be in writing and sent to our principal executive offices, located at: BSQUARE Corporation, 110 110th Avenue NE, Suite 300, Bellevue, Washington 98004, Attention: Secretary.

PROPOSAL NO. 1

ELECTION OF DIRECTORS

General

Our Articles of Incorporation provide that the Board of Directors has seven seats. The Board of Directors is currently divided into three classes, with each class having a three-year term. A director serves in office until his or her respective successor is duly elected and qualified, unless the director is removed, resigns or, by reason of death or other cause, is unable to serve in the capacity of director. Any additional directorships resulting from an increase in the number of directors will be distributed among the three classes so that, as nearly as possible, each class will consist of an equal number of directors. Set forth below is certain information furnished to us by the director nominees and by each of the incumbent directors whose terms will continue following the Annual Meeting. There are no family relationships among any of our directors or officers.

Nominees for Director

Three Class I directors are to be elected at the Annual Meeting for three-year terms ending in 2022. The Governance and Nominating Committee of the Board of Directors has nominated Davin W. Cushman, Mary Jesse and Robert J. Peters for election as Class I directors. Ms. Jesse has been a director since 2016, and each of Messrs. Cushman and Peters has been a director since 2018. Unless otherwise instructed, the proxy holders will vote the proxies received by them *for* the election of Davin W. Cushman, Mary Jesse and Robert J. Peters to the Board of Directors. Each of the nominees has indicated that he or she will serve if elected. We do not anticipate that any of the nominees will be unable or unwilling to stand for election, but if that occurs, all proxies received may be voted by the proxy holders for another person nominated by the Governance and Nominating Committee. As there are three nominees, proxies may be voted for up to three persons.

Vote Required for Election of Directors

If a quorum is present, the nominees for election to the Board of Directors receiving the greatest number of votes cast “for” the election of the directors by the shares present, in person or by proxy, will be elected to the Board of Directors.

Nominees and Continuing Directors

The names and certain information as of the record date about the nominees and each director continuing in office after the Annual Meeting are set forth below.

| <u>Name of Director Nominees</u> | <u>Age</u> | <u>Position</u> | <u>Director Since</u> | <u>Term Expires</u> |
|----------------------------------|------------|-----------------|-----------------------|---------------------|
| Davin W. Cushman | 45 | Director | 2018 | 2019 (Class I) |
| Mary Jesse | 54 | Director | 2016 | 2019 (Class I) |
| Robert J. Peters | 41 | Director | 2018 | 2019 (Class I) |

| <u>Name of Continuing Directors</u> | <u>Age</u> | <u>Position</u> | <u>Director Since</u> | <u>Term Expires</u> |
|-------------------------------------|------------|---|-----------------------|---------------------|
| Robert J. Chamberlain | 64 | Director | 2015 | 2020 (Class II) |
| Andrew S.G. Harries | 56 | Chairman of the Board | 2012 | 2020 (Class II) |
| Ralph C. Derrickson | 60 | Director, President and Chief Executive Officer | 2019 | 2021 (Class III) |
| Ryan Vardeman | 41 | Director | 2018 | 2021 (Class III) |

Director Nominees

Davin W. Cushman has been a director since November 2018. Since 2010, Mr. Cushman has been the Chief Executive Officer of Ignite Technologies, Inc. and its affiliates, a group of enterprise software and services companies operating under the private ownership of ESW Capital. Also, since 2010, Mr. Cushman has been the President and sole owner of Cushman Management Company, a boutique strategy consulting firm advising enterprise software companies. Prior to 2010, Mr. Cushman held operations analyst roles with Capital One Financial Corporation as well as leadership positions with enterprise software company Trilogy and its spin-off, pcOrder.com. Mr. Cushman holds a B.A. in Politics from Princeton University and an M.B.A. from the Kellogg School of Management at Northwestern University. The Board of Directors has concluded that Mr. Cushman should serve as a director because of his 17 years in various roles in the enterprise software industry, the last 9 of which as chief executive officer of companies that provide software and technical consulting services to the types of organizations we serve and strive to serve.

Mary Jesse has been a director since August 2016. Ms. Jesse is a technology executive, strategist, inventor and pioneer in the wireless industry. Since 2003, she has been the managing partner of Hexagon Blue LLC, a technology and business consulting company serving a wide variety of organizations and industries. From January 2018 to August 2018, Ms. Jesse served as Chief Executive Officer and board member of Heyou Media, a technology-driven content company. From September 2015 to October 2017, she served as Chief Strategy Officer of VRstudios, a global virtual reality company based in Bellevue, Washington. From 2007 to October 2014, she was the founder and Chief Executive Officer of Ivy Corp., an enterprise messaging technology company. Prior to that, she served as the co-founder and Chief Technology Officer of RadioFrame Networks; Vice President of Strategic Technology of McCaw Cellular Communications, Inc.; and Vice President of Technology Development of AT&T Wireless. A licensed professional engineer, Ms. Jesse holds a B.S. in electrical engineering from the University of Utah and an M.S. in electrical engineering from Santa Clara University, in addition to having authored nineteen patents. She currently serves on the Washington Governors University business council in addition to serving as an advisor to multiple technology companies. Ms. Jesse volunteers her time to support STEM education, entrepreneurship and diversity in business and technology. The Board of Directors has concluded that Ms. Jesse should serve as a director because of her extensive technology product development experience and work with a wide range of emerging businesses.

Robert J. Peters has been a director since August 2018 and served as an observer to the Board from June to August 2018. Mr. Peters is a principal and co-founder of Palogic Value Management, L.P., the investment manager of Palogic Value Fund, LP, a Dallas, Texas based investment management company, a position he has held since January 2007. Mr. Peters routinely analyzes public companies' business plans, financial statements, and competitive positioning. Mr. Peters assisted Westrock Capital Partners in the due diligence and recapitalization of First Federal Bancshares of Arkansas in 2011. Prior to founding Palogic, Mr. Peters was an investment banker with Stephens Inc., based in Little Rock, Arkansas, where he served as an analyst and associate responsible for execution of a variety of corporate finance transactions including sell side mergers and acquisitions, buy side mergers and acquisitions, leveraged buyouts, private equity investments, initial public offerings, and private placements of debt and equity. Mr. Peters attended Texas Tech University and received an M.S. in Accounting and a B.A. in Business Administration – Accounting. The Board of Directors has concluded that Mr. Peters should serve as a director because of his significant experience in equity capital markets, assessing corporate strategy, and capital allocation and given his affiliation with one of our largest shareholders.

Continuing Directors

Robert J. Chamberlain has been a director since August 2015. Since April 2018, Mr. Chamberlain has been the Chief Financial Officer of ZipWhip, a two-way business texting software company. From August 2014 to April 2016, Mr. Chamberlain served as the Chief Financial Officer of Big Fish Games Incorporated, a leading provider of casual games, which was acquired by Churchill Downs, Inc. in December 2014. From February 2013 to August 2014, Mr. Chamberlain served as the Senior Vice President and Chief Financial Officer of Audience Science Incorporated, a leading provider of enterprise advertising management systems. Prior to that, Mr. Chamberlain was the Chief Financial Officer of other technology companies in the Seattle area including PopCap Games Incorporated (acquired by Electronic Arts, Inc.), WatchGuard Technologies Incorporated, F5 Networks, Onyx Software Corp. (acquired by Consona Corporation) and Photodisc (acquired by Getty Images, Inc.). Earlier in his career, Mr. Chamberlain was an audit partner in the Seattle office of KPMG where he served middle market public and private companies. Mr. Chamberlain has a B.S. in Business Administration-Accounting from California State University Northridge. His career at KPMG and as a Chief Financial Officer gives him the requisite experience to qualify as an “audit committee financial expert” having “financial sophistication” for audit committee purposes. The Board of Directors has concluded that Mr. Chamberlain should serve as a director because he brings to our Board of Directors substantial financial expertise that includes extensive knowledge of the complex financial and operational issues facing publicly traded companies, and a deep understanding of accounting principles and financial reporting rules and regulations. He also brings professional service expertise, technology industry experience, and sales and marketing experience at KPMG.

Ralph C. Derrickson has been a director and our President and Chief Executive Officer since March 2019. Prior to that, since July 2018, Mr. Derrickson served as the Managing Director of RCollins Group, a strategic consulting company, and from October 2017 until July 2018, he served as the Senior Vice President of Corporate Development for Avizia, Inc., a telemedicine hardware, software and physician services company, until its acquisition by American Well in July 2018. From January 2006 until October 2017, Mr. Derrickson served as the President and Chief Executive Officer of Carena, Inc., a virtual care software and physician services company, until its acquisition by Avzia in October 2017. Prior to that, Mr. Derrickson was managing director of venture investments at Vulcan Inc., an investment management firm, was a founding partner of Watershed Capital, an early-stage venture capital firm, and held senior leadership positions at Metricom, Starwave Corporation (acquired by Walt Disney), NeXT Computer (acquired by Apple Computer) and Sun Microsystems. Since 2004, Mr. Derrickson has been a board member of Perficient, Inc., a publicly traded digital transformation consulting company. Mr. Derrickson is a lecturer at the Michael G. Foster School of Business at the University of Washington and chairs the Executive Advisory Board of the Center for Entrepreneurship and Innovation at the University of Washington and he serves on the Dean's Advisory Board of the Golisano College of Computing & Information Sciences at the Rochester Institute of Technology. Mr. Derrickson also serves on the Board of Trustees of Hyla Middle School on Bainbridge Island, Washington. Mr. Derrickson holds a B.T. in Systems Software Science from the Rochester Institute of Technology. The Board of Directors has concluded that Mr. Derrickson should serve as a director because of his experience as a chief executive officer, and in various other executive roles, which has provided him with broad leadership and executive experience, including operational, strategic planning, corporate development and mergers and acquisitions experience. As our President and Chief Executive Officer, Mr. Derrickson has first-hand knowledge of our business and provides valuable insight with respect to our operations and strategic opportunities.

Andrew S. G. Harries has been a director since November 2012, has served as the Chairman of the Board since July 2013 and served as the Executive Chairman from May 2018 to March 2019. Mr. Harries is a business advisor and corporate director and since 2016 has held the post of Tom Foord Professor of Practice in Entrepreneurship and Innovation at Simon Fraser University's Beedie School of Business. He is an advisor to Mojio, Inc., an open platform for connected cars, and serves on the advisory council and is a past board chair of Science World British Columbia. Mr. Harries chaired the board of directors of Contractually, an online contract management company, from January 2014 until its acquisition by Coupa Software in December 2015, and co-founded Zeugma Systems Inc. where he served as the President and Chief Executive Officer from 2004 until Tellabs Inc. acquired substantially all of Zeugma in 2010. Mr. Harries was a co-founder of Sierra Wireless (NASDAQ: SWIR), a NASDAQ-listed wireless Internet of Things systems vendor, from 1993 to 2004, and previously served as Sierra's Senior Vice President of Sales, Marketing and Operations. Prior to co-founding Sierra Wireless, Mr. Harries held a variety of positions at Motorola Inc. He holds three US patents and an M.B.A. from Simon Fraser University. The Board of Directors has concluded that Mr. Harries should serve as a director because of his embedded technology industry expertise and extensive management and sales and marketing experience. He also has experience as a public company board member.

Ryan L. Vardeman has been a director since June 2018. Mr. Vardeman is a principal and co-founder of Palogic Value Management, L.P., a Dallas, Texas based investment management company, a position he has held since January 2007. Mr. Vardeman has extensive corporate strategy, operating, financial and investment experience including capital structure analysis, a focus on small-cap equities, and investing in a broad range of industries with an emphasis on technology and software companies. Mr. Vardeman holds a B.S. in Electrical Engineering and Computer Science from Texas Tech University and an M.B.A. from the Owen Graduate School of Management at Vanderbilt University. The Board of Directors has concluded that Mr. Vardeman should serve as a director because of his extensive financial and operational experience and given his affiliation with one of our largest shareholders.

THE BOARD OF DIRECTORS RECOMMENDS THAT SHAREHOLDERS VOTE FOR THE ELECTION OF EACH OF MS. JESSE AND MESSRS. CUSHMAN AND PETERS TO THE BOARD OF DIRECTORS.

CORPORATE GOVERNANCE

Board of Directors Leadership Structure

The Board of Directors has adopted a structure under which the Chairman of the Board is an independent director. We believe that having a Chairman independent of management provides effective leadership for the Board of Directors and helps ensure critical and independent thinking with respect to our strategy and performance. In addition, the Board believes this governance structure promotes balance between the Board's independent authority to oversee our business and the Chief Executive Officer and his management team who manage the business on a day-to-day basis. Moreover, the current separation of the Chairman and Chief Executive Officer roles allows the Chief Executive Officer to focus his time and energy on operating and managing the business while leveraging the experience and perspectives of the Chairman. Our Chief Executive Officer has historically served as a member of and as the sole management representative on the Board of Directors. Mr. Derrickson is a director as well as our President and Chief Executive Officer. We believe it is important to enable our Chief Executive Officer to provide information and insight about us directly to the directors in their deliberations. Further, our Board of Directors believes that separating the Chief Executive Officer and Chairman of the Board roles as well as having the Chairman of the Board role represented by an independent director is the appropriate leadership structure for us at this time and demonstrates our commitment to effective corporate governance.

Our Chairman of the Board is responsible for the effective functioning of our Board of Directors, enhancing its efficacy by guiding Board of Directors processes and presiding at Board of Directors meetings and executive sessions of the independent directors. Our Chairman presides at shareholder meetings and ensures that directors receive appropriate information from our management to fulfill their responsibilities. Our Chairman also acts as a liaison between our Board of Directors and executive management, promoting clear and open communication between management and the Board of Directors.

Board of Directors Role in Risk Oversight

Our Board of Directors has responsibility for the oversight of risk management. Our Board, either as a whole or through its committees, regularly discusses with management our major risk exposures, their potential impact on us and the steps we take to manage them. While our Board is ultimately responsible for risk oversight, our Board committees assist the Board of Directors in fulfilling its oversight responsibilities in certain areas of risk. In particular, our Audit Committee focuses on financial, accounting and investment risks and oversees and approves company-wide risk management practices. Our Governance and Nominating Committee focuses on the management of risks associated with Board organization, membership, structure and corporate governance. In addition, our Compensation Committee assists the Board of Directors in fulfilling its oversight responsibilities with respect to the management of risks arising from our compensation policies and programs and related to succession planning for our executive officers. In February 2018, the responsibilities of the ad hoc Risk Management Committee, which had previously been established as an ad hoc subcommittee of the Audit Committee, were assumed by the Audit Committee.

Board of Directors Independence

The Board of Directors has determined, after consideration of all relevant factors, that each of Messrs. Chamberlain, Cushman, Harries, Peters and Vardeman and Ms. Jesse, together constituting a majority of our Board of Directors, qualifies as an "independent" director as defined under applicable rules of The NASDAQ Stock Market LLC ("NASDAQ") and that none of such directors has any relationship with us that would interfere with the exercise of their independent business judgment.

Standing Committees and Attendance

The Board of Directors held 11 meetings during 2018. All directors attended more than 75% of the aggregate of the meetings of the Board of Directors and committees thereof, if any, upon which such director served during the period for which he or she was a director or committee member during 2018.

The Board has an Audit Committee, a Compensation Committee and a Governance and Nominating Committee. Information about these standing committees and committee meetings is set forth below.

Audit Committee

The Audit Committee is currently comprised of Messrs. Chamberlain (Committee Chair) and Harries and Ms. Jesse. The Board of Directors has determined that, after consideration of all relevant factors, each of these directors qualifies as an “independent” director under applicable SEC and NASDAQ rules. Each member of the Audit Committee is able to read and understand fundamental financial statements, including our consolidated balance sheets, consolidated statements of operations and consolidated statements of cash flows. Further, no member of the Audit Committee has participated in the preparation of our consolidated financial statements, or those of any of our current subsidiaries, at any time during the past three years. The Board of Directors has designated Mr. Chamberlain as an “audit committee financial expert” as defined under applicable SEC rules and has determined that Mr. Chamberlain possesses the requisite “financial sophistication” under applicable NASDAQ rules.

The Audit Committee operates under a written charter setting forth the functions and responsibilities of the committee, which is reviewed by the committee on an annual basis, and by the Board of Directors as appropriate. A current copy of the Audit Committee charter is available on our website at www.bsquare.com on the Corporate Governance page under Management and Corporate Governance - Board Committees and Charter Documents.

The Audit Committee is responsible for overseeing our independent auditors, including their selection, retention and compensation, reviewing and approving the scope of audit and other services by our independent auditors, reviewing the accounting policies, judgments and assumptions used in the preparation of our financial statements and reviewing the results of our audits. The Audit Committee is also responsible for reviewing the adequacy and effectiveness of our internal controls and procedures, including risk management, establishing procedures regarding complaints concerning accounting or auditing matters, reviewing and, if appropriate, approving related-party transactions, reviewing compliance with our Code of Business Conduct and Ethics, and reviewing our investment policy and compliance therewith. The Audit Committee held four meetings during 2018.

Compensation Committee

The Compensation Committee currently consists of Messrs. Cushman (Committee Chair), Harries and Vardeman. The Board of Directors has determined that, after consideration of all relevant factors, each of these directors qualifies as an “independent” and “non-employee” director under applicable NASDAQ and SEC rules and qualifies as an “outside director” pursuant to the Internal Revenue Code and the regulations promulgated thereunder. The Compensation Committee makes recommendations to the Board of Directors regarding our general compensation policies as well as the compensation plans and specific compensation levels for its executive officers. The Compensation Committee held six meetings during 2018.

The Compensation Committee has a number of functions and responsibilities as delineated in its written charter, which is reviewed by the committee on an annual basis, and by the Board of Directors as appropriate. A current copy of the Compensation Committee charter is available on our website at www.bsquare.com on the Corporate Governance page under Management and Corporate Governance - Board Committees and Charter Documents.

One of the primary responsibilities of the Compensation Committee is to oversee, and make recommendations to the Board of Directors for its approval of, the compensation programs and performance of our executive officers, which includes the following activities:

- Establishing the objectives and philosophy of the executive compensation programs;
- Designing and implementing the compensation programs;
- Evaluating the performance of executives relative to their attainment of goals under the programs and reporting to the Board of Directors such evaluation information;
- Developing and maintaining a succession plan for the Chief Executive Officer;

- Calculating and establishing payouts and awards under the programs as well as discretionary payouts and awards;
- Reviewing base salary levels and equity ownership of the executives; and
- Engaging consultants from time to time, as appropriate, to assist with program design, benchmarking, etc.

Additional information regarding the roles, responsibilities, scope and authority of the Compensation Committee, as well as the extent to which the Committee may delegate its authority, the role that our executive officers serve in recommending compensation and the role of compensation consultants in our compensation process is set forth below under “Executive Officer Compensation.”

The Compensation Committee also periodically reviews the compensation of the Board of Directors and proposes modifications, as necessary, to the full Board for its consideration.

Governance and Nominating Committee

The Governance and Nominating Committee currently consists of Ms. Jesse (Committee Chair), Mr. Cushman and Mr. Peters. The Board of Directors has determined that, after consideration of all relevant factors, each of these directors qualifies as an “independent” director under applicable NASDAQ rules. The Governance and Nominating Committee held three meetings during 2018.

The Governance and Nominating Committee operates under a written charter setting forth the functions and responsibilities of the committee, which is reviewed by the committee on an annual basis, and by the Board of Directors as appropriate. A current copy of the Governance and Nominating Committee charter is available on our website at www.bsquare.com on the Corporate Governance page under Management and Corporate Governance - Board Committees and Charter Documents.

The primary responsibilities of the Governance and Nominating Committee are to:

- Develop and recommend to the Board of Directors criteria for selecting qualified director candidates;
- Identify individuals qualified to become Board members;
- Evaluate and select director nominees for each election of directors;
- Consider the committee structure of the Board of Directors and the qualifications, appointment and removal of committee members;
- Recommend codes of conduct and codes of ethics applicable to us;
- Evaluate the composition and performance of the Board of Directors;
- Ensure directors are keeping abreast of current governance standards; and
- Provide oversight in the evaluation of the Board of Directors and each committee.

Director Nomination Process

The Board of Directors has determined that director nomination responsibilities should be overseen by the Governance and Nominating Committee (the “GNC”). One of the GNC’s goals is to assemble a Board that brings to us a variety of perspectives and skills derived from high quality business and professional experience. Although the GNC and the Board of Directors do not have a formal diversity policy, the Board of Directors instructed the GNC to consider such factors as it deems appropriate to develop a Board and committees that are diverse in nature and comprised of experienced and seasoned advisors. Factors considered by the GNC include judgment, knowledge, skill, diversity (including factors such as race, gender and experience), integrity, experience with businesses and other organizations of comparable size, including experience in software products and services, the Internet of Things industry, business, finance, administration or public service, the relevance of a candidate’s experience to our needs and experience of other Board members, familiarity with national and international business matters, experience with accounting rules and practices, the desire to balance the considerable benefit of continuity with the periodic injection of the fresh perspective provided by new members, and the extent to which a candidate would be a desirable addition to the Board of Directors and any committees of the Board of Directors. In addition, directors are expected to be able to exercise their best business judgment when acting on behalf of us and our shareholders, act ethically at all times and adhere to the applicable provisions of our Code of Business Conduct and Ethics. Other than consideration of the foregoing and applicable SEC and NASDAQ requirements, unless determined otherwise by the GNC, there are no stated minimum criteria, qualities or skills for director nominees. The GNC may also consider such other factors as it may deem are in the best interests of us and our shareholders. In addition, at least one member of the Board of Directors serving on the Audit Committee should meet the criteria for an “audit committee financial expert” having the requisite “financial sophistication” under applicable NASDAQ and SEC rules, and a majority of the members of the Board of Directors should meet the definition of “independent director” under applicable NASDAQ rules.

The GNC identifies director nominees by first evaluating the current members of the Board of Directors willing to continue in service. Current members of the Board of Directors with skills and experience that are relevant to our business and who are willing to continue in service are considered for re-nomination, balancing the value of continuity of service by existing members of the Board of Directors with that of obtaining a new perspective. The GNC also takes into account an incumbent director’s performance as a Board member. If any member of the Board of Directors does not wish to continue in service, if the GNC decides not to re-nominate a member for reelection, if the Board decided to fill a director position that is currently vacant or if the Board of Directors decides to recommend that the size of the Board of Directors be increased, the GNC identifies the desired skills and experience of a new nominee in light of the criteria described above. Current members of the Board of Directors and management are polled for suggestions as to individuals meeting the GNC’s criteria. Research may also be performed to identify qualified individuals. Nominees for director are selected by a majority of the members of the GNC, with any current directors who may be nominees themselves abstaining from any vote relating to their own nomination.

It is the policy of the GNC to consider suggestions for persons to be nominated for director that are submitted by shareholders. The GNC will evaluate shareholder suggestions for director nominees in the same manner as it evaluates suggestions for director nominees made by management, then-current directors or other appropriate sources. Shareholders suggesting persons as director nominees should send information about a proposed nominee to our Secretary at our principal executive offices as referenced above at least 120 days before the anniversary of the mailing date of the prior year’s proxy statement. This information should be in writing and should include a signed statement by the proposed nominee that he or she is willing to serve as a director of BSQUARE, a description of the proposed nominee’s relationship to the shareholder and any information that the shareholder feels will fully inform the GNC about the proposed nominee and his or her qualifications. The GNC may request further information from the proposed nominee and the shareholder making the recommendation. In addition, a shareholder may nominate one or more persons for election as a director at our annual meeting of shareholders if the shareholder complies with the notice, information, consent and other provisions relating to shareholder nominees contained in our Bylaws. Please see the section above titled “Deadlines for Receipt of Shareholder Proposals” for important information regarding shareholder proposals, including director nominations.

Code of Ethics

We have adopted a Code of Business Conduct and Ethics in compliance with applicable rules of the SEC that applies to our principal executive officer, our principal financial officer and our principal accounting officer or controller, or persons performing similar functions, as well as to all members of our Board of Directors and all other employees. A copy of this policy is available on our website at www.bsquare.com on the Corporate Governance page under Management and Corporate Governance – Policies, or free of charge upon written request to the attention of our Secretary, by regular mail at our principal executive offices, email to investorrelations@bsquare.com, or fax at 425-519-5998. We will disclose, on our website, any amendment to, or waiver from, our Code of Business Conduct and Ethics that applies to our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions and that relates to any element of the Code of Business Conduct and Ethics enumerated in applicable rules of the SEC.

Board Observer

Pursuant to that certain previously disclosed Board Observer and Standstill Agreement dated effective June 25, 2018 (the “Board Observer Agreement”) by and between us and Palogic Value Management, L.P. (“PVM”), Palogic Value Fund, L.P. and Palogic Capital Management, LLC (collectively, “PCM”), Mr. Peters, a principal of PVM, served as an observer to the Board prior to his appointment as a Class I director in August 2018. Although PCM continues to have the right to appoint one representative to attend meetings of the Board in a non-voting observer capacity pursuant to the Board Observer Agreement, it has not yet appointed a replacement for Mr. Peters. Mr. Vardeman, who has served as a Class III director since June 2018, is also a principal of PVM.

2018 Director Compensation

When joining the Board, directors receive a one-time grant of 25,000 stock options, which vest quarterly over two years, and an initial grant of restricted stock units. The Chairman of the Board receives a one-time grant of 50,000 stock options when joining the Board (or 25,000 stock options if appointed as Chairman of the Board while already serving as a director), and an initial grant of restricted stock units. The number of shares underlying the initial restricted stock unit awards granted to new directors is determined by dividing \$50,000 by our closing stock price on the date of grant (or \$75,000 in the case of the Chairman of the Board (or \$25,000 if appointed as Chairman of the Board while already serving as a director)) and is prorated based on the date on which such director is appointed. Thereafter, standing directors receive annual grants of restricted stock units, the number of shares underlying which is determined by dividing \$50,000 by our closing stock price on the date of grant (\$75,000 in the case of the Chairman of the Board). The annual restricted stock unit awards are granted on the earlier of (i) the day of the annual meeting of our shareholders or (ii) the last trading day of our second fiscal quarter. The restricted stock unit awards vest quarterly over one year. All equity awards cease vesting as of the date a director’s service on the Board terminates for any reason, provided that the Board may accelerate the vesting of any outstanding stock award for a director whose service on the Board terminates for any reason other than removal for cause.

We also pay annual cash director fees of \$30,000 to non-Chair directors and \$40,000 to the Chairman of the Board, and annual Board Committee fees to directors who serve on the Audit Committee of \$10,000 and \$5,000 to directors who serve on other committees. The Chairs of the Governance and Nominating Committee and the Compensation Committee receive additional annual Board Committee fee compensation of \$3,000. All cash amounts are payable in quarterly increments. Directors are also reimbursed for reasonable expenses incurred for Board-related activities. Mr. Derrickson, our President and Chief Executive Officer, does not receive additional compensation for services provided as a director.

The table below presents the 2018 compensation of our non-employee directors. The compensation of Mr. Chase, a former director and our former President and Chief Executive Officer, is described in the Summary Compensation Table in the section titled “Executive Officer Compensation.”

| Name | Fees Earned or | | | Total (\$) |
|-----------------------------|-------------------------|-------------------------|--------------------------|---------------|
| | Paid in Cash(1) (\$) | Stock Awards(2) (\$) | Option Awards(3) (\$) | |
| Robert J. Chamberlain (4) | \$ 40,000 | \$ 50,000 | - | \$ 90,000 |
| Davin W. Cushman (5) | - | 33,014 | \$ 57,000 | 90,014 |
| Robert A. DeSantis (6) | 30,054 | 50,000 | - | 80,054 |
| Andrew S.G. Harries (7) | 55,000 | 74,998 | - | 129,998 |
| Mary Jesse (8) | 35,000 | 50,000 | - | 85,000 |
| Robert J. Peters (9) | 4,158 | 41,779 | 53,750 | 99,687 |
| William D. Savoy (10) | 48,000 | 50,000 | - | 98,000 |
| Ryan L. Vardeman (11) | 7,995 | 50,001 | 75,000 | 132,996 |
| Kendra A. VanderMeulen (12) | 43,000 | 50,000 | - | 93,000 |

- (1) Fees paid earned or paid in cash are composed of payments for services performed in each prior quarter.
- (2) The amounts in this column reflect the aggregate grant-date fair value of restricted stock unit awards, determined in accordance with the Financial Accounting Standards Board Accounting Standards Codification Topic 718 for stock-based compensation (“Topic 718”). The amounts included reflect only the awards treated as granted in 2018. Pursuant to SEC rules, the amounts shown disregard the impact of estimated forfeitures related to service-based vesting conditions. Assumptions used in the calculation of these award amounts are set forth in Note 10 (Shareholders’ Equity) to the financial statements included in Part II, Item 8 of our Annual Report on Form 10-K for the year ended December 31, 2018 filed with the SEC on March 4, 2019 (the “2018 10-K”).
- (3) The amounts in this column reflect the aggregate grant-date fair value of stock option awards, determined in accordance with Topic 718 for stock-based compensation. The amounts included reflect only the awards treated as granted in 2018. Pursuant to SEC rules, the amounts shown disregard the impact of estimated forfeitures related to service-based vesting conditions. Assumptions used in the calculation of these award amounts are set forth in Note 10 (Shareholders’ Equity) to the financial statements included in Part II, Item 8 of our 2018 10-K.
- (4) Mr. Chamberlain held 25,000 stock options and 8,064 restricted stock units as of December 31, 2018
- (5) Mr. Cushman was appointed to our Board in November 2018 and held 25,000 stock options and 14,480 restricted stock units as of December 31, 2018
- (6) Mr. DeSantis resigned from the Board in August 2018 and held no options or restricted stock units as of December 31, 2018.
- (7) Mr. Harries held 25,000 stock options and 12,096 restricted stock units as of December 31, 2018
- (8) Ms. Jesse held 25,000 stock options and 8,064 restricted stock units as of December 31, 2018
- (9) Mr. Peters was appointed to our Board in August 2018 and held 25,000 stock options and 14,574 restricted stock units as of December 31, 2018
- (10) Mr. Savoy resigned from the Board in March 2019 and held 8,064 restricted stock units as of December 31, 2018
- (11) Mr. Vardeman was appointed to our Board in June 2018 and held 25,000 stock options and 8,333 restricted stock units as of December 31, 2018
- (12) Ms. VanderMeulen resigned from the Board in November 2018 and held no options or restricted stock units as of December 31, 2018.

EXECUTIVE OFFICER COMPENSATION

Executive Officers

The names and certain information about our executive officers as of the record date are set forth below:

| Name | Age | Position |
|---------------------|-----|--|
| Ralph C. Derrickson | 60 | President and Chief Executive Officer |
| Peter J. Biere | 62 | Chief Financial Officer, Secretary and Treasurer |
| Giles Frith | 43 | Chief Operating Officer |

Mr. Derrickson’s biographical details are set out above under the heading titled “Nominees and Continuing Directors.”

Peter J. Biere joined us as Chief Financial Officer in December 2016. Prior to joining BSQUARE, from February 2013 to December 2016, Mr. Biere served as Chief Financial Officer of DreamBox Learning, a cloud-based provider of personalized math instruction. From July 2012 to February 2013, Mr. Biere served as a Partner in NextLevel, an executive services advisory firm. From August 2010 through April 2012, Mr. Biere served as Chief Financial Officer of Global Scholar, an enterprise software platform provider, until its acquisition in January 2011 and then in various financial management positions post-acquisition. Prior to 2010, Mr. Biere was employed by several public and private companies in senior financial management positions. Mr. Biere received B.A. and Masters in Accounting degrees from the University of Iowa and received his C.P.A. license (currently inactive) in 1983.

Giles Frith joined us in September 2016 as Vice President of Customer Solutions and was promoted to Chief Operating Officer in May 2018. Prior to joining the Company, from August 2014 to September 2016, Mr. Frith served as Vice President of Customer Operations and Success at Blue Box Group, Inc. (acquired by IBM in 2015), and from July 2012 to August 2014 he served as Vice President of Services and Customer Success at Tier 3 Inc. (acquired by CenturyLink Technology Solutions in 2013). Prior to that, Mr. Frith worked at Accenture from 1999 to July 2012 managing a variety of technology programs across different industries. Mr. Frith received a B.S. in Industrial Engineering with a minor in Management Information Systems from Pennsylvania State University.

Summary Compensation Table

The following table sets forth the compensation earned during the past two fiscal years by (i) the persons who served as our chief executive officer during 2018 and (ii) the two most highly compensated executive officers other than the chief executive officer who were serving as executive officers at the end of 2018 and whose total compensation for 2018 exceeded \$100,000. The persons described in clauses (i) and (ii) above are collectively referred to herein as our “named executive officers.”

Summary Compensation Table

| Name and principal position | Year | Salary (\$) | Bonus (\$) | Stock awards(1) (\$) | Option awards(2) (\$) | Nonequity incentive plan compensation(3) (\$) | All other compensation(4) (\$) | Total (\$) |
|---|------|-------------|------------|----------------------|-----------------------|---|--------------------------------|------------|
| Jerry D. Chase (5) <i>Former President and Chief Executive Officer</i> | 2018 | 407,482 | — | — | — | — | 8,419 | 415,901 |
| | 2017 | 374,808 | — | — | — | 69,300 | 10,375 | 454,482 |
| Kevin T. Walsh (6) <i>Acting Chief Executive Officer</i> | 2018 | 272,673 | — | 30,000 | — | — | 9,601 | 312,274 |
| | 2017 | 220,317 | — | — | — | 50,159 | 8,197 | 278,673 |
| Peter J. Biere (7) <i>Chief Financial Officer, Secretary and Treasurer</i> | 2018 | 277,944 | — | 45,000 | — | — | 11,428 | 334,372 |
| | 2017 | 265,846 | — | — | — | 94,500 | 17,922 | 378,268 |
| Giles Frith (8) <i>Chief Operating Officer</i> | 2018 | 251,868 | — | — | — | — | 10,710 | 262,578 |
| | 2017 | 229,600 | — | — | — | 52,675 | 9,568 | 291,843 |

- (1) The amounts in this column reflect the aggregate grant-date fair value of restricted stock unit awards, determined in accordance with Topic 718 for stock-based compensation. The amounts included for a particular year reflect only the awards treated as granted in that year. Pursuant to SEC rules, the amounts shown disregard the impact of estimated forfeitures related to service-based vesting conditions. Assumptions used in the calculation of these award amounts are set forth in Note 10 (Shareholders’ Equity) to the financial statements included in Part II, Item 8 of our 2018 10-K.
- (2) The amounts in this column reflect the aggregate grant-date fair value of stock option awards, determined in accordance with Topic 718 for stock-based compensation. The amounts included for a particular year reflect only the awards treated as granted in that year. Pursuant to SEC rules, the amounts shown disregard the impact of estimated forfeitures related to service-based vesting conditions. Assumptions used in the calculation of these award amounts are set forth in Note 10 (Shareholders’ Equity) to the financial statements included in Part II, Item 8 of our 2018 10-K.
- (3) Represents cash bonuses earned by Messrs. Chase, Walsh, Biere and Frith under the 2017 Annual Bonus Program, paid in February 2018.
- (4) Represents 401(k) matching employer contributions, premiums paid by us under a group life insurance plan, and an allowance for mobile telephone and data service, which includes personal use.

- (5) Mr. Chase resigned as President and Chief Executive Officer and from the Board of Directors in March 2018. Pursuant to the terms of his employment agreement and a separation and release agreement, Mr. Chase was entitled to receive severance equal to 12 months of his annual base salary, paid in accordance with our regular payroll schedule. The 2018 Salary amount includes \$222,837 in severance payments. In addition, we are subsidizing Mr. Chase's COBRA costs for 12 months up to an amount equal to the costs that we pay for other employees with similar benefit elections.
- (6) Mr. Walsh was appointed as Acting Chief Executive Officer in May 2018 for which he received additional compensation which is included in the 2018 Salary amount. Mr. Walsh resigned from the company in April 2019. The amounts in the table reflect all compensation paid to Mr. Walsh during 2017 and 2018, including the period during which Mr. Walsh did not serve as Acting Chief Executive Officer.
- (7) Mr. Biere was appointed as Chief Financial Officer in December 2016. All other compensation for 2017 includes an \$8,000 sign-on bonus paid to Mr. Biere in 2017.
- (8) Mr. Frith was appointed as Chief Operating Officer in May 2018. The amounts in the table reflect all compensation paid to Mr. Frith during 2017 and 2018, including the period during which Mr. Frith did not serve as Chief Operating Officer.

Employment Agreements with Named Executive Officers

We have agreements with our named executive officers, which include provisions regarding post-termination compensation. We do not have a formal severance policy or plan applicable to our executive officers as a group.

As noted above, Mr. Chase resigned as President and Chief Executive Officer in May 2018. Prior to his resignation, under our agreement with Mr. Chase dated February 24, 2014, he was entitled to receive an annual salary of \$325,000, was granted 7,500 restricted stock units ("RSUs") and options to purchase 165,000 shares of our common stock, and was eligible to receive an annual bonus under our annual bonus program equal to 77% of his annual salary at 100% achievement. Mr. Chase's annual salary was increased to \$350,000 effective February 17, 2015, to \$365,000 effective February 9, 2016, to \$375,000 effective January 1, 2017 and to \$386,250 effective January 1, 2018. The RSUs and options vested as follows: 33% vested on February 26, 2015, and the balance vested in equal monthly installments for two years thereafter. In the event Mr. Chase's employment was terminated by us when neither cause nor long term disability existed (as such terms were defined in the agreement), subject to execution of a release by Mr. Chase of any employment-related claims, he was entitled to receive severance equal to 12 months of his then annual base salary, continued COBRA coverage at our expense for a period of 12 months following his termination date and a pro rata portion of his annual bonus as determined by the Compensation Committee, payable on our regular payroll schedule. In the event that, within 18 months after a change of control of BSQUARE (as defined in the agreement), Mr. Chase's employment was terminated when neither cause nor long term disability existed or Mr. Chase terminated his employment for good reason (as defined in the agreement), subject to execution of a release by Mr. Chase of any employment-related claims, he was entitled to receive a one-time lump sum severance payment equal to 18 months of his then annual base salary, 150% of his target annual bonus as determined by the Compensation Committee (subject to modification by the Compensation Committee), and continued COBRA coverage at our expense for a period of 18 months following his termination date (provided that, during the first 18 months after a change of control of BSQUARE, such severance payments would be in lieu of the severance payments described in the preceding sentence, and after expiration of the 18-month period following a change of control, Mr. Chase was thereafter only entitled to the severance payments described in the preceding sentence). In addition, immediately prior to a change of control of BSQUARE, all of Mr. Chase's unvested stock options and restricted stock would become fully vested and immediately exercisable. As Mr. Chase's employment terminated in May 2018 (when neither cause nor long-term disability existed), and he executed a separation and release agreement, Mr. Chase received severance equal to 12 months of his current annual base salary, paid in accordance with our regular payroll schedule, and we are subsidizing Mr. Chase's COBRA costs for 12 months.

As noted above, Mr. Walsh resigned from the company in April 2019. Prior to his resignation, under our agreement with Mr. Walsh dated June 26, 2015, by which he was appointed as our Vice President of Marketing, Mr. Walsh was entitled to receive an annual salary of \$212,000, was granted 5,000 RSUs (with 33% vesting on the first anniversary of the grant date, and the balance vesting in equal quarterly installments for two years thereafter), and non-qualified stock options to purchase 80,000 shares of our common stock (with 33% vesting on the first anniversary of the grant date, and the balance vesting in equal quarterly installments for two years thereafter), and was eligible to receive an annual bonus under our annual bonus program equal to 35% of his annual salary at 100% achievement. He was also eligible to participate in our employee benefits plans. Mr. Walsh's annual salary was increased to \$227,094.40 effective January 1, 2018. In the event Mr. Walsh's employment was terminated by us when neither cause nor long term disability existed (as defined in the agreement), subject to execution of a release by Mr. Walsh of any employment-related claims, he was entitled to receive severance equal to six months of his then annual base salary, continued COBRA coverage at our expense for a period of six months following his termination date and a pro rata portion of his annual bonus as determined by the

Compensation Committee, payable on our regular payroll schedule. In addition, if, within nine months after a change of control of BSQUARE (as defined in the agreement), Mr. Walsh's employment was terminated when neither cause nor long term disability existed or Mr. Walsh terminated his employment for good reason (as defined in the agreement), subject to execution of a release by Mr. Walsh of any employment-related claims, he was entitled to receive a one-time lump sum severance payment equal to nine months of his then annual base salary, 75% of his target annual bonus as determined by the Compensation Committee (subject to modification by the Compensation Committee), and continued COBRA coverage at our expense for a period of nine months following his termination date (provided that, during the first nine months after a change of control of BSQUARE, such severance payments would be in lieu of the severance payments described in the preceding sentence, and after expiration of the nine -month period following a change of control, Mr. Walsh would thereafter only be entitled to the severance payments described in the preceding sentence). In addition, immediately prior to a change of control of BSQUARE, all of Mr. Walsh's unvested stock options and restricted stock would become fully vested and immediately exercisable.

Effective November 6, 2018, we entered into an amendment to our agreement with Mr. Walsh, pursuant to which we agreed, in the event that Mr. Walsh's employment was terminated without cause and not as a result of a long term disability or if Mr. Walsh resigned for "good reason" (as defined in the agreement, as amended), in each case within six months of the appointment of a new Chief Executive Officer, to pay to Mr. Walsh as severance the following, payable on regular payroll days post-termination and subject to the execution by Mr. Walsh of a release: (i) 12 months of the average monthly base salary plus the average monthly cash bonuses paid to Mr. Walsh during the six months immediately prior to his termination, (ii) at the sole discretion of the Compensation Committee, his target bonus prorated through the date of termination, and (iii) continued COBRA coverage at our expense for 12 months.

Additionally, on November 16, 2018, the Board of Directors approved the payment of a retention incentive bonus in the amount of \$45,000 to Mr. Walsh in lieu of any 2018 bonus for which he may have otherwise been eligible under our annual bonus program, comprised of \$15,000 payable in cash on July 1, 2019 and 14,286 RSUs which would vest in full on July 1, 2019, in each case subject to Mr. Walsh's continued employment through such date. If Mr. Walsh's employment was terminated by us when neither cause nor long-term disability existed, or if he terminated his employment for good reason, in each case on or before July 1, 2019, and provided Mr. Walsh released us from any employment-related claims, then upon such termination, Mr. Walsh was entitled to receive 100% of his bonus amount. As Mr. Walsh's employment terminated in April 2019 (within six months of the appointment of a new Chief Executive Officer and when neither cause nor long-term disability existed), and he executed a separation and release agreement, Mr. Walsh received severance equal to 12 months of the average monthly base salary plus the average monthly cash bonuses paid to Mr. Walsh during the six months immediately prior to his termination, paid in accordance with our regular payroll schedule, and we are subsidizing Mr. Walsh's COBRA costs for 12 months.

Under our agreement with Mr. Biere dated November 28, 2016 with a start date of December 30, 2016, Mr. Biere was entitled to receive an annual salary of \$270,000, was granted 7,500 RSUs and options to purchase 100,000 shares of our common stock, and is eligible to receive an annual bonus under our annual bonus program equal to 50% of his annual salary at 100% achievement. Mr. Biere's annual salary was increased to \$278,100 effective January 1, 2018. The RSUs vest as follows: 25% vested on December 30, 2017, and the balance vest in equal quarterly installments for three years thereafter. The options vest as follows: 25% vested on December 30, 2017, and the balance vest in equal monthly installments for three years thereafter. In the event Mr. Biere's employment is terminated by us when neither cause nor long term disability exists (as such terms are defined in the agreement), subject to execution of a release by Mr. Biere of any employment-related claims, he shall be entitled to receive severance equal to six months of his then annual base salary, continued COBRA coverage at our expense for a period of six months following his termination date and a pro rata portion of his annual bonus as determined by the Compensation Committee, payable on our regular payroll schedule. In the event that, within nine months after a change of control of BSQUARE (as defined in the agreement), Mr. Biere's employment is terminated when neither cause nor long term disability exists or Mr. Biere terminates his employment for good reason (as defined in the agreement), subject to execution of a release by Mr. Biere of any employment-related claims, he shall be entitled to receive a one-time lump sum severance payment equal to nine months of his then annual base salary, 66% of his target annual bonus as determined by the Compensation Committee (subject to modification by the Compensation Committee), and continued COBRA coverage at our expense for a period of nine months following his termination date (provided that, during the first nine months after a change of control of BSQUARE, such severance payments shall be in lieu of the severance payments described in the preceding sentence, and after expiration of the nine -month period following a change of control, Mr. Biere shall thereafter only be entitled to the severance payments described in the preceding sentence). In addition, immediately prior to a change of control of BSQUARE, all of Mr. Biere's unvested stock options and restricted stock shall become fully vested and immediately exercisable.

Additionally, on November 16, 2018, the Board of Directors approved the payment of a retention incentive bonus in the amount of \$65,000 to Mr. Biere in lieu of any 2018 bonus for which he may have otherwise been eligible under our annual bonus program. The bonus shall be comprised of \$20,000 payable in cash on July 1, 2019 and 21,429 RSUs which shall vest in full on July 1, 2019, in each

case subject to Mr. Biere's continued employment through such date. If Mr. Biere's employment is terminated by us when neither cause nor long-term disability exists, or if he terminates his employment for good reason, in each case on or before July 1, 2019, and provided Mr. Biere releases us from any employment-related claims, then upon such termination, Mr. Biere shall be entitled to receive 100% of his bonus amount.

Under our agreement with Mr. Frith dated August 31, 2016 and amended June 5, 2018, Mr. Frith was entitled to receive an annual salary of \$215,000, was granted 5,000 RSUs (with 25% vesting on the first anniversary of the grant date, and the balance vesting in equal annual installments for three years thereafter), and non-qualified stock options to purchase 80,000 shares of our common stock (with 25% vesting on the first anniversary of the grant date, and the balance vesting in equal annual installments for three years thereafter), and is eligible to receive an annual bonus under our annual bonus program equal to 35% of his annual salary at 100% achievement. He also received a signing bonus of \$40,000 and is eligible to participate in our employee benefits plans. In the event Mr. Frith's employment is terminated by us when neither cause nor long term disability exists (as such terms are defined in the agreement), subject to execution of a release by Mr. Frith of any employment-related claims, he shall be entitled to receive severance equal to six months of his then annual base salary, continued COBRA coverage at our expense for a period of six months following his termination date and a pro rata portion of his annual bonus as determined by the Compensation Committee, payable on our regular payroll schedule. Immediately prior to a change of control of BSQUARE (as defined in the agreement), all of Mr. Frith's unvested stock options and RSUs shall become fully vested and immediately exercisable. In addition, if, within nine months after a change of control of BSQUARE, Mr. Frith's employment is terminated when neither cause nor long term disability exists or Mr. Frith terminates his employment for good reason (as defined in the agreement), subject to execution of a release by Mr. Frith of any employment-related claims, he shall be entitled to receive a one-time lump sum severance payment equal to nine months of his then annual base salary, 66% of his target annual bonus, and continued COBRA coverage at our expense for a period of nine months following his termination date.

Additionally, on November 16, 2018, the Board of Directors approved the payment of a retention incentive bonus in the amount of \$60,000 to Mr. Frith in lieu of any 2018 bonus for which he may have otherwise been eligible under our annual bonus program. The bonus shall be payable in cash on July 1, 2019, subject to Mr. Frith's continued employment through such date. If Mr. Frith's employment is terminated by us when neither cause nor long-term disability exists, or if he terminates his employment for good reason, in each case on or before July 1, 2019, and provided Mr. Frith releases us from any employment-related claims, then upon such termination, Mr. Frith shall be entitled to receive 100% of his bonus amount.

In order to be responsive to prior shareholder advisory votes on executive compensation, we amended our employment agreements with executive officers and other senior management to eliminate any tax "gross up" payment obligation in the event that payments under their agreements would subject them to the IRS parachute excise tax.

Although the terms of our Fourth Amended and Restated Stock Plan (the "Stock Plan") do not specifically provide for accelerated vesting of equity awards for participants in the event of a change in control, the Stock Plan provides that individual equity award agreements may provide for accelerated vesting in connection with certain transactions defined in the Stock Plan (including certain change-in-control transactions). In addition, the Stock Plan provides that the Board of Directors may elect to accelerate vesting for any Stock Plan participant at such times and in such amounts as the Board of Directors determines.

Determination of Compensation

The Compensation Committee's philosophy regarding total executive compensation has been to provide a comprehensive and competitive compensation package consisting of base salary, short-term cash incentives (STI) and long-term equity incentives (LTI) that helps align management team incentives with shareholder interests and promote growth in shareholder value. Base salary and STI represents total targeted cash compensation (TTC) for each executive. The Compensation Committee has been gradually increasing the level of STI for each executive to bring the TTC level closer to market peer median levels over the last several years based on input from an outside compensation consultant (as further described below). We believe that while our executive base salaries are generally slightly below median level, TTC is generally near median levels. We also periodically review the level of LTI for each of our executive team with our outside compensation consultant. Historically, our level of LTI has been below market peer median levels. We intend to review executive compensation survey information each year to maintain competitive levels of compensation for our management team.

Total Compensation

For purposes of evaluating executive officer total compensation including base salary, discretionary bonus, equity awards and incentive compensation, the Compensation Committee primarily considers two factors:

- *Benchmark data:* The Compensation Committee has the authority to engage its own advisers to assist in carrying out its responsibilities, and historically the Compensation Committee has engaged a compensation consultant on an annual basis to review and benchmark our executive compensation programs. For 2017, the Compensation Committee engaged the services of Applied HR Strategies, Inc. ("Applied HR Strategies"), a compensation consulting firm, to advise the Compensation Committee regarding the amount and types of compensation that we provide to our executive officers and how our compensation practices compared to the compensation practices of other companies, which information was also used to inform our 2018 compensation practices. Applied HR Strategies reports directly to our Compensation Committee in all matters of executive compensation. In connection with the engagement of Applied HR Strategies, our Compensation Committee took into consideration the following factors: (i) the provision of other services to us by Applied HR Strategies; (ii) the amount of fees paid by us to Applied HR Strategies as a percentage of the firm's total revenue; (iii) policies and procedures of Applied HR Strategies that are designed to prevent conflicts of interest; (iv) any business or personal relationship of Applied HR Strategies or the individual compensation advisors employed by the firm with any of our executive officers; (v) any business or personal relationship of the individual compensation advisors with any member of our Compensation Committee; and (vi) any of our common stock owned by the individual compensation advisors employed by the firm. Based on its review, the Compensation Committee believes that Applied HR Strategies does not have any conflicts of interest in advising the Compensation Committee under applicable SEC or NASDAQ rules.
- *Company and individual-specific factors:* In addition to considering compensation levels of executives at similarly sized regional public companies, the Compensation Committee, in conjunction with the Chief Executive Officer, historically reviews our financial performance objectives as well as non-financial performance objectives applicable to each executive (other than the Chief Executive Officer). Our financial performance objectives are typically determined through collaboration with the Chief Executive Officer, the Board of Directors and the Compensation Committee. The non-financial performance objectives applicable to each executive officer (other than the Chief Executive Officer) are typically determined in collaboration with the Chief Executive Officer, the executive officer and the Compensation Committee. The Compensation Committee determines the financial and non-financial performance objectives applicable to the Chief Executive Officer. These objectives and associated awards have historically been governed by an annual bonus program ("ABP") with respect to our executive officers. Bonuses paid to our named executive officers pursuant to the 2017 ABP are reflected in the Summary Compensation Table above and were described in more detail in our proxy statement for our 2018 Annual Meeting of Shareholders. As discussed below, there was no ABP for 2018.

Base Salary and Discretionary Bonus

The Compensation Committee's goal is to provide a competitive base salary for our executive officers. The Compensation Committee has not established any formal guidelines for purposes of setting base salaries (such as payment at a particular percentile of the benchmark group), but instead considers the benchmark data along with our performance and the individual's performance and experience in determining what represents a competitive salary. The Compensation Committee also considers these factors in its recommendations to the Board of Directors regarding whether and in what amounts to award discretionary cash bonuses, apart from cash awards that may be provided for under incentive plans.

Short-Term Incentive Plan Compensation (STI)

Our named executive officers also historically participate in short-term incentive compensation programs, including an ABP, the terms of which vary from year to year. However, for 2018, the Compensation Committee determined that our financial performance during 2018 did not warrant the payment of any bonus amounts to executive officers under an ABP. Instead, as previously disclosed on a Current Report on Form 8-K filed with the Securities and Exchange Commission on November 20, 2018 and described above under “Employment Agreements with Named Executive Officers,” the Committee approved the payment of retention incentive bonuses (the “2018 Retention Bonuses”) to certain of our executive and senior officers, including our named executive officers, to encourage continued leadership during our search for and transition of a new Chief Executive Officer, payable in cash and/or RSUs granted under our Stock Plan and subject to continued employment through July 1, 2019. The Committee also determined to reassess the structure and performance metrics of an ABP for 2019, in collaboration with our new Chief Executive Officer, which reassessment is ongoing, to more tightly align compensation with both short- and long-term shareholder interests and to be responsive to prior shareholder advisory votes on executive compensation.

Long-Term Equity Incentive Awards (LTI)

Longer-term incentives in the form of grants of stock options, restricted stock, RSUs and other forms of equity instruments to executive officers are governed by the Stock Plan or our 2011 Inducement Award Plan (the “Inducement Plan”), as applicable.

The Compensation Committee recommends grants and awards of stock options and other forms of equity instruments to our executive officers under the Stock Plan or Inducement Plan, as applicable. Grants and awards recommended by the Compensation Committee are then submitted to the Board of Directors for approval. Stock options have historically been granted at the time of hire of an executive officer. Further, the Compensation Committee periodically reviews the equity ownership of the executive officers and may recommend to the Board of Directors additional awards of equity instruments under the Stock Plan based on a number of factors, including benchmark data, company performance and individual performance, the vested status of currently outstanding equity awards, the executive’s equity ownership in relation to the other executives and other factors. The Compensation Committee maintains no formal guidelines for these periodic reviews. Stock options are awarded with exercise prices equal to the closing market price per share of our common stock on the grant date. Other than the 2018 Retention Bonuses payable in RSUs, there were no grants of stock options or awards of RSUs to our named executives during 2018.

Incentive Sales Compensation Plan

Sales executives participate in non-equity incentive compensation plans with provisions tailored to the particular individual. The terms of these plans are determined by agreement with the sales executive each year with respect to a particular year’s incentive compensation, but with terms that are subject to change each quarter. None of our named executive officers currently participates in an incentive sales compensation plan for 2019.

Other Compensation and Perquisites

Executive officers, including the named executive officers, are eligible to participate in standard benefit plans available to all employees including our 401(k)-retirement plan, medical, dental, disability, vacation and sick leave and life and accident insurance. The same terms apply to all employees for these benefits except where the value of the benefit may be greater for executives because they are more highly compensated than most other employees (e.g., disability benefits). However, all executive officers receive a phone allowance of \$1,800 per year, as do other employees whose job responsibility requires them to be on call. The individuals receiving the allowance are not reimbursed for normal cell phone usage. We do not provide any pension or deferred compensation benefits to our executive officers.

Outstanding Equity Awards at Fiscal Year End

The following table presents the outstanding equity awards held by the named executive officers as of December 31, 2018:

| Name | Grant Date | Option Awards | | | | Stock Awards | |
|--------------------|----------------|---|-------------------|--------------------------------|----------------------------|---|--|
| | | Number of Securities Underlying Unexercised Options | | Option Exercise Price (\$) (1) | Option Expiration Date (2) | Number of Shares or Units of Stock That Have Not Vested (#) | Market Value of Shares or Units of Stock That Have Not Vested (\$) (3) |
| | | Exercisable (#) | Unexercisable (#) | | | | |
| Kevin T. Walsh | 7/13/2015 (4) | 80,000 | — | \$ 6.94 | 7/13/2025 | — | — |
| | 11/15/2016 (4) | 5,208 | 4,792 | 5.05 | 11/15/2026 | — | — |
| | 11/16/2018 (5) | — | — | — | 11/16/2028 | 14,286 | 22,143 |
| Peter J. Biere | 12/30/2016 (4) | 50,000 | 50,000 | 5.85 | 12/30/2026 | 3,750 | 5,813 |
| | 11/16/2018 (5) | — | — | — | 11/16/2028 | 21,419 | 33,199 |
| Giles Frith | 9/30/2016 (4) | 40,000 | 40,000 | 4.92 | 9/30/2026 | 2,500 | 2,500 |
| Jerry D. Chase (6) | | — | — | — | | — | — |

(1) The option exercise price is the closing price of our common stock on the grant date.

(2) All options outstanding expire ten years from the grant date.

(3) Based on the closing price of our common stock of \$1.55 on December 31, 2018.

(4) The options vest one-quarter on the one-year anniversary of the grant date with the remainder vesting ratably on a monthly basis for three years thereafter; the awards vest one-quarter on the one-year anniversary of the grant date with the remainder vesting ratably on a quarterly basis for three years thereafter.

(5) These awards vest in full on July 1, 2019, or upon the earlier termination of employment under certain conditions.

(6) Mr. Chase resigned as President and Chief Executive Officer in May 2018 and did not have any outstanding equity awards as of December 31, 2018.

Employee Benefit Plans

Equity Compensation Plan Information

The following table presents certain information regarding our common stock that may be issued upon the exercise of options and vesting of restricted stock units granted to employees, consultants or directors as of December 31, 2018:

| | Number of securities to be issued upon exercise of outstanding options, warrants and rights (a) | Weighted-average exercise price of outstanding options, warrants and rights (b) | Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c) |
|--|--|---|---|
| Equity compensation plans approved by security holders | 1,220,171 (1)\$ | 4.57 | 1,380,831 |
| Equity compensation plans not approved by security holders | 356,357 (2)\$ | 5.36 | 145,069 (3) |

(1) Amount includes 175,266 restricted stock units granted and unvested as of December 31, 2018.

(2) Amount includes 11,250 restricted stock units granted and unvested as of December 31, 2018.

(3) Indicates shares of our common stock reserved for future issuance under the Inducement Plan. There were 250,000 shares reserved for future issuance under the Inducement Plan at the time it was adopted, and our Board of Directors approved increases in the number of shares reserved in each of June 2015 and November 2016 by an additional 200,000 shares, in January 2019 by an additional 300,000 shares, and in February 2019 by an additional 250,000 shares. The number of shares reserved for issuance may be modified by the Board of Directors, subject to SEC and NASDAQ limitations. There were 80,000 options and 10,000 restricted stock units granted under the Inducement Plan during 2018.

We have granted options to purchase common stock to our officers, directors, employees and consultants under the Stock Plan and under the Inducement Plan (collectively, the “Plans”). The Plans also enable us to grant restricted stock, restricted stock units and certain other equity-based compensation to our officers, directors, employees and consultants. Under the Stock Plan, we awarded restricted stock units to each of our non-employee directors in 2017 and 2018, and options to Mr. DeSantis in 2017 and Messrs. Cushman, Peters and Vardeman in 2018 upon joining our Board of Directors. We also awarded restricted stock units to certain of our officers in 2018 under the Plans.

401(k) Plan

We maintain a tax-qualified 401(k) employee savings and retirement plan for eligible U.S. employees. Eligible employees may elect to defer a percentage of their eligible compensation in the 401(k) plan, subject to the statutorily prescribed annual limit. We may make matching contributions on behalf of all participants in the 401(k) plan in the amount equal to one-half of the first 6% of an employee’s contributions. Company matching contributions and employee contributions are fully vested at all times. We intend the 401(k) plan to qualify under Sections 401(k) and 501 of the Internal Revenue Code of 1986, as amended, so that contributions by employees or us to the 401(k) plan and income earned, if any, on plan contributions are not taxable to employees until withdrawn from the 401(k) plan (except as regards Roth contributions), and so that we will be able to deduct our contributions when made. The trustee of the 401(k) plan, at the direction of each participant, invests the assets of the 401(k) plan in any of a number of investment options.

STOCK OWNERSHIP

Security Ownership of Principal Shareholders, Directors and Management

The following table sets forth certain information regarding the beneficial ownership of our common stock as of March 15, 2019 by:

- each person who is known by us to own beneficially more than five percent (5%) of the outstanding shares of common stock;
- each of our directors;
- each of the named executive officers; and
- all of our directors and executive officers as a group.

Beneficial ownership is determined in accordance with the rules of the SEC. The number of shares listed below under the heading “Total Common Stock Equivalents” is the aggregate beneficial ownership for each shareholder and includes:

- common stock beneficially owned;
- restricted stock awards;
- currently vested options; and
- stock options and restricted stock units that are not currently vested but will become vested within 60 days after March 15, 2019.

Of this total amount, the number of shares of common stock underlying options that are currently vested and stock options and restricted stock units that are not currently vested but will become vested within 60 days after March 15, 2019 are deemed outstanding for the purpose of computing the percentage ownership of common stock outstanding beneficially owned by a shareholder, director or executive officer (the “Deemed Outstanding Shares”) and are also separately listed below under the heading “Number of Shares Underlying Options and RSUs,” but the Deemed Outstanding Shares are not treated as outstanding for the purpose of computing the percentage ownership of common stock outstanding beneficially owned by any other person. This table is based on information supplied by officers, directors, and filings made with the SEC. Percentage ownership is based on 12,828,038 shares of common stock outstanding as of March 15, 2019.

Unless otherwise noted below, the address for each shareholder listed below is: c/o BSQUARE Corporation, 110 110th Avenue NE, Suite 300, Bellevue, Washington 98004. Unless otherwise noted, each of the shareholders listed below has sole investment and voting power with respect to the common stock indicated, except to the extent shared by spouses under applicable law.

| Name and Address of Beneficial Owner | Total Common Stock Equivalents | Number of Shares Underlying Options and RSUs (Deemed Outstanding Shares) | Percentage of Common Stock Equivalents |
|--|--------------------------------|--|--|
| 5% Owners: | | | |
| Palogic Value Management, L.P (1) Harvest Hill Road, Suite 110 Dallas, TX 75230 | 1,046,500 | — | 8.2% |
| Renaissance Technologies LLC (2) 800 Third Avenue New York, NY 10022 | 952,375 | — | 7.4% |
| Dimensional Fund Advisors LP (3) Building One, 6300 Bee Cave Road Austin, TX 78746 | 732,275 | — | 5.7% |
| Directors and Named Executive Officers: | | | |
| Ryan L. Vardeman (4) | 1,064,209 | 9,375 | 8.4% |
| Andrew S.G Harries | 239,821 | 25,000 | 2.1% |
| Kevin T. Walsh | 97,152 | 86,042 | 1.4% |
| Peter J. Biere | 67,552 | 58,802 | 1.0% |
| Robert J. Chamberlain | 63,225 | 25,000 | * |
| Mary Jesse | 55,794 | 25,000 | * |
| Giles Frith | 42,446 | 40,000 | * |
| Davin W. Cushman | 34,496 | 9,870 | * |
| Robert J. Peters (5) | 23,949 | 14,233 | * |
| Ralph C. Derrickson | — | — | * |
| Jerry D. Chase | — | — | * |
| All executive officers and directors as a group (6) | 1,591,492 | 207,280 | 13.8% |

* Less than one percent.

- (1) The indicated ownership is based solely on (i) a Schedule 13D/A filed with the SEC on June 25, 2018 (the “PVM 13D/A”) by the reporting person, according to which Palogic Value Management, L.P., Palogic Value Fund, L.P., Palogic Capital Management, LLC and Mr. Vardeman then had shared voting and dispositive power over 948,500 shares, and (ii) a Form 4 filed with the SEC on August 21, 2018 by Mr. Vardeman, according to which Palogic Value Fund, L.P. and Mr. Vardeman are the record and direct beneficial owners of 1,046,500 shares, which information may have changed since the dates of such filings.
- (2) The indicated ownership is based solely on a Schedule 13G/A filed with the SEC on February 13, 2019 (the “RT 13G/A”) by the reporting person and may have changed since the date of its filing. According to the RT 13G/A, each of Renaissance Technologies LLC and Renaissance Technologies Holdings Corporation has sole voting power and dispositive power over 952,375 shares.
- (3) The indicated ownership is based solely on a Schedule 13G filed with the SEC on February 8, 2019 (the “DFA 13G”) by the reporting person and may have changed since the date of its filing. According to the DFA 13G, Dimensional Fund Advisors LP has sole voting power over 716,975 shares and sole dispositive power over 732,275 shares. According to the DFA 13G, Dimensional Fund Advisors LP, an investment adviser registered under Section 203 of the Investment Advisors Act of 1940, furnishes investment advice to four investment companies registered under the Investment Company Act of 1940, and serves as investment manager or sub-adviser to certain other commingled funds, group trusts and separate accounts (such investment companies, trusts and accounts, collectively referred to as the “Funds”). In certain cases, subsidiaries of Dimensional Fund Advisors LP may act as an adviser or sub-adviser to certain Funds. In its role as investment advisor, sub-adviser and/or manager, Dimensional Fund Advisors LP or its subsidiaries (collectively, “Dimensional”) may possess voting and/or investment power over securities that are owned by the Funds and may be deemed to be the beneficial owner of shares held by the Funds. However, all such securities are owned by the Funds. Dimensional disclaims beneficial ownership of such securities.
- (4) Mr. Vardeman is a principal of and may be deemed to beneficially own securities beneficially owned by Palogic Capital Management.
- (5) Mr. Peters is a principal of Palogic Capital Management but does not have dispositive or voting power over shares beneficially owned by Palogic Capital Management.
- (6) Includes Messrs. Biere, Chamberlain, Cushman, Derrickson, Frith, Harries, Peters and Vardeman, and Ms. Jesse.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Exchange Act requires our executive officers, our directors and persons who own more than 10% of a registered class of our equity securities to file with the SEC reports of ownership on Form 3 and changes in ownership on Form 4 and Form 5. Executive Officers, directors and greater-than-10% shareholders are required by SEC regulations to furnish to us copies of all Section 16(a) forms they file. Based solely on our review of the copies of such forms received by us, or written representations from certain reporting persons, we believe that all Section 16(a) filing requirements applicable to our executive officers, directors and greater-than-10% beneficial owners were met during the year ended December 31, 2018.

Biographical details of each executive officer are set forth above under the heading “Executive Officers.”

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

There were no transactions since January 1, 2017, nor are there any proposed transactions as of the date of this proxy statement, as to which the amount involved exceeds the lesser of \$120,000 or one percent of the average of our total assets at year-end for the last two completed fiscal years and in which any related person has or will have a direct or indirect material interest, other than equity and other compensation, termination and other arrangements which are described above under the headings “2018 Director Compensation” and “Executive Officer Compensation.”

PROPOSAL NO. 2

ADVISORY VOTE ON EXECUTIVE COMPENSATION

The Dodd-Frank Wall Street Reform and Consumer Protection Act, enacted in July 2010, requires that we provide our shareholders with the opportunity to vote to approve, on an advisory basis, the compensation of our named executive officers as disclosed in this proxy statement in accordance with the compensation disclosure rules of the SEC.

This advisory vote, commonly referred to as a “say-on-pay” advisory vote, is not binding on us, our Board of Directors or our Compensation Committee. Moreover, the vote on this resolution is not intended to address any specific element of compensation, but rather relates to the overall compensation of our named executive officers, as disclosed in this proxy statement in accordance with the compensation disclosure rules of the SEC. However, while this vote is advisory and not binding on us, we will consider the views of our shareholders when determining executive compensation in the future, including seeking to determine the causes of any significant negative voting results to better understand issues and concerns. We have elected to hold a “say-on-pay” advisory vote on an annual basis.

Executive compensation is an important matter for us and for our shareholders. The core of our executive compensation philosophy and practice continues to be pay for performance. As discussed above under the heading “Executive Officer Compensation,” our executive compensation programs are based on practices that require achievement of challenging goals – goals that will drive us to achieve profitable revenue growth and market share gains, while expanding the global market opportunity for our products, technology and services portfolio, and ultimately leading to long-term shareholder value. We believe our compensation programs are strongly aligned with the long-term interests of our shareholders and have been and will continue to be effective in incenting the achievement and performance of our executive officers. Compensation of our executive officers is designed to enable us to attract and retain talented and experienced senior executives to lead us successfully in a competitive environment.

Our named executive officers and the compensation of the named executive officers are described above under the heading “Executive Officer Compensation,” including our compensation philosophy and objectives and the fiscal 2018 compensation of the named executive officers.

We are asking shareholders to vote on the following resolution:

“Resolved, that the shareholders approve, on an advisory basis, the compensation of the Company’s named executive officers as disclosed in the proxy statement for the 2019 Annual Meeting of Shareholders pursuant to the compensation disclosure rules of the SEC.”

Vote Required

Approval on an advisory basis of the compensation of our named executive officers as disclosed in this proxy statement in accordance with the compensation disclosure rules of the SEC requires that the votes cast in favor of the proposal exceed the votes cast against the proposal.

As indicated above, the shareholder vote on this resolution will not be binding on us, the Compensation Committee or the Board of Directors, and will not be construed as overruling any decision by us, the Compensation Committee or the Board. The vote will not be construed to create or imply any change to our fiduciary duties or those of the Compensation Committee or the Board, or to create or imply any additional fiduciary duties for us, the Compensation Committee or the Board.

THE BOARD OF DIRECTORS RECOMMENDS A VOTE "FOR" PROPOSAL NO. 2.

PROPOSAL NO. 3

ADVISORY VOTE ON THE FREQUENCY OF FUTURE ADVISORY VOTES ON EXECUTIVE COMPENSATION

As discussed above, the Dodd-Frank Act and regulations promulgated thereunder require the Company to conduct a separate shareholder vote to approve compensation of named executive officers, as disclosed pursuant to the compensation disclosure rules of the SEC. The Dodd-Frank Act further provides that this shareholder vote shall occur every one, two or three years. Shareholders are entitled to cast an advisory vote to reflect the desired frequency of such vote as being every one, two or three years.

Accordingly, we are asking our shareholders to provide input on the frequency of future shareholder advisory votes on executive compensation. In particular, we are asking whether the advisory vote should occur every year, every two years or every three years. You may cast your vote on the preferred voting frequency by choosing the option of one year, two years, or three years when voting in response to this proposal. You may also abstain from voting.

We understand that our shareholders may have different views as to what is the best approach for us with respect to the frequency of future advisory votes on executive compensation. After considering a variety of factors, the Board of Directors recommends that you support a frequency of one year for future advisory votes on executive compensation. We believe that holding an advisory vote every year will allow shareholders to provide us with direct and timely input on the compensation of our executive officers. This approach is consistent with our commitment to direct engagement with shareholders on executive compensation and other matters. We believe the advisory vote will be another avenue for shareholders to express their views on executive compensation to the Board, our management and Compensation Committee.

Vote Required

The option of one year, two years or three years that receives the highest number of votes cast by shareholders will be the frequency for the advisory vote on executive compensation that has been selected by shareholders. As indicated above, the shareholder vote on this matter is advisory and will not be binding on us, the Compensation Committee or the Board of Directors. However, we value your opinion and will consider the voting results in making a determination concerning the frequency of future executive compensation votes.

THE BOARD OF DIRECTORS RECOMMENDS A VOTE FOR “ONE YEAR” ON PROPOSAL NO. 3

PROPOSAL NO. 4

RATIFY APPOINTMENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The independent registered public accounting firm of Moss Adams LLP (“Moss Adams”) has acted as our auditor since May 2006 and has audited our financial statements for the years ended December 31, 2018 and 2017. Moss Adams is responsible for performing an independent audit of our consolidated financial statements in accordance with auditing standards generally accepted in the United States and issuing a report on its audit. A representative of Moss Adams is expected to be present at the Annual Meeting, where he or she will have the opportunity to make a statement and to respond to appropriate questions.

The Audit Committee’s charter provides that it shall have the sole authority and responsibility to select, evaluate and, if necessary, replace our independent registered public accounting firm. The Audit Committee has selected Moss Adams as our independent registered public accounting firm for the year ending December 31, 2019.

The Audit Committee pre-approves all audit and non-audit services performed by our auditor and the fees to be paid in connection with such services in order to assure that the provision of such services does not impair the auditor’s independence. Unless the Audit Committee provides general pre-approval of a service to be provided by the auditor and the related fees, the service and fees must receive specific pre-approval from the Audit Committee.

INDEPENDENT AUDITORS

Audit Fees

Moss Adams billed us for audit fees of \$285,837 and \$340,856 for the years ended December 31, 2018 and 2017, respectively. These audit fees related to professional services rendered in connection with the audit of our annual consolidated financial statements, the reviews of the consolidated financial statements included in each of our quarterly reports on Form 10-Q and accounting services that relate to the audited consolidated financial statements and are necessary to comply with generally accepted auditing standards.

Audit-Related Fees

There were no fees billed for fiscal years 2018 or 2017 for assurance and related services by Moss Adams that were reasonably related to the performance of its audit of our financial statements and not reported under the caption "Audit Fees."

Tax Fees

There were no fees billed for fiscal years 2018 or 2017 for tax compliance, tax advice or tax planning services rendered to us by Moss Adams.

All Other Fees

Moss Adams billed us \$33,162 in fees associated with a SOC Type-2 examination in 2018.

Audit Committee Report

In connection with our financial statements for the fiscal year ended December 31, 2018, the Audit Committee has:

- Reviewed and discussed the audited financial statements with management;
- Discussed with our independent registered public accounting firm, Moss Adams LLP, the matters required to be discussed by applicable auditing standards; and
- Received the written disclosures and the letter from the independent registered public accounting firm required by applicable requirements of the Public Company Accounting Oversight Board regarding the independent registered public accounting firm's communications with the Audit Committee concerning independence and discussed with the independent registered public accounting firm the independent registered public accounting firm's independence.

Based upon these reviews and discussions, the Audit Committee approved our audited financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2018 filed with the SEC.

Submitted by the Audit Committee:

Robert J. Chamberlain, Chair

Andrew S.G. Harries

Mary Jesse

Vote Required

The ratification of the appointment of Moss Adams LLP as our independent registered public accounting firm requires that the votes cast in favor of the proposal exceed the votes cast against the proposal.

THE BOARD OF DIRECTORS RECOMMENDS THAT SHAREHOLDERS VOTE FOR RATIFICATION OF THE APPOINTMENT OF MOSS ADAMS LLP AS OUR INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FOR THE FISCAL YEAR ENDING DECEMBER 31, 2019.

OTHER MATTERS

Shareholder Communications with the Board of Directors and Board Attendance at Annual Shareholder Meetings

Our shareholders may, at any time, communicate in writing with any member or group of members of the Board of Directors by sending such written communication to the attention of our Secretary by regular mail to our principal executive offices, email to investorrelations@bsquare.com or facsimile at 425-519-5998.

Copies of written communications received by our Secretary will be provided to the relevant director(s) unless such communications are considered, in the reasonable judgment of our Secretary, to be improper for submission to the intended recipient(s). Examples of shareholder communications that would be considered improper for submission include, without limitation, customer complaints, solicitations, communications that do not relate directly or indirectly to us or our business, or communications that relate to improper or irrelevant topics.

The Chairperson of the Board of Directors is expected to make all reasonable efforts to attend our annual shareholder meeting in person. If the Chairperson is unable to attend an annual shareholder meeting for any reason, at least one other member of the Board of Directors is expected to attend in person. Other members of the Board of Directors are expected to attend our annual shareholder meeting in person if reasonably possible. All of our then current directors attended the 2018 Annual Meeting of Shareholders.

Transaction of Other Business

Our Board of Directors knows of no other matters to be submitted at the Annual Meeting. If any other business is properly brought before the Annual Meeting, proxies will be voted in respect thereof as the proxy holders deem advisable.

Annual Report to Shareholders and Form 10-K

Our Annual Report to Shareholders for the year ended December 31, 2018 (which is not a part of our proxy solicitation materials) is being mailed to our shareholders with this proxy statement. A copy of our Annual Report on Form 10-K for the year ended December 31, 2018, without exhibits, is included with the Annual Report to Shareholders.

By Order of the Board of Directors



Peter J. Biere
Chief Financial Officer, Secretary and Treasurer
Bellevue, Washington
April 29, 2019

DIRECTORS, OFFICERS, AND CORPORATE INFORMATION



Major Global Office Locations

United States Headquarters
110 110th Avenue NE, Ste. 300
Bellevue, WA 98004
Tel: (425) 519-5900
Fax: (425) 519-5999
www.bsquare.com

Taiwan
10F., No. 49, Minsheng E. Rd., Sec. 3
Taipei City 104
Taiwan, R.O.C.
Tel: 886-2-2501-6022
Fax: 886-2-2501-6033

United Kingdom
County Gate County Way
Trowbridge, BA14 7FJ,
United Kingdom
Tel: 44-1225-710600
Fax: 44-1225-710601

Directors

Andrew S.G. Harries
Chairman of the Board
Co-Founder, Sierra Wireless (SWIR); Co-Founder, Zeugma Systems, Inc.;
Chair, Contractually, acquired by Coupa Software (COUP)

Ralph C. Derrickson
President and Chief Executive Officer, Bsquare Corporation

Robert J. Chamberlain
Chief Financial Officer, ZipWhip

Davin Cushman
Chief Executive Officer, Ignite Technologies

Mary Jesse
Managing Partner, Hexagon Blue LLC

Robert J. Peters
Principal, Palogic Value Management, L.P.

Ryan Vardeman
Principal, Palogic Value Management, L.P.

Form 10-K

We file an Annual Report on Form 10-K with the Securities and Exchange Commission. Copies are available without charge upon request. Requests should be sent to investorrelations@bsquare.com

Stock Exchange Listing

Our common stock is traded on the Nasdaq Global Market under the symbol BSQR.

Dividends

We have never paid cash dividends on our common stock. We currently intend to retain any future earnings to fund future development and growth and, therefore, do not anticipate paying any consistent cash dividends in the foreseeable future.

Corporate Counsel

Summit Law Group PLLC
Seattle, Washington

Independent Registered Public Accountants

Moss Adams LLP
Seattle, Washington

Transfer Agent and Registrar

Computershare
250 Royall Street Canton, MA 02021
(877) 238-6957

Annual Meeting

Our annual meeting of shareholders will be on Tuesday, June 11, 2019, at 10:00 a.m. local time at BSQUARE Corporation U.S. Headquarters, 110-110th Avenue NE, Suite 300, Bellevue, Washington 98004.

Executive Officers

Ralph C. Derrickson
President and Chief Executive Officer

Peter J. Biere
Chief Financial Officer, Assistant Secretary and Treasurer

Giles Frith
Chief Operating Officer



Bsquare Corporation

110 110th Avenue NE Suite 300,
Bellevue, WA 98004 425.519.5900

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