

BSQUARE CORP /WA  
Form 10-K  
February 21, 2017

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934  
For the fiscal year ended December 31, 2016

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 91-1650880  
(State or other jurisdiction of (I.R.S. Employer  
incorporation or organization) Identification Number)

110 110<sup>th</sup> 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:

Title of each class	Name of each exchange on which registered
Common Stock, no par value	The NASDAQ Stock Market LLC (NASDAQ Global Market)

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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 Securities Exchange 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 and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted 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 and post such files). Yes No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K 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 or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

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

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, 2016 was approximately \$54,461,983 and was determined using the closing price of our common stock on June 30, 2016 on the NASDAQ Global Market (\$5.58) and excludes 2,483,118 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 12,243,330 shares of our Common Stock outstanding on June 30, 2016.

The number of shares of common stock outstanding as of January 31, 2017: 12,540,945

#### DOCUMENTS INCORPORATED BY REFERENCE

Portions of the definitive proxy statement to be delivered to shareholders in connection with the 2017 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 operating results, such as revenue and earnings; anticipated levels of capital expenditures; future market 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 or data cloud 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 Internet of Things (“IoT”) market, which is the interconnection of uniquely identifiable embedded computing devices within the existing internet infrastructure. While IoT is a relatively new market, we believe the work we have engaged in since our inception—namely adding intelligence and connectivity to discrete standalone devices and systems—embodies much of what is central to the core functionality of IoT. 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 render raw IoT device data into meaningful and actionable data for our customers.

We launched DataV late in the first quarter of 2016 and announced our first three major customer bookings later that year. These bookings comprised software licensing, software maintenance and related systems integration services and are, we believe, indicative of the potential customer demand for DataV.

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We believe that DataV presents high growth opportunities in a large, expanding addressable market, at substantially higher gross margins as compared to our traditional business. Over time, we intend for DataV to become our primary focus, representing a transition away from dependence on resale software and engineering services toward increased reliance on our own proprietary software and related systems integration services. As a result, we focused virtually all of our research and development and marketing efforts, as well as a majority of our sales efforts, on DataV during 2016. We intend to continue to run our legacy software resale and engineering services business for the foreseeable future.

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 IoT market is still emerging, but we believe it will present a large market opportunity for us. This market includes consumer, business, government and industrial segments, and encompasses software, hardware, connectivity and cloud providers as well as systems integrators. While larger research firms do not yet widely track the IoT market, available research anticipates that over time, the deployment of hundreds of billions of connected devices may generate trillions of dollars of economic value.

The IoT 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 (“NFC”), Bluetooth, Wi-Fi, and cellular, allowing connectivity and data exchange with large populations of small, remote, and frequently mobile devices;
- 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 availability of inexpensive cloud compute and storage capabilities able to scale to the extent likely to be demanded by IoT.

### Software

Software revenue for the last two fiscal years was as follows (in thousands):

	Year Ended			
	December 31,			
	2016	2015		
Software revenue:				
Third-party software	\$ 80,231	\$ 82,885		
Proprietary software	1,939	3,323		
Total software revenue	\$ 82,170	\$ 86,208		
Software revenue as a percentage of total revenue	84	%	81	%
Third-party software revenue as a percentage of total software revenue	98	%	96	%

### DataV Software



DataV is a comprehensive software solution developed by BSQUARE intended to address a variety of business use cases specific to industrial IoT applications. DataV addresses the following business use cases:

- ◆ **Predictive Failure:** By employing machine learning and advanced data analytics, DataV is able to predict, with varying levels of accuracy, future operational conditions for equipment or devices that are part of the overall IoT 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 are able to 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 less expensively resolving the problem. DataV uses historical repair data coupled with machine learning and data analytics to achieve this.

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• **IoT Device Management:** The spread of data-generating devices in IoT systems introduces a new set of operational problems for industrial concerns. DataV is able to facilitate IoT device management, including software and configuration updates, over large-scale populations of connected devices.

• **Condition-Based Maintenance:** DataV allows organizations to move beyond maintenance cycles based solely on time or usage, which inevitably result in over- or under-servicing of equipment. DataV develops maintenance schedules based on actual equipment condition using not only device data but environmental data as well. This results in lower overall service costs and improved asset longevity.

• **Asset Optimization:** Industrial concerns with large fleets of similar equipment want to ensure the performance of their equipment is maximized. DataV, again by employing machine learning, data analytics, and historical data, can help these customers identify underperforming assets and proscribe remediation steps.

• **Asset Utilization:** DataV can assist our customers in tracking how their products are used in the field. This can help ensure that equipment use is as intended, an important requirement for heavy equipment rental firms. It can also provide product designers with feedback that can help improve product performance and differentiation.

The 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, medical devices and others. 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 seek new revenue-generating products or services to enhance operating profitability. We license our DataV software through various customer licensing models, including perpetual and subscription, and we are flexible in providing DataV on-premises, hosted or via a software as a service (“SaaS”) model.

We officially launched DataV as a commercially available product in March 2016. Although we had previously engaged in several paid proof-of-concept tests with customers prior to that, we secured our first order in May 2016. This order, valued at \$4.3 million over a three-year period, allowed PACCAR, Inc., a heavy-duty truck manufacturer, to employ adaptive diagnostics in order to more rapidly service and repair trucks. The order included a perpetual license to use DataV for that specific application on certain engines in North America, as well as annual maintenance and custom systems integration services.

In November 2016, we secured our second DataV order. This order, placed by Itron, Inc., a large global manufacturer of electric, water, and gas meters for utilities as well as smart city solutions targeting IoT device management, is valued at \$1.9 million for the first year with a \$2.9 million four-year extension option. The deal includes a subscription license to use DataV in addition to maintenance and systems integration services.

In December 2016, we secured an order from a global provider of candy and beverages. This contract is for a smart vending initiative that adds intelligence to existing fleets of vending machines, allowing them to better track real-time sales data and, in the future, better predict equipment failures within these machines.

### Third-Party Software Products

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

• For 18 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. We are authorized to sell Windows Embedded operating systems in the United States, Canada, Mexico, Argentina, Brazil, Chile, Columbia, Peru, Puerto Rico, the Caribbean (excluding Cuba), the European Union (“E.U.”), the European Free Trade

Association, Turkey and Africa. Of our total revenue, 72% in 2016 and 64% in 2015 resulted from the sale of Windows Embedded operating systems. Our current distribution agreements related to Windows Embedded expire on June 30, 2017 and are typically renewed annually or bi-annually;

• 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, and Central America (excluding Cuba) (the "Americas"), Japan, Taiwan, and the region comprised of Europe, the Middle East, and Africa ("EMEA"). Of our total revenue in 2016, 9% was generated through the sale of Windows Mobile operating systems, compared to 12% in 2015. Our current distribution agreements related to Windows Mobile expire on June 30, 2017 and are typically renewed annually or bi-annually;

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• 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 98% of third-party software revenue in 2016 and 97% of third-party software revenue in 2015.

#### Other Proprietary Software Products

Apart from DataV, we 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 effectively discontinued all research and development efforts on these products and no longer actively sell them.

#### Professional Engineering Services

Professional engineering service revenue for the last two fiscal years was as follows (in thousands):

	Year Ended December 31,			
	2016		2015	
Professional engineering service revenue	\$ 15,271		\$ 20,393	
Professional engineering service revenue as a percentage of total revenue	16	%	19	%

#### DataV Services

In order to operate efficiently, DataV software must be integrated with a variety of customer systems, devices and databases, requiring a significant services component. We anticipate DataV contracts will frequently include a services component of 10-30 percent of total contract value. Services offered in this context include the following:

- Integration with enterprise databases;
- Integration with internal enterprise systems;
- Integration with external public or third-party data sources;
- Custom application development on our DataV platform;

- Management of customer cloud instances hosting DataV software;
- Training; and
- Software integration on remote devices.

Other Service Offerings

Customers engage us for engineering services due to our extensive device software development and testing experience and because of our deep experience with 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. We offer a variety of engineering services to our customers including:

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- Architectural and system design;
- Software design and development;
- Platform development systems integration;
- Application, middleware and multimedia software development;
- Quality assurance and testing;
- Device solution strategy consulting;
- Technical support;
- Implementation; and
- Test automation engineering and consulting services.

Service revenue derived from our engagement with Google was \$5.2 million, or 34%, of 2016 service revenue, and \$4.7 million, or 23%, of service revenue in 2015. Service revenue derived from our engagement with The Coca-Cola Company was \$3.4 million, or 23%, of 2016 service revenue, and \$4.5 million, or 22%, of service revenue in 2015.

### Strategy

Our strategy is to invest in growing our DataV solution, while we continue to operate our third-party software and ongoing engineering services business as efficiently as possible and invest the cash generated by this business in our DataV solution. Toward that end, in 2016 we:

- Focused all research and development efforts on development of our DataV solution and related business applications. During 2016, we made significant investment in software development, quality assurance, and data scientists;
- Focused all marketing efforts on launching our DataV solution and building our IoT business solutions brand. During 2016, we significantly expanded the size of our marketing team and the array of marketing programs in which we engage;
- Focused a substantial majority of our sales organization on DataV. During 2016, we significantly expanded the DataV sales group with new hires and internal transfers;
- Maintained our third-party software sales group essentially flat from prior years and will manage this group to maximize cash flow opportunities;
- Rightsized our engineering services team in 2016 to increase profitability on ongoing service contracts, as well as to better position this team to expand our service offerings in support of DataV; and
- Launched a customer solutions group in 2016, chartered with building enterprise-scale customer support, cloud hosting, and DataV services capabilities. This group also includes our professional engineering services organization. Collectively, we intend for these steps to help us execute on a higher-margin proprietary software business enabled by related systems integration services, while reducing our dependency on our legacy lower-margin software and lower value added services business.

### 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 18 years;
- We have been a distributor of Microsoft's Windows Mobile operating systems since November 2009;
- We are a Windows Embedded Gold-level Systems Integrator;
- We were the OED Americas Channel Sales & Marketing Award recipient for Distributor Sales Excellence in 2013;
- We were the Microsoft Embedded Distributor of the Year for 2011;
- We received a Microsoft Technical Excellence Award for our delivery of highest quality technical solutions on the latest Windows Embedded technologies in the European region in 2011;

◆ Our HTML5 Rendering Engine won a Microsoft Technical Excellence Award in 2012;

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- We are a developer and provider of Microsoft Official Curriculum Training for Windows Embedded Compact and Windows Embedded Standard;
- We are a Preferred Provider of Visual Tools for Microsoft;
- We are a Gold-level member of Microsoft's Third-Party Tools Provider Program;
- We are a Silver Intelligent Systems partner;
- We are a Silver Data Analytics partner;
- We are a Silver Data Platform partner; and
- Microsoft has engaged us 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 are able to 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 software solutions and engineering services utilizing a direct sales model. We have sales personnel throughout the United States and in Taiwan, the United Kingdom and Japan. Historically, we have not made significant use of resellers, channel partners, representative agents or other indirect channels.

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 2016, substantially all of our research and development personnel were dedicated to the design, development and release of DataV, and we expect this to continue to be the case for the foreseeable future. Members of our research and development staff work closely with our sales and marketing departments, as well as with our customers and potential customers, to better understand the IoT market needs and requirements. We perform our research and development primarily utilizing engineering staff located in the United States. Research and development expense was \$2.86 million and \$1.64 million in 2016 and 2015, respectively.

#### Customers

Targeted customers for DataV 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 add capabilities otherwise unavailable, such as an electric meter manufacturer developing smart grid technology for power utilities.

Customers purchasing third-party software and our other software solutions and engineering services include leading OEMs, ODMs, Enterprises, SVs and peripheral vendors. Representative customers include Hewlett Packard, Google, Coca-Cola, Elo Touch Solutions, Honeywell International, Inc., IGT, Microsoft, Mitsubishi Electric Corporation,



Panasonic, Oracle, Omnicell, Elektrobit and several industrial handset companies.

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## Competition

The IoT market is still emerging. 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 IoT providers such as Amazon Web Services (AWS), Microsoft Azure, and General Electric (“GE”) Predix. 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 IoT market, including C3IoT and others.

Competition for our traditional third-party software and engineering solutions business includes:

- Microsoft Windows Embedded and Windows Mobile operating system distributors such as Arrow Electronics, Inc., Avnet, Inc. and Synnex Corporation in Taiwan;
- Our current and potential customers’ internal research and development departments, which may seek to develop their own software solutions which compete with our proprietary software products and engineering services;
- Engineering service firms, including off-shore development companies, such as Wikiteo, SymphonyTeleca division of Harmon Industries and Wipro;
- ODMs, particularly those in Taiwan and China, which have added or are adding software development capabilities to their offerings; and
- Contract manufacturers, which have added or are adding software development capabilities to their offerings.

Some of our competitors focus on only one aspect of our business or offer complementary products, which 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 software solutions and related services, or increase our penetration therein, we may expect to increasingly compete with companies with which we have not previously competed. It is also possible that new competitors will enter the market or that our competitors will form alliances, including alliances with Microsoft, that may enable them to rapidly increase their market share.

Microsoft has not agreed to any exclusive arrangement with us, nor has it agreed not to 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 systems 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. These systems integrators are given substantially the same access by Microsoft to the Microsoft technology as we are. 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.

## International Operations

Our international operations outside of North America consist principally of engineering services operations in Taipei, Taiwan and Trowbridge, England. We have 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) has been, until relatively recently, restricted to North America, including Mexico, the majority of our revenue continues to be generated from North America. In 2016, revenue generated from customers located outside of North America was 5% of total revenue, compared to 8% in 2015. The decrease in revenue from outside of North America in 2016 was due to lower third-party software and professional engineering services revenue in both Asia and EMEA.

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.

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## Personnel

The following indicates our total headcount by area:

	December 31,	
	2016	2015
Engineering Services	78	118
Sales, Marketing and Administrative	70	66
Research and Product Development	21	7
Total Employees	169	191
Contractors (primarily engineering services)	3	10
Total Headcount	172	201

Of the total headcount of 172 at December 31, 2016, 114 were located in North America, 28 in Taiwan, 29 in the United Kingdom and one in Japan. As conditions necessitate, engineering service employees 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, 2017, we had five 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 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 filed or furnished 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](http://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 Securities and Exchange Commission. 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.

## Directors and Executive Officers of the Registrant

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The following table sets forth certain information with respect to our directors and executive and other senior officers as of January 31, 2017:

Name	Age	Position
Andrew S. G. Harries	54	Chairman of the Board
Jerry D. Chase	57	President and Chief Executive Officer; Director
Robert J. Chamberlain	63	Director
William D. Savoy	52	Director
Kendra A. VanderMeulen	65	Director
Mary Jesse	52	Director
Peter J. Biere	60	Chief Financial Officer, Secretary and Treasurer
Scott B. Caldwell	48	Vice President, Worldwide Sales
Giles Frith	41	Vice President, Customer Solutions
David Wagstaff	55	Chief Technology Officer
Kevin T. Walsh	59	Vice President, Marketing

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, 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.

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 risk factors may negatively impact our business and operating results.

If we do not maintain our OEM Distribution Agreements with Microsoft or if Microsoft de-emphasizes or divests itself from these areas of its business, our revenue would decrease and our business would be adversely affected.

We have OEM Distribution Agreements (“ODAs”) for Software Products for Embedded Systems with Microsoft, which enable us to sell various Microsoft Windows Embedded operating systems to our customers in the United States, Canada, the Caribbean (excluding Cuba), Mexico, the E.U. and the European Free Trade Association. These ODAs are effective through June 30, 2017 and are typically renewed annually or bi-annually. We have also entered into other 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 June 30, 2017 and are typically renewed annually or bi-annually.

We generated \$78.8 million and \$80.4 million of revenue in 2016 and 2015, respectively, through our sales of Microsoft operating systems and expect this revenue stream to continue in 2017. If either of the ODAs is terminated by Microsoft (which Microsoft can do unilaterally) or not renewed, or if Microsoft decides to no longer invest in or to divest itself from these areas of its business, our software revenue and resulting gross profit could decrease significantly and our operating results would be negatively impacted. Future renewals, if any, could be on less favorable terms, which could also negatively impact our business and operating results.

Microsoft can change pricing under the ODAs 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 ODA activities in which we earn money for achieving certain predefined objectives. If Microsoft were to eliminate or negatively modify the rebate program, our gross profit and operating results would be negatively impacted. We qualified for rebate credits from Microsoft of \$1.2 million and \$1.1 million in 2016 and 2015, respectively, a portion of which is accounted for as a reduction in cost of sales and a portion as a reduction in marketing expense if and when qualified expenditures are made.

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

Microsoft has implemented significant pricing changes for its embedded products, including ending its design registration pricing discounts, terminating its OEM Volume Royalty Program (“OVRP”) and changing the aggregate volume price structure and product royalties for existing embedded Windows products effective January 1, 2016.

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. At this time, 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 2017 and beyond. The sale of Microsoft operating systems represented approximately 81% and 75% of our total revenue and approximately 74% and 56% of our total gross margin for the years ended December 31, 2016 and 2015, respectively.

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Microsoft has audited our records under the ODAs in the past and will likely audit our records again in the future and any negative audit results could result in additional charges and/or the termination of the ODAs.

There are provisions in the ODAs that require us to maintain certain internal records and processes for auditing and other reasons. Non-compliance with these and other requirements could result in the termination of the ODAs. 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. The provisions also include terms that may make us 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.

If the markets for Windows Embedded and/or Windows Mobile operating systems decline, our business and operating results may be materially harmed.

Because a significant portion of our revenue to date has been generated by software and services targeted at customers and devices running the various Microsoft Windows Embedded and Windows Mobile operating systems, if the markets for these systems or platforms decline, our business and operating results could be negatively impacted. 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 several versions of operating systems aimed at Windows Embedded and Windows Mobile markets, if Microsoft were to decide to discontinue or lessen its support of these operating systems and platforms, potential customers could select competing operating systems, which could reduce the demand for our Microsoft Windows Embedded and Windows Mobile related software products and engineering services, from which a significant portion of our revenue is generated today;
- The ability of the Microsoft Windows Embedded and/or 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; Blackberry from Research In Motion Limited ("RIM"); and other proprietary operating systems. Microsoft Windows Embedded and Windows Mobile operating systems may be unsuccessful in capturing a significant share of the smart connected systems market, or in maintaining its market share;
- 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.

DataV-Related Risk Factors



Our ability to maintain or grow our proprietary software revenue is contingent on the success of DataV, our proprietary business-focused Internet of Things (IoT) solution. If DataV fails to gain or maintain traction with potential customers, or if we are not otherwise successful in developing competitive, unique product and service 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 both our third-party software products and our engineering service offerings, and provides other advantages as well. During 2015 and 2016, we invested significant resources in developing and marketing our DataV proprietary IoT solution, which includes software products, applications and services designed to render raw device data into meaningful and actionable data. As a relatively new solution, DataV may gain customer traction more slowly than anticipated, and our revenue and profit potential is uncertain. We expect to continue to make investments in the development and marketing of DataV, and this will increase our operating expenses.

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There can be no assurance that there will be sufficient revenue generated by sales of DataV, or that it will achieve customer adoption quickly, or at all. Its failure would materially and adversely impact our revenue and operating results.

The IoT is an emerging market, and there can be no assurance that the IoT 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 develop and launch our DataV solution to customers within the IoT market. IoT is an emerging and evolving market with many potential industry participants and customers, as well as undefined market opportunities and risks. This market may not materialize as we anticipate, and our efforts to capitalize on these opportunities may not be successful in the near term, or at all. If the IoT 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 affect, 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 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 and may be 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 approval cycles for our customers may be longer due to 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 IoT market. If our sales cycle further lengthens unexpectedly, it could adversely affect the timing of our revenue, which could cause our quarterly results to fluctuate.

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 information 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 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 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 our customers or third-party

technology providers, or 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 our software as a service (“SaaS”) customers from 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

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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 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.

We do not control the operation of any of these facilities, 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 at these facilities, the occurrence of a natural disaster or an act of terrorism, a decision to close the facilities without adequate notice or other unanticipated problems at these facilities could result in lengthy interruptions in 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 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. In some cases, foreign data privacy laws and regulations, such as the E.U.'s Data Protection Directive, and the country-specific laws and regulations that implement that directive, also govern the processing of personal information. Further, laws are increasingly aimed at the use of personal information for marketing purposes, such as the E.U.'s e-Privacy Directive, and the country-specific regulations that implement that directive. Such laws and regulations are subject to new and differing interpretations and may be inconsistent among jurisdictions. These and other 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. For example, in October 2015, the European Court of Justice invalidated the U.S.-EU Safe Harbor framework that had been in place since 2000, which allowed companies to meet certain European legal requirements for the transfer of personal data from the European Economic Area to the United States. While other adequate legal mechanisms to lawfully transfer such data remain, the invalidation of the U.S.-EU Safe Harbor framework may result in different European data protection regulators applying differing standards for the transfer of personal data, which could result in increased regulation, cost of compliance and limitations on data transfer. The costs of compliance with and other burdens imposed by laws, regulations and standards may 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.

We rely on third-party software and cloud platforms that could cause errors in, or failures of, our products and services and may be difficult to replace.

We rely on software licensed from, and cloud platforms provided by, third parties in order to offer our products and services. Any errors or defects in third-party software or cloud platforms could result in errors in, or a failure of, our products and services, which could harm our business. In addition, despite contract provisions to protect us, customers may look to us to support and provide warranties for third-party software or cloud platforms, which may expose us to potential claims, liabilities and obligations for applications we did not develop or sell, all of which could harm our business. Further, particular third-party software and cloud platforms 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 equivalent technology is developed by us, or, if available, is identified, obtained through purchase or license and integrated into our products and services.

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## 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 IoT market is still emerging but 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 IoT providers such as AWS, Microsoft Azure, and GE Predix. 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 IoT market, including C3IoT and others.

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

- Our current and potential customers' internal research and development departments, which may seek to develop their own software solutions which compete with our proprietary software products and engineering services;
- Engineering service firms, including off-shore development companies, such as Adeneo, SymphonyTeleca and Wipro;
- ODMs, particularly those in Taiwan and China, which have added or are adding software development capabilities to their offerings;
- Contract manufacturers which have added or are adding software development capabilities to their offerings;
- Mobile and embedded test automation providers including Perfecto Mobile, mVerify, JAMO Solutions, SmartBear Software (AutomatedQA), TestPlant (eggPlant) and Keynote. In this market we also compete against customers' internally created tools and against manual testing;
- Microsoft Windows Embedded and Windows Mobile operating system distributors such as Arrow Electronics, Inc. Avnet, Inc. and Synnex Corporation in Taiwan;
- Marketing agencies and specialized vendors who provide mobile application services; and
- We will encounter increasing competition in the growing IoT market from a number of additional software and service providers as we expand our focus on this market in 2016 and beyond.

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 software solutions and related services, or increase our penetration therein, we may expect to increasingly compete with companies with which we have not previously competed. It is also possible that new competitors will enter the market or that our competitors will form alliances, including alliances with Microsoft, that may enable them to rapidly increase their market share. Microsoft has not agreed to any exclusive arrangement with us, nor has it agreed not to 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. These systems integrators are given substantially the same access by Microsoft to the Microsoft technology as we are. 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.

Management turnover creates uncertainties and could harm our business.

We have had significant changes in executive leadership in the past and more could occur. Changes to strategic or operating goals, which can often occur with the appointment of new executives, can create uncertainty, may negatively impact our ability to execute quickly and effectively, and may ultimately be unsuccessful. In addition, executive leadership transition periods are often difficult as the new executives 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

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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.

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. 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. 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 worldwide have from time-to-time contributed, and may continue to contribute, to slowdowns in the technology industries at large, particularly in an emerging market such as IoT, potentially resulting 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 cyber-attacks, 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 otherwise protected 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 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 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 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 retain adequate liability insurance in the future. A product liability 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.

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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.

In the third quarter of 2011, we acquired MPC Data, Ltd. (renamed BSQUARE EMEA, Ltd. In 2015) including certain intangible assets with a carrying value of \$463,000 and goodwill of \$3.7 million as of December 31, 2016. 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. 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 recent or future acquisitions, if any, could disrupt our business, dilute shareholder value and negatively affect our operating results.

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. To successfully complete an acquisition, we must properly evaluate the technology, market and management team, 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, management may be distracted from day-to-day operations. We also may be unable to maintain consistently uniform standards, controls, procedures and policies, and significant demands may be placed on our management and our operations, information services and financial, legal and marketing resources. Finally, acquired businesses sometimes 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.

If we need to raise additional operating capital, we may find that our access to equity and debt capital markets is limited or blocked entirely. 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 on the public markets. In addition, it may be difficult and costly to obtain debt financing and we may be unable to borrow additional 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. Further, even though we may not need additional funds, we may still elect to do so for other reasons. 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), 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 IoT 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.

Taxing jurisdictions in the United States are becoming more aggressive with tax legislation and tax collection, particularly states facing significant budget deficits, 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, most of which we do not have nexus in and, therefore, are not subject to sales, franchise, income and other state and local taxes. Particularly in light of state revenue deficits, taxing jurisdictions

have become more aggressive in defining nexus, among other things, which could result in us achieving nexus, or potentially achieving nexus in significantly more tax jurisdictions. If this occurs and unless we are able 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, 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 which we are unaware of 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.”

Section 382 of the U.S. Internal Revenue Code restricts the ability of a corporation that undergoes an ownership change to use net operating loss and tax credit carryforwards. At December 31, 2016, we had approximately \$55.7 million of federal and \$1.8 million of state net operating loss carryforwards and \$2.8 million of tax credit carryforwards. Of the federal net operating loss carryforwards, an aggregate of \$36.3 million will expire in 2022 and 2023. 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. We have 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.

#### 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.

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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 procedures and contractual provisions as well as a combination of patent, copyright, trade secret and trademark laws, to protect our intellectual property. These laws 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, including DataV, and services. 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 at all, or on acceptable terms. 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 frequently license the source code of our software products and the source code results of our services 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 comprehensive products and services, particularly those focused on IoT hardware, and rely on third-party manufacturers and suppliers to manufacture these products, we will be dependent on the ability of third-party manufacturers to correct, identify and prevent manufacturing errors. Errors 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 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 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.

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#### 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 amended and restated 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 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 5% of our total revenue in 2016 and 8% in 2015. We currently have sizable operations outside of North America in Taiwan and the United Kingdom (“U.K.”) and also have a small sales and support presence in Japan. 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.

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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”. Because of the referendum, it is expected that the British government will begin negotiating the terms of the U.K.’s future relationship with the E.U. Although it is 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 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.

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As our customers seek more cost-effective locations to develop and manufacture their products, particularly overseas locations, our ability to continue to sell these customers our software products and services could be limited, 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 these customers our software and services. 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. and the European Free Trade Association. If our customers, or potential customers, move their manufacturing overseas we may be less competitive, which could negatively impact our revenue and operating results.

Item 1B. Unresolved Staff Comments.

Not applicable.

Item 2. Properties.

As of December 31, 2016, our corporate headquarters are located in 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 San Diego, California; Boston, Massachusetts; and Akron, Ohio. We lease office space overseas in Tokyo, Japan; Taipei, Taiwan; and Trowbridge, United Kingdom. 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." The following table sets forth the high and low closing prices for our common stock for the periods indicated, as reported by the NASDAQ Global Market.

	High	Low
Year Ended December 31, 2016:		
First Quarter	\$6.23	\$4.70
Second Quarter	\$6.31	\$4.99
Third Quarter	\$5.69	\$4.30
Fourth Quarter	\$6.10	\$3.85
Year Ended December 31, 2015:		
First Quarter	\$4.95	\$4.27
Second Quarter	\$7.96	\$4.09
Third Quarter	\$7.56	\$5.77
Fourth Quarter	\$12.15	\$5.60

## Holders

As of January 31, 2017, there were 116 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.

## 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 cash dividends in the foreseeable future. Our line of credit agreement contains limitations on our ability to pay distributions or dividends while there is an ongoing event of default or to the extent such distribution causes an event of default.

## 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 (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 or data cloud 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 Internet of Things ("IoT") market, which is the interconnection of uniquely identifiable embedded computing devices within the existing internet infrastructure. While IoT is a relatively new market, we believe the work we have engaged in since our inception—namely adding intelligence and connectivity to discrete standalone devices and systems—embodies much of what is central to the core functionality of IoT. 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 render raw IoT device data into meaningful and actionable data for our customers.

We launched DataV late in the first quarter of 2016 and announced our first three major customer bookings later that year. These bookings comprised software licensing, software maintenance and related systems integration services and are, we believe, indicative of the potential customer demand for DataV.

We believe that DataV presents high growth opportunities in a large, expanding addressable market, at substantially higher gross margins as compared to our traditional business. Over time, we intend for DataV to become our primary focus, representing a transition away from dependence on resale software and engineering services toward increased reliance on our own proprietary software and related systems integration services. As a result, we focused virtually all of our research and development and marketing efforts, as well as a majority of our sales efforts, on DataV during 2016. We intend to continue to run our legacy software resale and engineering services business for the foreseeable future.

#### Critical Accounting Judgments

#### Revenue Recognition

We recognize revenue from the sale of software and professional engineering services when the following four revenue recognition criteria are met: persuasive evidence of an arrangement exists; delivery has occurred or services have been rendered; the selling price is fixed or determinable; and collectability is reasonably assured. We generally use contracts and customer purchase orders to determine the existence of an arrangement, and shipping documents and time records to verify delivery. We assess whether the selling price is fixed or determinable based on the contract and/or customer purchase order and payment terms associated with the transaction and whether the sales price is subject to refund or adjustment. We assess collectability based primarily on the creditworthiness of the customer as determined by credit checks and analysis, as well as the customer's payment history. Periodically, we will begin work on engineering service engagements prior to having a signed contract and, in some cases, the contract is signed in a quarter after which service delivery costs are incurred. We do not defer costs associated with such engagements before we have received a signed contract.

We recognize software revenue upon delivery provided that no significant obligations remain on our part, substantive acceptance conditions, if any, have been met and other revenue recognition criteria have been met. We recognize service revenue from time and materials contracts, and training service agreements, as we perform the services. Fixed-price service agreements, and

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certain time and materials service agreements with capped fee structures, are accounted for using the percentage-of-completion method assuming we can make reasonable estimates of completion. We use the percentage-of-completion method of accounting because we believe it is the most accurate method to recognize revenue based on the nature and scope of these engineering service contracts and provides the best match of revenue recognized with costs incurred. We measure the percentage of completion based primarily on input measures such as hours incurred to date compared to total estimated hours to complete, with consideration given to output measures, such as contract milestones, when applicable. We use significant judgment when estimating total hours and progress to completion on these arrangements, which we use to determine the amount of revenue we recognize as well as whether a loss is recognized, if one is expected to be incurred for the remainder of the project. We incorporate revisions to hour and cost estimates when the causal facts become known.

In certain cases, we are unable to make reliable estimates of either specific amounts or ranges of contract revenues and costs. In such cases where we anticipate that we will not incur a loss on the contract, we use a zero profit model, recognizing equal amounts of revenue and cost during the contract period and delaying profit recognition until the project is completed and accepted.

We also enter into arrangements in which a customer purchases a combination of software licenses, engineering services and post-contract customer support and/or maintenance (“PCS”). As a result, judgment is often required to determine the appropriate accounting, including how to allocate the price among the deliverable elements if there are multiple elements. PCS may include rights to upgrades, when and if available, telephone support, updates and enhancements. We allocate revenue to each element based on the relative fair value of each of the elements in a multiple element arrangement, when vendor specific objective evidence (“VSOE”) of fair value exists for all elements. When the same element is sold separately, VSOE is established; when VSOE does not exist, judgments are required to assess the fair values of various elements of an agreement, which can impact the recognition of revenue in each period. While changes in the allocation of the sales price between contract elements may affect the timing of revenue recognition, the total revenue recognized on the contract would not change. When elements such as software and engineering services are contained in a single arrangement, or in related arrangements with the same customer, we allocate revenue to each element based on its relative fair value if such element meets the criteria for treatment as a separate unit of accounting. In the absence of fair value for a delivered element, we allocate revenue first to the fair value of the undelivered elements and then to the residual delivered elements. In the absence of fair value for an undelivered element, we account for the arrangement as a single unit of accounting, which delays revenue recognition until all elements are fulfilled.

There are two items involving revenue recognition that require us to make more difficult and subjective judgments: the determination of VSOE of fair value in multiple element arrangements and the estimation of percentage of completion on fixed-price service contracts. While we have entered into very few multiple-element arrangements for proprietary software historically, our initial DataV contracts each included multiple elements, including software licenses, installation, training services and PCS, and we anticipate this will continue to be the case for many future DataV contracts. We have been unable to establish VSOE for DataV contracts to date.

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 our Chief Executive Officer if significant. This approval process takes into consideration a number of factors, including the complexity of engineering. 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. As of December 31, 2016, we were

delivering professional engineering services under one fixed-price service contract. The percentage of completion calculations on this contract represents 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 the percentage-of-completion calculations in the period the changes are noted. For illustrative purposes only, if we were 10% under in our estimate of completion on the fixed-bid contract active on December 31, 2016, our revenue could have been over-stated by approximately \$35,000 for 2016.

#### 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. Any such impairment charge could be significant and could have a material adverse effect on our reported financial results. The first step in the impairment analysis compares the fair value of the reporting unit with its carrying amount, including goodwill. If the carrying amount exceeds fair value, we then perform the second step of the impairment test to measure the amount of any impairment loss.

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 test goodwill for impairment by performing a 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 do not conduct further impairment testing. If we determine that the fair value of the reporting unit is not more likely greater than the carrying amount, we perform a quantitative two-step impairment test.

#### Stock-Based Compensation

Our stock-based compensation expense for stock options is estimated at the grant date based on the stock award's fair value as calculated by the Black-Scholes-Merton ("BSM") option-pricing model and is recognized as expense over the requisite service period. 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. Restricted stock units ("RSUs") and restricted stock awards ("RSAs") are measured based on the fair market values of the underlying stock on the dates of grant as determined based on the number of shares granted and the quoted price of our common stock on the date of grant. In addition, we are required to estimate the expected forfeiture rate and only recognize expense for those shares expected to vest. We estimate the forfeiture rate based on historical experience and expected future activity. To the extent our actual forfeiture rate is different from our estimates, stock-based compensation expense is adjusted accordingly.

#### Incentive Compensation

We make certain estimates, judgments and assumptions regarding the likelihood of attainment, and the level thereof, of bonuses payable under our annual incentive compensation programs. We accrue bonuses and recognize the resulting expense when the bonus is judged reasonably likely to be earned as of year-end and is estimable. The amount accrued, and expense recognized, is the estimated portion of the bonus earned on a year-to-date basis less any amounts previously accrued. These estimates, judgments and assumptions are made quarterly based on available information and take into consideration our year-to-date actual results, and expected results for the remainder of the year. Because we consider estimated future results in assessing the likelihood of attainment, significant judgment is required. If actual results differ materially from our estimates, the amount of bonus expense recorded in a particular quarter could be significantly over or under estimated.

#### 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.

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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 certain financial data as a percentage of total revenue for the periods indicated. Our historical operating results are not necessarily indicative of the results for any future period.

	Year Ended December 31,	
	2016	2015
<b>Revenue:</b>		
Software	84 %	81 %
Professional engineering service	16 %	19 %
Total revenue	100%	100 %
<b>Cost of revenue:</b>		
Software	70 %	67 %
Professional engineering service	14 %	14 %
Total cost of revenue	84 %	81 %
Gross profit	16 %	19 %
<b>Operating expenses:</b>		
Selling, general and administrative	14 %	11 %
Research and development	3 %	2 %
Total operating expenses	17 %	13 %
Income (loss) from operations	(1 )%	6 %
Other income, net	0 %	0 %
Income (loss) before income taxes	(1 )%	6 %
Income tax expense	(0 )%	0 %
Net income (loss)	(1 )%	7 %

## Comparison of the Years Ended December 31, 2016 and 2015

### 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 engineering services. Total revenue decreased \$9.2 million, or 9%, to \$97.4 million in 2016 from \$106.6 million in 2015. This decrease was primarily due to lower sales of Windows Mobile and Embedded operating systems, a decrease in engineering services revenue, as well as decreases in our proprietary software revenue. One customer, Honeywell International Inc., accounted for 14% of total revenue in 2016 and 16% of total revenue in 2015. No other customers accounted for 10% or more of total revenue in either 2016 or 2015.

Revenue from our customers outside of North America decreased \$3.6 million, or 41%, to \$5.1 million in 2016, from \$8.7 million in 2015. Revenue from our customers outside of North America represented 5% of our total revenue in 2016, compared to 8% in 2015. The decrease in revenue from outside of North America in 2016 was primarily attributable to lower sales of third-party software systems and lower professional engineering services revenue in both Asia and EMEA.

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## Software revenue

Software revenue consists of sales of third-party software and revenue realized from our own proprietary software products, which include software license sales, royalties from our software products, support and maintenance revenue, and royalties from certain engineering service contracts. Software revenue for 2016 and 2015 was as follows (dollars in thousands):

	Year Ended December 31,			
	2016	2015		
Software revenue:				
Third-party software	\$80,231	\$82,885		
Proprietary software	1,939	3,323		
Total software revenue	\$82,170	\$86,208		
Software revenue as a percentage of total revenue	84	%	81	%
Third-party software revenue as a percentage of total software revenue	98	%	96	%

The vast majority of our third-party software revenue is comprised of sales of Microsoft Embedded and Windows Mobile operating systems. Third-party software revenue decreased \$2.7 million, or 3%, in 2016 compared to 2015. The decrease in third-party software revenue was due to a decrease in Microsoft Windows Mobile software sales due to lower volumes related to the age of the product, offset by an increase in Microsoft Embedded software sales, combined with a reduction in sales of other third-party software.

Proprietary software revenue decreased \$1.4 million, or 42%, in 2016 compared to 2015. This decline was due to several large purchases of our legacy products in 2015 that were not repeated in 2016. We expect that proprietary software revenue from our legacy products will continue to fluctuate in the future with generally lower overall volume in 2017 and beyond.

## Professional engineering service revenue

Professional engineering service revenue for 2016 and 2015 was as follows (dollars in thousands):

	Year Ended December 31,			
	2016	2015		
Professional engineering service revenue	\$ 15,271	\$ 20,393		
Professional engineering service revenue as a percentage of total revenue	16	%	19	%

Service revenue decreased \$5.1 million, or 25%, in 2016 compared to 2015, due to decreases in service revenue generated in each of our three geographic areas: North America, Asia and EMEA. The decreases in North America and EMEA service revenue were due to the completion of several existing customer projects and a shift in our sales generation priorities and staffing to DataV. The decrease in Asia was due to lower revenue generated by sales in Japan.

Our largest professional engineering customers in 2016 were Google, Coca-Cola and Mitsubishi Electric Corporation. Our work for Ford, historically one of our largest customers, has been scaled back as the amount of our work on their increasingly mature Sync 2 platform continues to diminish.

#### 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 on the sale of third-party software products is positively impacted by rebate credits we receive from Microsoft for embedded software sales earned through the achievement of defined objectives. In accordance with Microsoft rebate program rules, we allocate 30% of rebate values to reduce cost of sales, with the remaining 70% to offset marketing expense in the period qualified marketing expenditures are incurred.

Under the Microsoft rebate program, we recognized \$345,000 and \$326,000 of rebate credits in 2016 and 2015, respectively, which were accounted for as reductions in cost of sales. We received \$1.1 million and \$0.8 million in rebates during 2016 and 2015, respectively, which were accounted for as reductions in marketing expenses. There was a balance of approximately \$469,000 in outstanding rebate credits for which we qualified as of December 31, 2016, which will reduce marketing expense if and when qualified program expenditures are made.

The following table outlines software, services and total gross profit (dollars in thousands):

	Year Ended		December 31,	
	2016	2015		
Third-party software gross profit	\$12,378	\$12,431		
Third-party software gross margin	15	15	%	%
Proprietary software gross profit	\$1,610	\$2,840		
Proprietary software gross margin	83	85	%	%
Total software gross profit	\$13,988	\$15,271		
Total Software gross margin	17	18	%	%
Professional engineering service gross profit	\$1,832	\$5,199		
Professional engineering service gross margin	12	25	%	%
Total gross profit	\$15,820	\$20,470		
Total gross margin	16	19	%	%

#### Software gross profit and gross margin

Total software gross profit decreased by \$1.3 million, or 8%, in 2016 compared to 2015, and total software gross margin decreased by one percentage point to 17% in 2016 from 18% in 2015.

Third-party software gross margin was 15% in both 2016 and 2015. Proprietary software gross margin was 83% in 2016 compared to 85% in 2015. Although proprietary software revenue decreased by 42%, margin levels remained relatively stable due to the relatively fixed software cost of sales for these products.

#### Professional engineering service gross profit and gross margin

Professional engineering service gross profit decreased \$3.4 million, or 65%, in 2016 compared to 2015 primarily due to a \$5.1 million decrease in service revenue combined with a \$1.8 million decrease in service cost of sales. Service gross margin was 12% in 2016, a 13% decrease from 25% in 2015. The decrease in service gross margin was due primarily to the decrease in service revenue as several projects finished in 2016 as well as to approximately \$1.0 million in restructuring costs we incurred because of a reduction in workforce in the professional engineering services group in the third and fourth quarters of 2016.

#### Operating expenses

##### Selling, general and administrative

Selling, general and administrative 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). Selling, general and administrative expenses increased \$1.7 million to \$14.1 million in 2016 from \$12.4 million in 2015. This 14% increase was a result of higher spending in both sales and marketing including higher compensation expenses to support the launch of our DataV products, partially offset by lower general and administrative spending and stock compensation expenses. Selling, general and administrative expenses represented approximately 14% of our total revenue in 2016 and approximately 11% in 2015. The percentage was higher in 2016 due to the combination of lower revenue and higher expenses.

#### Research and development

Research and development expenses consist primarily of salaries and benefits for software development and quality assurance personnel, contractor and consultant costs and related facilities and depreciation costs. Research and development expenses increased \$1.2 million, or 74%, to \$2.86 million in 2016, from \$1.64 million in 2015 due to increased spending for continued



development and enhancements of our DataV product line. Research and development expenses represented approximately 3% of total revenue in 2016 and 2% of total revenue in 2015. Research and development expenses are expensed when incurred.

#### Other income (expense), net

Other income (expense) consists 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. Net other income was \$247,000 in 2016 compared to net other income of \$132,000 in 2015, representing a change of \$115,000. This change was primarily due to a sales tax refund received in 2016 and by higher interest income recorded in 2016 compared to 2015.

#### Income taxes

Income tax expense was \$141,000 in 2016, based on loss before tax of \$911,000, and was primarily composed of taxes on foreign income, primarily in Japan. Income tax expense was \$470,000 in 2015, based on income before tax of \$6.6 million. Our effective tax rates were a negative 15.7% and positive 7.1% in 2016 and 2015, respectively, both of which are below the statutory rate of 34%, primarily due to the full valuation allowance on U.S. deferred tax assets.

We apply the guidance of Accounting Standards Codification (“ASC”) 740, Income Taxes, which requires us 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 we consider for each jurisdiction includes, among other items, (i) the historic 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, 2016, we determined the valuation allowance against our U.S. gross deferred tax assets was appropriate.

#### Liquidity and Capital Resources

As of December 31, 2016, we had \$33.2 million of cash, cash equivalents, short-term investments and restricted cash, compared to \$30.0 million at December 31, 2015. Of these amounts, \$14.3 million and \$16.4 million were classified as cash and cash equivalents at December 31, 2016 and December 31, 2015, respectively,

Restricted cash equivalents of \$250,000 at December 31, 2015 was classified as long-term. This cash was restricted to support a letter of credit under the terms of our headquarters operating lease. In September 2016, we secured a new letter of credit under our credit agreement that removed the requirement for a cash deposit. Our working capital was \$35.4 million at December 31, 2016, compared to \$32.2 million at December 31, 2015.

Net cash provided by operating activities was \$2.6 million in 2016, comprised of our net loss of approximately \$1.1 million, combined with non-cash expenses of approximately \$1.8 million and positive net working capital changes of approximately \$1.8 million (including an increase in accounts receivable of \$2.6 million and an increase in third-party software fees payable of \$3.0 million). Net cash provided by operating activities was \$2.9 million in 2015, resulting from our net income of \$6.1 million, positive net working capital changes of \$5.5 million net of non-cash expenses of \$2.3 million.

Net cash used for investing activities was approximately \$5.8 million in 2016, primarily resulting from purchases of investment securities of approximately \$30.6 million, offset by maturities of such securities of \$25.0 million, combined with \$0.4 million in fixed asset purchases and a reduction in restricted cash equivalents of \$250,000. Net cash used for investing activities was \$0.3 million in 2015, resulting from full reinvestment of maturities from our investment portfolio combined with \$0.3 million in fixed asset purchases.

Financing activities generated \$1.1 million in 2016 and \$0.7 million in 2015 resulting from the exercise of stock options.

We believe that our existing cash, cash equivalents, short-term investments and long-term investments will be sufficient to meet our needs for working capital and capital expenditures for at least the next 12 months. Our accounts receivable increased during 2016 resulting from extended payment terms granted to a highly-credit worthy customer. We do not anticipate further such increases in 2017.

In September 2015, we entered into a two-year unsecured line of credit agreement in the principal amount of up to \$12 million. No amounts were drawn or outstanding as of either December 31, 2016 or 2015; however, in September 2016 we secured a

letter of credit with the landlord of our headquarters office lease with this credit agreement so the amount available at December 31, 2016 is \$11.75 million. See Item 8, Financial Statements and Supplementary Data, Note 12, Credit Agreement, for more information regarding this agreement.

#### Cash Commitments

We have the following future or potential cash commitments:

• Minimum rents payable under operating leases total \$1.2 million in 2017, \$1.1 million in 2018, \$1.0 million in 2019 and \$0.4 million in 2020; and

• In conjunction with our activities under our ODAs with Microsoft, we previously entered into OVRP commitments with Microsoft. Under these OVRPs, we provided volume pricing on a customer-by-customer basis assuming certain minimum unit volumes were met. The OVRP terms were 12 months. In the event we did not meet the committed minimum unit volumes, we were obligated to pay the difference between the committed per-unit volume rate and the actual per-unit rate we achieved based upon actual units purchased. The OVRP arrangements did not equate to a minimum purchase commitment but rather, the arrangements were a volume pricing arrangement based upon actual volume purchased. In substantially all instances, we had reciprocal agreements with our customers such that we would receive per-unit price adjustments, similar to the amounts we would subsequently owe to Microsoft if such OVRP volumes were not met. However, in the event a customer had been unwilling or unable to pay us, we could have been negatively impacted. Based upon the credit-worthiness of our customers, our historical OVRP experience with our customers and OVRP arrangements in general, we do not believe we will incur any material liability in the current or future periods. Microsoft has ended the OVRP arrangements effective January 1, 2016.

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

We have audited the accompanying consolidated balance sheets of BSQUARE Corporation (the "Corporation") as of December 31, 2016 and 2015, and the related consolidated statements of operations and comprehensive income (loss), shareholders' equity and cash flows for the years then ended. These consolidated financial statements are the responsibility of the Corporation's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). 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. The Corporation is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audit included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Corporation's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the consolidated financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall consolidated financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of BSQUARE Corporation as of December 31, 2016 and 2015, 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.

/s/ Moss Adams LLP

Seattle, Washington

February 21, 2017



## BSQUARE CORPORATION

## CONSOLIDATED BALANCE SHEETS

(In thousands, except share amounts)

	December 31,	
	2016	2015
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$ 14,312	\$ 16,443
Short-term investments	18,888	13,280
Accounts receivable, net of allowance for doubtful accounts of \$50 at December 31, 2016 and \$62 at December 31, 2015	21,579	19,009
Prepaid expenses and other current assets	878	580
Total current assets	55,657	49,312
Equipment, furniture and leasehold improvements, net	1,089	1,167
Restricted cash equivalents	—	250
Deferred tax assets	7	145
Intangible assets, net	464	594
Goodwill	3,738	3,738
Other non-current assets	53	52
Total assets	\$ 61,008	\$ 55,258
<b>LIABILITIES AND SHAREHOLDERS' EQUITY</b>		
Current liabilities:		
Third-party software fees payable	\$ 14,831	\$ 11,789
Accounts payable	283	188
Accrued compensation	2,008	2,390
Other accrued expenses	714	1,277
Deferred rent, current portion	321	298
Deferred revenue	2,064	1,135
Total current liabilities	20,221	17,077
Deferred tax liability	23	97
Deferred rent	854	1,177
Deferred revenue	1,798	—
Commitments and contingencies (Note 8)		
Shareholders' equity:		
Preferred stock, no par value: 10,000,000 shares authorized;		
no shares issued and outstanding	—	—
Common stock, no par value: 37,500,000 shares authorized;		
12,532,348 shares issued and outstanding at December 31, 2016 and 12,092,598 shares issued and outstanding at December 31, 2015	135,660	133,331
Accumulated other comprehensive loss	(941 )	(869 )

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Accumulated deficit	(96,607 )	(95,555 )
Total shareholders' equity	38,112	36,907
Total liabilities and shareholders' equity	\$61,008	