

FALCONSTOR SOFTWARE INC

Form 10-K

April 02, 2018

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

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

For the fiscal year ended December 31, 2017.

OR

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

For the transition period from _____ to _____

Commission file number 0-23970

FALCONSTOR SOFTWARE, INC.

(Exact name of registrant as specified in its charter)

DELAWARE	77-0216135
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

823 Congress Ave, Suite 1300	78701
Austin, Texas	(Zip code)
(Address of principal executive offices)	

Registrant's telephone number, including area code: 631-777-5188

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

Securities registered pursuant to Section 12(g) of the Act: Common Stock, \$0.001 par value

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

Yes No

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

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

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, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act. (Check one):
Large accelerated filer Accelerated filer

Non-accelerated filer Smaller Reporting Company
Emerging growth company

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

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

The aggregate market value of Common Stock held by non-affiliates of the Registrant as of June 30, 2017 was \$10,187,409 which value, solely for the purposes of this calculation excludes shares held by Registrant's officers and directors. Such exclusion should not be deemed a determination by Registrant that all such individuals are, in fact, affiliates of the Registrant. The number of shares of Common Stock issued and outstanding as of February 28, 2018 was 60,091,560 and 44,563,490, respectively.

Documents Incorporated by Reference:

The information required by Part III of Form 10-K will be incorporated by reference to certain portions of a definitive proxy statement which is expected to be filed by the Company pursuant to Regulation 14A within 120 days after the close of its fiscal year.

FALCONSTOR SOFTWARE, INC. AND SUBSIDIARIES

2017 ANNUAL REPORT ON FORM 10-K

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PART I

Item 1. Business

OVERVIEW

FalconStor Software, Inc. ("FalconStor", the "Company", "we", "our" or "us") is a leading Software-Defined Storage ("SDS") company offering a converged data services software platform that is hardware agnostic which was founded in 2000. As a global company, our vision is to deliver enterprise class, software-defined, intelligent data services combined with predictive analytics across any primary or secondary storage hardware; in the cloud or on premise. The Company's mission is to help IT organizations realize more economic value out of existing environments and any future storage investments while reducing complexity, maximizing flexibility and improving operational efficiency. Our award-winning solutions are available and supported worldwide by OEMs as well as leading service providers, system integrators, resellers and FalconStor.

FalconStor was incorporated in Delaware as Network Peripherals, Inc., in 1994. Pursuant to a merger with FalconStor Inc., in 2001, the former business of Network Peripherals, Inc., was discontinued, and the newly re-named FalconStor Software, Inc., continued the storage software business started in 2000 by FalconStor, Inc. FalconStor's headquarters are now located at 823 Congress Avenue, Suite 1300, Austin, TX 78701. The Company also maintains offices in Melville, N.Y., and throughout Europe and Asia Pacific.

FREESTOR

FreeStor® is FalconStor's flagship product, leading the industry with what we believe to be the most complete, software-defined, hardware agnostic platform to deliver a truly heterogeneous data services approach. While virtualization has streamlined some common tasks associated with managing data resources, the introduction of a virtualization layer can introduce a whole new level of complexity to the protection, recovery and integration of both virtual and non-virtualized resources. FreeStor helps IT organizations minimize and eliminate that complexity with the availability of four specific use cases which include; migration, continuity, protection/recovery and optimization for any storage environment through a single management interface with "Edge-to-Core" analytics.

FalconStor accomplishes this through its Intelligent Abstraction® core, which provides a scalable storage hypervisor, coupled with a data services engine and automation, to ease the provisioning and management of storage resources with the right level of performance, protection and recovery. The Intelligent Abstraction core optimizes storage resources regardless of type, connectivity, brand or speed, into a storage resource pool that can be provisioned to physical or virtual applications, along with common, unified data services across that pool. FreeStor is designed to reduce the complexity and time involved in managing disparate underlying storage found in today's enterprises.

PRODUCT STRATEGY

FalconStor's strategy is to focus on the development of the advanced FreeStor platform to further leverage the company's industry leading point solutions as core building blocks. Our existing point products can be utilized via the FreeStor platform or as stand-alone products. Our Business Continuity and Disaster Recovery products, Network Storage Server (NSS) and Continuous Data Protector (CDP), feature RecoverTrac, which we believe is the industry's most automated and complete recovery tool. Our solutions support physical, virtual, hybrid and private cloud environments. We believe a key differentiator is our ability to allow users to manage and to convert across these environments dynamically, giving them the freedom to optimize their IT infrastructure and to eliminate costly vendor and form-factor lock-in. Our Optimized Backup and Deduplication (OBD) product merges our industry-leading Virtual Tape Library (VTL) and File-interface Deduplication System (FDS) solutions to help customers optimize the performance of their existing backup infrastructure, while reducing the cost of underlying storage and data replication.

From Fortune 100 enterprises to medium-size businesses, customers across a vast range of industries worldwide have implemented FalconStor solutions in their production IT environments. Whether it is to meet their recovery time objectives (RTO) or their recovery point objectives (RPO), FalconStor helps end users manage their storage infrastructures with minimal total cost of ownership (TCO) and with optimal return on investment (ROI).

FalconStor's products have been certified by many industry leaders which are available on our website at: www.falconstor.com/certification-matrix.

Deployment options

FalconStor sells its solutions primarily as standalone software.

Solutions

FalconStor is focused on offering solutions in four specific use-cases:

- Data Migration
- Continuous Availability
- Data Protection + Recovery
- Optimization

Our core point solution products enable these solutions as follows:

• **FreeStor®** - An integrated software-defined platform that provides, migration, continuity, protection/recovery and optimization for any storage environment through a single management interface which contains analytics from Edge-to-Core".

• **FalconStor® NSS** - Migration, storage virtualization, provisioning and management.

• **FalconStor® CDP** - Bootable snapshots, zero-impact backup, both local and remote disaster recovery.

• **FalconStor® OBD** - Optimized backup, archive to tape, block-based deduplication, file-based deduplication and storage capacity optimization

FalconStor solutions are scalable in order to address the needs of medium businesses, large organizations, and global enterprises. Our solutions offer high availability (HA) through RAID, synchronous and asynchronous mirroring, HA failover, and clustering technologies (both 2-NODE and 4-NODE) for those customers requiring the highest levels of IT resiliency.

FreeStor

FreeStor is an industry leading software-defined, hardware agnostic platform that delivers a heterogeneous data services approach. FreeStor helps IT organizations minimize and eliminate the complexity with the delivery of migration, continuity, protection/recovery and optimization services for any storage environment through a single management interface.

This is accomplished through its Intelligent Abstraction core IO engine, which provides a scalable storage hypervisor, coupled with a data services engine and automation, to ease the provisioning and management of storage resources with the right level of performance, protection and recovery. The Intelligent Abstraction core optimizes storage resources regardless of type, connectivity, brand or speed, into a storage resource pool that can be provisioned to physical or virtual applications, along with common, unified data services across that pool. FreeStor is designed to reduce the complexity and time involved in managing disparate underlying storage found in today's enterprise.

FalconStor Network Storage Server (NSS)

FalconStor NSS is a scalable, highly available solution that enables storage virtualization and business continuity in heterogeneous environments. Supporting existing third-party disk arrays, FalconStor NSS eliminates storage boundaries and vendor lock-in, providing fast and easy data storage provisioning and migration. From a small iSCSI virtual server lab to an enterprise-class Fibre Channel SAN running Tier-1 database applications, FalconStor NSS is designed to meet the storage needs of any organization.

Moving data between different storage platforms can be complex, time consuming, and disruptive to business operations. FalconStor's core storage virtualization technology provides a non-disruptive approach to data mobility across different SAN protocols and vendors. With FalconStor NSS, we believe it becomes a simple operation to move

data from older platforms to newer ones or to introduce new storage tiers. This allows organizations to respond to evolving performance and capacity requirements.

FalconStor Continuous Data Protector (CDP)

We believe FalconStor CDP technology reinvents the way data backup and recovery are implemented and performed. Moving beyond failure-prone once-a-day tape backup models, FalconStor CDP combines local and remote protection into a cost-effective, unified, disk-based solution that allows organizations to recover data back to the most recent transaction. Combining application-aware snapshot agents and continuous journaling functions, FalconStor CDP enables customers to recover data to any point in time. FalconStor CDP delivers instant data availability and reliable recovery, bringing business applications back on line in a matter of minutes after a failure. FalconStor CDP protects application-specific data for Microsoft, Oracle, SAP, and other business applications, ensuring high performance and stability for even the most complex business environments.

FalconStor RecoverTrac Disaster Recovery Automation Tool

The FalconStor RecoverTrac disaster recovery automation tool is included as a standard feature of the FalconStor NSS and the FalconStor CDP solutions to automate complex, time-consuming and error-prone failover and failback operations of systems, applications, services, and entire data centers. The RecoverTrac tool streamlines the implementation, testing and execution of DR operations. It minimizes service failover time between sites and reduces DR costs by offering full recovery from physical-to-physical, virtual-to-virtual, and physical-to-virtual server infrastructures. This tool can also convert across those environments, enabling organizations to seamlessly migrate locally, remotely or to and from cloud environments.

FalconStor Optimized Backup and Deduplication (OBD)

The FalconStor OBD solution is one of the industry's leading virtual tape solutions, and we believe it is unmatched in terms of performance and scalability. With virtual tape, backups complete faster and more reliably, with little or no change needed to the backup environment. It enhances backup operations seamlessly without changing any backup processes or policies. Sophisticated physical tape integration and data security complete the solution. Designed from the start as an enterprise-class application, FalconStor OBD can achieve sustained backup speeds of 20TB per hour per node. Up to eight nodes can combine into a single logical unit, scaling performance to a remarkable 160 TB per hour. This sustained performance allows users to solve the single biggest issue in backup: meeting the backup window. To put that in context, with our latest version 9.x product releases, existing customers can now do the same backup job in 2.8 hours compared with what previously took approximately 8 hours. Unlike our competitors who report peak speeds using multiple nodes, FalconStor notes sustained speeds on a single node and on multiple nodes to ensure customers can achieve real-world performance and do more actual work in less time.

Built-in data deduplication significantly reduces the amount of data needed to be stored on disk. Combined with the latest high-speed protocols, including 8Gb Fibre Channel (FC) and 10Gb Ethernet, we believe FalconStor OBD demonstrates the fastest sustained deduplication speeds in the industry: more than 28 terabytes per hour with inline deduplication and more than 40 terabytes per hour with post processing. Because not all data is alike, we believe FalconStor OBD is the only deduplication solution to offer flexible, deduplication options, letting the customer choose from any combination of four deduplication methods (inline, post-process, concurrent, and no deduplication) to align deduplication processes with business goals and unique requirements. By eliminating redundant backup data, the storage footprint can be reduced by as much as 95%, allowing organizations to keep weeks or even months of data on disk for fast, dependable restore without any of the reliability concerns of a tape-based restore.

BUSINESS STRATEGY

FalconStor continues to position itself as a leader in the Software-Defined Storage market serving enterprise IT organizations and service providers worldwide. FalconStor intends to achieve this objective through the following strategies.

Modernize Existing Enterprise Storage Environments While Protecting Investments

As IT organizations look to modernize existing infrastructure (either refreshing existing technology or introducing new technologies such as All Flash Arrays (AFAs) and Cloud), they are challenged by the cost, risk, and the disruption upgrades and migrations can cause. Because FreeStor abstracts the data services from the physical storage infrastructure, additional capabilities can be added to legacy hardware, eliminating the need and cost to replace that hardware. This delivers discrete value in terms of lowering capital and operational costs, reduced risk and disruption and significantly faster time to deployment. For IT organizations needing to deploy new hardware or storage

paradigms such as all AFAs and Cloud, FreeStor enables the migration of data and workloads to those new platforms, versus being forced to start with a new or “greenfield” deployment required by many of the new HW vendors. FreeStor offers these organizations a path forward with an approach that minimizes or eliminates risk and disruption to business processes and workflows, while lowering both capital and operational costs.

FalconStor intends to continue to leverage the protocol-independent, unified architecture, analytics and robust open data services technology of its solution to maintain a leadership position in the enterprise storage software market. FalconStor plans to continue its leadership in this market through its deep commitment to research and development and through continued rapid technology innovation. For information on our research and development expenditures, please see “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and our audited consolidated financial statements included in this Annual Report on Form 10-K.

Enable Service Providers

As the service provider segment continues to grow, they increasingly have a need to support heterogeneous storage environments across their own datacenters and their customer's environments. Further, they often have different hardware and software capabilities, making it significantly challenging to offer consistent data services across these environments. We believe FreeStor offers several strategic benefits for service providers:

- Seamlessly and non-disruptively move data from the customer premise to the service provider's hosted environment;
- Offers common data services across customer's environments regardless of underlying hardware or technology;
- Allows for the introduction and ability to monetize additional data services they may not have previously been able to offer;
- Provides a low-cost growth opportunity due to the flexibility of FreeStor licensing, while eliminating the need to have multiple feature licenses array by array;
- Realize reduced storage management complexity and costs within their own infrastructure by eliminating silos, reducing licensing costs and optimizing hardware with FreeStor;
- Optimize storage hardware based on price/performance needs of customers; and
- Analytics provide the necessary real-time and historical information to achieve SLA's and make economic decisions.

Expand Software and Hardware Strategic Alliances with Industry Leaders

The Flash/SSD market should be a key opportunity for us on two fronts: targeting customers wanting to integrate new Flash/SSD technology into existing IT environments; and OEMs needing to enhance their software stack in order to offer data movement and protection services on their platform. Cloud Service Providers (CSPs) such as AWS, Azure and Aliyun also represent a growth opportunity. Our mutual customers and partners need help moving data from the customer site to their own facilities as well as a way to deliver common data services across disparate and often incompatible hardware typically found across the provider and end customer environments. We believe FalconStor is positioned to continue to take advantage of these key opportunities in the global marketplace. Our strategic relationships with Dell, DSI, Fujitsu, Hitachi Data Systems, HP, Huawei, Kaminario, X-IO and others should fuel growth across all three major geographies.

Expanded Existing Product Offerings

During 2017, we continued to enhance our products to address the ever changing market dynamics to ensure that FalconStor continues to be a leader in the SDS market place.

Market Approach

FalconStor continues to focus on enterprise customers, managed service providers, cloud service providers, as well as OEM partners. These markets offer the greatest opportunity and are best suited to realize the value of FalconStor products.

Growth Drivers

As evidenced by the adoption of new technologies such as All Flash Arrays and the Cloud and the move to consuming solutions as a service, the IT market continues to show growth in several key market segments. FalconStor continues to focus on and pursue these market segments to deliver software defined storage data services.

SALES ROUTES TO MARKET

FalconStor continues to sell products in a number of ways:

• Direct to customers

• Through Authorized partners, Value-added resellers (VARs), solution providers, and large system integrators

• Direct to Direct Market Resellers (DMRs) and Distributors

• Direct to Managed Service Providers (MSPs) and Cloud Service Providers (CSPs)

• Direct to Original Equipment Manufacturers (OEMs)

VAR and Distributor Relationships: FalconStor has entered into VAR and distributor agreements to help sell our products in various geographic areas. FalconStor's VARs and distributors market various FalconStor products and receive a discount off of the list price on products sold. FalconStor's scalable solutions are also being deployed by MSPs and CSPs to deliver online data protection and recovery services across different vertical markets.

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Strategic Alliances: FalconStor has agreements with strategic partners to utilize FalconStor products for use in the strategic partners' special-purpose storage appliances.

OEM Relationships: OEMs collaborate with FalconStor to integrate FalconStor technology into their own product offerings or to resell FalconStor technology under their own label.

Professional Services: FalconStor's Professional Services personnel are also available to assist customers and partners throughout the lifecycle of FalconStor solution deployments. The Professional Services team includes experienced Storage Architects (expert field engineers) who can assist in the assessment, planning/design, deployment, and test phases of the deployment project, and a Technical Support Group for post-deployment assistance and ongoing support.

MARKETING

We re-focused our efforts to increase awareness and demand for FalconStor products during 2017 by targeting our efforts at our extensive installed base. Partner and end-user re-engagement has been encouraging during the second half of 2017 and we believe it will serve to create momentum for our growth and product innovation efforts.

COMPETITION

As data has become as critical an asset as capital and labor, the entrants into the data management and data protection segments continue to rise, as does the demand for services and integration with emerging technologies. Although there are several companies attempting to offer data protection for specific environments, FalconStor believes that only software-defined storage providers are capable of delivering a high level of data protection services across the data center, crossing the infrastructure boundaries between virtual, physical and hybrid environments. FalconStor holds multiple patents on key technologies that enable and optimize our snapshots, data protection, and data reduction platform. We believe that our integrated services and products based on our common storage virtualization platform - including CDP, NSS, OBD, WAN-optimized replication for remote offices and data centers, and disaster recovery automation - are unique to the industry.

Although some of FalconStor's products provide capabilities that put them in competition with products from a number of companies, FalconStor is not aware of any other software company providing the same level of data protection and recovery capabilities for both physical and virtual infrastructures in a common solution. FalconStor believes that the principle competitive factors enhancing its marketability include product features, such as scalability, high availability, price, reliability, hardware/platform neutrality, and customer service and support.

As FalconStor refines its focus on enterprise and service provider market segments, the products and services offered by its partners may compete with existing or new products and services offered by current and new entrants to the market.

FalconStor's future and existing competitors could conceivably introduce products with superior features, scalability and functionality at lower prices than FalconStor products. They could also bundle existing or new products with other more established products to compete with FalconStor. Increased competition could result in price reductions and reduced gross margins, which in turn could impact FalconStor's business. FalconStor's success will depend largely on its ability to generate market demand and awareness of its products and to enhance or develop new products and services in a timely manner.

When we sell to customers, the competitors we encounter most frequently are HP, Dell, Hitachi Data Systems, IBM, DataCore and a number of niche players. Many of these competitors have significantly greater resources than we do.

INTELLECTUAL PROPERTY

FalconStor's success is dependent in part upon its proprietary technology. The IPStor platform forms the core of this proprietary technology. FalconStor currently has twenty-seven patents and numerous pending patent applications. The Company has multiple registered trademarks - including "FalconStor Software", "IPStor", "FreeStor" and "Intelligent Abstraction" - as well as pending trademark applications related to FalconStor and its products.

FalconStor seeks to protect its proprietary rights and other intellectual property through a combination of copyright, patents, trademark, and trade secret protection, as well as through contractual protections such as proprietary information agreements and nondisclosure agreements. The technological and creative skills of its personnel, new product developments, frequent product enhancements, and reliable product maintenance are essential to establishing and maintaining a technology leadership.

FalconStor generally enters into confidentiality or license agreements with employees, consultants, and corporate partners and generally controls access to and distribution of its software, documentation, and other proprietary information. Despite the Company's efforts to protect its proprietary rights, unauthorized parties may attempt to copy or otherwise obtain and use FalconStor's products or technology. Monitoring unauthorized use of FalconStor's products is difficult, and there can be no assurance that the steps FalconStor has taken will prevent misappropriation of its technology, particularly in foreign countries where laws may not protect its proprietary rights as fully as do the laws of the United States.

MAJOR CUSTOMERS

For the year ended December 31, 2017 we had no customers that accounted for 10% or more of total revenue. For the year ended December 31, 2016, we had one customer which accounted for 11% of our total revenue.

As of December 31, 2017, one customer accounted for 23% of our gross accounts receivable balance. As of December 31, 2016, three customers accounted for 15%, 14% and 12% of our gross accounts receivable balance, respectively.

EMPLOYEES

As of December 31, 2017, we had 81 full-time and part-time employees, consisting of 30 in research & development, 19 in sales & marketing, 24 in service, and 8 in general and administrative. We are not subject to any collective bargaining agreements and we believe that our employee relations are good.

INTERNET ADDRESS AND AVAILABILITY OF FILINGS

Our internet address is www.falconstor.com. The Company makes available free of charge, on or through its Internet website, the Company's Annual Report 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 Sections 13(a) or (15)(d) of the Securities Exchange Act of 1934, as amended, as soon as reasonably practicable after the Company electronically files such material with, or furnishes it to, the Securities and Exchange Commission. The Company complied with this policy for every Securities Exchange Act of 1934, as amended, report filed during the year ended December 31, 2017.

RECENT DEVELOPMENTS

On February 23, 2018, we closed on our previously-announced commitment (the "Commitment") from HCP-FVA, LLC ("HCP-FVA") to purchase up to \$3 million of Units (as defined below) from the Company to backstop a proposed private placement of Units to certain eligible stockholders of the Company (the "Financing"). HCP-FVA subscribed for the full \$3 million of Units (at the Company's election) in the Commitment by payment of \$2.5 million in cash and the conversion of a \$500,000 short-term loan provided by HCP-FVA to the Company in November 2017 (the "Bridge Loan") into Units. HCP-FVA is an affiliate of Hale Capital Partners, LP (together with HCP-FVA, "Hale Capital"), the Company's largest stockholder through its ownership of the Company's Series A Redeemable Preferred Stock (the "Series A Preferred Stock"), and an affiliate of FalconStor director, Martin Hale.

In the Financing, the Company intends to offer to FalconStor stockholders as of November 17, 2017 who are accredited investors the opportunity to purchase up to a total of 40 million Units (inclusive of subscriptions by HCP-FVA). The Financing is expected to close on or before September 23, 2018, and documentation relating to the Financing will be provided to prospective investors subsequent to the Company's Annual Meeting of Stockholders. Each Unit is expected to consist of the following (each, a "Unit"):

\$0.10 in senior secured debt (for a total of \$4 million of senior secured debt assuming full subscription of the i. Financing), secured by all of the assets of the Company and guaranteed by each of the Company's domestic subsidiaries, having an interest rate of prime plus 0.75% and a maturity date of June 30, 2021 (the "Term Loan");
ii. warrants to purchase 12.233 shares of the Company's common stock for a nominal exercise price (for a total of 489.32 million shares assuming full subscription of the Financing) (the "Financing Warrants"); and
0.0225 shares of Series A Preferred Stock at a per Unit price of \$0.2643 (subject to increase to take into account
iii. accretion of the Series A Preferred Stock after June 30, 2018), all such shares to be acquired directly from their current holder, HCP-FVA.

The closing of the Commitment effectively constitutes HCP-FVA's purchase of 30 million Units in the Financing. As a result, the maximum additional funds that the Company may receive in the Financing is \$1 million through the purchase of 10 million Units by other eligible stockholders. If other eligible stockholders subscribe for more than 10 million Units, they will

purchase those additional Units consisting of senior secured debt and Series A Preferred Stock directly from HCP-FVA (with the associated Financing Warrants to be issued by the Company directly to the eligible stockholders, and HCP-FVA's Financing Warrants associated with those additional Units sold to the eligible stockholders to be cancelled in accordance with the terms of such Financing Warrants), subject to HCP-FVA maintaining at least 25% of the total Units to be issued in the Financing. HCP-FVA has agreed to subscribe for more than its pro rata portion of the Units available for purchase in the Financing (based on common stock ownership on an as-converted basis as of November 17, 2017), and if other eligible stockholders elect to subscribe for more than their pro rata share, the remaining Units shall be allocated among such stockholders (including HCP-FVA) in such manner as the Company, Hale Capital and the participating eligible stockholders shall agree.

On February 23, 2018, in connection with HCP-FVA's subscription in the Financing, the Company entered into an Amended and Restated Term Loan Credit Agreement, dated as of the same date (the "Amended and Restated Loan Agreement"), with HCP-FVA and certain other loan parties named therein setting forth the terms of the Term Loan. The Amended and Restated Loan Agreement amends and restates that certain Loan Agreement, dated as of November 17, 2017, by and among the parties, pursuant to which HCP-FVA made the Bridge Loan.

Under the Amended and Restated Loan Agreement, in the event the Term Loan is prepaid for any reason, such prepayment will be subject to the payment of a premium in an amount equal to 5% of the principal amount prepaid. The Term Loan is required to be prepaid upon the occurrence of certain events, including but not limited to certain assets dispositions, the incurrence of additional indebtedness, the receipt of insurance proceeds, and a change of control, subject to certain exceptions.

The Amended and Restated Loan Agreement has customary representations, warranties and affirmative and negative covenants. The negative covenants include financial covenants by the Company to (i) maintain minimum cash denominated in U.S. dollars plus accounts receivable outstanding for less than 90 days of \$2 million, and (ii) until the consummation of the Financing with eligible stockholders (other than HCP-FVA), not permit a variance of more than 10% of net cash flow from the amounts set forth in a rolling weekly detailed budget through the second fiscal quarter of 2018, agreed upon at the signing of the Amended and Restated Loan Agreement. The Amended and Restated Loan Agreement also contains customary events of default, including but not limited to payment defaults, cross defaults with certain other indebtedness, breaches of covenants, bankruptcy events and a change of control. In the case of an event of default, as administrative agent under the Loan Agreement, HCP-FVA may (and upon the written request of lenders holding in excess of 50% of the Term Loan, which must include HCP-FVA, is required to accelerate payment of all obligations under the Loan Agreement, and seek other available remedies.

Under the Amended and Restated Loan Agreement, the Company also agreed to use its commercially reasonable efforts to obtain, as soon as practicable (but in no event later than June 1, 2018), the approval of its stockholders to amend the Company's Restated Certificate of Incorporation, as amended, to increase the number of authorized shares of the Company's common stock in order to permit the exercise of the Financing Warrants issuable in the Financing (the "Stockholder Approval"). HCP-FVA agreed that, prior to the record date for any Company stockholders meeting held in connection with the Stockholder Approval, HCP-FVA will exercise any Financing Warrants and any Backstop Warrants (as defined below) for which the Company has sufficient authorized capital and will vote the common stock it receives upon such exercise in favor of the Stockholder Approval.

As part of the Commitment, Hale Capital also agreed to postpone the date of the optional redemption of the Series A Preferred Stock from August 5, 2017 to July 30, 2021, and to waive prior breaches of the terms of the Series A Preferred Stock which had also triggered a redemption right.

The foregoing description of the Amended and Restated Loan Agreement does not purport to be complete and is qualified in its entirety by reference to the full text of the Amended and Restated Loan Agreement, which was filed as

Exhibit 10.1 to a Form 8-K we filed on February 26, 2018.

In exchange for serving as the backstop for the Financing, upon the closing of the Commitment, HCP-FVA received warrants to purchase 41,577,382 shares of the Company's common stock for a nominal exercise price (the "Backstop Warrants"), in addition to the 13,859,128 Backstop Warrants issued to HCP-FVA in connection with the making of the Bridge Loan. If eligible stockholders (other than HCP-FVA) subscribe for and purchase more than fifty percent (50%) of the Units in the Financing on the terms and conditions set forth in Section 10.13 of the Amended and Restated Loan Agreement and Schedule 10.13 thereto, then 66.66% of the number of shares of common stock issued to HCP-FVA in respect of the Backstop Warrants issued upon the closing of the Commitment (or, if the Backstop Warrants issued upon the closing of the Commitment have not then been exercised, issuable to HCP-FVA) upon exercise of such Backstop Warrants, as determined on a post-cashless exercise basis, shall be cancelled (and, if such Backstop Warrants have been exercised on a non-cashless exercise basis, the Company shall reimburse HCP-FVA for the cash exercise price paid in respect of the cancelled warrant shares). The Backstop Warrants are in addition to the Financing Warrants issuable in the Financing. In consideration for HCP-FVA's subscription of \$3 million of Units, HCP-FVA was issued Financing

Warrants to purchase 366,990,000 shares of the Company's common stock for a nominal exercise price. The Financing Warrants are not exercisable until receipt of Stockholder Approval.

The issuance of the Financing Warrants and the Backstop Warrants in connection with the Commitment and the Financing will have a substantial dilutive effect on all existing stockholders of the Company. For example, if HCP-FVA is the only subscriber in the Financing, Hale Capital will beneficially own, when combined with Hale Capital's current ownership and shares set aside for management, approximately 73% of the common stock of the Company on an as-converted basis. If the Financing is fully subscribed and HCP-FVA's subscription amounts to 25% of the total number of Units issued in the Financing, Hale Capital will beneficially own, when combined with Hale Capital's current ownership and shares set aside for management, approximately 22% of the common stock of the Company on an as-converted basis.

Item 1A. Risk Factors

We are affected by risks specific to us as well as factors that affect all businesses operating in a global market. The significant factors known to us that could materially adversely affect our business, financial condition, or operating results are set forth below.

Risks Related to Our Financial Condition

We have had limited liquidity as evidenced by our working capital deficiency of \$11.2 million at December 31, 2017 and our future prospects are dependent on our ability to execute our business plan of which there can be no assurance.

We have incurred significant operating losses in the previous nine years and negative cash flow from operations in five of the previous nine years. As of December 31, 2017, we had a working capital deficiency of \$11.2 million, which is inclusive of current deferred revenue of \$11.8 million, and a stockholders' deficit of \$21.2 million. During the year ended December 31, 2017, while we had net income of \$1.1 million, we had negative cash flow from operations of \$2.6 million. Our cash and cash equivalents at December 31, 2017 was \$1.0 million, a decrease of \$2.4 million as compared to December 31, 2016 and such amount at December 31, 2017 includes net proceeds that we received from the Bridge Loan. As of December 31, 2017, the holders of our Series Preferred Stock also had the right to request a redemption of the Series A Preferred Stock. Accordingly, to ensure that the Company could meet its operating cash needs and continue as a going concern, we closed on the Commitment on February 23, 2018. As part of the Commitment, Hale Capital agreed to postpone the date that an option redemption of the Series A Preferred Stock could be requested from August 5, 2017 to July 30, 2021, and to waive prior breaches of the terms of the Series A Preferred Stock which had also triggered a redemption right.

While the Commitment and the postponement of the date of the optional redemption facilitate our ability to meet our operating cash needs and continue as a going concern, our ability to continue as a going concern ultimately depends on whether we execute our business plan. During 2017, we continued to focus on aligning our expense structure with revenue expectations which included tighter expense controls and overall operational efficiencies which better align our current business plan on a run-rate basis. These efficiencies include streamlined personnel related costs and global overhead costs and efficiencies realized on our redesigned go-to-market coverage models. We have reduced our worldwide headcount to 81 employees as of December 31, 2017 compared with 166 employees as of December 31, 2016. However, the decline in revenue over the last twelve months combined with the separation costs related to the headcount reductions have reduced the impact of these reductions in operating expenses and the reduction in our cash burn rate resulting from these reductions was lower than our expectations. Accordingly, our operating cash requirements have been higher than what we expected.

There is no assurance that we will be successful in executing our business plan either through generating sufficient revenue or continuing to reduce operating costs. The failure to execute our business plan would have a material adverse effect on our results of operations. In addition, to the extent that we continue to incur losses, we may need to seek additional financing even if we receive an additional \$1,000,000 in gross proceeds from the Financing. There can be no assurance that we will be able to obtain the additional \$1,000,000 in gross proceeds from the Financing or other financing or as to the terms of such other financing. Moreover, it is likely that the terms of the Amended and Restated Loan Agreement and Series A Preferred Stock will make it more difficult for us to obtain financing.

We have had a history of losses since 2008 and our revenues significantly decreased in 2017 as compared to 2016. There is no guarantee that we will be able or to maintain, profitability.

Before 2017, we had a history of losses. We have taken steps to try to reduce or to eliminate future losses - such as reducing headcount and other expenses, but our ability to make further cost reductions while maintaining business operations is limited. Moreover, while we had net income of approximately \$1.1 million in the year ended December 31, 2017 our cash and cash equivalents continued to decrease in 2017. Our revenues decreased to \$25.2 million for the year ended December 31, 2017 as compared with \$30.3 million for the year ended December 31, 2016. If we are unable to stabilize or increase revenue, we will be unable to maintain profitability, we will deplete our available cash and we may not be able to continue to fund effective sales and marketing or research and development activities on which we are dependent.

We have undertaken a restructuring and other cost reduction initiatives to reduce our expenses and to better align our expenses with our business. There can be no assurance that we have made enough reductions or the right reductions. Since the third quarter of 2013 we have taken several actions to reduce expenses significantly in an attempt to help return the Company to profitability. These actions include a reduction in personnel of approximately 60%; closing offices in geographic locations where our expenses have continued to outpace our revenue; and reducing other expenditures. To date, the reduction in expenses has not been sufficient to ensure that the Company can meet its ongoing cash needs for the foreseeable future. In addition, there can be no assurance that the reductions we have made are the right reductions for our business going forward. There is a risk that the restructuring, cost cutting initiatives and reduction in personnel will continue to make it more difficult to grow the business and service our customers. If actual results or events differ materially from our estimates and assumptions, our reported financial condition and results of operations for future periods could be materially affected.

The preparation of consolidated financial statements and related disclosure in accordance with generally accepted accounting principles requires management to establish policies that contain estimates and assumptions that affect the amounts reported in the consolidated financial statements and the accompanying notes. Note 1 to the Consolidated Financial Statements in our Annual Report on Form 10-K for the fiscal year ended December 31, 2017 describes the significant accounting policies and estimates essential to preparing our financial statements. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenue and expenses, and related disclosures. We base our estimates on historical experience and assumptions that we believe to be reasonable under the circumstances. Actual future results may differ materially from these estimates. We evaluate, on an ongoing basis, our estimates and assumptions.

Risks Related to Our Business

Our future business, financial and operating results are substantially dependent on the market acceptance of our products.

We have spent considerable resources, both financially and in our research and development efforts, developing CDP/NSS 9.0 and FreeStor. Bookings for FreeStor during the year ended December 31, 2017 exceeded the bookings for this product for the year ended December 31, 2016. However, the bookings associated with our FreeStor platform failed to make up for declines in our traditional product lines. We currently do not have any other products in our pipeline with the same expectations that we had or which we believe have the same potential for market acceptance as CDP/NSS 9.0 and FreeStor. If (i) either CDP/NSS 9.0 or FreeStor do not gain additional market acceptance, (ii) sales of either CDP/NSS 9.0 or FreeStor do not increase, or (iii) the ongoing future feature/functionality sets of both products are delayed, our results may suffer and it could have a material adverse effect on our business, financial condition and operating results.

We continue to have turnover in our senior management.

In August 2017, Todd Brooks and Patrick McClain became our President and Chief Operating Officer and Executive Vice President, Chief Financial Officer, respectively. Prior to their appointment we had two different Chief Executive Officers and Chief Financial Officers in the one year prior to the appointment of Messrs. Brooks and McClain.

In addition to these changes, in the past few years we have also had turnover in other senior positions. We have filled these positions with highly qualified individuals with extensive storage and software company experience. However,

there can be no guarantee that the new senior management will be able to get up to speed and successfully manage the Company. In addition, with the exception of Messrs. Brooks and McClain, we have no employment agreements with any of our senior management and there can be no assurance that we will be able to retain any or all of the members of the senior management team.

The loss of any of our key personnel could harm our business.

Our success depends upon the continued contributions of our key employees, many of whom would be extremely difficult to replace. We do not have key person life insurance on any of our personnel. Worldwide competition for skilled employees in the network storage software industry is extremely intense. In particular, our success is dependent on our executive management team, including Todd Brooks, our President and Chief Executive Officer. If we are unable to retain existing employees or hire and integrate new employees, our business, financial condition and operating results could suffer.

Due to the uncertain and shifting development of the data protection and network storage software markets and our reliance on our partners, we may have difficulty accurately predicting revenue for future periods and appropriately budgeting for expenses.

The rapidly evolving nature of the data protection and network storage software markets in which we sell our products, the degrees of effort and success of our partners' sales and marketing efforts, and other factors that are beyond our control, reduce our ability to accurately forecast our quarterly and annual revenue. However, we must use our forecasted revenue to establish our expense budget. Most of our expenses are fixed in the short term or incurred in advance of anticipated revenue. As a result, we may not be able to decrease our expenses in a timely manner to offset any shortfall in revenue.

If we are unable to develop and manufacture new products that achieve acceptance in the data protection and the network storage software markets, our operating results may suffer.

The data protection and the network storage software markets continue to evolve and as a result there is continuing demand for new products. Accordingly, we may need to develop and manufacture new products that address additional data protection or network storage software market segments and emerging technologies to remain competitive in the data storage software industry. We are uncertain whether we will successfully qualify new data protection or network storage software products with our customers by meeting customer performance and quality specifications. Any failure to address additional market segments could harm our business, financial condition and operating results.

Our products must conform to industry standards in order to be accepted by customers in our markets.

Our current products are only one part of a storage system. All components of these systems must comply with the same industry standards in order to operate together efficiently. We depend on companies that provide other components of these systems to conform to industry standards. Some industry standards may not be widely adopted or implemented uniformly, and competing standards may emerge that may be preferred by OEM customers or end users. If other providers of components do not support the same industry standards as we do, or if competing standards emerge, our products may not achieve market acceptance, which would adversely affect our business.

Our products handle mission-critical data for our end-customers and are highly technical in nature. If our products have defects, failures occur or end-customer data is lost or corrupted, our reputation and business could be harmed.

Our products are highly technical and complex and are involved in storing and replicating mission-critical data for our end-customers. Our products may contain undetected defects and failures when they are first introduced or as new versions are released. We have in the past and may in the future discover software errors in new versions of our existing products, new products or product enhancements after their release or introduction, which could result in lost revenue. Despite testing by us and by current and potential end-customers, errors might not be found in new releases or products until after commencement of commercial shipments, resulting in loss of or delay in market acceptance.

Our products may have security vulnerabilities and be subject to intentional attacks by viruses that seek to take advantage of these bugs, errors or other weaknesses. If defects or failures occur in our products, a number of negative effects in our business could result, including:

- lost revenue or lost end-customers;
- increased costs, including warranty expense and costs associated with end-customer support;
- delays, cancellations, reductions or rescheduling of orders or shipments;
- product returns or discounts;
- diversion of management resources;
- legal claims for breach of contract, product liability, tort or breach of warranty; and
- damage to our reputation and brand.

Because our end-customers use our products to manage and protect their data, we could face claims resulting from any loss or corruption of our end-customers' data due to a product defect. While our sales contracts contain provisions relating to warranty disclaimers and liability limitations, these provisions might not be upheld. Defending a lawsuit, regardless of its merit, is costly and may divert management's attention from our business and could result in public perception that our products are

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not effective, even if the occurrence is unrelated to the use of our products. In addition, our business liability insurance coverage might not be adequate to cover such claims. If any data is lost or corrupted in connection with the use or support of our products, our reputation could be harmed and market acceptance of our products could suffer.

We rely on our resellers and our OEM partners for most of our sales.

The vast majority of our sales come from sales to end users of our products by our resellers and by our OEM partners. These resellers and OEM partners have limited resources and sales forces and sell many different products, both in the data protection and the network storage software markets and in other markets. The resellers and OEM partners may choose to focus their sales efforts on other products in the data protection and the network storage software markets or other markets. The OEM partners might also choose not to continue to develop or to market products which include our products. This would likely result in lower revenue to us and would impede our ability to grow our business. The failure of our resellers to sell our products effectively could have a material adverse effect on our revenue and results of operations.

We rely significantly on our value-added resellers, direct market resellers, systems integrators and corporate resellers, which we collectively refer to as resellers, for the marketing and distribution of our software products and our services. However, our agreements with resellers are generally not exclusive, are generally renewable annually and in many cases may be terminated by either party without cause. Many of our resellers carry products that are competitive with ours. These resellers may give a higher priority to other products, including those of our competitors, or may not continue to carry our products at all. If a number of resellers were to discontinue or reduce the sales of our products, or were to promote our competitors' products in lieu of ours, it would have a material adverse effect on our future revenue. Events or occurrences of this nature could seriously harm our sales and results of operations. In addition, we expect that a significant portion of our sales growth will depend upon our ability to identify and attract new reseller partners. The use of resellers is an integral part of our distribution network. We believe that our competitors also use reseller arrangements. Our competitors may be more successful in attracting reseller partners and could enter into exclusive relationships with resellers that make it difficult to expand our reseller network. Any failure on our part to expand our network of resellers could impair our ability to grow revenue in the future.

Our growth depends in part on the success of our strategic relationships with third parties.

Our future growth will depend on our ability to enter into successful strategic relationships with third parties. For example, our strategic relationships with DSI, Fujitsu, Hitachi Data Systems, Huawei and X-IO are intended to for the Flash/SSD market targeting customers wanting to integrate new Flash/SSD technology into existing IT environments and OEMs needing to enhance their software stack in order to offer data movement and protection services on their platform. In addition, we work with global distributors to streamline and grow our sales channel. These relationships may not result in additional customers or enable us to generate significant revenue. These relationships are typically non-exclusive and do not prohibit the other party from working with our competitors or from offering competing services. If we are unsuccessful in establishing or maintaining our relationships with these third parties, our ability to compete in the marketplace or to grow our revenue could be impaired and our operating results could suffer.

We rely on channel partners to sell our solutions, and disruptions to, or our failure to develop and manage our channel partners would harm our business.

Our future success is partially dependent upon establishing and maintaining successful relationships with the right channel partners. A majority of our revenue is generated by sales through our channel partners, and we expect channel sales to continue to make up the majority of our total revenue in the future. Accordingly, our revenue is largely dependent on the effective sales and lead generation activities of these channel partners.

Recruiting and retaining qualified channel partners and training them in our technology and product offerings requires significant time and resources. In order to develop and expand our distribution channel, we must continue to scale and improve our processes and procedures that support our channel, including investment in systems and training. Those processes and procedures may become increasingly complex and difficult to manage as we grow our organization. We have no minimum purchase commitments from any of our channel partners, and our contracts with these channel partners do not prohibit them from offering products or services that compete with ours. Our competitors may provide incentives to existing and potential channel partners to favor their products or to prevent or reduce sales of our solutions. Our channel partners may choose not to offer our solutions exclusively or at all. Establishing relationships

with channel partners who have a history of selling our

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competitors' products may also prove to be difficult. In addition, some of our channel partners are also competitors. Our failure to establish and maintain successful relationships with channel partners would harm our business and operating results.

We face intense competition in our market, especially from larger, well-established companies, and we may lack sufficient financial or other resources to maintain or improve our competitive position.

A number of very large corporations have historically dominated the data management market. We consider our primary competitors to be companies that provide enterprise storage products, including Dell Inc., Hitachi Data Systems, Hewlett-Packard Company ("HPE"), IBM, CommVault, DataCore and Nexenta. We also compete to a lesser extent with a number of other private companies and certain well-established companies. Some of our competitors have made acquisitions of businesses that allow them to offer more directly competitive and comprehensive solutions than they had previously offered. In addition, the emergence of cloud computing and software-defined-storage may impact both short-term and long-term growth patterns in the markets in which we compete. We expect to encounter new competitors domestically and internationally as other companies enter our market or if we enter new markets. Many of our existing competitors have, and some of our potential competitors could have, substantial competitive advantages such as:

- potential for broader market acceptance of their storage architectures and solutions;
- greater name recognition and longer operating histories;
- larger sales and marketing and customer support budgets and resources;
- broader distribution and established relationships with distribution partners and end-customers;
- the ability to bundle storage products with other technology products and services, or offer a broader range of storage solutions to better fit certain customers' needs;
- lower labor and development costs;
- larger and more mature intellectual property portfolios;
- substantially greater financial, technical and other resources; and
- greater resources to make acquisitions.

Our ability to sell our products is highly dependent on the quality of our services offerings, and our failure to offer high quality support and professional services would have a material adverse effect on our sales of our products and results of operations.

Our services include the assessment and design of solutions to meet our customers' data protection and storage management requirements and the efficient installation and deployment of our products based on specified business objectives. Further, once our products are deployed, our customers depend on us to resolve issues relating to our products. A high level of service is critical for the successful marketing and sale of our software. If our partners or we do not effectively install or deploy our applications, or succeed in helping our customers quickly resolve post-deployment issues, it would adversely affect our ability to sell software products to existing customers and could harm our reputation with potential customers. As a result, our failure to maintain high quality support and professional services would have a material adverse effect on our sales of our products and results of operations.

Failure to achieve anticipated growth could harm our business and operating results.

Achieving our anticipated growth will depend on a number of factors, some of which include:

- retention of key management, marketing and technical personnel;
- our ability to increase our customer base and to increase the sales of our products; and
- competitive conditions in the network storage infrastructure software market.

We cannot assure you that the anticipated growth will be achieved. The failure to achieve anticipated growth could harm our business, financial condition and operating results.

Adverse economic conditions or reduced IT spending may adversely impact our business.

Our business depends on the overall demand for IT and on the economic health of our current and prospective customers. In general, worldwide economic conditions remain unstable, and these conditions make it difficult for our current and prospective customers and us to forecast and plan future business activities accurately, and they could cause our customers or prospective customers to reevaluate their decision to purchase our products or services. Weak global economic conditions, or a

reduction in IT spending even if economic conditions improve, could adversely impact our business and operating results in a number of ways, including longer sales cycles, lower prices for our products, reduced bookings and lower or no growth.

Our future quarterly results may fluctuate significantly, which could cause our stock price to decline.

Our previous results are not necessarily indicative of our future performance and our future quarterly results may fluctuate significantly. Our future performance will depend on many factors, including:

fluctuations in the economy;

the timing of securing software license contracts and the delivery of software and related revenue recognition;

the seasonality of information technology, including network storage products, spending;

the average unit selling price of our products;

- existing or new competitors introducing better products at competitive prices before we do;

our ability to manage successfully the complex and difficult process of qualifying our products with our customers;

new products or enhancements from us or our competitors;

our ability to release new and innovative products;

import or export restrictions on our proprietary technology; and

personnel changes.

Many of our expenses are relatively fixed and difficult to reduce or modify. As a result, the fixed nature of our expenses will magnify any adverse effect of a decrease in revenue on our operating results.

The ability to predict our future effective tax rates could impact our ability to accurately forecast future earnings.

We are subject to income taxes in both the United States and the various foreign jurisdictions in which we operate.

Judgment is required in determining our provision for income taxes and there are many transactions and calculations where the tax determination may be uncertain. Our future effective tax rates could be affected by changes in our (i) earnings or losses; (ii) changes in the valuation of our deferred tax assets; (iii) changes in tax laws; and (iv) other factors. Our ability to correctly predict our future effective tax rates based upon these possible changes could significantly impact our forecasted earnings.

Our business could be materially affected as a result of a natural disaster, terrorist acts, or other catastrophic events.

While our headquarters facilities contain redundant power supplies and generators, our domestic and foreign operations, and the operations of our industry partners, remain susceptible to fire, floods, power loss, power shortages, telecommunications failures, break-ins and similar events. Terrorist actions domestically or abroad could lead to business disruptions or to cancellations of customer orders or a general decrease in corporate spending on information technology, or could have direct impact on our marketing, administrative or financial functions and our financial condition could suffer. We continually look for alternatives to help mitigate any supply chain disruptions due to natural disasters, terrorist acts or other catastrophic events. However, our failure to mitigate these supply chain disruptions could impact our ability to procure and deliver products to our customers, which could adversely impact our overall financial condition.

We are dependent on a variety of IT and telecommunications systems, and any failure of these systems could adversely impact our business and operating results.

We depend on IT and telecommunications systems for our operations. These systems support a variety of functions including order processing, shipping, shipment tracking, billing, support center and internal information exchange.

Failures or significant downtime of our IT or telecommunications systems could prevent us from taking customer orders, shipping products, billing customers, handling support calls, or communication among our offices. The Internet and individual websites have experienced a number of disruptions and slowdowns, some of which were caused by organized attacks. In addition, some websites have experienced security breakdowns. If we were to experience a security breakdown, disruption or breach that compromised sensitive information, it could harm our relationship with our customers. Our support centers are dependent upon telephone and data services provided by third party telecommunications service vendors and our IT and telecommunications system. Any significant increase in our IT and telecommunications costs or temporary or permanent loss of our IT or telecommunications systems could harm

our relationships with our customers. The occurrence of any of these events could have an adverse effect on our operations and financial results.

United States Government export restrictions could impede our ability to sell our software to certain end users.

Certain of our products include the ability for the end user to encrypt data. The United States, through the Bureau of Industry Security, places restrictions on the export of certain encryption technology. These restrictions may include: the requirement to have a license to export the technology; the requirement to have software licenses approved before export is allowed; and outright bans on the licensing of certain encryption technology to particular end users or to all end users in a particular country. Certain of our products are subject to various levels of export restrictions. These export restrictions could negatively impact our business.

The international nature of our business could have an adverse effect on our operating results.

We sell our products worldwide. Accordingly, our operating results could be materially adversely affected by various factors including regulatory, political, or economic conditions in a specific country or region, trade protection measures and other regulatory requirements, and acts of terrorism and international conflicts.

Additional risks inherent in our international business activities generally include, among others, longer accounts receivable payment cycles, difficulties in managing international operations, decreased flexibility in matching workforce needs as compared with the U.S., and potentially adverse tax consequences. Such factors could materially adversely affect our future international sales and, consequently, our operating results.

Foreign currency fluctuations may impact our revenue.

Our licenses and services in Japan are sold in Yen. Many of our licenses and services in Australia, Canada, and in Europe are sold in Australian dollars, Canadian dollars and European Monetary Units (“Euros”), respectively. Changes in economic or political conditions globally and in any of the countries in which we operate could result in exchange rate movements, new currency or exchange controls or other restrictions being imposed on our operations.

Fluctuations in the value of the U.S. dollar may adversely affect our results of operations. Because our consolidated financial results are reported in U.S. dollars, translation of sales or earnings generated in other currencies into U.S. dollars can result in a significant increase or decrease in the reported amount of those sales or earnings. Significant changes in the value of these foreign currencies relative to the U.S. dollar could have a material adverse effect on our financial condition or results of operations. For example, the U.S. dollar has weakened against the Euro by 12% from December 31, 2016 to December 31, 2017.

Fluctuations in currencies relative to currencies in which our earnings are generated make it more difficult to perform period- to-period comparisons of our reported results of operations. For purposes of accounting, the assets and liabilities of our foreign operations, where the local currency is the functional currency, are translated using period-end exchange rates, and the revenue, expenses and cash flows of our foreign operations are translated using average exchange rates during each period.

In addition to currency translation risks, we incur currency transaction risk whenever we enter into either a purchase or a sales transaction using a currency other than the local currency of the transacting entity. Given the volatility of exchange rates, we cannot be assured we will be able to effectively manage our currency transaction and/or translation risks. Volatility in currency exchange rates may have a material effect on our financial condition or results of operations. Currency exchange rate fluctuations have not, in the past, resulted in a material impact on earnings. However, we may experience at times in the future an impact on earnings as a result of foreign currency exchange rate fluctuations.

Because we conduct operations in China, risks associated with economic, political and social events in China could negatively affect our business and operating results.

China is a significant market for our products. We have an OEM agreement with Huawei which has historically provided us with significant revenue. As of December 31, 2017 we have 14 employees in China. Our operations in China are subject to a number of risks relating to China’s economic and political systems, including:

- government controlled foreign exchange rate and limitations on the convertibility of the Chinese Renminbi;
- extensive government regulation;
- changing governmental policies relating to tax benefits available to foreign-owned businesses;
- the telecommunications infrastructure;
- relatively uncertain legal system; and
- uncertainties related to continued economic and social reform.

Any significant interruption in our China operations, whether resulting from any of the above uncertainties, natural disasters or otherwise, could result in delays or disruptions in our revenue and our research development operations, either of which could cause our business and operating results to suffer.

If we are unable to protect our intellectual property, our business will suffer.

Our success is dependent upon our proprietary technology. We have 35 patents issued, and numerous pending patent applications, numerous trademarks registered and multiple pending trademark applications related to our products. We cannot predict whether we will receive patents for our pending or future patent applications, and any patents that we own or that are issued to us may be invalidated, circumvented or challenged. In addition, the laws of certain countries in which we sell and manufacture our products, including various countries in Asia, may not protect our products and intellectual property rights to the same extent as the laws of the United States.

We also rely on trade secret, copyright and trademark laws, as well as the confidentiality and other restrictions contained in our respective sales contracts and confidentiality agreements to protect our proprietary rights. These legal protections afford only limited protection and if we are unable to protect our intellectual property our business and operating results may suffer.

Our efforts to protect our intellectual property may cause us to become involved in costly and lengthy litigation, which could seriously harm our business.

In recent years, there has been significant litigation in the United States involving patents, trademarks and other intellectual property rights.

We were already subject to one action, which alleged that our technology infringed on patents held by a third party. While we settled this litigation, the fees and expenses of the litigation as well as the litigation settlement were expensive and the litigation diverted management's time and attention. Any additional litigation, regardless of its outcome, would likely be time consuming and expensive to resolve and would divert management's time and attention and might subject us to significant liability for damages or invalidate our intellectual property rights. Any potential intellectual property litigation against us could force us to take specific actions (any of which could have a material adverse effect on our business), including:

- cease selling our products that use the challenged intellectual property;
- obtain from the owner of the infringed intellectual property right a license to sell or use the relevant technology or trademark, which license may not be available on reasonable terms, or at all; or
- redesign those products that use infringing intellectual property or cease to use an infringing product or trademark.

Cyber-attacks and breaches could cause operational disruptions, fraud or theft of sensitive information.

Aspects of our operations are reliant upon internet-based activities, such as ordering supplies and back-office functions such as accounting and transaction processing, making and accepting payments, processing payroll and other administrative functions, etc. Although we have taken measures to protect our technology systems and infrastructure, including employee education programs regarding cybersecurity, a breach of the security surrounding these functions could result in operational disruptions, theft or fraud, or exposure of sensitive information to unauthorized parties. Such events could result in additional costs related to operational inefficiencies, or damages, claims or fines.

Developments limiting the availability of Open Source software could impact our ability to deliver products and could subject us to costly litigation.

Many of our products are designed to include software or other intellectual property licensed from third parties, including "Open Source" software. At least one intellectual property rights holder has alleged that it holds the rights to software traditionally viewed as Open Source. In addition, United States courts have not interpreted the terms of many open source licenses, and there is a risk that such licenses could be construed in a manner that could impose unanticipated conditions or restrictions on our ability to commercialize our appliances. We could be required to seek licenses from third parties in order to continue offering our software, to re-engineer our software, to discontinue the

sale of our software in the event re-engineering cannot be accomplished on a timely basis or to litigate any disputes relating to our use of open source software, any of which could harm our business. There can be no assurance that the necessary licenses would be available on acceptable terms, if at all. The inability to obtain certain licenses or other rights or to obtain such licenses or rights on favorable terms, or the need to engage in litigation regarding these matters, could have a material adverse effect on our business, operating results, and

financial condition. Moreover, the inclusion in our products of software or other intellectual property licensed from third parties on a nonexclusive basis could limit our ability to protect our proprietary rights in our products.

Risks Related to Our Capitalization

We have a significant number of outstanding warrants, preferred stock and options, the conversion and exercise of which would dilute the then-existing stockholders' percentage ownership of our common stock, and a smaller number of restricted shares of stock, the vesting of which will also dilute the then-existing stockholders' percentage ownership of our common stock.

As a result of the Commitment and the Bridge Loan, we issued Backstop Warrants to purchase 55,436,510 shares of common stock and Financing Warrants to purchase 366,990,000 shares of common stock, all of which have a nominal exercise price. If additional Units in the Financing are subscribed for, we will also issue Financing Warrants to purchase up to an additional 122,330,000 shares of common stock. In addition, we have outstanding options to purchase 2,026,200 shares of our common stock, an aggregate of 548,968 outstanding unvested restricted shares and outstanding Series A Preferred Stock convertible into 8,781,516 shares of our common stock. Over the next several years a significant number of shares of common stock are potentially issuable as dividends with respect to the Series A Preferred Stock (including 435,438 share of common stock reserved for issuance related to the accrued dividend as of December 31, 2017). We also are obligated to create an equity plan for all employees subject to stockholder approval, for up to 15% of the equity of the Company on a fully diluted basis, plus potentially two additional tranches of 2.5% of the equity of the Company on a fully diluted basis, at the time the equity plan is adopted following stockholder approval.

The exercise of all of the outstanding Backstop Warrants, Financing Warrants, options and/or the vesting of all outstanding restricted shares, the conversion of our outstanding Series A Preferred Stock into common stock, the payment of dividends on our Series A Preferred Stock through the issuance of common stock and/or the grant and exercise of additional options and/or the grant and vesting of restricted stock and restricted stock units would dilute the then-existing stockholders' percentage ownership of common stock, and any sales in the public market of the common stock issuable upon such exercise could adversely affect prevailing market prices for the common stock. Moreover, the terms upon which we would be able to obtain additional equity capital could be adversely affected because the holders of such securities can be expected to exercise or convert them at a time when we would, in all likelihood, be able to obtain any needed capital on terms more favorable than those provided by such securities. There may be a limited public market for our securities; we presently fail to qualify for listing on any national securities exchanges.

Our common stock was delisted from the NASDAQ Capital Market in September 2017 and we do not meet all of the requirements for initial listing on a national securities exchange. Specifically, the market value and the bid price of our common stock is less than what is required to obtain a listing. Trading in our common stock continues to be conducted in the over-the-counter market. As a result, an investor may find it difficult to dispose of or to obtain accurate quotations as to the market value of our common stock, and our common stock may be less attractive for margin loans, for investment by larger financial institutions, as consideration in possible future acquisition transactions or other purposes.

Our stock price may be volatile.

The market price of our common stock has been volatile in the past and may be volatile in the future. For example, during the twelve months ended December 31, 2017, the closing market price of our common stock as quoted on the NASDAQ Capital Market and then the OTC MKTS fluctuated between \$0.15 and \$0.78 and recently the closing trading price has been around \$0.08. The market price of our common stock may be significantly affected by the following factors:

- the conversion or exercise into common stock of Backstop Warrants, Financing Warrants, Series A Preferred Stock or stock options and the vesting of restricted stock;
- actual or anticipated fluctuations in our operating results, including changes in the timing of when we recognize revenue;
- failure to meet financial estimates;
-

changes in market valuations of other technology companies, particularly those in the network storage software market;

- the announcement of any strategic alternatives;

• announcements by us or our competitors of significant technical innovations, acquisitions, strategic partnerships, strategic alternatives, joint ventures or capital commitments;

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- loss of one or more key customers;
- the issuance of additional shares of the Series A Preferred Stock pursuant to dividend rights; and
- departures of key personnel.

The stock market has experienced extreme volatility that often has been unrelated to the performance of particular companies. These market fluctuations may cause our stock price to fall regardless of our performance.

The likelihood of a change of control in our company could be impacted by the fact that we have a significant amount of authorized but unissued preferred stock, outstanding Series A Preferred Stock, a staggered Board of Directors and change of control agreements as well as certain provisions under Delaware law.

Our Board of Directors has the authority, without further action by our common stockholders, to issue up to an additional 1,100,000 shares of preferred stock on such terms and with such rights, preferences and designations, including, without limitation restricting dividends on our common stock, dilution of the voting power of our common stock and impairing the liquidation rights of the holders of our common stock, as the Board may determine without any vote of our common stockholders. Issuance of such preferred stock, depending upon the rights, preferences and designations thereof may have the effect of delaying, deterring or preventing a change in control. Moreover, our outstanding Series A Preferred Stock provides the holders with certain rights in the event of a merger with a third party and if we are unable to redeem the Series A Preferred Stock prior to July 30, 2021 or if the holders of the Series A Preferred Stock elect to exercise their rights to require the Company to redeem the Series A Preferred Stock due to the failure of the Company to comply with the financial covenants covering the Series A Preferred Stock. Certain “antitakeover” provisions of the Delaware General Corporation Law, among other things, may restrict the ability of our stockholders to authorize a merger, business combination or change of control. Further, we have a staggered Board of Directors and have entered into change of control agreements through employment agreements with certain executives. In addition, generally proceeds received upon a change of control will be used first to repay outstanding principal and interest on the Term Loan and then to the holders of the Series A Preferred Stock, prior to the holders of the common stock, in an amount equal to 100% of the stated value plus accrued and unpaid dividends. As a result of the foregoing, our stockholders may lose opportunities to dispose of their shares at favorable prices generally available in takeover attempts or that may be available under a merger proposal and the market price of our common stock and the voting and other rights of our stockholders may also be affected.

Our agreements with the holders of the Series A Preferred Stock contain covenants that could limit our ability to obtain financing using our equity. In addition, if we engage in future financings, we may have to use the proceeds to redeem the preferred stock held by such holders. This could cause us to have difficulty in obtaining capital necessary to run our business.

Our agreements with the holders of the Series A Preferred Stock give such holders veto power over certain future financings, and give such holders certain rights to participate in any subsequent financing, whether through debt or equity (subject to certain exclusions). These participation rights could discourage a potential investor or a potential lender from making financing available to us on favorable terms. Because of these covenants, if we determine that we are in need of additional capital, we might not be able to obtain it. In addition, our agreements with the holders of the Series A Preferred Stock provide that if, at the time of certain future debt or equity financings, the proceeds of which exceed \$5 million, the holders of the Series A Preferred Stock still have outstanding Series A Preferred Stock, then we must offer to repurchase their Series A Preferred Stock. The holders of the Series A Preferred Stock have the right to accept the offer or to retain their Series A Preferred Stock. If we do a financing, and the holders of the Series A Preferred Stock elect to have their Series A Preferred Stock repurchased, then the capital raised in excess of \$5 million will go to repurchase the holders’ Series A Preferred Stock, instead of being able to be used for our business.

Our agreements with the holders of the Series A Preferred Stock prevent us from undertaking certain transactions or incurring certain indebtedness without such holders’ consent or unless the Series A Preferred Stock held by such holders is repurchased. This could hurt our ability to sell underperforming assets or lines of business or to obtain financing.

Our agreements with the holders of the Series A Preferred Stock prevent us from undertaking certain transactions or incurring certain debt without such holders’ consent or unless the Series A Preferred Stock held by such holders’ is

repurchased. These transactions include, but are not limited to:

- A merger with, or the sale of substantially all of the Company's assets or capital stock, to a third party;
- Assumption of indebtedness in excess of 80% of the Company's accounts receivable; and
- The sale, license or other disposition of 10% or more of the tangible assets or capital stock of the Company.

This could limit our ability to sell off underperforming assets or business lines. It could also prevent us from obtaining financing we may need to run or to grow our business.

The holders of the Series A Preferred Stock are entitled to dividends on the Series A Preferred Stock they hold. Depending on whether these dividends are paid in cash or stock, the payment of these dividends will either decrease cash that is available to us to invest in our business or dilute the holdings of all other stockholders.

Our agreements with the holders of the Series A Preferred Stock provide that such holders will receive quarterly dividends on the Series A Preferred Stock at prime rate plus 5%, subject to a maximum dividend rate of 10%. We also have the ability to accrue and roll over dividends. Due to the lack of sufficient surplus to pay dividends as required by the Delaware General Business Corporation Law, the Company was not permitted to pay the fourth quarter 2016 dividend in cash or common stock and has been accruing its quarterly dividends since then. As of December 31, 2017, the Company's liability for dividends to the holders of the Series A Preferred Stock totaled \$1.1 million. While the Term Loan is outstanding, we are only permitted to pay in-kind dividends on the Series A Preferred Stock. If in the future we pay cash dividends on the Series A Preferred Stock, it will reduce the cash that we have available to invest in our business. There can be no assurance that we will have enough cash to pay future dividends in cash. If future dividends are paid in kind, it will dilute the holdings of all other stockholders.

The potential concentration of equity ownership by HCP-FVA may limit your ability to influence corporate matters. As the sole holder of Series A Preferred Stock, the consent of HCP-FVA has been required in order for the Company to undertake certain transactions and HCP-FVA has the right to appoint two Board Members as a result of the terms of the Series A Preferred Stock. Moreover, the exercise of the Financing Warrants and the Backstop Warrants by HCP-FVA could further enable HCP-FVA to exert significant control over the operations of the Company. For example, if HCP-FVA is the only subscriber in the Financing, Hale Capital will beneficially own, when combined with Hale Capital's current ownership and shares set aside for management, approximately 73% of the common stock of the Company on an as-converted basis. If the Financing is fully subscribed and HCP-FVA's subscription amounts to 25% of the total number of Units issued in the Financing, Hale Capital will beneficially own, when combined with Hale Capital's current ownership and shares set aside for management, approximately 22% of the common stock of the Company on an as-converted basis.

Such ownership could enable HCP-FVA to exert significant influence over all corporate activities, including the election or removal of directors and the outcome of tender offers, mergers, proxy contests or other purchases of common stock that could give our stockholders the opportunity to realize a premium over the then-prevailing market price for their shares of common stock. This concentrated control will limit your ability to influence corporate matters and, as a result, we may take actions that our stockholders do not view as beneficial. In addition, such concentrated control could discourage others from initiating changes of control. In such cases, the perception of our prospects in the market may be adversely affected and the market price of our common stock may decline.

Our indebtedness could adversely affect our financial health and prevent us from fulfilling our obligations under the Amended and Restated Loan Agreement.

Our indebtedness could have important consequences to you. For example, it could:

- increase our vulnerability to general adverse economic and industry conditions;
- make it more difficult for us to satisfy our other financial obligations, including our obligations relating to the Term Note;
- restrict us from making strategic acquisitions or cause us to make non-strategic divestitures;
- require us to dedicate a substantial portion of our cash flow from operations to payments on our indebtedness, thereby reducing the availability of our cash flow to fund working capital, capital expenditures and other general corporate purposes;
- make it more difficult for us to satisfy our obligations to our lenders, resulting in possible defaults on and acceleration of such indebtedness;
- limit our flexibility in planning for, or reacting to, changes in our business and the industry in which we operate;
- place us at a competitive disadvantage compared to our competitors that have less debt; and
- limit our ability to borrow additional funds or increase our cost of borrowing.

In addition, the terms of the Amended and Restated Loan Agreement contain restrictive covenants that limit our ability to engage in activities that may be in our long-term best interests. Our failure to comply with those covenants could result in an event of default which, if not cured or waived, could result in the acceleration of all of the Term Note. The occurrence of any

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one of these events could have a material adverse effect on our business, financial condition, results of operations, prospects or ability to satisfy our obligations under the Amended and Restated Loan Agreement.

To service our indebtedness, we will require a significant amount of cash. Our ability to generate cash depends on many factors beyond our control. As such, we may not be able to generate sufficient cash to service the Term Note or our other indebtedness, and may be forced to take other actions to satisfy our obligations under our indebtedness, which may not be successful.

Our ability to make payments on and to refinance the Term Note, to fund planned capital expenditures, maintain sufficient working capital and fund any redemption of the Series A Preferred Stock will depend on our ability to generate cash in the future. This, to a certain extent, is subject to general economic, financial, competitive, legislative, regulatory and other factors that are beyond our control.

We cannot assure you that our business will generate sufficient cash flow from operations or future borrowings from other sources in an amount sufficient to enable us to service the Term Note, or to fund our other liquidity needs. If our cash flows and capital resources are insufficient to allow us to make scheduled payments on our indebtedness, we may need to reduce or delay capital expenditures, sell assets, seek additional capital, restructure or refinance the Term Note, on or before the maturity thereof or seek a waiver of any redemption rights, any of which could have a material adverse effect on our operations. We cannot assure you that we will be able to refinance the Term Note, on commercially reasonable terms or at all, or that the terms of that indebtedness will allow any of the above alternative measures or that these measures would satisfy our scheduled debt service obligations. If we are unable to generate sufficient cash flow to repay or refinance our debt on favorable terms, it could significantly adversely affect our financial condition, and our ability to make any required cash payments under the Term Note or fund any redemption of the Series A Preferred Stock. Our ability to restructure or refinance our debt will depend on the condition of the capital markets and our financial condition at that time. Any refinancing of our debt could be at higher interest rates and may require us to comply with more onerous covenants, which could further restrict our business operations. In addition, any future credit facility may be secured by a priority lien on substantially all of our assets. As such, our ability to refinance the Term Note or seek additional financing could be impaired as a result of such security interest. We are subject to a number of covenants and other conditions, which may restrict our business and financing activities.

The Amended and Restated Loan Agreement has customary representations, warranties and affirmative and negative covenants. The negative covenants include financial covenants by the Company to (i) maintain minimum cash denominated in U.S. dollars plus accounts receivable outstanding for less than 90 days of \$2 million, and (ii) until the consummation of the Financing with eligible stockholders (other than HCP-FVA), not permit a variance of more than 10% of net cash flow from the amounts set forth in a rolling weekly detailed budget through the second fiscal quarter of 2018, agreed upon at the signing of the Amended and Restated Loan Agreement. The Amended and Restated Loan Agreement also contains customary events of default, including but not limited to payment defaults, cross defaults with certain other indebtedness, breaches of covenants, bankruptcy events and a change of control. In the case of an event of default, as administrative agent under the Loan Agreement, HCP-FVA may (and upon the written request of lenders holding in excess of 50% of the Term Loan, which must include HCP-FVA, is required to) accelerate payment of all obligations under the Loan Agreement, and seek other available remedies.

The restrictions in the Amended and Restated Loan Agreement may prevent us from taking actions that we believe would be in the best interests of our business, and may make it difficult for us to successfully execute our business strategy or effectively compete with companies that are not similarly restricted. In addition, our ability to comply with the financial and other covenants and restrictions in the Amended and Restated Loan Agreement will largely depend on the pricing of our products and services, and our ability to successfully implement our overall business strategy. We cannot assure you that we will be granted waivers or amendments to the Amended and Restated Loan Agreement if for any reason we are unable to comply with these covenants and restrictions. The breach of any of these covenants and restrictions could result in a default under the Amended and Restated Loan Agreement, which could result in an acceleration of our indebtedness.

Unknown Factors

Additional risks and uncertainties of which we are unaware or which currently we deem immaterial also may become important factors that affect us.

Item 1B. Unresolved Staff Comments

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None

Item 2. Properties

The Company's headquarters are located in an approximately 3,018 square foot facility in Austin, Texas. Offices are also leased for development, support, and sales and marketing personnel, which total an aggregate of approximately 77,637 square feet in Melville, N.Y.; Munich, Germany; Taichung, Taiwan; Tokyo, Japan; and Beijing, China. Initial lease terms range from one to six years, with multiple renewal options.

Item 3. Legal Proceedings

In view of the inherent difficulty of predicting the outcome of litigation, particularly where the claimants seek very large or indeterminate damages, we generally cannot predict what the eventual outcome of the pending matters will be, what the timing of the ultimate resolution of these matters will be, or what the eventual loss, fines or penalties related to each pending matter may be.

In accordance with the authoritative guidance issued by the FASB on contingencies, we accrue anticipated costs of settlement, damages and losses for claims to the extent specific losses are probable and estimable. We record a receivable for insurance recoveries when such amounts are probable and collectable. In such cases, there may be an exposure to loss in excess of any amounts accrued. If, at the time of evaluation, the loss contingency related to a litigation is not both probable and estimable, the matter will continue to be monitored for further developments that would make such loss contingency both probable and estimable and, we will expense these costs as incurred. If the estimate of a probable loss is a range and no amount within the range is more likely, we will accrue the minimum amount of the range.

Other Claims

We are subject to various legal proceedings and claims, asserted or unasserted, which arise in the ordinary course of business. While the outcome of any such matters cannot be predicted with certainty, such matters are not expected to have a material adverse effect on our financial condition or operating results.

We continue to assess certain litigation and claims to determine the amounts, if any, that we believe may be paid as a result of such claims and litigation and, therefore, additional losses may be accrued and paid in the future, which could materially adversely impact our financial results, cash flows and cash reserves.

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 was listed on The Nasdaq Capital Market (“Nasdaq”) until September 25, 2017 at which time the Common Stock began being quoted on the OTC Markets’ OTCQB under the symbol “FALC”. The following table sets forth the range of high and low closing sales prices of our Common Stock for the periods indicated as reported by Nasdaq and the OTC Markets’ OTQCB:

	2017		2016	
	High	Low	High	Low
Fourth Quarter	\$0.32	\$0.15	\$1.03	\$0.45
Third Quarter	\$0.78	\$0.16	\$1.17	\$0.91
Second Quarter	\$0.47	\$0.20	\$1.40	\$1.06
First Quarter	\$0.69	\$0.31	\$1.89	\$1.21

Holders

We had approximately 336 holders of record of Common Stock as of February 28, 2018. This does not reflect persons or entities that hold Common Stock in nominee or “street” name through various brokerage firms.

Dividends

We have not paid any cash dividends on our common stock since inception. We expect to reinvest any future earnings to finance growth, and therefore do not intend to pay cash dividends on our common stock in the foreseeable future. In addition, the terms of our Series A Preferred Stock and the Amended and Restated Loan Agreement restrict our ability to pay dividends on our common stock. Our board of directors may determine to pay future cash dividends on our common stock if it determines that dividends are an appropriate use of Company capital.

Holders of the Series A Preferred Stock are entitled to receive quarterly dividends at the Prime Rate (Wall Street Journal Eastern Edition) plus 5% (up to a maximum amount of 10%), payable in cash, provided, that if we will not have at least \$1.0 million in positive cash flow for any calendar quarter after giving effect to the payment of such dividends, we, at our election, can pay such dividends in whole or in part in cash, provided that cash flow from operations is not negative, and the remainder can be accrued or paid in common stock to the extent certain equity conditions are satisfied. Due to the lack of sufficient surplus to pay dividends as required by the Delaware General Business Corporation Law, the Company was not permitted to pay the fourth quarter 2016 dividend in cash or common stock and has been accruing its quarterly dividends since then. As of December 31, 2017, the Company’s liability for dividends to the holders of the Series A Preferred Stock totaled \$1.1 million. While the Term Loan is outstanding, we are only permitted to pay in-kind dividends on the Series A Preferred Stock.

Equity Compensation Plan Information

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (1) (a)	Weighted-average exercise price of outstanding options, warrants and rights (1) (b)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (1) (c)
Equity compensation plans approved by security holders	16,434,296	\$0.26	20,209,128

As of December 31, 2017 we had 20,209,128 shares of our common stock reserved for issuance under our stock plans with respect to options (or restricted stock or restricted stock units) that have not been granted. In addition, if, on July 1st of any calendar year in which our 2016 Plan is in effect, the number of shares of stock to which options (1) may be granted is less than five percent (5%) of the number of outstanding shares of stock, then the number of shares of stock available for issuance under the 2016 Plan shall be increased so that the number equals five percent (5%) of the shares of stock outstanding. See Note (10) Share-Based Payment Arrangements to our consolidated financial statements for further information.

Issuer Purchases of Equity Securities

None

Unregistered Sales of Equity Securities and Use of Proceeds

As described herein, in November 2017, the Company entered into the Bridge Loan with HCP-FVA. In connection with the Bridge Loan, the Company issued HCP-FVA Backstop Warrants to purchase 13,859,128 shares of Common Stock. In February 2018, the Company and HCP-FVA entered into the Amended and Restated Loan Agreement and closed on the Commitment. In connection therewith, the Company issued HCP-FVA additional Backstop Warrants to purchase 41,577,382 shares of Common Stock and Financing Warrants to purchase 366,990,000 shares of Common Stock.

The Backstop Warrants and the Financing Warrants issued in the forgoing transactions were issued in accordance with the exemption provided by Section 4(2) of the Securities Act of 1933, as amended.

Item 6. Selected Financial Data

Not required.

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 contains "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. These forward-looking statements can be identified by the use of predictive, future-tense or forward-looking terminology, such as "believes," "anticipates," "expects," "estimates," "plans," "may," "intend," "will," or similar terms. Investors are cautioned that any forward-looking statements are not guarantees of future performance and involve significant risks and uncertainties, and that actual results may differ materially from those projected in the forward-looking statements. The following discussion should be read together with the consolidated financial statements and notes to those financial statements included elsewhere in this report.

OVERVIEW

During 2017, we continued to innovate and enhance our flagship FreeStor® product, and each of our core point solution products, NSS, CDP, and OBD.

FreeStor leverages our core NSS, CDP, and OBD technology to give customers the ability to move workloads to the right destination, on-premise or in the cloud, with advanced insight. FreeStor is an SDS platform that gives customers the power to seamlessly migrate, recover, protect and deduplicate data - on or off the cloud - without tying their business to specific hardware, networks or protocols. FreeStor's Intelligent Abstraction® Layer enables the free flow of data and common services between the front end and back end, regardless of environment or location. Intelligent Abstraction virtualizes both existing and future storage for a more efficient and consolidated storage infrastructure. Unlike array-based analytics, FreeStor's Intelligent Predictive Analytics provides real-time and historical analytics across heterogeneous storage systems to better manage capacity, performance, and availability. By combining Intelligent Abstraction with Intelligent Predictive Analytics, users are able to take intelligent action based on real-time information to optimize and maintain their storage environment from a single pane of glass regardless of storage vendor or location. FreeStor addresses heterogeneous storage portfolios, all-flash array and hybrid flash array hardware manufacturers which do not have a software stack or do not have an enterprise-ready software stack, and solutions for managed service providers. FreeStor provides centralized management, monitoring, reporting and provisioning through a web browser, tablet or smartphone which gives end-users or storage administrators the ability to be completely mobile when managing their virtual storage portfolio.

Over the past three years, we have continued to drive FreeStor sales through our originally targeted routes to market which included OEMs, Managed Service Providers and Enterprise customers. We have achieved critical customer and marketplace credibility with the early adopter OEMs and Managed Service Providers. Since the introduction and release of FreeStor in mid-2015, FreeStor has won 11 software-defined storage (SDS) product-of-the-year awards at various leading industry publications, including three publications servicing the Asia markets and six publications servicing the European marketplace and two publications in the Americas.

We offer flexibility in licensing and payment structures, and as a result the product revenue for some transactions are being recognized ratably over the contractual maintenance term. We expect to continue this flexibility going forward, and also expect that the number of transactions with flexible sales terms will increase over time, which could result in variable periods for recognizing the revenue. Furthermore, in accordance with existing GAAP standards, while our FreeStor platform is primarily sold on a subscription based offering, a portion of the revenue is recognized up-front while the remaining portion is recognized ratably over the term of the agreement. Our support and maintenance revenue is also subscription based and is recognized ratably over the term of the support and maintenance agreement. Our professional services revenue is recognized upon delivery of the professional services unless it is sold as part of a bundled arrangement for which we have not established fair value for all undelivered elements which would require

the revenue from the entire arrangement to be recognized over the maintenance period.

We believe that the flexibility in licensing, payment structures and subscription based offerings has made and will continue to make us more competitive in the marketplace by allowing us more flexibility to work with partners and customers to design licensing and payment terms that meet their needs. Offering flexibility in licensing, payment structures and subscription based offerings results in ratable revenue recognition, and accordingly our GAAP revenue has fluctuated depending on the volume and mix of ratable and/or subscription sales from period-to-period. On January 1, 2018, we adopted new accounting guidance which requires an entity to recognize the amount of revenue that it expects to be entitled for the transfer of promised goods or services to customers. The adoption of this new guidance will result in less variability due to the mix of ratable and/or subscription sales. This new guidance will replace most existing revenue recognition guidance in GAAP in the United States when it becomes effective. See Note (1) Summary of Significant Accounting Policies to our consolidated financial statements for further information.

Most of our revenue comes from sales to customers through resellers. As service providers to companies, resellers' reputations are dependent on satisfying their customers' needs efficiently and effectively. Resellers have wide choices in fulfilling their customers' needs. If resellers determine that a product they have been providing to their customers is not functioning as promised, or is not providing adequate return on investment, or if the customers are not satisfied with the level of support they are receiving from the suppliers, the resellers will move quickly to offer different solutions to their customers. Additional sales by resellers are therefore an important indicator of our business prospects.

Our "Business Partner" program for our resellers provides financial incentives, for those resellers that are willing to make a commitment to FalconStor through training, marketing and revenue. As part of our review of all of our operations to maximize savings without sacrificing sales, and in connection with our Business Partner program, we continually review our relationship with each of our resellers in all regions. We decided to focus on only those resellers who have the expertise, personnel and networks to identify potential customers and to service our end users.

Overall, total revenue for the year ended December 31, 2017 decreased 16.9% to \$25.2 million, compared with \$30.3 million for the year ended December 31, 2016. We attribute the decline in total revenues to several factors. First, although we have updated and introduced new versions of FreeStor and our point-solutions to address the needs of customers and the marketplace, the volume of new product licenses and maintenance sales, both for expansion of our existing installed base and in the acquisition of new customers declined from the prior year. Second, we have continued to have customer attrition which has resulted in a decrease in maintenance renewal revenue. Third, as stated above, the level of customer deal elongation and customer indecisiveness to purchase in a timely manner as a result of customers working through their organizational purchasing strategies continues to provide significant headwinds for both the storage software industry and FalconStor. We believe that our engineering efforts throughout the year and the release of new and innovative technology which addresses the software-defined-storage marketplace could enable us to capitalize on the rapidly evolving technology landscape and industry standards in 2018.

Cost of revenue for the year ended December 31, 2017 decreased \$2.7 million, or 33.1%, to \$5.5 million, compared with \$8.3 million for the same period in 2016. Total gross margin increased to 78% for the year ended December 31, 2017, compared with 73% for the year ended December 31, 2016. The slight decrease in our total gross margin was primarily due to the mix of sales. Generally, our total gross profits and total gross margins fluctuate based on several factors, including (i) revenue growth levels, (ii) changes in personnel headcount and related costs, and (iii) our product offerings and mix of sales. Our FreeStor product is a subscription-based product offering and is primarily sold as a software only solution, which we anticipate will continue to drive higher product gross margins in the future.

Overall, our total operating expenses, decreased \$13.7 million, or 42%, to \$18.6 million for the year ended December 31, 2017, compared with \$32.3 million for the year ended December 31, 2016. This decrease was primarily attributable to our tighter expense controls and overall operational efficiencies which better align our current business plan on a run-rate basis. These efficiencies include among other items, stream-lined personnel related costs, global overhead costs and efficiencies realized on our redesigned go-to-market coverage models. Our worldwide headcount was 81 employees as of December 31, 2017, compared with 166 employees as of December 31, 2016.

Operating margin is a measure of operating efficiency. We incur research and development expenses before the product is offered for licensing. These expenses consist primarily of personnel costs for engineering and testing, but also include other items such as the depreciation and amortization of hardware and software used in development. We also have expenses for software support, sales and marketing, and general and administrative functions. While our operating margins continue to be impacted by one-time items, impacts from changes in our licensing model and product transitions, our results are not reflective of our internal targets and we continue to look for ways to improve our operating efficiencies.

Typically, we look to operating income as another measure of our progress. This number enables us to measure and to compare our results of operations from one year to the next. Operating income for 2017 was \$1.0 million, compared with an operating loss of \$10.3 million in 2016. Net income for the year ended December 31, 2017 was \$1.1 million, compared with a net loss of \$11.0 million for the year ended December 31, 2016.

As of December 31, 2017 and 2016, approximately 59% and 67% of our deferred revenue consists of amounts attributable to future support and maintenance of our products, respectively, and approximately 41% and 33% of deferred revenue consists of amounts attributable to product revenues, respectively. Our deferred revenue decreased 22% from \$23.7 million at December 31, 2016 to \$18.4 million at December 31, 2017. As discussed in Note (1) Summary of Significant Accounting Policies to our consolidated financial statements, our adoption of new accounting guidance will result in a decrease of deferred revenue in the range of \$4.9 million to \$5.9 million in a cumulative effect adjustment on January 1, 2018.

Liquidity

As of December 31, 2017, we had a working capital deficiency of \$11.2 million, which is inclusive of current deferred revenue of \$11.8 million, and a stockholders' deficit of \$21.2 million. During the year ended December 31, 2017, while we had net income of \$1.1 million, we had negative cash flow from operations of \$2.6 million. Our cash and cash equivalents at December 31, 2017 was \$1.0 million, a decrease of \$2.4 million as compared to December 31, 2016 and such amount at December 31, 2017 includes net proceeds that we received from the Bridge Loan. As of December 31, 2017, the holders of our Series Preferred Stock also had the right to request a redemption of the Series A Preferred Stock. Accordingly, to ensure that the Company could meet its operating cash needs and continue as a going concern, we closed on the Commitment on February 23, 2018. As part of the Commitment, Hale Capital agreed to postpone the date that a redemption of the Series A Preferred Stock could be requested from August 5, 2017 to July 30, 2021, and to waive prior breaches of the terms of the Series A Preferred Stock which had also triggered a redemption right.

RESULTS OF OPERATIONS – FOR THE YEAR ENDED DECEMBER 31, 2017 COMPARED WITH THE YEAR ENDED DECEMBER 31, 2016

Our primary sales focus is on selling software solutions and platforms which includes stand-alone software applications, software integrated with industry standard hardware and sold as one complete integrated solution or sold on a subscription or consumption basis. As a result, our revenue is classified as either: (i) product revenue, or (ii) support and services revenue. Product revenue consists of both integrated solutions and stand-alone software revenue. Support and services revenue consists of both maintenance revenue and professional services revenue.

Total revenue for the year ended December 31, 2017 decreased 16.9% to \$25.2 million, compared with \$30.3 million for the year ended December 31, 2016. Product revenue from our FreeStor product increased \$0.7 million; however, this increase was more than offset by a decrease of product revenue from our legacy products of \$1.9 million for the year ended December 31, 2017, compared with the prior year period. The overall decline in product revenue was primarily due to: (i) challenges in obtaining new customers and, (ii) a decrease in the volume of sales from our legacy product lines. Product revenue from our FreeStor product represented 44% and 33% of our total product revenue for the year ended December 31, 2017 and 2016, respectively. Product revenue from our legacy products represented 56% and 67% of our total product revenue for the year ended December 31, 2017 and 2016, respectively. Our cost of revenue decreased (33)% to \$5.5 million for the year ended December 31, 2017, compared with \$8.3 million for the year ended December 31, 2016. Our operating expenses decreased 42.4% from \$32.3 million for the year ended December 31, 2016 to \$18.6 million for the year ended December 31, 2017. Included in the operating results for the years ended December 31, 2017 and 2016 were; (i) \$0.4 million and \$2.3 million, respectively, of share-based compensation expense; and (ii) \$0.2 million of restructuring costs in each year. Net income for the year ended December 31, 2017 was \$1.1 million, compared with a net loss of \$11.0 million for the year ended December 31, 2016. Net income attributable to common stockholders, which includes the effects of the Series A redeemable convertible preferred stock dividends (including accrued dividends) and accretion, was \$0.2 million for the year ended December 31, 2017, compared with a net loss of \$13.0 million for the year ended December 31, 2016.

Overall, our total operating expenses decreased \$13.7 million, or 42.4%, to \$18.6 million for the year ended December 31, 2017, compared with \$32.3 million for the year ended December 31, 2016. This decrease was primarily attributable to our tighter expense controls and overall operational efficiencies which better align our current business plan on a run-rate basis. These efficiencies include among other items, stream-lined personnel related costs, global overhead costs and efficiencies realized on our redesigned go-to-market coverage models. Our worldwide headcount was 81 employees as of December 31, 2017, compared with 166 employees as of December 31, 2016. We will continue to evaluate the appropriate headcount levels to properly align our resources with our current and long-term outlook and to take actions in areas of the Company that are not performing.

Revenue

	Year ended December 31,		
	2017	2016	
Revenue:			
Product revenue	\$8,972,112	\$10,116,897	
Support and services revenue	16,188,451	20,146,449	
Total Revenue	\$25,160,563	\$30,263,346	
Year-over-year percentage change			
Product revenue	(11)% (59)%
Support and services revenue	(20)% (15)%
Total percentage change	(17)% (38)%

Product revenue

Product revenue is comprised of sales of both licenses for our software solutions and sales of the platforms on which the software is installed. This includes stand-alone software applications and software integrated with industry standard hardware, sold as one complete integrated solution or sold on a subscription or consumption basis. The products are sold through our OEMs, and through (i) value-added resellers, (ii) distributors, and/or (iii) directly to end-users (collectively "non-OEMs"). These revenues are recognized when all the applicable criteria under accounting principles generally accepted in the United States are met.

Product revenue decreased 11% from \$10.1 million for the year ended December 31, 2016 to \$9.0 million for the year ended December 31, 2017. Product revenue represented 36% and 33% of our total revenue for the years ended December 31, 2017 and 2016, respectively.

We continue to invest in our product portfolio by refreshing and updating our existing product lines and developing our next generation of innovative product offerings to drive our sales volume in support of our long-term outlook.

Support and services revenue

Support and services revenue is comprised of revenue from (i) maintenance and technical support services, (ii) professional services primarily related to the implementation of our software, and (iii) engineering services. Revenue derived from maintenance and technical support contracts are deferred and recognized ratably over the contractual maintenance term. Professional services revenue is recognized in the period that the related services are performed or over the contractual term if vendor-specific objective evidence ("VSOE") does not exist for all undelivered elements. Engineering services are recognized upon customer acceptance or over the remaining contract term if VSOE does not exist for the remaining deliverables upon acceptance. Support and services revenue decreased 20% from \$20.1 million for the year ended December 31, 2016 to \$16.2 million for the year ended December 31, 2017. The decrease in support and services revenue was attributable to decreases in both maintenance and technical support services revenue and professional services revenue.

Maintenance and technical support services revenue decreased from \$19.4 million for the year ended December 31, 2016 to \$15.6 million for the same period in 2017. Our maintenance and technical support service revenue results primarily from (i) the purchase of maintenance and support contracts by our customers, and (ii) the renewal of maintenance and support contracts by our existing and new customers after their initial contracts expire. Reductions in maintenance and technical support revenue are due to declines product sales which resulted in lower renewal revenue. Additionally, the conversion of existing customers using our legacy products to our FreeStor subscription product has resulted and will continue to result in a shift of revenue from maintenance and technical support services revenue to product revenue.

Professional services revenue decreased from \$0.7 million for the year ended December 31, 2016 to \$0.6 million for the year ended December 31, 2017. Professional services revenue varies from period to period based upon (i) the number of solutions sold during the existing and previous periods, (ii) the number of customers who elect to purchase professional services, (iii) the number of professional services contracts that are performed during the period, and (iv) the number of customers who elect to purchase engineering services and the timing of acceptance from the customer. We expect professional services revenue to continue to vary from period to period based upon the number of customers who elect to utilize our professional services upon purchasing any of our solutions.

Cost of revenue

	Year ended December 31,	
	2017	2016
Cost of revenue:		
Product	\$785,535	\$932,446
Support and service	4,755,464	7,351,857
Total cost of revenue	\$5,540,999	\$8,284,303
Total Gross Profit	\$19,619,564	\$21,979,043
Gross Margin:		
Product	91%	91%
Support and service	71%	64%
Total gross margin	78%	73%

Cost of revenue, gross profit and gross margin

Cost of product revenue consists primarily of industry standard hardware we purchase and integrate with our software for turn-key integrated solutions, personnel costs, amortization of capitalized software and shipping and logistics costs. Cost of support and service consists primarily of personnel and other costs associated with providing software implementations, technical support under maintenance contracts and training.

Cost of product revenue for the year ended December 31, 2017 decreased \$0.1 million, or 16%, to \$0.8 million, compared with \$0.9 million for the same period in 2016. Product gross margin increased to 91.2% for the year ended December 31, 2017, compared with 90.8% for the same period in 2016. The increase in product gross margin was primarily attributable to an increase in the percentage of our product revenue from sales of our stand-alone software applications, which have higher gross margins than sales of our fully integrated solutions with hardware appliances, compared with the same period in 2016. Our FreeStor product is a subscription-based product offering and is primarily sold as a software only solution, which we anticipate will continue to drive higher product gross margins in the future. Our cost of support and service revenue for the year ended December 31, 2017 decreased \$2.6 million, or 35%, to \$4.8 million, compared with \$7.4 million for the same period in 2016. Support and service gross margin increased to 71% for the year ended December 31, 2017 from 64% for the same period in 2016. The increase in support and service gross margin was primarily attributable to a reduction in personnel related costs resulting from our realignment and reduction in workforce and a severance benefit recorded as a result of litigation settlement with a former employee compared with the prior year period.

Total gross profit decreased \$2.4 million, or 11%, from \$22.0 million for the year ended December 31, 2016, to \$19.6 million for the year ended December 31, 2017. However, total gross margin increased to 78% for the year ended December 31, 2017, compared with 73% for the year ended December 31, 2016. Generally, our total gross profits and total gross margins fluctuate based on several factors, including (i) revenue growth levels, (ii) changes in personnel headcount and related costs, and (iii) our product offerings and mix of sales.

There was no share-based compensation expense included in cost of product revenue for each of the years ended December 31, 2017 and 2016. Share-based compensation expense included in cost of support and service revenue was \$0.1 million for each of the years ended December 31, 2017 and 2016.

Operating Expenses

Research and Development Costs

Research and development costs consist primarily of personnel costs for product development, share-based compensation expense, and other related costs associated with the development of new products, enhancements to existing products, quality assurance and testing. Research and development costs decreased \$5.2 million, or 44%, to \$6.5 million for the year ended December 31, 2017, from \$11.7 million in 2016. The decrease was primarily related to a decrease in personnel related costs resulting from our realignment and reduction in workforce and continued efforts to allocate the appropriate level of resources based upon the product development roadmap schedule. We continue to provide substantial resources in support of our research and development activities to continue to enhance and to test our core products and in the development of new innovative products, features and options. The decrease is also due to a reduction in share-based compensation expense included in research and development costs. Share based compensation decreased to \$0.2 million from \$1.7 million for the years ended December 31, 2017 and December 31, 2016, respectively. Included in share-based compensation expense for the year ended December 31, 2016, was \$1.5 million related to costs associated with our exclusive source code license and development agreement which were paid through the issuance of our common stock.

Selling and Marketing

Selling and marketing expenses consist primarily of sales and marketing personnel and related costs, share-based compensation expense, travel, public relations expense, marketing literature and promotions, commissions, trade show expenses, and the costs associated with our foreign sales offices. Selling and marketing expenses decreased \$7.8 million, or 56%, to \$6.1 million for the year ended December 31, 2017, from \$13.9 million for the year ended December 31, 2016. The decrease in selling and marketing expenses was primarily attributable to a decrease in headcount resulting from our realignment and reduction in workforce as well as continued efforts to optimize our go-to-market coverage models around the world. Share-based compensation expense included in selling and marketing expenses was \$0.0 million and \$0.2 million for the years ended December 31, 2017 and December 31, 2016, respectively.

General and Administrative

General and administrative expenses consist primarily of personnel costs of general and administrative functions, share-based compensation expense, public company related costs, directors and officers insurance, legal and professional fees and other general corporate overhead costs. General and administrative expenses decreased \$0.4 million, or 5%, to \$6.1 million for the year ended December 31, 2017, from \$6.5 million for the year ended December 31, 2016. The decrease in general and administrative expenses was primarily attributable to a decrease in headcount resulting from our realignment and reduction in workforce and continuing to optimize personnel costs, professional fees and other various general and administrative costs within the Company. Share-based compensation expense included in general and administrative expenses was \$0.1 million and \$0.4 million for the years ended December 31, 2017 and 2016, respectively.

Restructuring costs

In the third quarter of 2013, we adopted a restructuring plan intended to better align our cost structure with the skills and resources required to more effectively execute our long-term growth strategy and to support revenue levels we expect to achieve on a go forward basis (the "2013 Plan"). In connection with the 2013 Plan, we eliminated over 100 positions worldwide, implemented tighter expense controls, ceased non-core activities and closed or downsized several facilities. Restructuring costs decreased \$0.3 million, or 190% to a benefit of \$0.2 million, due to an accrual reversal for the year ended December 31, 2017, from \$0.2 million for the year ended December 31, 2016. For further

information, refer to Note (14) Restructuring Costs, to our consolidated financial statements.

In June 2017, the Board approved a comprehensive plan to increase operating performance (the “2017 Plan”). The 2017 Plan resulted in a realignment and reduction in workforce. The 2017 Plan was substantially completed by the end of our fiscal year ending December 31, 2017 and when combined with previous workforce reductions in the second quarter of Fiscal 2017 reduced our workforce to approximately 81 employees. These actions are anticipated to result in an annualized cost savings of approximately \$10.0 million. In connection with the 2017 Plan, we incurred severance expense of \$1.2 million. In making these changes, we prioritized customer support and development while consolidating operations and cutting direct sales resources allowing us to focus on the install base and develop alternate channels to the market.

Interest and Other Loss, Net

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As of December 31, 2017, our cash and cash equivalents totaled \$1.0 million, compared with \$3.4 million as of December 31, 2016. Interest and other income (loss) increased \$0.2 million to an income of \$0.0 million for the year ended December 31, 2017, compared with a loss of \$0.1 million for 2016. Interest and other income (loss) was comprised of losses on our embedded derivatives of \$0.1 million, offset primarily by sublease income of \$0.1 million for the year ended December 31, 2017, compared with losses on our embedded derivatives of \$0.3 million, foreign currency losses of less than \$0.1 million, partly offset by sublease income of \$0.1 million for the year ended December 31, 2016.

Income Taxes

On December 22, 2017 the U.S. government enacted comprehensive tax reform commonly referred to as the Tax Cuts and Jobs Act (“TCJA”). Under ASC 740, the effects of changes in tax rates and laws are recognized in the period which the new legislation is enacted. Among other things, the TCJA (1) reduces the US statutory corporate income tax rate from 35% to 21% effective January 1, 2018 (2) eliminates the corporate alternative minimum tax (3) requires companies to record/pay a one-time transition tax on earnings of certain foreign subsidiaries that were previously tax deferred (4) creates new taxes on certain foreign sourced earnings (5) changes rules related to uses and limitations of net operating loss carry forwards beginning after December 31, 2017.

In response to the TCJA, the SEC staff issued SAB 118, which provides guidance on accounting for the tax effects of TCJA. SAB 118 provides a measurement period that should not extend beyond one year from the TCJA enactment date for companies to complete the accounting of the TCJA under ASC 740. To the extent that a company’s accounting for certain income tax effects of the TCJA is incomplete but is able to determine a reasonable estimate, it must record a provisional estimate in the financial statements. At December 31, 2017 we have not completed our accounting for the tax effects of the enactment of the TCJA, however in certain cases, as described in Note (5) Income Taxes, to our consolidated financial statements, we have made a reasonable estimate of the effects on our existing deferred tax balances and the one-time transition tax.”

For the year ended December 31, 2017, we recorded an income tax provision of \$0.0 million, consisting of federal, state and local and foreign taxes. Our effective tax rate for the year ended December 31, 2017 was 0.76%.

LIQUIDITY AND CAPITAL RESOURCES

Principal Sources of Liquidity

Our principal sources of liquidity are our cash, cash equivalents generated from operating, investing and financing activities. Our cash and cash equivalents balance as of December 31, 2017 totaled \$1.0 million, compared with \$3.4 million as of December 31, 2016. Such amount includes the \$370,151 of net proceeds we received from the Bridge Loan.

Recent Developments

On February 23, 2018, we closed on our previously-announced commitment (the “Commitment”) from HCP-FVA, LLC (“HCP-FVA”) to purchase up to \$3 million of Units (as defined below) from the Company to backstop a proposed private placement of Units to certain eligible stockholders of the Company (the “Financing”). HCP-FVA subscribed for the full \$3 million of Units (at the Company’s election) in the Commitment by payment of \$2.5 million in cash and the conversion of a \$500,000 short-term loan provided by HCP-FVA to the Company in November 2017 (the “Bridge Loan”) into Units. HCP-FVA is an affiliate of Hale Capital Partners, LP (together with HCP-FVA, “Hale Capital”), the Company’s largest stockholder through its ownership of the Company’s Series A Redeemable Preferred Stock (the “Series A Preferred Stock”), and an affiliate of FalconStor director, Martin Hale.

In the Financing, the Company intends to offer to FalconStor stockholders as of November 17, 2017 who are accredited investors the opportunity to purchase up to a total of 40 million Units (inclusive of subscriptions by HCP-FVA). The Financing is expected to close on or before September 23, 2018, and documentation relating to the Financing will be provided to prospective investors subsequent to the Company's Annual Meeting of Shareholders. Each Unit is expected to consist of the following (each, a "Unit"):

- \$0.10 in senior secured debt (for a total of \$4 million of senior secured debt assuming full subscription of the i. Financing), secured by all of the assets of the Company and guaranteed by each of the Company's domestic subsidiaries, having an interest rate of prime plus 0.75% and a maturity date of June 30, 2021 (the "Term Loan");
- ii. warrants to purchase 12.233 shares of the Company's common stock for a nominal exercise price (for a total of 489.32 million shares assuming full subscription of the Financing) (the "Financing Warrants"); and

0.0225 shares of Series A Preferred Stock at a per Unit price of \$0.2643 (subject to increase to take into account iii. accretion of the Series A Preferred Stock after June 30, 2018), all such shares to be acquired directly from their current holder, HCP-FVA.

The closing of the Commitment effectively constitutes HCP-FVA's purchase of 30 million Units in the Financing. As a result, the maximum additional funds that the Company may receive in the Financing is \$1 million through the purchase of 10 million Units by other eligible stockholders. If other eligible stockholders subscribe for more than 10 million Units, they will purchase those additional Units consisting of senior secured debt and Series A Preferred Stock directly from HCP-FVA (with the associated Financing Warrants to be issued by the Company directly to the eligible stockholders, and HCP-FVA's Financing Warrants associated with those additional Units sold to the eligible stockholders to be cancelled in accordance with the terms of such Financing Warrants), subject to HCP-FVA maintaining at least 25% of the total Units to be issued in the Financing. HCP-FVA has agreed to subscribe for more than its pro rata portion of the Units available for purchase in the Financing (based on common stock ownership on an as-converted basis as of November 17, 2017), and if other eligible stockholders elect to subscribe for more than their pro rata share, the remaining Units shall be allocated among such stockholders (including HCP-FVA) in such manner as the Company, Hale Capital and the participating eligible stockholders shall agree.

On February 23, 2018, in connection with HCP-FVA's subscription in the Financing, the Company entered into an Amended and Restated Term Loan Credit Agreement, dated as of the same date (the "Amended and Restated Loan Agreement"), with HCP-FVA and certain other loan parties named therein setting forth the terms of the Term Loan. The Amended and Restated Loan Agreement amends and restates that certain Loan Agreement, dated as of November 17, 2017, by and among the parties, pursuant to which HCP-FVA made the Bridge Loan.

Under the Amended and Restated Loan Agreement, in the event the Term Loan is prepaid for any reason, such prepayment will be subject to the payment of a premium in an amount equal to 5% of the principal amount prepaid. The Term Loan is required to be prepaid upon the occurrence of certain events, including but not limited to certain assets dispositions, the incurrence of additional indebtedness, the receipt of insurance proceeds, and a change of control, subject to certain exceptions.

The Amended and Restated Loan Agreement has customary representations, warranties and affirmative and negative covenants. The negative covenants include financial covenants by the Company to (i) maintain minimum cash denominated in U.S. dollars plus accounts receivable outstanding for less than 90 days of \$2 million, and (ii) until the consummation of the Financing with eligible stockholders (other than HCP-FVA), not permit a variance of more than 10% of net cash flow from the amounts set forth in a rolling weekly detailed budget through the second fiscal quarter of 2018, agreed upon at the signing of the Amended and Restated Loan Agreement. The Amended and Restated Loan Agreement also contains customary events of default, including but not limited to payment defaults, cross defaults with certain other indebtedness, breaches of covenants, bankruptcy events and a change of control. In the case of an event of default, as administrative agent under the Loan Agreement, HCP-FVA may (and upon the written request of lenders holding in excess of 50% of the Term Loan, which must include HCP-FVA, is required to accelerate payment of all obligations under the Loan Agreement, and seek other available remedies.

As part of the Commitment, Hale Capital also agreed to postpone the date of the redemption of the Series A Preferred Stock from August 5, 2017 to July 30, 2021, and to waive prior breaches of the terms of the Series A Preferred Stock which had also triggered a redemption right.

In exchange for serving as the backstop for the Financing, upon the closing of the Commitment, HCP-FVA received warrants to purchase 41,577,382 shares of the Company's common stock for a nominal exercise price (the "Backstop Warrants"), in addition to the 13,859,128 Backstop Warrants issued to HCP-FVA in connection with the making of the Bridge Loan. If eligible stockholders (other than HCP-FVA) subscribe for and purchase more than fifty percent (50%) of the Units in the Financing on the terms and conditions set forth in Section 10.13 of the Amended and Restated Loan

Agreement and Schedule 10.13 thereto, then 66.66% of the number of shares of common stock issued to HCP-FVA in respect of the Backstop Warrants issued upon the closing of the Commitment (or, if the Backstop Warrants issued upon the closing of the Commitment have not then been exercised, issuable to HCP-FVA) upon exercise of such Backstop Warrants, as determined on a post-cashless exercise basis, shall be cancelled (and, if such Backstop Warrants have been exercised on a non-cashless exercise basis, the Company shall reimburse HCP-FVA for the cash exercise price paid in respect of the cancelled warrant shares). The Backstop Warrants are in addition to the Financing Warrants issuable in the Financing. In consideration for HCP-FVA's subscription of \$3 million of Units, HCP-FVA was issued Financing Warrants to purchase 366,990,000 shares of the Company's common stock for a nominal exercise price. The Financing Warrants are not exercisable until receipt of Stockholder Approval.

We believe that our cash flows from operations and existing cash on hand are sufficient to conduct our planned operations and meet our contractual requirements through April 2, 2019.

Cash Flow Analysis

Cash flow information is as follows:

	Years Ended December 31,	
	2017	2016
Cash (used in) provided by:		
Operating activities	\$(2,574,420)	\$(9,423,496)
Investing activities	(183,718)	7,133,126
Financing activities	325,945	—
Effect of exchange rate changes	52,137	(331,484)
Net decrease in cash and cash equivalents	\$(2,380,056)	\$(2,621,854)

Net cash used in operating activities totaled \$2.6 million and \$9.4 million for the years ended December 31, 2017 and 2016, respectively. The changes in net cash used in operating activities for each of the years ended December 31, 2017 and 2016, was primarily due to our net income (loss) and adjustments for net changes in operating assets and liabilities, primarily changes in our accounts receivable, deferred revenue, prepaid expenses, inventory, other assets, accounts payable, accrued expenses and other long-term liabilities contributed to the decrease.

Net cash used by investing activities totaled \$0.2 million for the year ended December 31, 2017 and net cash provided by investing activities totaled \$7.1 million for the year ended December 31, 2016. Included in investing activities for the year ended December 31, 2017 are purchases of property and equipment, intangible assets and cash received from security deposits. Included in investing activities in the prior year period are the sales and purchases of our marketable securities, purchases of property and equipment, cash received from security deposits and purchases of intangible assets. Net sales of our marketable securities for the prior year per period were \$7.4 million. Purchases of property and equipment for the years ended December 31, 2017 and 2016, totaled \$0.1 million and \$0.3 million, respectively.

Net cash provided by financing activities totaled \$0.3 million for the year ended December 31, 2017 which included proceeds from the Bridge Loan less cash paid for Bridge Loan issuance costs and tax withholdings for employee share-based payment awards. There was no cash provided by or used in financing activities for the prior year period.

Total cash and cash equivalents decreased \$2.4 million at December 31, 2017 compared with December 31, 2016 mainly attributable to cash used in operating activities of \$2.6 million during the year ended December 31, 2017.

Contractual Obligations

As of December 31, 2017, our significant commitments related to (i) the Bridge Loan, (ii) our office leases, (iii) dividends (including accrued dividends) on our Series A Preferred Stock, and (iv) the potential redemption of the Series A redeemable convertible preferred stock as discussed above.

The following is a schedule summarizing our significant obligations to make future payments under contractual obligations as of December 31, 2017 (at such date, the holder of the Series A Preferred Stock had not exercised their redemption rights):

	Operating Leases	Short-Term Debt (c)	Interest Payments (a) (c)	Long-Term Income Tax Payable
2018	\$2,035,850	\$ 500,000	\$ 13,256	\$ —
2019	1,614,843	—	—	—
2020	1,444,247	—	—	—
2021	491,020	—	—	—
Thereafter	—	—	—	—
Other (b)	—	—	—	85,559
	\$5,585,960	\$ 500,000	\$ 13,256	\$ 85,559

(a) The cash obligations for interest requirements reflect floating rate debt obligations on the balance of our short-term debt at December 31, 2017 using interest rate in effect at such time.

(b) Represents our liability for uncertain tax positions. We are unable to make a reasonably reliable estimate of the timing of payments due to uncertainties in the timing of tax audit outcomes.

(c) As described herein, subsequent to December 31, 2017, the Company entered into the Amended Restated Loan Agreement and Hale Capital has agreed to postpone the date of the optional redemption of the Series A Preferred Stock from August 5, 2017 to July 30, 2021.

Off-Balance Sheet Arrangements

As of December 31, 2017 and 2016, we had no off-balance sheet arrangements.

Critical Accounting Policies and Estimates

Our critical accounting policies and estimates are those related to revenue recognition, accounts receivable allowances, deferred income taxes, accounting for share-based payments, goodwill and other intangible assets, software development costs, fair value measurements and litigation.

Revenue Recognition. As discussed further in Note (1) Summary of Significant Accounting Policies, to our consolidated financial statements, we recognize revenue in accordance with the authoritative guidance issued by the FASB on revenue recognition. We recognize revenue when persuasive evidence of an arrangement exists, the fee is fixed or determinable, delivery has occurred, and collection of the resulting receivable is deemed probable. Products delivered to a customer on a trial basis are not recognized as revenue until the trial period has ended and acceptance has occurred by the customer. Reseller and distributor customers typically send us a purchase order when they have an end user identified. For bundled arrangements that include either maintenance or both maintenance and professional services, we use the residual method to determine the amount of product revenue to be recognized. Under the residual method, consideration is allocated to the undelivered elements based upon VSOE of the fair value of those elements, with the residual of the arrangement fee allocated to and recognized as product revenue. If VSOE does not exist for all undelivered elements of an arrangement, we recognize total revenue from the arrangement ratably over the term of the maintenance agreement. Our long-term portion of deferred revenue consists of (i) payments received for maintenance contracts with terms in excess of one year as of the balance sheet date, and (ii) payments received for product sales bundled with multiple years of maintenance but for which VSOE did not exist for all undelivered elements of the arrangement. We provide an allowance for product returns as a reduction of revenue, based upon historical experience and known or expected trends.

When more than one element, such as hardware, software and services are contained in a single arrangement, we will first allocate revenue based upon the relative selling price into two categories: (1) non-software components, such as hardware and any hardware-related items, as required system software that functions with the hardware to deliver the essential functionality of the hardware and related post-contract customer support, and software as service subscriptions and (2) software components and applications, such as post-contract customer support and other services. We will then allocate revenue within the non-software category to each element based upon their relative selling price using a hierarchy of VSOE, third-party evidence of selling price (“TPE”) or estimated selling prices (“ESP”), if VSOE or TPE does not exist. We will allocate revenue within the software category to the undelivered elements based upon their fair value using VSOE with the residual revenue allocated to the delivered elements. If we cannot objectively determine the VSOE of the fair value of any undelivered software element, we will defer revenue for all software components until all elements are delivered and services have been performed, until fair value can objectively be determined for any remaining undelivered elements, or until software maintenance is the only undelivered element which we do not have VSOE for, in which case revenue is recognized over the maintenance term for all software elements.

Revenues associated with maintenance services are deferred and recognized as revenue ratably over the term of the contract. Revenues associated with software implementation and software engineering services are recognized when the services are performed and customer acceptance is received. Costs of providing these services are included in cost of support and services.

We have entered into various distribution, licensing and joint promotion agreements with OEMs, whereby we have provided to the OEM a non-exclusive software license to install our software on certain hardware or to resell our software in exchange for payments based on the products distributed by these OEMs. Such payments from the OEM or distributor are recognized as revenue in the period reported by the OEM.

From time to time we will enter into funded software development arrangements. Under such arrangements, revenue recognition will not commence until final delivery and/or acceptance of the product. For arrangements where we have VSOE for the undelivered elements, the Company will follow the residual method and recognize product revenue upon final delivery and/or acceptance of the product. For arrangements where we do not have VSOE for the undelivered elements, we will recognize the entire arrangement fee ratably commencing at the time of final delivery and/or acceptance through the end of the service period in the arrangement. Certain arrangements, for which VSOE of fair value for the undelivered maintenance elements cannot be established, are accounted for as a single unit of account. The revenue recognized from single units of accounting are typically allocated and classified on the consolidated statements of operations as product revenue and support and services revenue. Since VSOE cannot be established, VSOE of similar maintenance offerings provides the basis for the support and services revenue classification, and the remaining residual consideration provides the basis for the product revenue classification.

Accounts Receivable. We review accounts receivable to determine which receivables are doubtful of collection. In making the determination of the appropriate allowance for uncollectible accounts and returns, we consider (i) historical return rates, (ii) specific past due accounts, (iii) analysis of our accounts receivable aging, (iv) customer payment terms, (v) historical collections, write-offs and returns, (vi) changes in customer demand and relationships, (vii) actual cash collections on our accounts receivables and (viii) concentrations of credit risk and customer credit worthiness. When determining the appropriate allowance for uncollectable accounts and returns each period, the actual customer collections of outstanding account receivable balances impact the required allowance for returns. We recorded an expense of \$0.1 million and \$0.1 million for the years ended December 31, 2017 and 2016, respectively. These amounts are included within our consolidated statement of operations in each respective year. Changes in the product return rates, credit worthiness of customers, general economic conditions and other factors may impact the level of future write-offs, revenue and our general and administrative expenses.

Income Taxes. As discussed further in Note (5) Income Taxes, to our consolidated financial statements, in accordance with the authoritative guidance issued by the FASB on income taxes, we regularly evaluate our ability to recover deferred tax assets, and report such deferred tax assets at the amount that is determined to be more-likely-than-not recoverable. The Company records income taxes under the asset and liability method. Deferred tax assets and liabilities are recognized for future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be realized or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. In determining the period in which related tax benefits are realized for financial reporting purposes, excess share-based compensation deductions included in net operating losses are realized after regular net operating losses are exhausted.

We account for uncertain tax positions in accordance with the authoritative guidance issued by the FASB on income taxes, which addresses the determination of whether tax benefits claimed or expected to be claimed on a tax return, should be recorded in the financial statements. Pursuant to the authoritative guidance, we may recognize the tax benefit from an uncertain tax position only if it meets the “more likely than not” threshold that the position will be sustained on examination by the

taxing authority, based on the technical merits of the position or under statute expirations. The tax benefits recognized in the financial statements from such a position should be measured based on the largest benefit that has a greater than fifty percent likelihood of being realized upon ultimate settlement. In addition, the authoritative guidance addresses de-recognition, classification, interest and penalties on income taxes, accounting in interim periods, and also requires increased disclosures.

Accounting for Share-Based Payments. As discussed further in Note (10) Share-Based Payment Arrangements, to our consolidated financial statements, we account for share-based awards in accordance with the authoritative guidance issued by the FASB on stock compensation.

We have used and expect to continue to use the Black-Scholes option-pricing model to compute the estimated fair value of share-based compensation expense. We have used the Monte Carlo simulation model to compute the estimated fair value of share-based compensation expense for awards with a market condition. The Black-Scholes option-pricing model includes assumptions regarding dividend yields, expected volatility, expected option term and risk-free interest rates. The Monte Carlo simulation model includes assumptions regarding expected volatility, expected option term and risk-free interest rates. The assumptions used in computing the fair value of share-based compensation expense reflect our best estimates, but involve uncertainties relating to market and other conditions, many of which are outside of our control. We estimate expected volatility based primarily on historical daily price changes of our stock and other factors. The expected option term is the number of years that we estimate that the stock options will be outstanding prior to exercise. The estimated expected term of the stock awards issued has been determined pursuant to SEC Staff Accounting Bulletin SAB No. 110. If other assumptions or estimates had been used, the share-based compensation expense that was recorded for the years ended December 31, 2017 and 2016 could have been materially different. Furthermore, if different assumptions or estimates are used in future periods, share-based compensation expense could be materially impacted in the future.

Goodwill. As discussed further in Note (1) Summary of Significant Accounting Policies, to our consolidated financial statements, we account for goodwill and other intangible assets in accordance with the authoritative guidance issued by the FASB on goodwill and other intangibles. The authoritative guidance requires an impairment-only approach to accounting for goodwill and other intangibles with an indefinite life. Absent any prior indicators of impairment, we perform an annual impairment analysis during the fourth quarter of each of our fiscal years.

As of both December 31, 2017 and 2016, we had \$4.2 million of goodwill. As of both December 31, 2017 and 2016, we had \$0.1 million and \$0.2 million (net of accumulated amortization), respectively, of other identifiable intangible assets. We do not amortize goodwill, but we assess for impairment at least annually on December 31st and more often if a trigger event occurs. The Company has early adopted the provisions of ASU 2017-4, "Intangibles-Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment," which eliminates the second step of the goodwill impairment test. As a result, the Company's goodwill impairment test as of December 31, 2017 included only one step, which is a comparison of the carrying value of its one reporting unit to its fair value, and any excess carrying value, up to the amount of goodwill allocated to that reporting unit, is impaired. This new accounting pronouncement also eliminates the requirements for any reporting unit with a zero or negative carrying amount to perform a qualitative assessment and, if it fails that qualitative test, to perform Step 2 of the goodwill impairment test. The Company has determined there to be no impairment for any of the periods presented. Based on the Company's analysis performed in the prior period, the fair value of its reporting unit substantially exceeded the carrying value of its goodwill balances as of December 31, 2016. As part of the goodwill impairment test performed at December 31, 2016, the Company determined it was more likely than not that a goodwill impairment existed and the Company proceeded to step two of the goodwill impairment test. The Company engaged a third-party valuation firm to determine the fair value of all long-lived assets other than goodwill and determine the residual goodwill value of the reporting unit. This goodwill impairment test indicated that the fair value of goodwill value exceeded its carrying value by \$15.8 million. The Company used multiple valuation techniques, the income and market approaches, and weighted the results to calculate the fair value of its goodwill as of December 31, 2016. At December 31, 2017, the

Company's single reporting unit for purposes of its goodwill impairment test had a negative carrying value and thus the Company determined there was no impairment of goodwill.

Software Development Costs. As discussed further in Note (1) Summary of Significant Accounting Policies, to our consolidated financial statements, we account for software development costs in accordance with the authoritative guidance issued by the FASB on costs of software to be sold, leased or marketed.

As of December 31, 2017 and 2016, we had \$0.3 million and \$0.5 million, respectively, of software development costs, net of amortization. The authoritative guidance requires that the costs associated with the development of new software products and enhancements to existing software products be expensed as incurred until technological feasibility of the product has been established. Once technological feasibility is established, all software costs are capitalized until the product is available for general release to customers. Judgment is required in determining when technological feasibility of a product is established and assumptions are used that reflect our best estimates. If other assumptions had been used in the current period to estimate technological feasibility, the reported product development and enhancement expense could have been affected. Annual amortization of capitalized software costs is the greater of the amount computed using the ratio that current gross revenue for a product bear to the total of current and anticipated future gross revenue for that product or the straight-line method over the remaining estimated economic life of the software product, generally estimated to be five years from the date the product became available for general release to customers. Software development costs are reported at the lower of amortized cost or net realizable value. Net realizable value is computed as the estimated gross future revenue from each software solution less the amount of estimated future costs of completing and disposing of that product. Because the development of projected net future revenue related to our software solutions used in our net realizable value computation is based on estimates, a significant reduction in our future revenue could impact the recovery of our capitalized software development costs.

Fair Value Measurement. As discussed further in Note (3) Fair Value Measurements, to our consolidated financial statements, we determine fair value measurements of both financial and nonfinancial assets and liabilities in accordance with the authoritative guidance issued by the FASB on fair value measurements and disclosures. The FASB authoritative guidance establishes three levels of inputs that may be used to measure fair value. Each level of input has different levels of subjectivity and difficulty involved in determining fair value.

Level 1—Valuations based on quoted prices for identical assets and liabilities in active markets.

Level 2—Valuations based on observable inputs other than quoted prices included in Level 1, such as quoted prices for similar assets and liabilities in active markets, quoted prices for identical or similar assets and liabilities in markets that are not active, or other inputs that are observable or can be corroborated by observable market data.

Level 3—Valuations based on unobservable inputs reflecting our own assumptions, consistent with reasonably available assumptions made by other market participants. These valuations require significant judgment.

Other-Than-Temporary Impairment

After determining the fair value of our available-for-sale debt instruments, gains or losses on these investments are recorded to other comprehensive income, until either the investment is sold or we determine that the decline in value is other-than-temporary. Determining whether the decline in fair value is other-than-temporary requires management judgment based on the specific facts and circumstances of each investment. For investments in debt instruments, these judgments primarily consider the financial condition and liquidity of the issuer, the issuer's credit rating, and any specific events that may cause us to believe that the debt instrument will not mature and be paid in full; and our ability and intent to hold the investment to maturity.

Litigation. As discussed further in Note (13) Litigation, to our consolidated financial statements, in accordance with the authoritative guidance issued by the FASB on contingencies, we accrue anticipated costs of settlement, damages and losses for claims to the extent specific losses are probable and estimable. We record a receivable for insurance recoveries when such amounts are probable and collectable. In such cases, there may be an exposure to loss in excess of any amounts accrued. If, at the time of evaluation, the loss contingency related to a litigation is not both probable and estimable, the matter will continue to be monitored for further developments that would make such loss contingency both probable and estimable and, we will expense these costs as incurred. If the estimate of a probable

loss is a range and no amount within the range is more likely, we will accrue the minimum amount of the range.

Impact of Recently Issued Accounting Pronouncements

See Item 8 of Part II, Consolidated Financial Statements – Note (1) Summary of Significant Accounting Policies – Recently Issued Accounting Pronouncements.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

Foreign Currency Risk. We have several offices outside the United States. Accordingly, we are subject to exposure from adverse movements in foreign currency exchange rates. For the years ended December 31, 2017 and 2016, approximately 70%, and 71%, respectively, of our sales were from outside North America. Not all of these transactions were made in foreign currencies. Our primary exposure is to fluctuations in exchange rates for the U.S. Dollar versus the Euro and the Japanese Yen, and to a lesser extent the Canadian Dollar, the Korean Won and the British Pound. Changes in exchange rates in the functional currency for each geographic area's revenues are primarily offset by the related expenses associated with such revenues. However, changes in exchange rates of a particular currency could impact the re-measurement of such balances on our balance sheets.

If foreign currency exchange rates were to change adversely by 10% from the levels at December 31, 2017, the effect on our results before taxes from foreign currency fluctuations on our balance sheet would be approximately \$1.6 million. The above analysis disregards the possibility that rates for different foreign currencies can move in opposite directions and that losses from one currency may be offset by gains from another currency.

Item 8. Financial Statements and Supplementary Data

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Report of Independent Registered Public Accounting Firm

Board of Directors and Stockholders
FalconStor Software, Inc.
Austin, Texas

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of FalconStor Software, Inc. and subsidiaries as of December 31, 2017 and 2016 and the related statements of operations, comprehensive income (loss), stockholders' deficit and cash flows for each of the two years then ended. In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2017 and 2016, and the results of their operations and their cash flows for each of the two years in the period ended December 31, 2017, in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

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

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

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

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

/s/ BDO USA, LLP

Melville, New York
April 2, 2018

FALCONSTOR SOFTWARE, INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS

	December 31,	
	2017	2016
Assets		
Current assets:		
Cash and cash equivalents	\$ 1,011,472	\$ 3,391,528
Accounts receivable, net of allowances of \$354,542 and \$260,676, respectively	4,168,015	5,003,972
Prepaid expenses and other current assets	1,244,494	1,245,085
Inventory	—	6,181
Total current assets	6,423,981	9,646,766
Property and equipment, net of accumulated depreciation of \$17,926,959 and \$18,580,547, respectively	636,112	1,174,942
Deferred tax assets, net	590,977	577,735
Software development costs, net	279,414	547,558
Other assets	992,760	973,949
Goodwill	4,150,339	4,150,339
Other intangible assets, net	141,631	209,456
Total assets	\$ 13,215,214	\$ 17,280,745
Liabilities and Stockholders' Deficit		
Current liabilities:		
Accounts payable	\$ 1,092,864	\$ 419,877
Accrued expenses	4,376,235	4,471,010
Short-term loan, net of debt issuance costs and discounts	370,151	—
Deferred revenue, net	11,760,327	15,236,123
Total current liabilities	17,599,577	20,127,010
Other long-term liabilities	1,154,512	1,170,844
Deferred tax liabilities, net	85,559	254,776
Deferred revenue, net	6,600,363	8,430,692
Total liabilities	25,440,011	29,983,322
Commitments and contingencies (Note 12)		
Series A redeemable convertible preferred stock, \$.001 par value, 2,000,000 shares authorized, 900,000 shares issued and outstanding, redemption value of \$9,000,000	9,000,000	9,000,000
Stockholders' equity:		
Common stock - \$.001 par value, 100,000,000 shares authorized, 60,091,560 and 59,482,989 shares issued, respectively and 44,563,490 and 43,954,919 shares outstanding, respectively	60,090	59,483
Additional paid-in capital	168,637,157	169,091,255
Accumulated deficit	(130,930,284)	(131,982,685)
Common stock held in treasury, at cost (15,528,070 and 15,528,070 shares, respectively)	(57,032,917)	(57,032,917)
Accumulated other comprehensive loss, net	(1,958,843)	(1,837,713)
Total stockholders' deficit	(21,224,797)	(21,702,577)
Total liabilities and stockholders' deficit	\$ 13,215,214	\$ 17,280,745

See accompanying notes to consolidated financial statements.

FALCONSTOR SOFTWARE, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS

	Years Ended December 31,	
	2017	2016
Revenue:		
Product revenue	\$8,972,112	\$10,116,897
Support and services revenue	16,188,451	20,146,449
Total revenue	25,160,563	30,263,346
Cost of revenue:		
Product	785,535	932,446
Support and service	4,755,464	7,351,857
Total cost of revenue	5,540,999	8,284,303
Gross profit	\$19,619,564	\$21,979,043
Operating expenses:		
Research and development costs	6,517,050	11,702,956
Selling and marketing	6,120,655	13,918,493
General and administrative	6,119,513	6,470,579
Restructuring costs (benefit)	(159,597)	177,389
Total operating expenses	18,597,621	32,269,417
Operating income (loss)	1,021,943	(10,290,374)
Interest and other income (loss), net	38,064	(121,213)
Income (loss) before income taxes	1,060,007	(10,411,587)
Provision for income taxes	7,606	587,207
Net income (loss)	\$1,052,401	\$(10,998,794)
Less: Accrual of Series A redeemable convertible preferred stock dividends	873,043	777,890
Less: Accretion to redemption value of Series A redeemable convertible preferred stock	—	1,181,446
Net income (loss) attributable to common stockholders	\$179,358	\$(12,958,130)
Basic net income (loss) per share attributable to common stockholders	\$—	\$(0.30)
Diluted net income (loss) per share attributable to common stockholders	\$—	\$(0.30)
Weighted average basic shares outstanding	44,413,061	43,091,878
Weighted average diluted shares outstanding	46,999,327	43,091,878

See accompanying notes to consolidated financial statements.

FALCONSTOR SOFTWARE, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)

	Years Ended December 31,	
	2017	2016
Net income (loss)	\$1,052,401	\$(10,998,794)
Other comprehensive income (loss), net of applicable taxes:		
Foreign currency translation	(114,552)	(139,394)
Net unrealized gain (loss) on marketable securities	—	3,406
Net minimum pension liability	(6,578)	1,489
Total other comprehensive loss, net of applicable taxes:	(121,130)	(134,499)
Total comprehensive income (loss)	\$931,271	\$(11,133,293)
Less: Accrual of Series A redeemable convertible preferred stock dividends	873,043	777,890
Less: Accretion to redemption value of Series A redeemable convertible preferred stock	—	1,181,446
Total comprehensive income (loss) attributable to common stockholders	\$58,228	\$(13,092,629)

See accompanying notes to consolidated financial statements.

FALCONSTOR SOFTWARE, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' DEFICIT

	Common Stock	Additional Paid-In Capital	Accumulated Deficit	Treasury Stock	Accumulated Other Comprehensive Loss, Net	Total Stockholders' Deficit
Balance at December 31, 2015	\$ 57,195	\$ 167,953,871	\$(120,983,891)	\$(57,032,917)	\$(1,703,214)	\$(11,708,956)
Net loss	—	—	(10,998,794)	—	—	(10,998,794)
Exercise of stock awards	565	(565)	—	—	—	—
Shares issued for Series A redeemable convertible preferred stock dividend payment	624	770,166	—	—	—	770,790
Share-based compensation to non-employees	1,099	1,575,783	—	—	—	1,576,882
Share-based compensation to employees	—	751,336	—	—	—	751,336
Accretion of Series A redeemable convertible preferred stock	—	(1,181,446)	—	—	—	(1,181,446)
Dividends on Series A redeemable convertible preferred stock	—	(777,890)	—	—	—	(777,890)
Foreign currency translation	—	—	—	—	(139,394)	(139,394)
Net unrealized loss on marketable securities	—	—	—	—	3,406	3,406
Net minimum pension liability	—	—	—	—	1,489	1,489
Balance at December 31, 2016	\$ 59,483	\$ 169,091,255	\$(131,982,685)	\$(57,032,917)	\$(1,837,713)	\$(21,702,577)
Net income	—	—	1,052,401	—	—	1,052,401
Restricted stock issued	607	(26,318)	—	—	—	(25,711)
Warrants issued	—	22,310	—	—	—	22,310
Share-based compensation to non-employees	—	141,159	—	—	—	141,159
Share-based compensation to employees	—	281,794	—	—	—	281,794
Dividends on Series A redeemable convertible preferred stock	—	(873,043)	—	—	—	(873,043)
Foreign currency translation	—	—	—	—	(114,552)	(114,552)
Net minimum pension liability	—	—	—	—	(6,578)	(6,578)
Balance at December 31, 2017	\$ 60,090	\$ 168,637,157	\$(130,930,284)	\$(57,032,917)	\$(1,958,843)	\$(21,224,797)

See accompanying notes to consolidated financial statements.

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FALCONSTOR SOFTWARE, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS

	Years Ended December 31,	
	2017	2016
Cash flows from operating activities:		
Net income (loss)	\$1,052,401	\$(10,998,794)
Adjustments to reconcile net income (loss) to net cash used in operating activities:		
Depreciation and amortization	1,029,481	1,325,706
Share-based payment compensation	281,794	751,336
Non-cash professional services expenses	141,159	1,576,882
Loss on disposal of fixed assets	64,307	—
Provision for returns and doubtful accounts	93,816	69,391
Deferred income tax provision	(147,791)	(120,555)
Changes in operating assets and liabilities:		
Accounts receivable	1,014,594	1,381,566
Prepaid expenses and other current assets	44,488	416,372
Inventory	6,181	64,353
Other assets	(787,527)	761,053
Accounts payable	728,260	(597,173)
Accrued expenses and other long-term liabilities	(694,418)	(1,993,076)
Deferred revenue	(5,401,165)	(2,060,557)
Net cash used in operating activities	(2,574,420)	(9,423,496)
Cash flows from investing activities:		
Sales of marketable securities	—	7,566,000
Purchases of marketable securities	—	(150,000)
Purchases of property and equipment	(94,805)	(294,061)
Security deposits	2,052	127,100
Purchase of intangible assets	(90,965)	(115,913)
Net cash provided by (used in) investing activities	(183,718)	7,133,126
Cash flows from financing activities:		
Payments for tax withholding for share-based compensation	(25,711)	—
Proceeds from issuance of short-term debt, net of issuance costs	351,656	—
Net cash provided by financing activities	325,945	—
Effect of exchange rate changes on cash and cash equivalents	52,137	(331,484)
Net decrease in cash and cash equivalents	(2,380,056)	(2,621,854)
Cash and cash equivalents, beginning of year	3,391,528	6,013,382
Cash and cash equivalents, end of year	\$1,011,472	\$3,391,528
Supplemental Disclosures:		
Cash paid for income taxes, net	\$209,267	\$518,955
Non-cash financing activities:		
Undistributed Series A redeemable convertible preferred stock dividends	\$873,043	\$195,904
Shares issued for Series A redeemable convertible preferred stock dividend payment	\$—	\$770,790
Detachable stock warrants issued with short-term debt	\$(22,310)	\$—
The Company did not pay any interest for the two years ended December 31, 2017.		

See accompanying notes to consolidated financial statements.

FALCONSTOR SOFTWARE, INC. AND SUBSIDIARIES

Notes to Consolidated Financial Statements

December 31, 2017

(1) Summary of Significant Accounting Policies

(a) The Company and Nature of Operations

FalconStor Software, Inc., a Delaware Corporation (the "Company"), is a leading storage software company offering a converged data services software platform that is hardware agnostic. The Company develops, manufactures and sells data migration, business continuity, disaster recovery, optimized backup and de-duplication solutions and provides the related maintenance, implementation and engineering services.

(b) Liquidity

As of December 31, 2017, we had a working capital deficiency of \$11.2 million, which is inclusive of current deferred revenue of \$11.8 million, and a stockholders' deficit of \$21.2 million. During the year ended December 31, 2017, while we had net income of \$1.1 million, we had negative cash flow from operations of \$2.6 million. Our cash and cash equivalents at December 31, 2017 was \$1.0 million, a decrease of \$2.4 million as compared to December 31, 2016.

In June 2017, the Board approved a comprehensive plan to increase operating performance (the "2017 Plan"). The 2017 Plan resulted in a realignment in workforce. The 2017 Plan was substantially completed by the end of the Company's fiscal year ending December 31, 2017, and when combined with previous workforce reductions in the second quarter of Fiscal 2017 reduced the Company's workforce to approximately 81 employees.

On November 17, 2017, HCP-FVA, LLC (the "Lender") provided a commitment letter to the Company agreeing to finance up to \$3 million to the Company (the "Commitment") on the terms, and subject to the conditions, set forth in that certain commitment letter (see Note (7) Short-Term Loan and Commitment). As part of that Commitment, on November 17, 2017, the Company entered into a Loan and Security Agreement (the "Loan Agreement") with Lender and certain other loan parties named therein, pursuant to which the Lender made a short term loan to the Company in the principal amount of \$500,000 (the "Short Term Loan").

On February 23, 2018, the Company closed on the Commitment (see Note (19) Subsequent Events) and the Lender subscribed for the full \$3 million of Units in the Commitment by payment of \$2.5 million in cash and the conversion of the \$500,000 Short Term Loan. The \$3 million term loan has an interest rate of prime plus 0.75% and a maturity date of June 30, 2021. As part of the Commitment, Hale Captial also agreed to postpone the date of the optional redemption of the Series A Preferred Stock from August 5, 2017 to July 30, 2021, and to waive prior breaches of the terms of the Series A Preferred Stock which had triggered a redemption right.

We believe that our cash flows from operations and existing cash on hand are sufficient to conduct our planned operations and meet our contractual requirements through April 2, 2019.

(c) Principles of Consolidation

The consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries. All significant intercompany balances and transactions have been eliminated in consolidation.

(d) Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities

at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. The Company's significant estimates include those related to revenue recognition, accounts receivable allowances, share-based payment compensation, valuation of derivatives, capitalizable software development costs, valuation of goodwill and other intangible assets and income taxes. Actual results could differ from those estimates.

The financial market volatility in many countries where the Company operates has impacted and may continue to impact the Company's business. Such conditions could have a material impact on the Company's significant accounting estimates discussed above.

(e) Fair Value of Financial Instruments

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. To increase the comparability of fair value measurements, a three-tier fair value hierarchy, which prioritizes the inputs used in the valuation methodologies, is as follows:

Level 1—Valuations based on quoted prices for identical assets and liabilities in active markets.

Level 2—Valuations based on observable inputs other than quoted prices included in Level 1, such as quoted prices for similar assets and liabilities in active markets, quoted prices for identical or similar assets and liabilities in markets that are not active, or other inputs that are observable or can be corroborated by observable market data.

Level 3—Valuations based on unobservable inputs reflecting our own assumptions, consistent with reasonably available assumptions made by other market participants. These valuations require significant judgment.

As of December 31, 2017 and 2016, the fair value of the Company's financial instruments including cash and cash equivalents, accounts receivable, accounts payable and accrued expenses approximated carrying value due to the short maturity of these instruments. See Note (3) Fair Value Measurements for additional information.

(f) Derivative Financial Instruments

The Company does not use derivative instruments to hedge exposures to cash flow, market or foreign currency risk. Terms of convertible preferred stock are reviewed to determine whether or not they contain embedded derivative instruments that are required under Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") 815 "Derivatives and Hedging" ("ASC 815") to be accounted for separately from the host contract, and recorded on the balance sheet at fair value. The fair value of derivatives are required to be revalued at each reporting date, with corresponding changes in fair value recorded in current period operating results. See Note (12) Derivative Financial Instruments for additional information.

(g) Revenue Recognition

The Company derives its revenue from sales of its products, support and services. Product revenue consists of the Company's software integrated with industry standard hardware and sold as complete turn-key integrated solutions, as stand-alone software applications or sold on a subscription or consumption basis. Depending on the nature of the arrangement revenue, related to turn-key solutions and stand-alone software applications are generally recognized upon shipment and delivery of license keys. For certain arrangements revenue is recognized based on usage or ratably over the term of the arrangement. Support and services revenue consists of both maintenance revenues and professional services revenues. Revenue is recorded net of applicable sales taxes.

In accordance with the authoritative guidance issued by the FASB on revenue recognition, the Company recognizes revenue when persuasive evidence of an arrangement exists, the fee is fixed or determinable, delivery has occurred, and collection of the resulting receivable is deemed probable. Products delivered to a customer on a trial basis are not recognized as revenue until the trial period has ended and acceptance has occurred by the customer. Reseller and distributor customers typically send the Company a purchase order when they have an end user identified. For

bundled arrangements that include either maintenance or both maintenance and professional services, the Company uses the residual method to determine the amount of product revenue to be recognized. Under the residual method, consideration is allocated to the undelivered elements based upon VSOE of the fair value of those elements, with the residual of the arrangement fee allocated to and recognized as product revenue. If VSOE does not exist for all undelivered elements of an arrangement, the Company recognizes total revenue from the arrangement ratably over the term of the maintenance agreement. The Company's long-term portion of deferred revenue consists of (i) payments received for maintenance contracts with terms in excess of one year as of the balance sheet date, and (ii) payments received for product sales bundled with multiple years of maintenance but for which VSOE did not exist for all undelivered elements of the arrangement. The Company provides an allowance for product returns as a reduction of revenue, based upon historical experience and known or expected trends.

When more than one element, such as hardware, software and services are contained in a single arrangement, the Company will first allocate revenue based upon the relative selling price into two categories: (1) non-software components, such as

hardware and any hardware-related items, as required system software that functions with the hardware to deliver the essential functionality of the hardware and related post-contract customer support, and software as service subscriptions and (2) software components and applications, such as post-contract customer support and other services. The Company will then allocate revenue within the non-software category to each element based upon their relative selling price using a hierarchy of VSOE, third-party evidence of selling price (“TPE”) or estimated selling prices (“ESP”), if VSOE or TPE does not exist. The Company will allocate revenue within the software category to the undelivered elements based upon their fair value using VSOE with the residual revenue allocated to the delivered elements. If the Company cannot objectively determine the VSOE of the fair value of any undelivered software element, the Company will defer revenue for all software components until all elements are delivered and services have been performed, until fair value can objectively be determined for any remaining undelivered elements, or until software maintenance is the only undelivered element which the Company does not have VSOE for, in which case revenue is recognized over the maintenance term for all software elements.

Revenues associated with maintenance services are deferred and recognized as revenue ratably over the term of the contract. Revenues associated with software implementation and software engineering services are recognized when the services are performed. Costs of providing these services are included in cost of support and services. The Company has entered into various distribution, licensing and joint promotion agreements with OEMs, whereby the Company has provided the OEM a non-exclusive software license to install the Company’s software on certain hardware or to resell the Company’s software in exchange for payments based on the products distributed by these OEMs. Such payments from the OEM or distributor are recognized as revenue in the period reported by the OEM.

From time to time the Company will enter into funded software development arrangements. Under such arrangements, revenue recognition will not commence until final delivery and/or acceptance of the product. For arrangements where the Company has VSOE for the undelivered elements, the Company will follow the residual method and recognize product revenue upon final delivery and/or acceptance of the product. For arrangements where the Company does not have VSOE for the undelivered elements, the Company will recognize the entire arrangement fee ratably commencing at the time of final delivery and/or acceptance through the end of the service period in the arrangement. Certain arrangements, for which VSOE of fair value for the undelivered maintenance elements cannot be established, are accounted for as a single unit of account. The revenue recognized from single units of accounting are typically allocated and classified on the consolidated statements of operations as product revenue and support and services revenue. Since VSOE cannot be established, VSOE of similar maintenance offerings provides the basis for the support and services revenue classification, and the remaining residual consideration provides the basis for the product revenue classification.

(h) Property and Equipment

Property and equipment are recorded at cost. Depreciation is recognized using the straight-line method over the estimated useful lives of the assets (3 to 7 years). Leasehold improvements are amortized on a straight-line basis over the terms of the respective leases or over their estimated useful lives, whichever is shorter.

(i) Goodwill and Other Intangible Assets

Goodwill represents the excess of the purchase price over the estimated fair value of net tangible and identifiable intangible assets acquired in business combinations. The Company has not amortized goodwill related to its acquisitions, but instead tests the balance for impairment. The Company evaluates goodwill for impairment annually or more frequently when an event occurs or circumstances change that indicate that the carrying value may not be recoverable. The Company tests goodwill for impairment by first comparing the book value of net assets to the fair value of the reporting unit. If the fair value is determined to be less than the book value or qualitative factors indicate that it is more likely than not that goodwill is impaired, a second step is performed to compute the amount of

impairment as the difference between the estimated fair value of goodwill and the carrying value.

The Company's annual impairment assessment is performed at December 31st of each year, and the Company has determined there to be no impairment for any of the periods presented. Based on the Company's analysis performed in the prior period, the fair value of its reporting unit substantially exceeded the carrying value of its goodwill balances as of December 31, 2016. As part of the goodwill impairment test performed at December 31, 2016, the Company determined it was more likely than not that a goodwill impairment existed and the Company proceeded to step two of the goodwill impairment test. The Company engaged a third-party valuation firm to determine the fair value of all long-lived assets other than goodwill and determine the residual goodwill value of the reporting unit. This goodwill impairment test indicated that the fair value of goodwill value exceeded its carrying value by \$15.8 million. The Company has early adopted the provisions of ASU 2017-4, "Intangibles-Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment," for its fiscal year ended December 31, 2017. The new accounting pronouncement eliminates the second step of the goodwill impairment test. As a result, the Company's goodwill impairment test as of December 31, 2017 included only one step, which is a comparison of the carrying value of its one reporting unit to its fair

value, and any excess carrying value, up to the amount of goodwill allocated to that reporting unit, is impaired. This new accounting pronouncement also eliminates the requirements for any reporting unit with a zero or negative carrying amount to perform a qualitative assessment and, if it fails that qualitative test, to perform Step 2 of the goodwill impairment test. The Company's single reporting unit for purposes of its goodwill impairment test had a negative carrying value and thus the Company determined there was no impairment of goodwill.

Identifiable intangible assets include (i) assets acquired through business combinations, which include customer contracts and intellectual property, and (ii) patents amortized over three years using the straight-line method.

The gross carrying amount and accumulated amortization of goodwill and other intangible assets as of December 31, 2017 and 2016 are as follows:

	December 31, 2017	December 31, 2016
Goodwill	\$4,150,339	\$4,150,339
Other intangible assets:		
Gross carrying amount	\$3,816,402	\$3,725,437
Accumulated amortization	(3,674,771)	(3,515,981)
Net carrying amount	\$141,631	\$209,456

For the years ended December 31, 2017 and 2016, amortization expense was \$158,789 and \$162,594, respectively. As of December 31, 2017, amortization expense for existing identifiable intangible assets is expected to be \$93,272, \$42,559 and \$5,800 for the years ended December 31, 2018, 2019 and 2020, respectively. Such assets will be fully amortized at December 31, 2020.

(j) Software Development Costs and Purchased Software Technology

In accordance with the authoritative guidance issued by the FASB on costs of software to be sold, leased, or marketed, costs associated with the development of new software products and enhancements to existing software products are expensed as incurred until technological feasibility of the product has been established. Based on the Company's product development process, technological feasibility is established upon completion of a working model. Amortization of software development costs is recorded at the greater of the straight-line basis over the product's estimated life, or the ratio of current period revenue of the related products to total current and anticipated future revenue of these products. The gross carrying amount and accumulated amortization of software development costs as of December 31, 2017 and 2016 are as follows:

	December 31, 2017	December 31, 2016
Software development costs:		
Gross carrying amount	\$2,917,215	\$2,917,215
Accumulated amortization	(2,637,801)	(2,369,657)
Software development costs, net	\$279,414	\$547,558

During the years ended December 31, 2017 and 2016, the Company recorded \$268,144 and \$449,258, respectively, of amortization expense related to capitalized software costs. As of December 31, 2017, amortization expense for software development costs is expected to be \$223,097, \$55,174, \$1,145, and \$0 for the years ended December 31, 2018, 2019, 2020 and 2021, respectively. Such assets will be fully amortized at December 31, 2021.

(k) Income Taxes

The Company records income taxes under the asset and liability method. Deferred tax assets and liabilities are recognized for future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be realized or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. In determining the period in which related tax benefits are realized for financial reporting purposes, excess share-based compensation deductions included in net operating losses are realized after regular net operating losses are exhausted.

The Company accounts for uncertain tax positions in accordance with the authoritative guidance issued by the FASB on income taxes, which addresses the determination of whether tax benefits claimed or expected to be claimed on a tax return, should be recorded in the financial statements. Pursuant to the authoritative guidance, the Company may recognize the tax benefit from an uncertain tax position only if it meets the “more likely than not” threshold that the position will be sustained on examination by the taxing authority, based on the technical merits of the position or expiration of statutes. The tax benefits recognized in the financial statements from such a position should be measured based on the largest benefit that has a greater than fifty percent likelihood of being realized upon ultimate settlement. In addition, the authoritative guidance addresses de-recognition, classification, interest and penalties on income taxes, accounting in interim periods, and also requires increased disclosures. The Company includes interest and penalties related to its uncertain tax positions as part of income tax expense within its consolidated statement of operations. See Note (5) Income Taxes for additional information.

(l) Long-Lived Assets

The Company reviews its long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of the asset may not be recoverable. If the sum of the expected future cash flows, undiscounted and without interest, is less than the carrying amount of the asset, an impairment loss is recognized as the amount by which the carrying amount of the asset exceeds its fair value.

(m) Share-Based Payments

The Company accounts for share-based payments in accordance with the authoritative guidance issued by the FASB on share-based compensation, which establishes the accounting for transactions in which an entity exchanges its equity instruments for goods or services. Under the provisions of the authoritative guidance, share-based compensation expense is measured at the grant date, based on the fair value of the award, and is recognized as an expense over the requisite employee service period (generally the vesting period), net of actual forfeitures. For share-based payment awards that contain performance criteria share-based compensation, expense is recorded when the achievement of the performance condition is considered probable of achievement and is recorded on a straight-line basis over the requisite service period. If such performance criteria are not met, no compensation cost is recognized and any recognized compensation cost is reversed. The Company estimates the fair value of share-based payments using the Black-Scholes option-pricing model or the Monte Carlo simulation model if a market condition exists. Share-based compensation expense for a share-based payment award with a market condition is recorded on a straight-line basis over the longer of the explicit service period or the service period derived from the Monte Carlo simulation. Additionally, share-based awards to non-employees are expensed over the period in which the related services are rendered at their fair value. All share-based awards are expected to be fulfilled with new shares of common stock.

(n) Foreign Currency

Assets and liabilities of foreign operations are translated at rates of exchange at the end of the period, while results of operations are translated at average exchange rates in effect for the period. Gains and losses from the translation of foreign assets and liabilities from the functional currency of the Company’s subsidiaries into the U.S. dollar are classified as accumulated other comprehensive loss in stockholders’ deficit. Gains and losses from foreign currency transactions are included in the consolidated statements of operations within interest and other loss, net. During the years ended December 31, 2017 and 2016, foreign currency transactional gains totaled approximately \$72,167 and \$33,191, respectively.

(o) Earnings Per Share (EPS)

Basic EPS is computed based on the weighted average number of shares of common stock outstanding. Diluted EPS is computed based on the weighted average number of common shares outstanding increased by dilutive common stock equivalents, attributable to stock option awards, restricted stock awards and Series A redeemable convertible preferred stock outstanding.

The following represents the common stock equivalents that were excluded from the computation of diluted shares outstanding because their effect would have been anti-dilutive for the years ended December 31, 2017 and 2016:

	Year Ended December	
	31,	
	2017	2016
Stock options, warrants and restricted stock	16,434,296	5,628,290
Series A redeemable convertible preferred stock	—	8,781,516
Total anti-dilutive common stock equivalents	16,434,296	14,409,806

The following represents a reconciliation of the numerators and denominators of the basic and diluted EPS computation:

	Year Ended December 31,	
	2017	2016
Numerator:		
Net income (loss)	\$1,052,401	\$(10,998,794)
Effects of Series A redeemable convertible preferred stock:		
Less: Series A redeemable convertible preferred stock dividends	873,043	777,890
Less: Accretion to redemption value of Series A redeemable convertible preferred stock	—	1,181,446
Net income (loss) attributable to common stockholders	\$179,358	\$(12,958,130)
Denominator:		
Weighted average basic shares outstanding	44,413,061	43,091,878
Effect of dilutive securities:		
Stock options, warrants and restricted stock	2,586,266	—
Series A redeemable convertible preferred stock	—	—
Weighted average diluted shares outstanding	46,999,327	43,091,878
EPS:		
Basic net income (loss) per share attributable to common stockholders	\$—	\$(0.30)
Diluted net income (loss) per share attributable to common stockholders	\$—	\$(0.30)

(p) Investments

As of December 31, 2017 and 2016, the Company did not have any cost-method investments.

(q) Treasury Stock

The Company accounts for treasury stock under the cost method and includes treasury stock as a component of stockholders' deficit.

(s) Recently Adopted Accounting Pronouncements

In March 2016, the FASB issued new guidance on accounting for employee share-based payment awards to simplify the accounting related to several aspects of accounting for share-based payment transactions, including income tax consequences of share-based payment transactions, classification of awards as either equity or liabilities, forfeitures, and classification on the statement of cash flows. The Company adopted this guidance as of January 1, 2017. In accordance with this new guidance the Company has made an entity-wide accounting policy election to account for forfeitures when they occur. As a result of this election, the Company recognized additional stock-based compensation expense of approximately \$0.1 million in the first quarter of 2017 to adjust for actual forfeitures on historical share-based payment awards.

In January 2017, the FASB issued new guidance on accounting for goodwill to simplify the goodwill impairment test by eliminating Step 2 of the goodwill impairment test. This new guidance also eliminates the requirements for any reporting unit with a zero or negative carrying amount to perform a qualitative assessment and, if it fails that qualitative test, to perform Step 2 of the goodwill impairment test. The new standard is effective for the annual period beginning after December 15, 2019, including interim reporting periods within that period, which for the Company is the annual period ending December 31, 2020. Early adoption is permitted. The Company elected to adopt this

guidance as of January 1, 2017, prospectively for impairment tests performed subsequent to January 1, 2017. The Company's single reporting unit for purposes of its goodwill impairment test had a negative carrying value and thus the Company determined there was no impairment of goodwill. During 2017, the Company's single reporting unit had a negative carrying value at the end of each reporting period and as a result there was no impairment of goodwill prior to the annual goodwill impairment test. The adoption of this guidance did not have an impact on the Company's financial statements and related disclosures.

(t) Recently Issued Accounting Pronouncements

In February 2018, the FASB issued new guidance on reporting comprehensive income and the reclassification of certain tax effects from accumulated other comprehensive income, which will allow a reclassification from accumulated other comprehensive income to retained earnings for the tax effects resulting from “An Act to Provide for Reconciliation Pursuant to Titles II and V of the Concurrent Resolution on the Budget for Fiscal Year 2018” that are stranded in accumulated other comprehensive income. This ASU also requires certain disclosures about stranded tax effects; however, it does not change the underlying guidance that requires that the effect of a change in tax laws or rates be included in income from continuing operations. This ASU is effective on January 1, 2019, with early adoption permitted. It must be applied either in the period of adoption or retrospectively to each period in which the effect of the change in the U.S. federal corporate income tax rate in the Act is recognized. The Company is in the process of evaluating the impact of this guidance on its consolidated financial statements.

In May 2017, the FASB issued new guidance on stock-based compensation to provide clarity and reduce both (1) diversity in practice and (2) cost and complexity when applying the stock-based compensation guidance to a change to the terms or conditions of a share-based payment award. The amendments in this update provide guidance about which changes to the terms or conditions of a share-based payment award require an entity to apply modification accounting. This new guidance requires application on a prospective basis. This update is effective for public entities for annual periods, and interim periods within those annual periods, beginning after December 15, 2017, with early adoption permitted, which for the Company will be the annual period ending December 31, 2018. The Company has not yet adopted this guidance and currently does not expect the adoption of the new guidance by the Company to have a significant impact on the Company's financial statements and related disclosures.

In March 2017, the FASB issued new guidance on retirement benefits, which requires employers to disaggregate the service cost component from other components of net periodic benefit costs and to disclose the amounts of net periodic benefit costs that are included in each income statement line item. The standard requires employers to report the service cost component in the same line item as other compensation costs and to report the other components of net periodic benefit costs (which include interest costs, expected return on plan assets, amortization of prior service cost or credits and actuarial gains and losses) separately and outside a subtotal of operating income. The income statement guidance requires application on a retrospective basis. This update is effective for public entities for annual periods beginning after December 15, 2017, including interim periods, with early adoption permitted, which for the Company will be the annual period ending December 31, 2018. The Company has not yet adopted this guidance and currently does not expect the adoption of the new guidance by the Company to have a significant impact on the Company's financial statements and related disclosures.

In August 2016, the FASB issued new guidance on presentation and classification of eight specific items within the statement of cash flows, including (i) debt prepayment or debt extinguishment costs, (ii) settlement of zero-coupon debt instruments or other debt instruments with coupon rates that are insignificant in relation to the effective interest rate of the borrowing, (iii) contingent consideration payments made after a business combination, (iv) proceeds from the settlement of insurance claims, (v) proceeds from the settlement of corporate-owned life insurance policies, including bank-owned life insurance policies, (vi) distributions received from equity method investees, (vii) beneficial interests in securitization transactions, and (viii) separately identifiable cash flows and application of the predominance principle. This update is effective for annual reporting periods, and interim periods therein, beginning after December 15, 2017, which for the Company will be the annual period ending December 31, 2018. Early adoption, including adoption in an interim period, is permitted. The Company has not yet adopted this guidance and currently does not expect the adoption of the new guidance to have a significant impact on the Company's financial statements and related disclosures.

In February 2016, the FASB issued new guidance on leases to increase transparency and comparability among organizations by recognizing lease assets and lease liabilities on the balance sheet and disclosing key information about leasing arrangements. This new guidance will replace existing guidance on leases in accounting principles generally accepted in the United States when it becomes effective. The new standard is effective for the annual period beginning after December 15, 2018, including interim reporting periods within that period, which for the Company will be the annual period ending December 31, 2019. Early application is permitted. The standard requires the use of a modified retrospective transition method; however, certain optional practical expedients may be applied. The Company's preliminary analysis indicates that the Company will recognize a liability for remaining lease payments and a right-of-use asset related to the Company's operating lease covering its corporate office facility that expires in April 2021. Currently the Company's additional operating leases related to offices in foreign countries are set to expire prior to adoption of the new guidance. The Company is in the initial stages of evaluating the effect of the standard on the Company's financial statements.

In January 2016, the FASB issued new guidance on the recognition, measurement, presentation and disclosure of financial assets and financial liabilities. The standard (i) requires an entity to measure equity investments, except those accounted for under the equity method of accounting or those that result in consolidation of the investee, at fair value with changes in fair value recognized in net income, (ii) simplifies the impairment assessment of equity investments without readily determinable fair values by requiring an entity to perform a qualitative assessment to identify impairment, (iii) changes certain presentation and disclosure requirements related to financial assets and financial liabilities, and (iv) clarifies that an entity should evaluate the need for a valuation allowance on a deferred tax asset related to available-for-sale securities in combination with the entity's other deferred tax assets. The amendments in this update are effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2017, which for the Company will be the annual period ending December 31, 2018. Early adoption, including adoption in an interim period, is not permitted except for certain amendments in this update. The Company has not yet adopted this guidance and currently does not expect the adoption of the new guidance by the Company to have a significant impact on the Company's financial statements and related disclosures.

In May 2014, the FASB issued new guidance which requires an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods or services to customers. This new guidance will replace most existing revenue recognition guidance in GAAP in the United States when it becomes effective. The new standard is effective for the annual period beginning after December 15, 2017, including interim reporting periods within that period, which for the Company will be the annual period ending December 31, 2018. The standard permits the use of either the retrospective or a modified retrospective approach. The Company expects that it will adopt the new standard using the modified retrospective approach. The Company continues to evaluate the impacts of the new standard, as well as the changes that are required to systems and processes to meet the new standard's reporting and disclosure requirements. The Company has historically deferred revenue for certain deliverables in its multiple-element arrangements due to a lack of vendor-specific objective evidence ("VSOE") for purposes of the allocation of the transaction consideration. Under the new standard, the Company will recognize revenue for these arrangements earlier than under the existing guidance due to the elimination of the VSOE requirement. Additionally, under the new standard, the Company will capitalize and amortize certain direct costs of obtaining a contract, such as commissions and related payroll taxes, over the expected customer life rather than expensing them as incurred. The Company anticipates the adoption of the standard will result in an increase to the opening balance of accumulated deficit in the range of \$8.2 million to \$9.2 million, primarily related to the cumulative effect of a decrease in deferred revenue in the range of \$4.9 million to \$5.9 million and an increase in contract assets in the range of \$2.7 million to \$3.7 million from the upfront recognition of term licenses and the general requirement to allocate the transaction price on a relative stand-alone selling price and the cumulative effect of a decrease of \$0.0 to \$0.4 million in commission expense. Implications to tax related accounts are not included in these estimated amounts.

Our assessment of each of the foregoing is ongoing and subject to finalization, such that the actual impact of the adoption may differ materially from the estimated ranges described above.

(2) Property and Equipment

Property and equipment consist of the following:

	December 31, 2017	December 31, 2016
Computer hardware and software	\$16,304,037	\$16,913,397
Furniture and equipment	571,004	911,391
Leasehold improvements	1,688,030	1,930,701
Property and Equipment, Gross	18,563,071	19,755,489
Less accumulated depreciation	(17,926,959)	(18,580,547)
Property and Equipment, Net	\$636,112	\$1,174,942

During the year ended December 31, 2017, the Company wrote off approximately \$1,392,453 of fixed assets and \$1,301,408 related accumulated depreciation related to assets that were no longer in use. During the year ended December 31, 2016, the Company wrote off approximately \$113,000 of fixed assets and approximately \$110,000 of related accumulated depreciation related to assets that were no longer in use.

Depreciation expense was \$602,548 and \$713,854 in 2017 and 2016, respectively.

(3) Fair Value Measurements

The Company measures its cash equivalents, marketable securities and derivative instruments at fair value. Fair value is an exit price, representing the amount that would be received on the sale of an asset or that would be paid to transfer a liability in an orderly transaction between market participants. As a basis for considering such assumptions, the Company utilizes a three-tier fair value hierarchy, which prioritizes the inputs used in the valuation methodologies in measuring fair value.

Fair Value Hierarchy

The methodology for measuring fair value specifies a hierarchy of valuation techniques based upon whether the inputs to those valuation techniques reflect assumptions other market participants would use based upon market data obtained from independent sources (observable inputs) or reflect the Company's own assumptions of market participant valuation (unobservable inputs). As a result, observable and unobservable inputs have created the following fair value hierarchy:

Level 1 – Quoted prices in active markets that are unadjusted and accessible at the measurement date for identical, unrestricted assets or liabilities. At December 31, 2017 and 2016, the Level 1 category included money market funds and commercial paper, which are included within “cash and cash equivalents” in the consolidated balance sheets.

Level 2 – Quoted prices for identical assets and liabilities in markets that are not active, quoted prices for similar assets and liabilities in active markets or financial instruments for which significant inputs are observable, either directly or indirectly. The Company had no Level 2 securities at December 31, 2017 and 2016.

Level 3 – Prices or valuations that require inputs that are both significant to the fair value measurement and unobservable. At December 31, 2017 and 2016, the Level 3 category included derivatives, which are included in “other long-term liabilities” in the consolidated balance sheets with the change in fair value from the period included in “interest and other loss, net” in the consolidated statement of operations. The Company did not hold any cash, cash equivalents or marketable securities categorized as Level 3 as of December 31, 2017 or 2016.

Measurement of Fair Value

The Company measures fair value as an exit price using the procedures described below for all assets and liabilities measured at fair value. When available, the Company uses unadjusted quoted market prices to measure fair value and classifies such items within Level 1. If quoted market prices are not available, fair value is based upon financial models that use, when possible, current market-based or independently-sourced market parameters such as interest rates and currency rates. Items valued using financial generated models are classified according to the lowest level input or value driver that is significant to the valuation. Thus, an item may be classified in Level 3 even though there may be inputs that are readily observable. If quoted market prices are not available, the valuation model used generally depends on the specific asset or liability being valued. The determination of fair value considers various factors including interest rate yield curves and time value underlying the financial instruments.

The fair value of the Company's investments in corporate debt and government securities have been determined utilizing third party pricing services and reviewed by management. The pricing services use inputs to determine fair value which are derived from observable market sources including reportable trades, benchmark curves, credit spreads, broker/dealer quotes, bids, offers, and other industry and economic events. These investments are included in Level 2 of the fair value hierarchy.

The fair value of the Company's derivatives were valued using the Black-Scholes pricing model adjusted for probability assumptions, with all significant inputs, except for the probability and volatility assumptions, derived from or corroborated by observable market data such as stock price and interest rates. The probability and volatility assumptions are both significant to the fair value measurement and unobservable. These embedded derivatives are included in Level 3 of the fair value hierarchy.

The fair value of the Company's short-term loan was based upon current rates offered for similar financial instruments to the Company.

Items Measured at Fair Value on a Recurring Basis

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The following table presents the Company's assets and liabilities that are measured at fair value on a recurring basis at December 31, 2017:

	Total	Fair Value Measurements at Reporting Date Using Quoted Prices in		
		Active Markets for Identical Assets (Level 1)	Significant other Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Cash equivalents:				
Money market funds	\$—	\$—	\$—	\$—
Total cash equivalents	—	—	—	—
Derivative liabilities:				
Derivative Instruments	445,838	—	—	445,838
Total derivative liabilities	445,838	—	—	445,838
Total assets and liabilities measured at fair value	\$445,838	\$—	\$—	\$ 445,838

The following table presents the Company's assets and liabilities that are measured at fair value on a recurring basis at December 31, 2016:

	Total	Fair Value Measurements at Reporting Date Using Quoted Prices in		
		Active Markets for Identical Assets (Level 1)	Significant other Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Cash equivalents:				
Money market funds and commercial paper	\$1,133,280	\$1,133,280	\$—	\$—
Total cash equivalents	1,133,280	1,133,280	—	—
Derivative liabilities:				
Derivative Instruments	336,862	—	—	336,862
Total derivative liabilities	336,862	—	—	336,862
Total assets and liabilities measured at fair value	\$1,470,142	\$1,133,280	\$—	\$ 336,862

The fair value of the Company's derivatives were valued using the Black-Scholes pricing model adjusted for probability assumptions, with all significant inputs, except for the probability and volatility assumptions, derived from or corroborated by observable market data such as stock price and interest rates. The probability and volatility assumptions are both significant to the fair value measurement and unobservable. These embedded derivatives are

included in Level 3 of the fair value hierarchy.

The following table presents the Company's assets measured at fair value on a recurring basis using significant unobservable inputs (Level 3) as of each of the years ended December 31, 2017 and 2016:

	Fair Value Measurements Using Significant Unobservable Inputs (Level 3) December 31, 2017		December 31, 2016
Beginning Balance	\$336,862	\$	\$ 82,024
Total loss recognized in earnings	108,976	254,838	
Ending Balance	\$445,838	\$	\$ 336,862

(4) Accrued Expenses

Accrued expenses are comprised of the following:

	December 31, 2017	December 31, 2016
Accrued compensation	\$522,057	\$1,058,671
Accrued consulting and professional fees	1,207,061	1,270,568
Accrued marketing and promotion	—	10,307
Other accrued expenses	259,579	259,567
Accrued income taxes	306,419	129,784
Accrued other taxes	378,374	699,872
Accrued hardware purchases	31,499	—
Accrued restructuring costs	602,299	846,337
Accrued Series A redeemable convertible preferred stock dividends	1,068,947	195,904
	\$4,376,235	\$4,471,010

(5) Income Taxes

Information pertaining to the Company's loss before income taxes and the applicable provision for income taxes is as follows:

	December 31,	
	2017	2016
Income (loss) before income taxes:		
Domestic income (loss)	\$590,660	\$(10,998,240)
Foreign income	469,347	586,653
Total income (loss) before income taxes:	1,060,007	(10,411,587)
Provision (benefit) for income taxes:		
Current:		
Federal	\$2,640	\$(17,626)
State and local	(85,972)	1,886
Foreign	238,729	723,502
	155,397	707,762
Deferred:		
Federal	\$(530,478)	\$154,641
State and local	(8,215)	1,766
Foreign	390,902	(276,962)
	(147,791)	(120,555)
Total provision for income taxes:	\$7,606	\$587,207

During 2017, the Company recorded a tax provision of \$7,606 related to federal, state and local and foreign income taxes including a tax benefit related to our Minimum Tax Credit carryforwards which are now realizable on a more-likely-than-not basis as such amounts will be refundable under the Tax Cuts and Jobs Act ("TCJA"), partially offset with the accrual of foreign withholding taxes as the Company is no longer permanently reinvesting its foreign earnings. During 2016, the Company recorded a tax provision of \$587,207 related to state and local and foreign income taxes and is inclusive of a tax provision of \$122,004 as a result of the Company's change in estimate with respect to the realizability of a certain portion of its Minimum Tax Credits.

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and for income tax purposes. Significant components of the Company's deferred tax assets and liabilities are as follows:

	December 31,	
	2017	2016
Deferred Tax Assets:		
Allowance for receivables	\$76,266	\$ 100,414
Deferred revenue	1,970,216	3,648,029
Share-based compensation	517,841	2,254,428
Accrued expenses and other liabilities	404,316	418,483
Domestic net operating loss carryforwards	19,572,148	30,714,934
Foreign net operating loss carryforwards	17,997	9,761
Tax credit carryforwards	3,106,022	574,997
AMT tax credit carryforwards	464,571	460,607
Capital loss carryforwards	57,768	78,296
Fixed assets	218,412	489,105
Intangibles	625,126	1,435,994
Sub-total	27,030,683	40,185,048
Valuation allowance	(25,602,357)	(38,800,877)
Total Deferred Tax Assets	1,428,326	1,384,171
Deferred Tax Liabilities:		
Deferred state income tax	(450,797)	(923,553)
Foreign withholding taxes	(472,112)	(137,659)
Total Deferred Tax Liabilities	(922,909)	(1,061,212)
Net Deferred Tax Assets	\$505,417	\$ 322,959

As of each reporting date, the Company considers new evidence, both positive and negative, that could affect its view of the future realization of deferred tax assets. In assessing the Company's ability to recover its deferred tax assets, the Company evaluated whether it is more likely than not that some portion or the entire deferred tax asset will be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income in those periods in which temporary differences become deductible and/or net operating losses can be utilized. The Company considered all positive and negative evidence when determining the amount of the net deferred tax assets that are more likely than not to be realized. This evidence includes, but is not limited to, historical earnings, scheduled reversal of taxable temporary differences, tax planning strategies and projected future taxable income. Based on these factors the Company determined that its U.S. deferred tax assets with the exception of its Minimum Tax Credit are not realizable on a more-likely-than-not basis and has recorded a full valuation allowance against such net deferred tax assets. The Company's valuation allowance decreased by \$13.2 million primarily related to the remeasurement of our deferred tax assets and liabilities using the new federal statutory rate of 21%.

As of December 31, 2017, the Company had federal net operating loss carry forwards of approximately \$83.5 million which are set to expire beginning in 2030 through 2036, if not utilized. As of December 31, 2017, the Company had approximately \$3.1 million of research and development tax credit carry forwards which expire at various dates beginning in 2023 through 2028, if not utilized.

The effective tax rate before income taxes varies from the current statutory federal income tax rate as follows:

	December 31,	
	2017	2016
Tax at Federal statutory rate	\$371,003	\$(3,644,056)
Increase (reduction) in income taxes resulting from:		
State and local taxes	355,888	2,172
Non-deductible expenses	(50,579)	(28,812)
Stock compensation	1,273,956	—
Net effect of foreign operations	(14,022)	232,858
Uncertain tax positions	(41,482)	12,440
Impact of U.S tax reform	14,295,386	—
Change in valuation allowance	(15,072,298)	4,011,710
Foreign withholding taxes	468,376	—
Decrease in unrecognized tax benefits	(1,427,906)	—
Other	(150,716)	895
	\$7,606	\$587,207

On December 22, 2017 the U.S. government enacted comprehensive tax reform commonly referred to as the Tax Cuts and Jobs Act (“TCJA”). Under ASC 740, the effects of changes in tax rates and laws are recognized in the period which the new legislation is enacted. Among other things, the TCJA (1) reduces the US statutory corporate income tax rate from 35% to 21% effective January 1, 2018 (2) eliminates the corporate alternative minimum tax (3) requires companies to record/pay a one-time transition tax on earnings of certain foreign subsidiaries that were previously tax deferred (4) creates new taxes on certain foreign sourced earnings (5) changes rules related to uses and limitations of net operating loss carry forwards beginning after December 31, 2017.

The TCJA reduces the corporate tax rate to 21% effective January 1, 2018. The Company remeasured its U.S. deferred tax assets and liabilities based on the lower federal rate and recorded a provisional income tax expense of \$13.5 million, offset by change in its valuation allowance of \$13.6 million. The TCJA also enacted a one-time transition tax, which is based on the Company’s total post-1986 earnings and profits (“E&P”) that were previously deferred from U.S. income taxes. The Company recorded a provisional amount for the one-time transition tax liability for all of its foreign subsidiaries resulting in an income tax expense of \$0.7 million, offset by valuation allowance. The Company has not yet completed its calculation of the total post-1986 E&P for these foreign subsidiaries as certain information is not readily available.

Due to the change in U.S. federal tax law, the Company does not intend to indefinitely reinvest any of its unremitted foreign earnings as of December 31, 2017. As such, the Company has provided for additional foreign withholding taxes on approximately \$3.3 million of undistributed earnings of its subsidiaries operating outside of the United States for which withholding tax applies. The Company has recorded a provisional estimate of \$0.3 million of withholding tax, which has been recorded as a deferred tax liability.

The Company has not yet made a policy election with respect to its treatment of potential global intangible low-taxed income (“GILTI”). Companies can either account for taxes on GILTI as incurred or recognize deferred taxes when basis differences exist that are expected to affect the amount of the GILTI inclusion upon reversal. The Company is still in the process of analyzing the provisions of the TCJA associated with GILTI and the expected impact of GILTI on the Company in the future.

While the Company is able to make a reasonable estimate of the impact on the items indicated above, the provisional amounts may change due to a variety of factors, including, among other things, (i) anticipated guidance from the U.S. Department of Treasury about implementing the TCJA (ii) potential additional guidance from the Securities and

Exchange Commission or the Financial Accounting Standards Board related to the TCHA and (iii) Management's further assessment of the TCJA and related regulatory guidance. The Company is not complete in its assessment of the impact of the TCJA on its business and financial statements.

A reconciliation of the beginning and ending amount of unrecognized tax benefits, excluding interest and penalties, is as follows:

	2017	2016
Balance at January 1,	\$217,461	\$217,289
Increases to tax positions taken in prior years	10,104	4,510
Decreases to tax positions taken in prior years	—	—
Increase for tax positions taken during the current year	—	—
Expiration of statutes of limitation	(53,169)	(3,323)
Translation	5,806	(1,015)
Balance at December 31,	\$180,202	\$217,461

At December 31, 2017, \$262,711 including interest, if recognized, would reduce the Company's annual effective tax rate. As of December 31, 2017, the Company had approximately \$82,508 of accrued interest. The Company believes it is reasonably possible that \$71,887 of its unrecognized tax benefits will reverse within the next 12 months. The Company records any interest and penalties related to unrecognized tax benefits in income tax expense.

The Company files federal, state, and foreign income tax returns in jurisdictions with varying statutes of limitations. The 2014 through 2017 tax years generally remain subject to examination by federal and most state tax authorities. In addition to the U.S., the Company's major taxing jurisdictions include China, Taiwan, Japan, France and Germany.

(6) Accumulated Other Comprehensive Loss

The changes in Accumulated Other Comprehensive Loss, net of applicable tax, for December 31, 2017 are as follows:

	Foreign Currency Translation	Net Unrealized Losses on Marketable Securities	Net Minimum Pension Liability	Total
Accumulated other comprehensive income (loss) at December 31, 2016	\$(1,866,388)	\$	—\$28,675	\$(1,837,713)
Other comprehensive income (loss)				
Other comprehensive income (loss) before reclassifications	(114,552)	—	(16,392)	(130,944)
Amounts reclassified from accumulated other comprehensive income (loss)	—	—	9,814	9,814
Total other comprehensive income (loss)	(114,552)	—	(6,578)	(121,130)
Accumulated other comprehensive income (loss) at December 31, 2017	\$(1,980,940)	\$	—\$22,097	\$(1,958,843)

The changes in Accumulated Other Comprehensive Loss, net of applicable tax, for December 31, 2016 are as follows:

	Foreign Currency Translation	Net Unrealized Gains (Losses) on Marketable Securities	Net Minimum Pension Liability	Total
Accumulated other comprehensive income (loss) at December 31, 2015	\$(1,726,994)	\$ (3,406)	\$ 27,186	\$(1,703,214)
Other comprehensive income (loss)				
Other comprehensive loss before reclassifications	(139,394)	—	(3,447)	(142,841)
Amounts reclassified from accumulated other comprehensive income (loss)	—	3,406	4,936	8,342
Total other comprehensive income (loss)	(139,394)	3,406	1,489	(134,499)
Accumulated other comprehensive income (loss) at December 31, 2016	\$(1,866,388)	\$ —	\$ 28,675	\$(1,837,713)

For the year ended December 31, 2017 and 2016, the amounts reclassified to net income (loss) related to the Company's defined benefit plan and maturities of marketable securities. These amounts are included within "Operating income (loss)" within the consolidated statement of operations.

(7) Short-Term Loan and Commitment

On November 17, 2017, HCP-FVA, LLC (the "Lender") provided a commitment letter to the Company agreeing to finance up to \$3 million to the Company (the "Commitment") on the terms, and subject to the conditions, set forth in that certain commitment letter, as further described below. As part of that Commitment, on November 17, 2017, the Company entered into a Loan and Security Agreement (the "Loan Agreement") with Lender and certain other loan parties named therein, pursuant to which the Lender made a short term loan to the Company in the principal amount of \$500,000 (the "Short Term Loan"). The Lender is an affiliate of Hale Capital Partners, LP (together, "Hale Capital"), the Company's largest stockholder through its ownership of Series A Redeemable Preferred Stock, and an affiliate of FalconStor director, Martin Hale.

Pursuant to the terms of the Loan Agreement, the Short Term Loan is secured by all of the assets of the Company and guaranteed by each of the Company's domestic subsidiaries. The Short Term Loan bears interest at a rate equal to the prime rate plus 0.75%, which will be increased by an additional 5% during the continuance of a Default or Event of Default (as each term is defined in the Loan Agreement). The Short Term Loan will be due and payable on May 17, 2018, unless prepaid or satisfied through the issuance by the Company of units in a proposed private placement which will be offered to certain eligible stockholders existing on the date of the Loan Agreement (the "Proposed Offering"). Such units would consist of senior secured debt in the aggregate principal amount of the Short Term Loan and nominal warrants to purchase approximately 61,165,134 shares of the Company's common stock, as further described below.

In the event the Short Term Loan is prepaid, such prepayment will be subject to the payment of a premium in an amount equal to 5% of the principal amount of the Short Term Loan prepaid. The Short Term Loan must be repaid in the event of certain fundamental events, incurrence of any additional indebtedness, other than permitted indebtedness (as defined in the Loan Agreement), upon a change of control and with any insurance proceeds not reinvested in the Company. The Loan Agreement has customary representations, warranties and affirmative and negative covenants. In addition, the Company is required to maintain a minimum total liquidity of \$2 million and cannot permit a variance

of more than 10% of net cash flow from the amounts set forth in a rolling weekly detailed budget agreed upon at the signing of the Loan Agreement.

In consideration for making the Short Term Loan and Commitment, the Company issued a warrant to purchase 13,859,128 shares of common stock at an exercise price of \$0.001 per share, which warrant has customary terms and conditions and permits cashless exercises (the "Initial Backstop Warrant"). Upon the funding of all or any portion of the Commitment, the Company will issue an additional warrant (the "Additional Backstop Warrant" and, together with the Initial Backstop Warrant, the "Backstop Warrants") to purchase 41,577,382 shares of common stock at an exercise price of \$0.001 per share, which warrant shall be in substantially the same form as the Initial Backstop Warrant. Fifty percent (50%) of the Backstop Warrants (or the shares of common stock issuable upon exercise thereof on a post-cashless exercise basis) are subject to cancellation in the event that more than half of the units in the Proposed Offering are purchased by eligible stockholders (other than Hale Capital). The Backstop Warrants are in addition to the nominal warrants to be issued upon purchase of any units in the Proposed Offering.

The relative fair value of the warrants were recorded as a debt discount, decreasing the short-term loan payable and increasing additional paid-in capital on the accompanying consolidated balance sheets. The debt discount is being amortized to interest expense over the term of the note using the effective interest method.

As described under Note (19) Subsequent Events, on February 23, 2018, the Company closed on the Commitment and the Short-Term Loan was converted into Units of the Financing which included Financing Warrants to purchase 61,165,000 shares of common stock.

(8) Series A Redeemable Convertible Preferred Stock

On September 16, 2013, the Company issued to Hale Capital Partners, LP (“Hale”) 900,000 shares of the Company’s Series A redeemable convertible preferred stock, par value \$0.001 per share, at a price of \$10 per share, for an aggregate purchase consideration of \$9.0 million, which was subsequently transferred to HCP-FVA LLC. Each share of Series A redeemable convertible preferred stock is convertible into common stock equivalents, at the option of the holder and upon certain conversion events described below, at a conversion rate of \$1.02488 (as adjusted for stock splits, stock dividends, reverse stock splits, stock combinations, reclassifications and similar events). The Company received net proceeds of approximately \$8.7 million from the issuance of the redeemable convertible preferred stock in 2013, net of transaction costs.

If the volume weighted average price of common stock for each trading day of any 60 consecutive trading days exceeds 250% of the conversion price and exceeds 225% of the conversion price through the conversion date, and certain equity conditions are met such that shares of common stock issued upon conversion can be immediately saleable by the redeemable convertible preferred stockholders, the Company can convert the redeemable convertible preferred stock up to an amount equal to the greater of 25% of the daily trading volume for the 20 consecutive trading days immediately preceding the conversion date or the amount of an identified bona fide block trade at a price reasonably acceptable to the applicable redeemable convertible preferred stockholder, but which price is not less than the arithmetic average of the weighted average prices of the common stock for the five trading days immediately preceding such sale.

The holder of the Series A redeemable convertible preferred stock has veto power over certain future financings, and certain rights to participate in any subsequent financing, whether through debt or equity (subject to certain exclusions). In addition, the Company's agreement with the holders of the Series A redeemable convertible preferred stock provide that if, at the time of certain future debt or equity financings, the proceeds of which exceed \$5.0 million, the holder of the Series A redeemable convertible preferred stock still have outstanding Series A redeemable convertible preferred stock, then the Company must offer to repurchase their Series A redeemable convertible preferred stock. The holder of the Series A redeemable convertible preferred stock has the right to accept the offer or to retain their Series A redeemable convertible preferred stock. If the Company does a financing, and the holder of the Series A redeemable convertible preferred stock elect to have their Series A redeemable convertible preferred stock repurchased, then the capital raised in excess of \$5.0 million will go to repurchase the holders’ Series A redeemable convertible preferred stock, instead of being able to be used for our business.

The Company cannot consummate a fundamental sale transaction in which the consideration is stock or a combination of cash and stock without the consent of the holder of the Series A redeemable convertible preferred stock.

In addition to the veto rights set forth in the preceding paragraph, upon consummation of a fundamental sale transaction in which the consideration is cash and is not approved by the holder of the Series A redeemable convertible preferred stock, the Series A redeemable convertible preferred stock shall be redeemed at a per share redemption price equal to the greater of (i) 250% of the stated value of the Series A redeemable convertible preferred

stock (which is currently equal to \$22.5 million or \$2.56 per share of common stock held by the holder of the Series A redeemable convertible preferred stock on an as converted basis as of December 31, 2017) and (ii) the price such holder would receive in the transaction on an as converted basis. In addition in the event of the liquidation of the Company or a Fundamental Transaction of the Company (which includes a merger or sale of the Company), the holders of the Series A redeemable convertible preferred stock shall be entitled to receive from the proceeds of the transaction, prior to the holders of the Common Stock, an amount equal to 100% of the stated value plus accrued and unpaid dividends. The stated value and accrued and unpaid dividends of the Series A redeemable convertible preferred stock at December 31, 2017 is \$10.1 million.

Upon certain triggering events, such as bankruptcy, insolvency or a material adverse effect, failure to achieve minimum financial covenants or failure of the Company to issue shares upon conversion of the Series A redeemable convertible preferred stock in accordance with its obligations, the Series A redeemable convertible preferred stockholder may require the Company to redeem all or some of the Series A redeemable convertible preferred stock at a price equal to the greater of 100% of the stated value plus accrued and unpaid dividends or the product of the number of shares of common stock underlying the Series A redeemable

convertible preferred stock and the closing price as of the occurrence of the triggering event. On or after August 5, 2017, each Series A redeemable convertible preferred stockholder can require the Company to redeem its Series A redeemable convertible preferred stock in cash at a price equal to 100% of the stated value being redeemed plus accrued and unpaid dividends. If the Company does not have the funds necessary to redeem the Series A redeemable convertible preferred stock, the dividends accruing on any outstanding Series A redeemable convertible preferred stock will increase to prime plus 10% (from prime plus 5%). For each six months that the Series A redeemable convertible preferred stock remains unredeemed, the dividend rate increases by 1%, subject to a maximum dividend rate of 19%. In addition, the Company's failure to redeem the Series A redeemable convertible preferred stock would be considered a "Breach Event" under the agreements with the holders of the Series A redeemable convertible preferred stock. If a Breach Event were to occur and the Company is in default under or has breached any provision in respect of its obligations to redeem the Series A redeemable convertible preferred stock, then, under the agreements with the holders of our Series A redeemable convertible preferred stock, the Company's Board of Directors would automatically be increased, with the holders of the Series A redeemable convertible preferred stock having the right to appoint the new directors, so that the holders of the Series A redeemable convertible preferred stock would have appointed a majority of the Board of Directors. This would give the holders of the Series A redeemable convertible preferred stock control of the Company. As of December 31, 2017, the Company was not in compliance with the financial covenants of the Series A redeemable convertible preferred stock for two consecutive quarters, which provides the Series A redeemable convertible preferred stockholders the right to require the Company to redeem any of the Series A redeemable convertible preferred stock at the greater of 100% of the stated value plus accrued and unpaid dividends or the product of the number of shares of common stock underlying the Series A redeemable convertible preferred stock and the closing price of the Company's common stock as of December 31, 2017. To date, the holder of the Series A redeemable convertible preferred stock have neither exercised nor waived this right and accordingly this right may be exercised at any time. As of December 31, 2017, the Company did not fail any non-financial covenants related to the Company's Series A redeemable convertible preferred stock.

The holder of the Series A redeemable convertible preferred stock are entitled to receive quarterly dividends at the Prime Rate (Wall Street Journal Eastern Edition) plus 5% (up to a maximum amount of 10%), payable in cash, provided, that if the Company will not have at least \$1.0 million in positive cash flow for any calendar quarter after giving effect to the payment of such dividends, the Company, at its election, can pay such dividends in whole or in part in cash, provided that cash flow from operations is not negative, and the remainder can be accrued or paid in common stock to the extent certain equity conditions are satisfied. As of December 31, 2016, March 31, 2017, June 30, 2017, September 30, 2017 and December 31, 2017, due to the lack of sufficient surplus to pay dividends as required by the DGCL, the Company was not permitted to pay the fourth quarter 2016 and first, second, third and fourth quarter 2017 dividends in cash or through the issuance of the Company's common stock and accrued the aforementioned dividends. As of December 31, 2017, the Company's liability for dividends to the holder of the Series A redeemable convertible preferred stock totaled \$1.1 million.

During 2016, the Company issued 624,009 shares of the Company's common stock as payment for the fourth quarter 2015 and the first three quarters of 2016 dividends. Due to the lack of sufficient surplus to pay dividends as required by the Delaware General Business Corporation Law, the Company was not permitted to pay the fourth quarter 2016 dividend in cash or common stock and has been accruing its quarterly dividends since then.

Each share of Series A redeemable convertible preferred stock has a vote equal to the number of shares of common stock into which the redeemable convertible preferred stock would be convertible as of the record date of September 13, 2013. The Company's closing stock price on the record date was \$1.23 per share which results in voting power of an aggregate of 7,317,073 shares. In addition, holder of the Series A redeemable preferred stock must approve certain actions, including any amendments to the Company's charter or bylaws that adversely affects the voting powers, preferences or other rights of the Series A redeemable convertible preferred stock; payment of dividends or distributions; any liquidation, capitalization, reorganization or any other fundamental transaction of the Company,

other than that set forth above; issuance of certain equity securities senior to or in parity with the Series A redeemable convertible preferred stock as to dividend rights, redemption rights, liquidation preference and other rights; issuances of equity below the conversion price; any liens or borrowings other than non-convertible indebtedness from standard commercial lenders which does not exceed 80% of the Company's accounts receivable; and the redemption or purchase of any capital stock of the Company.

The Company has classified the Series A redeemable convertible preferred stock as temporary equity in the financial statements as it is subject to redemption at the option of the holder under certain circumstances. As a result of the Company's analysis of all the embedded conversion and put features within the Series A redeemable convertible preferred stock, the contingent redemption put options in the Series A redeemable convertible preferred stock were determined to not be clearly and closely related to the debt-type host and also did not meet any other scope exceptions for derivative accounting. Therefore the contingent redemption put options are being accounted for as derivative instruments and the fair value of these derivative instruments were bifurcated from the Series A redeemable convertible preferred stock and recorded as a liability.

As of December 31, 2017 and 2016 the fair value of these derivative instruments was \$445,838 and \$336,862, respectively, and were included in "other long-term liabilities" within the consolidated balance sheets. The loss on the change in fair value of these derivative instruments for 2017 of \$108,976 and the loss on the change in fair value of these derivative instruments for 2016 of \$254,838, were included in "interest and other loss, net" within the consolidated statement of operations.

At the time of issuance the Company recorded transaction costs, a beneficial conversion feature and the fair value allocated to the embedded derivatives as discounts to the Series A redeemable convertible preferred stock. These costs are being accreted to the Series A redeemable convertible preferred stock using the effective interest method through the stated redemption date of August 5, 2017, which represents the earliest redemption date of the instrument. This accretion was accelerated as of December 31, 2016 due to the failure of the financial covenants and the redemption right of the holders as noted above. The Company included deductions of \$0 and \$1,181,446 as accretion adjustments to net loss attributable to common stockholders on the statement of operations and in determining loss per share for the years ended December 31, 2017 and 2016, respectively. The Company also included deductions of \$873,043 and \$777,890 as adjustments to net loss attributable to common shareholders on the statement of operations and in determining loss per share for the years ended December 31, 2017 and 2016, respectively, for dividends (including accrued dividends) on the Series A redeemable convertible preferred stock during the period. The following represents a reconciliation of net loss attributable to common stockholders for the years ended December 31, 2017 and 2016, respectively:

	Years Ended December 31,	
	2017	2016
Net income (loss)	\$1,052,401	\$(10,998,794)
Effects of Series A redeemable convertible preferred stock:		
Less: Series A redeemable convertible preferred stock dividends	873,043	777,890
Less: Accretion to redemption value of Series A redeemable convertible preferred stock	—	1,181,446
Net income (loss) attributable to common stockholders	\$179,358	\$(12,958,130)

(9) Stockholders' Equity

Stock Repurchase Activity

On April 22, 2015, the Company's Board of Directors (the "Board") approved a new stock buy-back program (the "Repurchase Program"). The Repurchase Program authorizes management to repurchase in the aggregate up to five million shares of the Company's common stock. Repurchases may be made by the Company from time to time in open-market or privately-negotiated transactions as permitted by securities laws and other legal requirements, and subject to market conditions and other factors. The Repurchase Program superseded and replaced the Company's prior stock buy-back program. The Repurchase Program does not obligate the Company to make repurchases at any specific time or situation. The Company was required to obtain approvals from the Series A redeemable convertible preferred stockholders for the Repurchase Program. The Repurchase Program does not have an expiration date and may be amended or terminated by the Board at any time without prior notice.

During the year ended December 31, 2017 and December 31, 2016, the Company repurchased no shares of its common stock. As of December 31, 2017, the Company had the authorization to repurchase 4,907,839 shares of its common stock based upon its judgment and market conditions.

Independent Marketing Agreement

On July 24, 2015, the Company entered into an Independent Marketing Agreement with RFN Prime Marketing Inc., to provide among other items, certain sales and marketing deliverables to the Company and originally entitled RFN Prime Marketing Inc., to receive up to 2.55 million shares of restricted Company common stock which will be issued based on certain milestone achievements and/or transactions over a twenty-four month period. The Independent Marketing Agreement with RFN Prime Marketing Inc., was terminated effective March 31, 2017 and none of the performance milestones had been met, and therefore no restricted Company common stock has been issued.

(10) Share-Based Payment Arrangements

On April 27, 2016, the Company's stockholders adopted the FalconStor Software, Inc. 2016 Incentive Stock Plan (the "2016 Plan"). The 2016 Plan is administered by the Compensation Committee and initially provided for the issuance of up to 1,500,000 shares of the Company's common stock upon the exercise of options or upon the grant of shares with such restrictions as determined by the Compensation Committee to the employees, consultants and non-employee directors of the Company. Exercise prices of the options must be equal to the fair market value of the common stock on the date of grant. Options granted have terms of ten years. Shares of restricted stock have the terms and conditions set by the Board of Directors and are forfeitable until the terms of the grant have been satisfied. The 2016 Plan replaces the Company's 2006 Incentive Stock Plan.

On April 27, 2016, the Company's stockholders adopted the FalconStor Software, Inc. 2016 Outside Directors Equity Compensation Plan (the "2016 Director Plan"). The 2016 Director Plan is administered by the Board of Directors and provides for the issuance of up to 400,000 shares of the Company's common stock upon the exercise of options or upon the grant of shares with such restrictions as determined by the Board of Directors to the non-employee directors of the Company. Exercise prices of the options must be equal to the fair market value of the common stock on the date of grant. Options granted have terms of ten years. Shares of restricted stock have the terms and conditions set by the Board of Directors and are forfeitable until the terms of the grant have been satisfied. The 2016 Director Plan replaces the 2013 Outside Directors Equity Compensation Plan.

The following table summarizes the plans under which the Company was able to grant equity compensation as of December 31, 2017:

Name of Plan	Shares Authorized	Shares Available for Grant	Shares Outstanding	Last Date for Grant of Shares
FalconStor Software, Inc., 2016 Incentive Stock Plan	4,247,686	3,191,300	535,000	April 27, 2026
FalconStor Software, Inc., 2016 Outside Directors Equity Compensation Plan	1,000,000	583,532	409,868	April 27, 2019

On June 30, 2017, the total shares available for issuance under the 2016 Plan totaled 145,220. Pursuant to the 2016 Plan, if, on July 1st of any calendar year in which the 2016 Plan is in effect, the number of shares of stock as to which options, restricted shares and restricted stock units may be granted under the 2016 Plan is less than five percent (5%) of the number of outstanding shares of stock, then the number of shares of stock available for issuance under the 2016 Plan is automatically increased so that the number equals five percent (5%) of the shares of stock outstanding. In no event shall the number of shares of stock subject to the 2016 Plan in the aggregate exceed twenty million shares, subject to adjustment as provided in the 2016 Plan. On July 1, 2017, the total number of outstanding shares of the Company's common stock totaled 44,525,990. Pursuant to the 2016 Plan, the total shares available for issuance under the 2016 Plan thus increased 2,081,080 to 2,226,300 shares available for issuance as July 1, 2017.

The following table summarizes the Company's equity plans that have expired but that still have equity awards outstanding as of December 31, 2017:

Name of Plan	Shares Available for Grant	Shares Outstanding
FalconStor Software, Inc., 2006 Incentive Stock Plan	—	1,542,000
FalconStor Software, Inc., 2013 Outside Directors Equity Compensation Plan	—	6,800
FalconStor Software, Inc., 2000 Stock Option Plan	—	81,500

All outstanding options granted under the Company's equity plans have terms of ten years

A summary of the Company's stock option activity for 2017 is as follows:

	Number of Options	Weighted Average Price	Weighted Average Remaining Contractual Life (Years)	Aggregate Intrinsic Value
Options Outstanding at December 31, 2016	3,491,490	\$ 3.18	4.83	\$ —
Granted	1,470,000	\$ 0.43		
Exercised	—	\$ —		
Forfeited	(2,772,840)	\$ 1.97		
Expired	(162,450)	\$ 11.90		
Options Outstanding at December 31, 2017	2,026,200	\$ 2.14	5.32	\$ —
Options Exercisable at December 31, 2017	1,317,000	\$ 2.91	3.44	\$ —
Options Expected to Vest after December 31, 2017	709,200	\$ 0.72	8.82	\$ —

Stock option exercises are fulfilled with new shares of common stock.

The Company recognized share-based compensation expense for all awards issued under the Company's stock equity plans in the following line items in the consolidated statement of operations:

	Years ended December 31,	
	2017	2016
Cost of revenue - Support and Service	64,427	80,903
Research and development costs	233,955	1,653,336
Selling and marketing	48,286	241,481
General and administrative	76,285	352,498
	\$422,953	\$2,328,218

The Company did not recognize any tax benefits related to share-based compensation expense during the years ended December 31, 2017 and 2016.

The Company has the ability to issue both restricted stock and restricted stock units. The fair value of the restricted stock awards and restricted stock units are expensed at either (i) the fair value per share at date of grant (directors, officers and employees), or (ii) the fair value per share as of each reporting period (non-employee consultants). A summary of the total stock-based compensation expense related to restricted stock awards and restricted stock units, which is included in the Company's total share-based compensation expense for each respective year, is as follows:

	Years ended December 31,	
	2017	2016
Directors, officers and employees	\$167,369	\$598,549
Non-employee consultants	—	96,237
	\$167,369	\$694,786

A summary of the Company's restricted stock activity for 2017 is as follows:

	Number of Restricted Stock Awards
Non-Vested at December 31, 2016	2,136,800

Granted	750,418
Vested	(673,625)
Forfeited	(1,664,625)
Non-Vested at December 31, 2017	548,968

Restricted stock and restricted stock units are fulfilled with new shares of common stock. The total intrinsic value of restricted stock for which the restrictions lapsed during the years ended December 31, 2017 and 2016 was \$0 and \$637,404, respectively.

Options granted to non-employee consultants have exercise prices equal to the fair market value of the stock on the date of grant and a contractual term of ten years. Restricted stock awards granted to non-employee consultants have a contractual term equal to the lapse of restriction(s) of each specific award. Vesting periods for share-based awards granted to non-employee consultants range from immediate vesting to three years depending on service requirements. A summary of the total stock-based compensation expense related to share-based awards granted to non-employee consultants, which is included in the Company's total share-based compensation expense for each respective period, is as follows:

	Years ended	
	December 31,	
	2017	2016
Non-qualified stock options	\$41,159	\$(5,915)
Restricted stock awards	—	96,237
	\$41,159	\$90,322

On March 7, 2016, the Company issued an aggregate of 507,070 shares of the Company's common stock to Cumulus Logic, LLC, as a milestone payment pursuant to the terms of a Software License and Development Agreement between the Company and Cumulus Logic, LLC. The shares have an aggregate value of \$765,000 based on the 30 day trading day average of the Company's common stock immediately prior to July 29, 2015, the date that the License and Development Agreement was executed. The Company recognized share-based compensation expense of \$699,757 related to this transaction based on the fair value of the common stock on the date of issue of \$1.38. This expense was included in "research and development costs" in the accompanying consolidated statements of operations.

On April 1, 2016, the Company issued an aggregate of 591,582 shares of the Company's common stock to Cumulus Logic, LLC, as the final milestone payment pursuant to the terms of a Software License and Development Agreement between the Company and Cumulus Logic, LLC. The shares have an aggregate value of \$892,500 based on the 30 day trading day average of the Company's common stock immediately prior to July 29, 2015, the date that the License and Development Agreement was executed. On April 1, 2016, the Company recognized share-based compensation expense of \$786,804 related to this transaction based on the fair value of the common stock on the date of issue of \$1.33. This expense was included in "research and development costs" in the accompanying consolidated statements of operations.

The Company estimates the fair value of share-based payments using the Black-Scholes option-pricing model. For awards with market conditions the Company utilizes the Monte Carlo simulation model to estimate the fair value. The Company believes that these valuation techniques and the approach utilized to develop the underlying assumptions are appropriate in estimating the fair value of the Company's share-based payments granted during the years ended December 31, 2017 and 2016. Estimates of fair value are not intended to predict actual future events or the value ultimately realized by the employees who receive equity awards.

The per share weighted average fair value of share-based payments granted during the years ended December 31, 2017 and 2016 was \$0.23 and \$0.95, respectively. In addition to the exercise and grant date prices of the awards, certain weighted average assumptions that were used to estimate the fair value of share-based payment grants in the respective periods are listed in the table below:

	Years ended December 31,	
	2017	2016
Expected dividend yield	0%	0%

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Expected volatility	57% - 59%	55%
Risk-free interest rate	1.94% - 2.02%	1.29 - 1.36%
Expected term (years)	5.5	5.5
Discount for post-vesting restrictions	N/A	N/A

Options granted to officers, employees and directors during fiscal 2017 and 2016 have exercise prices equal to the fair market value of the stock on the date of grant, a contractual term of ten years, and a vesting period generally of three years.

The Company estimates expected volatility based primarily on historical daily volatility of the Company's stock and other factors, if applicable. The risk-free interest rate is based on the United States treasury yield curve in effect at the time of grant. The expected option term is the number of years that the Company estimates that options will be outstanding prior to exercise. The expected term of the awards was determined based upon an estimate of the expected term of "plain vanilla" options as prescribed in SEC Staff Accounting Bulletin ("SAB") No. 110.

As of December 31, 2017, there was approximately \$0.3 million total unrecognized compensation cost related to the Company's unvested stock options, restricted stock and restricted stock unit awards granted under the Company's stock plans. The unrecognized compensation cost is expected to be recognized over a weighted-average period of 1.78 years.

As of December 31, 2017, the Company had 20,209,128 shares of common stock reserved for issuance upon the exercise or vesting of stock options, restricted stock, restricted stock units and warrants.

(11) Commitments and Contingencies

The Company's headquarters are located in Austin, Texas. The Company has an operating lease covering its Melville, N.Y. office facility that expires in April 2021. The Company also has several additional operating leases related to offices in foreign countries. The expiration dates for these leases range from 2018 through 2021. The following is a schedule of future minimum lease payments for all operating leases as of December 31, 2017:

2018	\$2,035,850
2019	1,614,843
2020	1,444,247
2021	491,020
Thereafter—	
	\$5,585,960

These leases require the Company to pay its proportionate share of real estate taxes and other common charges. Total rent expense for operating leases was \$2.0 million and \$2.1 million for the years ended December 31, 2017 and 2016, respectively.

The Company typically provides its customers a warranty on its software products for a period of no more than 90 days. Such warranties are accounted for in accordance with the authoritative guidance issued by the FASB on contingencies. For the year ended December 31, 2017, the Company has not incurred any costs related to warranty obligations.

Under the terms of substantially all of its software license agreements, the Company has agreed to indemnify its customers for all costs and damages arising from claims against such customers based on, among other things, allegations that the Company's software infringes the intellectual property rights of a third party. In most cases, in the event of an infringement claim, the Company retains the right to (i) procure for the customer the right to continue using the software; (ii) replace or modify the software to eliminate the infringement while providing substantially equivalent functionality; or (iii) if neither (i) nor (ii) can be reasonably achieved, the Company may terminate the license agreement and refund to the customer a pro-rata portion of the license fee paid to the Company. Such indemnification provisions are accounted for in accordance with the authoritative guidance issued by the FASB on guarantees. From time to time, in the ordinary course of business, the Company receives claims for indemnification, typically from OEMs. The Company is not currently aware of any material claims for indemnification.

Upon certain triggering events, such as bankruptcy, insolvency or a material adverse effect, failure to achieve minimum financial covenants or failure of the Company to issue shares upon conversion of the Series A redeemable convertible preferred stock in accordance with its obligations, the Series A redeemable convertible preferred stockholders may require the Company to redeem all or some of the Series A redeemable convertible preferred stock at a price equal to the greater of 100% of the stated value plus accrued and unpaid dividends or the product of the number of shares of common stock underlying the Series A redeemable convertible preferred stock and the closing price as of the occurrence of the triggering event. On or after July 30, 2021, each Series A redeemable convertible preferred stockholder can require the Company to redeem its Series A redeemable convertible preferred stock in cash at a price equal to 100% of the stated value being redeemed plus accrued and unpaid dividends. See Note (19) Subsequent Events for further information. As of December 31, 2016, the Company was not in compliance with the financial covenants of the Series A redeemable convertible preferred stock for two consecutive quarters, which provided the Series A redeemable convertible preferred stockholders the right to require the Company to redeem any of the Series A redeemable convertible preferred stock at the greater of 100% of the stated value plus accrued and unpaid dividends or the product of the number of shares of common stock underlying the Series A redeemable convertible preferred stock and the closing price of the Company's common stock as of December 31, 2016. To date, the holders of the Series A redeemable convertible preferred stock have neither exercised nor waived this right and accordingly this right may be exercised at any time. As of December 31, 2017, the Company did not fail any non-financial covenants related to the Company's Series A redeemable convertible preferred stock.

On July 24, 2015, the Company entered into an Independent Marketing Agreement with RFN Prime Marketing Inc., to provide among other items, certain sales and marketing deliverables to the Company and originally entitled RFN Prime Marketing Inc., to receive up to 2.55 million shares of restricted Company common stock which will be issued based on certain milestone achievements and/or transactions over a twenty-four month period. The restricted Company common stock will be valued as they are earned, and the resulting value will be recorded as an expense in the period in which the performance milestone is met and the stock is earned. As of December 31, 2017, none of the performance milestones have been met, and therefore no restricted Company common stock has been issued.

On June 14, 2017, the Company accepted the resignation of Gary Quinn from his position as Chief Executive Officer and President and as a Director of the Company effective July 1, 2017. In connection with Mr. Quinn's departure, on June 14, 2017 the Company and Mr. Quinn entered into a Separation Agreement and General Release (the "Quinn Separation Agreement"). Under the terms of the Quinn Separation Agreement, the Company paid Mr. Quinn his current salary through July 24, 2017 and any COBRA expenses through January 31, 2019 to the extent that Mr. Quinn's health insurance is not covered by the health insurance plan of another entity.

On August 15, 2017, the Company accepted the resignation of Todd Oseth from his position as Chief Executive Officer and President of the Company. In connection with Mr. Oseth's departure, on August 15, 2017 the Company and Mr. Oseth entered into a Separation Agreement and General Release (the "Oseth Separation Agreement"). Under the terms of the Oseth Separation Agreement, the Company will, among other things, pay Mr. Oseth his current salary through March 1, 2018 and any COBRA expenses through February 15, 2018 to the extent that Mr. Oseth's health insurance is not covered by the health insurance plan of another entity.

As of August 14, 2017, the Board appointed Todd Brooks as Chief Executive Officer effective August 14, 2017.

In connection with Mr. Brooks' appointment as Chief Executive Officer, the Board approved an offer letter to Mr. Brooks (the "Brooks Agreement"), which was executed on August 14, 2017. The Brooks Offer Letter provides that Mr. Brooks is entitled to receive an annualized base salary of \$350,000, payable in regular installments in accordance with the Company's general payroll practices. Mr. Brooks will also be eligible for a cash bonus of \$17,500 for any quarter that is free cash flow positive on an operating basis and additional incentive compensation of an annual bonus of up to \$200,000, subject to attainment of performance objectives to be mutually agreed upon and established. Pursuant to the

Brooks Agreement, it is the intention of the Company to create an equity plan for all employees subject to stockholder approval, for up to 15% of the equity of the Company on a fully diluted basis, plus potentially two additional tranches of 2.5% of the equity of the Company on a fully diluted basis, at the time the equity plan is adopted following stockholder approval. Vesting of the equity issued under the plan would occur only upon a sale of the Company's assets or capital stock at a premium to the valuation of the Company at the time the equity plan is adopted. Mr. Brooks' employment can be terminated at will. If Mr. Brooks' employment is terminated by the Company other than for cause he is entitled to receive severance equal to twelve (12) months of his base salary if (i) he has been employed by the Company for at least twelve (12) months at the time of termination or (ii) a change of control has occurred within six (6) months of Mr. Brooks' employment. Except as set forth in the preceding sentence, Mr. Brooks is entitled to receive severance equal to six (6) months of his base salary if he has been employed by the Company for less than six (6) months and his employment was terminated by the Company without cause. Mr. Brooks is also entitled to vacation and other employee benefits in accordance with the Company's policies as well as reimbursement for an apartment.

On August 14, 2017, the Board appointed Patrick McClain to serve as the Company's Executive Vice President, Chief Financial Officer and Treasurer. Mr. McClain also assumed the roles of principal financial officer and principal accounting officer of the Company. In connection with Mr. McClain's appointment as Chief Financial Officer, the Board approved an offer letter to Mr. McClain (the "McClain Agreement"), which was executed on August 17, 2017. The McClain Agreement provides that Mr. McClain is entitled to receive an annualized base salary of \$240,000, payable in regular installments in accordance with the Company's general payroll practices. Mr. McClain will also be eligible for a cash bonus of \$10,000 for any quarter that is free cash flow positive on an operating basis and additional incentive compensation of an annual bonus of up to \$80,000, subject to attainment of performance objectives to be mutually agreed upon and established. Mr. McClain's employment can be terminated at will. If Mr. McClain's employment is terminated by the Company other than for cause he is entitled to receive severance equal to six (6) months of his base salary if (i) he has been employed by the Company for at least twelve (12) months at the time of termination or (ii) a change of control has occurred within six (6) months of Mr. McClain's employment. Except as set forth in the preceding sentence, Mr. McClain is entitled to receive severance equal to three (3) months of his base salary if he has been employed by the Company for less than six (6) months and his employment was terminated by the Company without cause. Mr. McClain is also entitled to vacation and other employee benefits in accordance with the Company's policies.

In addition, as of December 31, 2017, our liability for uncertain tax positions totaled \$262,711. At this time, the settlement period for the positions, including related accrued interest, cannot be determined.

(12) Derivative Financial Instruments

The Company does not use derivative financial instruments for trading or speculative purposes. As of December 31, 2017 and 2016, the Company had no foreign currency forward contracts outstanding. The Company did not utilize foreign currency forward contracts during the years ended December 31, 2017 and 2016.

As a result of the Company's analysis of all the embedded conversion and put features within its Series A redeemable convertible preferred stock, the contingent redemption put options in the Series A redeemable convertible preferred stock were determined to not be clearly and closely related to the debt-type host and also did not meet any other scope exceptions for derivative accounting. Therefore the contingent redemption put options are being accounted for as derivative instruments and the fair value of these derivative instruments were bifurcated from the Series A redeemable convertible preferred stock and recorded as a liability. At the time of issuance of the Series A redeemable convertible preferred stock the fair value of these derivative instruments were recorded as a reduction to preferred stock. As of December 31, 2017 and 2016, the fair value of these derivative instruments was \$445,838 and \$336,862, respectively, and were included in "other long-term liabilities" within the consolidated balance sheets. The loss on the change in fair value of these derivative instruments for 2017 of \$108,976 and the loss on the change in fair value of these derivative instruments for 2016 of \$254,838, were included in "interest and other loss, net" within the consolidated statement of operations.

(13) Litigation

In view of the inherent difficulty of predicting the outcome of litigation, particularly where the claimants seek very large or indeterminate damages, the Company generally cannot predict what the eventual outcome of the pending matters will be, what the timing of the ultimate resolution of these matters will be, or what the eventual loss, fines or penalties related to each pending matter may be.

In accordance with the authoritative guidance issued by the FASB on contingencies, the Company accrues anticipated costs of settlement, damages and losses for claims to the extent specific losses are probable and estimable. The Company records a receivable for insurance recoveries when such amounts are probable and collectable. In such

cases, there may be an exposure to loss in excess of any amounts accrued. If, at the time of evaluation, the loss contingency related to a litigation is not both probable and estimable, the matter will continue to be monitored for further developments that would make such loss contingency both probable and estimable and, the Company will expense these costs as incurred. If the estimate of a probable loss is a range and no amount within the range is more likely, the Company will accrue the minimum amount of the range.

Other Claims

The Company is subject to various legal proceedings and claims, asserted or unasserted, which arise in the ordinary course of business. While the outcome of any such matters cannot be predicted with certainty, such matters are not expected to have a material adverse effect on the Company's financial condition or operating results.

The Company continues to assess certain litigation and claims to determine the amounts, if any, that the Company believes may be paid as a result of such claims and litigation and, therefore, additional losses may be accrued and paid in the future, which could materially adversely impact the Company's financial results, its cash flows and its cash reserves.

(14) Restructuring Costs

In the third quarter of 2013, the Company adopted the 2013 Plan to better align the Company's cost structure with the skills and resources required to more effectively execute the Company's long-term growth strategy and to support revenue levels the Company expected to achieve on a go forward basis. In connection with the 2013 Plan, the Company eliminated over 100 positions worldwide, implemented tighter expense controls, ceased non-core activities and closed or downsized several facilities. The 2013 Plan was substantially completed by December 31, 2014; however, the Company expects the remaining accrued severance related costs to be paid once final settlement litigation is completed, which can be at various times over the next twelve months. The total amount incurred under the 2013 Plan for the years ended December 31, 2017 and 2016, was \$(159,597) and \$177,389, respectively.

Accrued restructuring costs as of December 31, 2017 associated with the 2013 Plan is as follows:

	Severance related costs	Facility and other costs	Total
Original charge	\$3,179,131	\$426,889	\$3,606,020
Utilized/Paid	(2,067,554)	(231,973)	(2,299,527)
Balance at December 31, 2013	\$1,111,577	\$194,916	\$1,306,493
Provisions/Additions	365,174	770,136	1,135,310
Utilized/Paid	(653,325)	(759,563)	(1,412,888)
Balance at December 31, 2014	\$823,426	\$205,489	\$1,028,915
Provisions/Additions	55,527	117,468	172,995
Utilized/Paid	(161,313)	(307,935)	(469,248)
Balance at December 31, 2015	\$717,640	\$15,022	\$732,662
Provisions/Additions	165,228	12,161	177,389
Utilized/Paid	(36,531)	(27,183)	(63,714)
Balance at December 31, 2016	\$846,337	\$—	\$846,337
Provisions/Additions	(159,597)	—	(159,597)
Utilized/Paid	(38,341)	—	(38,341)
Balance at December 31, 2017	\$648,399	\$—	\$648,399

In June 2017, the Board approved a comprehensive plan to increase operating performance (the "2017 Plan"). The 2017 Plan resulted in a realignment and reduction in workforce. The 2017 Plan was substantially completed by the end of the Company's fiscal year ending December 31, 2017, and when combined with previous workforce reductions in the second quarter of Fiscal 2017 reduced the Company's workforce to approximately 81 employees. In connection with the 2017 Plan, the Company incurred severance expense of \$1.2 million. In making these changes, the Company prioritized customer support and development while consolidating operations and streamlining direct sales resources allowing the company to focus on the install base and develop alternate channels to the market.

The severance related liabilities and facility and other liabilities are included within "accrued expenses" and "accounts payable" in the accompanying consolidated balance sheets. The expenses under the 2013 Plan are included within "restructuring costs" in the accompanying consolidated statements of operations.

(15) Employee Benefit Plans

Defined Contribution Plan

Effective July 2002, the Company established a voluntary savings and defined contribution plan (the “Plan”) under Section 401(k) of the Internal Revenue Code. This Plan covers all U.S. employees meeting certain eligibility requirements and allows participants to contribute a portion of their annual compensation. Employees are 100% vested in their own contributions. For the years ended December 31, 2017 and 2016, the Company did not make any contributions to the Plan.

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Effective July 1, 2007, the Company, in accordance with the labor pension system in Taiwan, contributes 6% of salaries to individual pension accounts managed by the Bureau of Labor Insurance. The plan covers all Taiwan employees that elect the new pension system and all employees hired after July 1, 2005. For the years ended December 31, 2017 and 2016, the Company contributed approximately \$39,000 and \$35,000, respectively.

Defined Benefit Plan

The Company has a defined benefit plan covering employees in Taiwan. The Company accounts for its defined benefit plan in accordance with the authoritative guidance issued by the FASB on retirement benefits, which requires the Company to recognize the funded status of its defined benefit plan in the accompanying consolidated balance sheet, with the corresponding adjustment to accumulated other comprehensive income, net of tax.

At December 31, 2017 and 2016, \$22,096 and \$28,675, respectively, is included in accumulated other comprehensive (loss) income for amounts that have not yet been recognized in net periodic pension cost. These amounts include the following: unrecognized transition obligation of \$5,778 and \$10,620 at December 31, 2017 and 2016, respectively, and unrecognized actuarial gains of \$33,545 and \$39,295 at December 31, 2017 and 2016, respectively. During 2017, the total amount recorded in other comprehensive (loss) income related to the pension plan was \$(6,578) (net of tax), which consisted of an actuarial loss of (\$12,227) and the recognition of \$5,649 of transition obligations recognized during 2017 as a component of net periodic pension cost. The transition obligation and actuarial gain included in accumulated other comprehensive (loss) income and expected to be recognized in net periodic pension cost for the year ended December 31, 2018, is \$5,649 and \$677 respectively.

Pension information for the years ended December 31, 2017 and 2016, is as follows:

	2017	2016
Accumulated benefit obligation	\$222,113	\$190,186
Changes in projected benefit obligation:		
Projected benefit obligation at beginning of year	203,168	194,098
Interest cost	3,242	3,471
Actuarial loss	7,050	1,702
Benefits paid	—	—
Service cost	—	—
Currency translation	18,158	3,897
Projected benefit obligation at end of year	\$231,618	\$203,168
Changes in plan assets:		
Fair value of plan assets at beginning of year	\$136,902	\$126,334
Actual return on plan assets	1,486	1,180
Benefits paid	—	—
Employer contributions	39,547	6,860
Currency translation	13,015	2,528
Fair value of plan assets at end of year	\$190,950	\$136,902
Funded status	\$40,668	\$66,266
Components of net periodic pension cost:		
Interest cost	\$3,242	\$3,471
Expected return on plan assets	2,185	(2,260)
Amortization of net loss	4,387	3,725
Service cost	—	—
Net periodic pension cost	\$9,814	\$4,936

The Company makes contributions to the plan so that minimum contribution requirements, as determined by government regulations, are met. Company contributions of approximately \$40,000 are expected to be made during 2018. No benefit payments are expected to be paid in 2018 through 2026.

The Company utilized the following assumptions in computing the benefit obligation at December 31, 2017 and 2016 as follows:

	Years ended	
	December 31,	
	2017	2016
Discount rate	1.10%	1.50%
Rate of increase in compensation levels	1.00%	1.00%
Expected long-term rate of return on plan assets	1.10%	1.50%

(16) Segment Reporting and Concentrations

The Company is organized in a single operating segment for purposes of making operating decisions and assessing performance. Revenues from the United States to customers in the following geographical areas for the years ended December 31, 2017 and 2016, and the location of long-lived assets as of December 31, 2017 and 2016, are summarized as follows:

	Years ended December	
	31,	
	2017	2016
Revenues:		
Americas	\$7,629,508	\$8,827,878
Asia Pacific	9,147,888	11,651,487
Europe, Middle East, Africa and Other	8,383,167	9,783,981
Total Revenues	\$25,160,563	\$30,263,346

	December 31,	
	2017	
	2017	2016
Long-lived assets:		
Americas	\$5,754,977	\$6,525,612
Asia Pacific	822,885	890,051
Europe, Middle East, Africa and Other	213,371	218,316
Total long-lived assets	\$6,791,233	\$7,633,979

For the year ended December 31, 2017, the Company had no customers, that accounted for more than 10% of total revenue. For the year ended December 31, 2016, the Company had one customer that accounted for 11% of total revenue.

As of December 31, 2017, the Company had one customer that accounted for 23% of the gross accounts receivable balance. As of December 31, 2016, the Company had three customers, that accounted for 15%, 14% and 12% of the gross accounts receivable balance, respectively.

(17) Valuation and Qualifying Accounts – Allowance for Returns and Doubtful Accounts

Period Ended	Balance at Beginning of Period	Charges / (Benefits) to Revenue	(Increases) Deductions	Balance at End of Period
December 31, 2017	\$ 260,676	141,234	47,368	\$354,542
December 31, 2016	\$ 191,285	104,228	34,837	\$260,676

Note: Charges/benefits to the allowance for doubtful accounts are recorded within “general and administrative expenses” within the consolidated statements of operations. Charges/benefits to the return reserve for product and service are recorded within “product revenue” within the consolidated statements of operations.

(18) Related Party Transactions

William Miller, a member of the Company's Board of Directors, is the Chairman and Chief Executive Officer of X-IO Technologies, Inc. ("X-IO Technologies"), an enterprise storage company. For the year ended December 31, 2017, the Company sold product to X-IO Technologies totaling \$45,865.

Martin M. Hale, Jr., a member of the Company's Board of Directors, is a general partner of HCP-FVA, the holder of all of the Company's Series A redeemable convertible preferred stock. The Series A redeemable convertible preferred stock was purchased by Hale Capital Partners, LP, of which Mr. Hale is a general partner, pursuant to a September 16, 2013 stock purchase agreement with the Company at a time when Mr. Hale was not a director of the Company. Hale Capital Partners, LP subsequently assigned all of its rights in the Series A redeemable convertible preferred stock to HCP-FVA. Under the terms of the Certificate of Designations, the holders of the Series A convertible preferred stock are entitled, as a group, to nominate and to elect up to two directors so long as at least 85% of the Company's Series A redeemable convertible preferred stock is outstanding. HCP-FVA, the sole holder of the Series a convertible preferred stock, nominated and elected Mr. Hale in September 2013 and Michael P. Kelly on October 29, 2014, to the Company's Board of Directors.

On November 17, 2017, HCP-FVA provided a commitment letter to the Company agreeing to finance up to \$3 million to the Company (the "Commitment") on the terms, and subject to the conditions, set forth in that certain commitment letter. As part of that Commitment, on November 17, 2017, the Company entered into a Loan and Security Agreement with Lender and certain other loan parties named therein, pursuant to which the Lender made a short term loan to the Company in the principal amount of \$500,000 payable on May 17, 2018. In connection with the Bridge Loan, the Company issued HCP-FVA Backstop Warrants to purchase 13,859,128 shares of Common Stock. See Note (7) Short-Term Loan and Commitment for more information.

On February 23, 2018, we closed on the Commitment whereby HCP-FVA purchased \$3 million of Units (as defined in Note (19) Subsequent Events) to backstop a proposed private placement of Units to certain eligible stockholders of the Company. HCP-FVA subscribed for the full \$3 million of Units (at the Company's election) in the Commitment by payment of \$2.5 million in cash and the conversion of the \$500,000 Bridge Loan. In connection therewith, the Company issued HCP-FVA additional BackStop Warrants to purchase 41,577,383 shares of Common Stock and Financing Warrants to purchase 366,990,000 shares of Common Stock. For further information regarding the Commitment, see Note (19) Subsequent Events.

(19) Subsequent Events

On February 23, 2018, FalconStor Software, Inc. (“FalconStor” or the “Company”) closed on its previously-announced commitment (the “Commitment”) from HCP-FVA, LLC (“HCP-FVA”) to purchase up to \$3 million of Units (as defined below) from the Company to backstop a proposed private placement of Units to certain eligible stockholders of the Company (the “Financing”). HCP-FVA subscribed for the full \$3 million of Units (at the Company’s election) in the Commitment by payment of \$2.5 million in cash and the conversion of a \$500,000 short-term loan provided by HCP-FVA to the Company in November 2017 (the “Bridge Loan”) into Units. HCP-FVA is an affiliate of Hale Capital Partners, LP (together with HCP-FVA, “Hale Capital”), the Company’s largest stockholder through its ownership of the Company’s Series A Redeemable Preferred Stock (the “Series A Preferred Stock”), and an affiliate of FalconStor director, Martin Hale.

In the Financing, the Company intends to offer to FalconStor stockholders as of November 17, 2017 who are accredited investors the opportunity to purchase up to a total of 40 million Units (inclusive of subscriptions by HCP-FVA). The Financing is expected to close on or before September 23, 2018, and documentation relating to the Financing will be provided to prospective investors subsequent to the Company's Annual Meeting of Stockholders. Each Unit is expected to consist of the following (each, a “Unit”):

- i. \$0.10 in senior secured debt (for a total of \$4 million of senior secured debt assuming full subscription of the Financing), secured by all of the assets of the Company and guaranteed by each of the Company’s domestic subsidiaries, having an interest rate of prime plus 0.75% and a maturity date of June 30, 2021 (the “Term Loan”);
- ii. warrants to purchase 12.233 shares of the Company’s common stock for a nominal exercise price (for a total of 489.32 million shares assuming full subscription of the Financing) (the “Financing Warrants”); and
- iii. 0.0225 shares of Series A Preferred Stock at a per Unit price of \$0.2643 (subject to increase to take into account accretion of the Series A Preferred Stock after June 30, 2018), all such shares to be acquired directly from their current holder, HCP-FVA.

The closing of the Commitment effectively constitutes HCP-FVA’s purchase of 30 million Units in the Financing. As a result, the maximum additional funds that the Company may receive in the Financing is \$1 million through the purchase of 10 million Units by other eligible stockholders. If other eligible stockholders subscribe for more than 10 million Units, they will purchase those additional Units consisting of senior secured debt and Series A Preferred Stock directly from HCP-FVA (with the associated Financing Warrants to be issued by the Company directly to the eligible stockholders, and HCP-FVA’s Financing Warrants associated with those additional Units sold to the eligible stockholders to be cancelled in accordance with the terms of such Financing Warrants), subject to HCP-FVA maintaining at least 25% of the total Units to be issued in the Financing. HCP-FVA has agreed to subscribe for more than its pro rata portion of the Units available for purchase in the Financing (based on common stock ownership on an as-converted basis as of November 17, 2017), and if other eligible stockholders elect to subscribe for more than their pro rata share, the remaining Units shall be allocated among such stockholders (including HCP-FVA) in such manner as the Company, Hale Capital and the participating eligible stockholders shall agree.

On February 23, 2018, in connection with HCP-FVA’s subscription in the Financing, the Company entered into an Amended and Restated Term Loan Credit Agreement, dated as of the same date (the “Amended and Restated Loan Agreement”), with HCP-FVA and certain other loan parties named therein setting forth the terms of the Term Loan. The Amended and Restated Loan Agreement amends and restates that certain Loan Agreement, dated as of November 17, 2017, by and among the parties, pursuant to which HCP-FVA made the Bridge Loan.

Under the Amended and Restated Loan Agreement, in the event the Term Loan is prepaid for any reason, such prepayment will be subject to the payment of a premium in an amount equal to 5% of the principal amount prepaid. The Term Loan is required to be prepaid upon the occurrence of certain events, including but not limited to certain

assets dispositions, the incurrence of additional indebtedness, the receipt of insurance proceeds, and a change of control, subject to certain exceptions.

The Amended and Restated Loan Agreement has customary representations, warranties and affirmative and negative covenants. The negative covenants include financial covenants by the Company to (i) maintain minimum cash denominated in U.S. dollars plus accounts receivable outstanding for less than 90 days of \$2 million, and (ii) until the consummation of the Financing with eligible stockholders (other than HCP-FVA), not permit a variance of more than 10% of net cash flow from the amounts set forth in a rolling weekly detailed budget through the second fiscal quarter of 2018, agreed upon at the signing of the Amended and Restated Loan Agreement. The Amended and Restated Loan Agreement also contains customary events of default, including but not limited to payment defaults, cross defaults with certain other indebtedness, breaches of covenants, bankruptcy events and a change of control. In the case of an event of default, as administrative agent under the Loan Agreement, HCP-FVA may (and upon the written request of lenders holding in excess of 50% of the Term Loan, which must

include HCP-FVA, is required to accelerate payment of all obligations under the Loan Agreement, and seek other available remedies).

Under the Amended and Restated Loan Agreement, the Company also agreed to use its commercially reasonable efforts to obtain, as soon as practicable (but in no event later than June 1, 2018), the approval of its stockholders to amend the Company's Restated Certificate of Incorporation, as amended, to increase the number of authorized shares of the Company's common stock in order to permit the exercise of the Financing Warrants issuable in the Financing (the "Stockholder Approval"). HCP-FVA agreed that, prior to the record date for any Company stockholders meeting held in connection with the Stockholder Approval, HCP-FVA will exercise any Financing Warrants and any Backstop Warrants (as defined below) for which the Company has sufficient authorized capital and will vote the common stock it receives upon such exercise in favor of the Stockholder Approval.

As part of the Commitment, Hale Capital also agreed to postpone the date of the redemption of the Series A Preferred Stock from August 5, 2017 to July 30, 2021, and to waive prior breaches of the terms of the Series A Preferred Stock which had also triggered a redemption right.

In exchange for serving as the backstop for the Financing, upon the closing of the Commitment, HCP-FVA received warrants to purchase 41,577,382 shares of the Company's common stock for a nominal exercise price (the "Backstop Warrants"), in addition to the 13,859,128 Backstop Warrants issued to HCP-FVA in connection with the making of the Bridge Loan. If eligible stockholders (other than HCP-FVA) subscribe for and purchase more than fifty percent (50%) of the Units in the Financing on the terms and conditions set forth in Section 10.13 of the Amended and Restated Loan Agreement and Schedule 10.13 thereto, then 66.66% of the number of shares of common stock issued to HCP-FVA in respect of the Backstop Warrants issued upon the closing of the Commitment (or, if the Backstop Warrants issued upon the closing of the Commitment have not then been exercised, issuable to HCP-FVA) upon exercise of such Backstop Warrants, as determined on a post-cashless exercise basis, shall be cancelled (and, if such Backstop Warrants have been exercised on a non-cashless exercise basis, the Company shall reimburse HCP-FVA for the cash exercise price paid in respect of the cancelled warrant shares). The Backstop Warrants are in addition to the Financing Warrants issuable in the Financing. In consideration for HCP-FVA's subscription of \$3 million of Units, HCP-FVA was issued Financing Warrants to purchase 366,990,000 shares of the Company's common stock for a nominal exercise price. The Financing Warrants are not exercisable until receipt of Stockholder Approval.

The issuance of the Financing Warrants and the Backstop Warrants in connection with the Commitment and the Financing will have a substantial dilutive effect on all existing stockholders of the Company. For example, if HCP-FVA is the only subscriber in the Financing, Hale Capital will beneficially own, when combined with Hale Capital's current ownership and shares set aside for management, approximately 73% of the common stock of the Company on an as-converted basis. If the Financing is fully subscribed and HCP-FVA's subscription amounts to 25% of the total number of Units issued in the Financing, Hale Capital will beneficially own, when combined with Hale Capital's current ownership and shares set aside for management, approximately 22% of the common stock of the Company on an as-converted basis.

The Commitment and the Financing were approved by the Company's Board of Directors, based on a recommendation of a special committee of independent directors, with Mr. Hale recusing himself.

As previously disclosed in the Company's filings with the Securities and Exchange Commission, the Company was actively seeking financing in order to meet the Company's operating cash flow needs.

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

None.

Item 9A. Controls and Procedures

Disclosure Controls and Procedures

The Company maintains “disclosure controls and procedures,” as such term is defined in Rules 13a-15e and 15d-15e of the Securities and Exchange Act of 1934, as amended (the “Exchange Act”), that are designed to ensure that information required to be disclosed in its reports, pursuant to the Exchange Act, is recorded, processed, summarized and reported within the time periods specified in the SEC’s rules and forms, and that such information is accumulated and communicated to its management, including its Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding the required disclosures.

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In designing and evaluating the disclosure controls and procedures, management has recognized that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurances of achieving the desired control objectives, and management necessarily is required to apply its judgment in evaluating the cost benefit relationship of possible controls and procedures.

The Company's Chief Executive Officer (its principal executive officer) and Chief Financial Officer (its principal finance officer and principal accounting officer) have evaluated the effectiveness of its "disclosure controls and procedures" as of the end of the period covered by this Annual Report on Form 10-K. Based on their evaluation, the principal executive officer and principal financial officer concluded that its disclosure controls and procedures are effective as of the end of the period covered by this report.

Internal Control Over Financial Reporting

Management's Report on Internal Control Over Financial Reporting

The Company's management is responsible for establishing and maintaining adequate internal control over financial reporting for the Company; as such term is defined in Rules 13a-15(f) under the Securities and Exchange Act of 1934, as amended. To evaluate the effectiveness of the Company's internal control over financial reporting, the Company's management uses the Integrated Framework (2013) adopted by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO").

The Company's management has assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2017, using the COSO framework (2013). The Company's management has determined that the Company's internal control over financial reporting is effective as of that date.

There were no changes in the Company's internal controls over financial reporting during the Company's last fiscal quarter that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

Item 9B. Other Information

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

Information called for by Part III, Item 10, regarding the Registrant's directors will be included in our Proxy Statement relating to our annual meeting of stockholders scheduled to be held in May 2018, and is incorporated herein by reference. The information appears in the Proxy Statement under the captions "Election of Directors", "Management", "Executive Compensation", "Section 16 (a) Beneficial Ownership Reporting Compliance", and "Committees of the Board of Directors." The Proxy Statement will be filed within 120 days of December 31, 2017, our year-end.

Item 11. Executive Compensation

Information called for by Part III, Item 11, will be included in our Proxy Statement relating to our annual meeting of stockholders scheduled to be held in May 2018, and is incorporated herein by reference. The information appears in the Proxy Statement under the captions "Executive Compensation", "Director Compensation", "Compensation Committee Interlocks and Insider Participation", "Compensation Committee Report" and "Committees of the Board of Directors." The Proxy Statement will be filed within 120 days of December 31, 2017, our year-end.

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

Information regarding Securities Authorized for Issuance Under Equity Compensation Plans is included in Item 4 and is incorporated herein by reference. All other information called for by Part III, Item 12, will be included in our Proxy Statement relating to our annual meeting of stockholders scheduled to be held in May 2018, and is incorporated herein by reference. The information appears in the Proxy Statement under the caption "Beneficial Ownership of Shares." The Proxy Statement will be filed within 120 days of December 31, 2017, our year-end.

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

Information regarding our relationships and related transactions will be included in our Proxy Statement relating to our annual meeting of stockholders scheduled to be held in May 2018, and is incorporated by reference. The information appears in the Proxy Statement under the caption "Certain Relationships and Related Transactions." The Proxy Statement will be filed within 120 days of December 31, 2017, our year-end.

Item 14. Principal Accountant Fees and Services

Information called for by Part III, Item 14, will be included in our Proxy Statement relating to our annual meeting of stockholders scheduled to be held in May 2018, and is incorporated herein by reference. The information appears in the Proxy Statement under the caption "Principal Accountant Fees and Services." The Proxy Statement will be filed within 120 days of December 31, 2017, our year-end.

PART IV

Item 15. Exhibits and Financial Statement Schedules

The information required by subsections (a)(1) and (a)(2) of this item are included in the response to Item 8 of Part II of this annual report on Form 10-K.

(b) Exhibits

- 3.1 Restated Certificate of Incorporation, incorporated herein by reference to Exhibit 3.1 to the Registrant's registration statement on Form S-1 (File no. 33-79350), filed on April 28, 1994.
- 3.2 Amended and Restated By-Laws of FalconStor Software, Inc., incorporated herein by reference to Exhibit 3.2 to the Registrant's annual report on Form 10-K for the year ended December 31, 2010, filed on March 14, 2011.
- 3.3 Certificate of Amendment to the Restated Certificate of Incorporation, incorporated herein by reference to Exhibit 3.3 to the Registrant's the quarterly report on Form 10-Q for the period ended June 30, 2000 filed on August 11, 2000.
- 3.4 Certificate of Amendment to the Restated Certificate of Incorporation, incorporated herein by reference to Exhibit 3.4 to the Registrant's annual report on Form 10-K for the year ended December 31, 2001, filed on March 27, 2002.
- 3.5 Certificate of Designations, Preferences and Rights of Series A Convertible Preferred Stock, incorporated herein by reference to Exhibit 4.1 to the Registrant's report on Form 8-K dated September 16, 2013.
- 4.1s Amended and Restated 2006 Incentive Stock Plan incorporated herein by reference to Exhibit 4.1 to the Registrant's quarterly report on Form 10-Q for the quarter ended March 31, 2007, filed on May 10, 2007.
- 4.2s Form of Restricted Stock Letter Agreement for Executive Officers, incorporated herein by reference to Exhibit 99.1 to the Registrant's quarterly report on Form 10-Q for the period ended March 31, 2008, filed May 9, 2008.
- 4.3s Form of Restricted Stock Letter Agreement, incorporated herein by reference to Exhibit 4.1 to the Registrant's current report on Form 8-K filed on April 7, 2014.
- 4.4s FalconStor Software Inc., 2013 Outside Directors Equity Compensation Plan, incorporated herein by reference to the Registrant's Proxy Statement on Schedule 14a for the 2013 Annual meeting of Stockholders, filed on March 29, 2013.
- 4.5s FalconStor Software, Inc. 2016 Incentive Stock Plan, incorporated by reference to Exhibit A to the Proxy Statement on Schedule 14A dated March 18, 2016.
- 4.6s FalconStor Software, Inc. 2016 Outside Directors Equity Compensation Plan, incorporated by reference to Exhibit B to the Proxy Statement on Schedule 14A dated March 18, 2016.
- 10.1s Amended and Restated FalconStor Software, Inc., 2005 Key Executive Severance Protection Plan, incorporated herein by reference to Exhibit 99.2 to Registrant's current report on Form 8-K filed on April 7, 2014.
- 10.2 Agreement of Lease between Huntington Quadrangle 2 LLC and FalconStor Software Inc., dated May 30, 2013, with a commencement date of March 1, 2014, incorporated herein by reference to Exhibit 99.1 to the Registrant's quarterly report on Form 10-Q for the period ended June 30, 2013 filed on August 7, 2013.
- 10.3 Preferred Stock Purchase Agreement dated as of September 16, 2013 between the Company and Hale Capital Partners, LP, incorporated herein by reference to Exhibit 10.1 to the Registrant's report on Form 8-K dated September 16, 2013.
- 10.4s Separation Agreement between FalconStor Software, Inc., and Todd Oseth, dated August 15, 2017, incorporated herein by reference to Exhibit 10.1 to the Registrant's current report on Form 8-K filed August 17, 2017.
- 10.5s Agreement between FalconStor Software, Inc. and Todd Brooks, dated August 14, 2017, incorporated by reference to Exhibit 10.2 to the Registrant's current report on Form 8-K filed August 17, 2017.

10.6 Intentionally omitted.

10.7s Agreement between FalconStor Software, Inc. and Patrick McClain, dated August 17, 2017, incorporated by reference to Exhibit 10.4 to the Registrant's current report on Form 8-K filed August 17, 2017.

10.8s Loan Agreement, dated as of November 17, 2017 by and among FalconStor Software, Inc., HCP-FVA, LLC and the other Loan Parties named therein, incorporated herein by reference to Exhibit 10.1 to Registrant's current report on Form 8-K filed on November 20, 2017.

10.9 Backstop Warrant dated as of November 17, 2017 issued by FalconStor Software, Inc. to HCP-FVA, LLC, incorporated herein by reference to Exhibit 10.2 to Registrant's current report on Form 8-K filed on November 20, 2017.

10.10 Letter dated as of November 17, 2017 from Hale Capital Partners, LP to FalconStor Software, Inc., incorporated herein by reference to Exhibit 10.3 to Registrant's current report on Form 8-K filed on November 20, 2017.

10.11 Amended and Restated Term Loan Credit Agreement, dated as of February 23, 2018, by and among FalconStor Software, Inc., HCP-FVA, LLC, as Administrative Agent and as a Lender, and the other Loan Parties named therein, incorporated herein by reference to Exhibit 10.1 to Registrant's current report on Form 8-K filed on February 26, 2018).

10.12 Financing Warrant, dated February 23, 2018 issued by FalconStor Software, Inc. to HCP-FVA, LLC, incorporated herein by reference to Exhibit 10.2 to Registrant's current report on Form 8-K filed on February 26, 2018.

10.13 Backstop Warrant, dated February 23, 2018 issued by FalconStor Software, Inc. to HCP-FVA, LLC, incorporated herein by reference to Exhibit 10.3 to Registrant's current report on Form 8-K filed on February 26, 2018.

21.1 Subsidiaries of Registrant – FalconStor, Inc., FalconStor AC, Inc., FalconStor Software (Korea), Inc.

23.1* Consent of BDO USA, LLP

31.1* Certification of the Chief Executive Officer

31.2* Certification of the Chief Financial Officer

32.1* Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (18 U.S.C. § 1350)

32.2* Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (18 U.S.C. § 1350)

101.1 The following financial statements from FalconStor Software, Inc's Annual Report on Form 10-K for the year ended December 31, 2017, formatted in XBRL (eXtensible Business Reporting Language):

(i) Consolidated Balance Sheets – December 31, 2017 and December 31, 2016

(ii) Consolidated Statements of Operations – Years Ended December 31, 2017 and 2016

(iii) Consolidated Statements of Comprehensive Loss – Years Ended December 31, 2017 and 2016

(iv) Consolidated Statements of Stockholders' Deficit – Years Ended December 31, 2017 and 2016

(v) Consolidated Statements of Cash Flows – Years Ended December 31, 2017 and 2016

(vi) Notes to Consolidated Financial Statements – December 31, 2017

*- Filed herewith.

s- Denotes management contract or compensatory plan or arrangement.

Item 16. Form 10-K Summary

None.

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