VASO Corp
Form 10-K
April 15, 2019

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, DC 20549

FORM 10-K

[X]
ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2018
[ ]
TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

Commission File No. 0-18105

VASO CORPORATION
(Exact name of registrant as specified in Its Charter)

Delaware	11-2871434
(State or other jurisdiction of incorporation or organization)	(IRS Employer Identification No.)

137 Commercial Street, Plainview, New York	11803
(Address of Principal Executive Offices)	(Zip Code)

Registrant's telephone number, including area code: (516) 997-4600
Securities registered under Section 12(b) of the Act: None
Securities registered under Section 12(g) of the Act:

Common Stock, $.001 par value
(Title of Class)

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

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 [X]

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 past 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 [X]

No [ ]

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

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405) 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. [X]

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

Large accelerated filer [ ] Accelerated filer [ ] Non-accelerated filer [X] Smaller reporting company [X]
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 [X]

The aggregate market value of common stock held by non-affiliates was approximately $6.0 million based on the closing sales price of the common stock as quoted on the OTC PK on June 29, 2018.

At March 31, 2019, the number of shares outstanding of the issuer's common stock was 167,109,200.

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EXHIBITS

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PART I

ITEM 1 – BUSINESS

Except for historical information contained in this report, the matters discussed are forward-looking statements that involve risks and uncertainties. When used in this report, words such as “anticipates”, “believes”, “could”, “estimates”, “expects”, “may”, “plans”, “potential” and “intends” and similar expressions, as they relate to the Company or its management identify forward-looking statements. Such forward-looking statements are based on the beliefs of the Company’s management, as well as assumptions made by and information currently available to the Company’s management. Among the factors that could cause actual results to differ materially are the following: the effect of business and economic conditions; the effect of the dramatic changes taking place in IT and healthcare; continuation of the GEHC agreements; the impact of competitive technology and products and their pricing; medical insurance reimbursement policies; unexpected manufacturing or supplier problems; unforeseen difficulties and delays in the conduct of clinical trials and other product development programs; the actions of regulatory authorities and third-party payers in the United States and overseas; and the risk factors reported from time to time in the Company’s SEC reports. The Company undertakes no obligation to update forward-looking statements as a result of future events or developments.

Unless the context requires otherwise, all references to “we”, “our”, “us”, “Company”, “registrant”, “Vaso” or “management” r Vaso Corporation and its subsidiaries.

General Overview

Vaso Corporation principally operates in three distinct business segments in the healthcare equipment and information technology industries. We manage and evaluate our operations, and report our financial results, through these three business segments.

IT segment, operating through a wholly-owned subsidiary VasoTechnology, Inc., primarily focuses on healthcare IT and managed network technology services;

Professional sales service segment, operating through a wholly-owned subsidiary Vaso Diagnostics, Inc. d/b/a VasoHealthcare, primarily focuses on the sale of healthcare capital equipment for General Electric Healthcare (“GEHC”) into the health provider middle market; and

Equipment segment, primarily focuses on the design, manufacture, sale and service of proprietary medical devices, operating through a wholly-owned subsidiary VasoMedical, Inc., which in turn operates through Vasomedical Solutions, Inc. for domestic business and Vasomedical Global Corp. for international business, respectively.

VasoTechnology

VasoTechnology, Inc. was formed in May 2015, at the time the Company acquired all of the assets of NetWolves, LLC and its affiliates, including the membership interests in NetWolves Network Services LLC (collectively, “NetWolves”), to address a major issue facing the healthcare IT industry. It currently consists of a managed network and security service division (NetWolves) and a healthcare IT application VAR (value added reseller) division (VasoHealthcare IT). Its current offering includes:

Managed diagnostic imaging applications (national channel partner of GEHC IT).

Managed network infrastructure (routers, switches and other core equipment).

Managed network transport (FCC licensed carrier reselling 175+ facility partners).

Managed security services (partner with major cybersecurity technologies firms including IBM and Palo Alto).

VasoTechnology uses a combination of proprietary technology, methodology and best-in-class third-party applications to deliver its value proposition.

VasoHealthcare

VasoHealthcare commenced operations in 2010, in conjunction with the Company's execution of its exclusive sales representation agreement with GEHC, which is the healthcare business division of the General Electric Company ("GE"), to further the sale of certain medical capital equipment in domestic market segments. Sales of GEHC equipment by the Company have grown significantly since then.

VasoHealthcare's current offering consists of:

GEHC diagnostic imaging capital equipment.

GEHC service agreements for the above equipment.

GEHC and third party financial services for the above equipment.

VasoHealthcare has built a team of over 80 highly experienced sales professionals who utilize proprietary sales management and analytic tools to manage the complete sales process and to increase market penetration.

VasoMedical

The proprietary medical equipment business now all under VasoMedical dates back to 1995 when the Company began the external counterpulsation technology in the United States. Vasomedical Global was formed in 2011 to combine and coordinate the various international operations including design, development, manufacturing, and sales of medical devices, while domestic activities are under Vasomedical Solutions. These devices primarily consist of cardiovascular diagnostic and therapeutic systems. Its current offering consists of:

Biox™ series Holter monitors and ambulatory blood pressure recorders.

ARCS™ series analysis, reporting and communication software for physiological signals such as ECG and blood pressure.

MobiCare™ multi-parameter wireless vital-sign monitoring system.

EECP® therapy systems, used for non-invasive, outpatient treatment of ischemic heart disease.

This segment uses its extensive cardiovascular device knowledge coupled with its engineering resources to cost effectively create and market its proprietary technology. It sells and services its products to domestic customers directly and sells and/or services its products in the international market mainly through independent distributors.

Historical Background

Vaso Corporation was incorporated in Delaware in July 1987. For most of its history, the Company primarily was a single-product company designing, manufacturing, marketing and servicing its proprietary Enhanced External Counterpulsation, or EECP®, therapy systems, mainly for the treatment of angina. In 2010 it began to diversify its business operations. The Company changed its name to Vaso Corporation in 2016 to more accurately reflect the diversified nature of its business mixture, and continues to use the original name VasoMedical for its proprietary medical device subsidiary.

In May 2010, the Company launched its Professional Sales Service business through a wholly-owned subsidiary Vaso Diagnostics, Inc. d/b/a VasoHealthcare, which was appointed the exclusive representative for the sale of select GE diagnostic imaging equipment to specific market segments in the 48 contiguous states of the United States and the District of Columbia. The original agreement ("GEHC Agreement") was for three years ending June 30, 2013; it has been extended several times with the current extension through December 31, 2022, subject to earlier termination under certain circumstances.

In June 2014, the Company began its IT segment business by concluding the Value Added Reseller Agreement ("VAR Agreement") with GEHC to become a national value added reseller of GEHC Digital's software solutions such as Picture Archiving and Communication System ("PACS"), Radiology Information System ("RIS"), and related services, including implementation, training, management and support. This multiyear VAR Agreement focuses primarily on existing customer segments currently served by VasoHealthcare on behalf of GEHC. A new wholly owned subsidiary, VasoHealthcare IT Corp. ("VHC IT"), was formed to conduct the healthcare IT business.

In May 2015, the Company further expanded its IT business segment by acquiring all of the assets of NetWolves, LLC and its affiliates, including the membership interests in NetWolves Network Services, LLC (collectively, "NetWolves"), pursuant to an asset purchase agreement. NetWolves designs and delivers efficient and cost-effective multi-network and multi-technology solutions as a managed network provider, and provides a complete single-source solution that includes design, network redundancy, application device management, real-time network monitoring, reporting and support systems as a comprehensive solution. The Company believes there are significant operational synergies between NetWolves' capabilities and VasoHealthcare IT's requirements under its VAR Agreement with GEHC, and has expanded NetWolves' existing services to the healthcare IT market.

The Company's Equipment business also has been significantly expanded from the original EECP®-only operations. In September 2011, the Company acquired FGE, a British Virgin Islands company, which owns or controls two Chinese operating companies - Life Enhancement Technology Ltd. ("LET") based in Foshan, China, and Biox Instruments Co. Ltd. ("Biox") based in Wuxi, China, respectively - to expand its technical and manufacturing capabilities and to enhance its distribution network, technology, and product portfolio. Biox is a variable interest entity ("VIE") controlled by FGE through certain contracts and an option to acquire all the shares of Biox. In August 2014, the Company acquired all of the outstanding shares of Genwell Instruments Co. Ltd. ("Genwell"), located in Wuxi, China. Genwell was formed in China in 2010 with the assistance of a government grant to develop the MobiCare™ wireless multi-parameter patient monitoring system and holds intellectual property rights for this system. As a result, the Company has now expanded its equipment products portfolio to include Biox™ series ambulatory patient monitoring systems, ARCS™ series software for ECG and blood pressure analysis, and the MobiCare™ patient monitoring device. In 2017, as an effort to further reduce engineering and production cost of its EECP® products, the Company moved the operations of LET from Foshan, China to Biox in Wuxi, China, and closed LET in 2018.

In April 2014, the Company entered into a cooperation agreement with Chongqing PSK-Health Sci-Tech Development Co., Ltd. ("PSK") of Chongqing, China, the leading manufacturer of external counter pulsation, or ECP, therapy systems in China, to form a joint venture company, VSK Medical Limited ("VSK"), a Cayman Islands company, for the global marketing, sale and advancement of ECP therapy technology. The Company owns 49.9% of VSK, which commenced operations in January 2015. In March 2018, the Company terminated the cooperation agreement with PSK and sold its shares in VSK to PSK. The Company continues to cooperate with VSK by granting it distribution rights for EECP® systems in certain geographic territories of the world.

Management

The Company currently bases its headquarters in Plainview, Long Island, NY and maintains an office in Manhattan, NY. Reporting to the Board of Directors, corporate officers of the Company include the President and Chief Executive Officer ("CEO"), Chief Financial Officer ("CFO"), Chief Operating Officer ("COO"), and Vice President of Finance and Treasurer.

The management of the Company's IT segment is led by the COO of the Company, who is also the President of VasoTechnology and NetWolves, which is based in Tampa, FL. Our VasoHealthcare IT VAR business is organized as a part of VasoTechnology and is also led by the COO, supported by several software solution sales and implementation specialists, based in Nashville, TN. The business unit works with our VasoHealthcare diagnostic

imaging equipment sales team to generate leads and potential clients for the software solutions products and works with NetWolves sales and technical teams for comprehensive IT product and service offerings.

In the professional sales services segment, we sell GEHC diagnostic imaging products to our assigned market through a nationwide team of approximately 65 sales employees led by its executive team and nine regional managers who report to the President of VasoHealthcare. The operation is also supported by in-house administrative, analytic and other support staff, as well as applicable GEHC employees.

The equipment segment is under the direct supervision of the CEO of the Company. Sales and marketing efforts in the domestic market are led by a Vice President of national sales and service at Vasomedical Solutions, and the managers of our China subsidiaries are in charge of the development and production of all our proprietary products and marketing and sales in the international markets. We have marketed our EECP® systems internationally through distributors, including VSK Medical, in various countries throughout Europe, the Middle East, Africa, Asia and Latin America. We sell our Biox™ series and other products in China by a group of sales managers as well as through distributors covering various regions of China and other international geographies.

Competition

In the U.S. diagnostic imaging market where we sell GE products, our main competitors include Siemens, Philips, Canon, and Hologic. Key competitive factors in the market include price, quality, finance availability, delivery speed, service and support, innovation, distribution network, breadth of product and service offerings and brand name recognition. GEHC is a leading competitor in this market.

In the IT segment, our primary competitors in the healthcare IT VAR business are Agfa Healthcare, McKesson, Philips, Carestream Health and other independent software providers. Key competitive factors are brand recognition, quality, radiology workflow solutions, scalability and service and support capability. We are able to capitalize on the brand recognition of GEHC, a leader in healthcare software solutions. In the managed network services business our primary competition includes, but is not limited to, organizations who have a presence in most of the major markets for the following products and services: network services, managed services, security services and healthcare applications. Several of those competitors, many of which are our vendors, are: Verizon, AT&T, CenturyLink, IBM and Cisco Resellers, Siemens, Epic, small regional IT integrators and large company internal IT departments.

Though we believe that we are the industry leader of external counterpulsation technology, our competitors in the EECP® business are Renew Group Pte. Ltd, and PSK-Health Sci-Tech Development Co., Ltd., with which we have partnered to market our EECP® products in the international market.

In the ambulatory monitoring system business, there are numerous competitors of various size and strength. The Biox™ series is among the few from China with CE Mark certification for Europe, CFDA approval for China, US FDA clearances as well as Brazilian Agencia Nacional de Vigilancia Sanitaria (ANVISA) approval, which are among the most important qualifications to market and sell the products around the world.

Regulations on Medical Devices

As a medical device manufacturer and marketer, we are subject to extensive regulation by numerous government regulatory agencies, including the US FDA and similar foreign agencies. We are required to comply with applicable laws, regulations and standards governing the development, preclinical and clinical testing, manufacturing, quality testing, labeling, promotion, import, export, and distribution of our medical devices.

Compliance with Regulations in the United States

The Company has received appropriate US FDA premarket notification (510(k)) clearance for all its products marketed and sold in the United States, including all EECP® therapy systems and Biox™ ambulatory monitoring

systems and analysis and report software. We continue to seek US FDA clearance or approval for new products prior to their introduction to the US market.

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We are subject to other US FDA regulations that apply prior to and after a product is commercially released. We also are subject to periodic and random inspections by the US FDA for compliance with the current Good Manufacturing Practice, or cGMP, requirements and Quality System Regulation. The US FDA also enforces post-marketing controls that include the requirement to submit medical device reports to the agency when a manufacturer becomes aware of information suggesting that any adverse events are related to its marketed products. The FDA relies on medical device reports to identify product problems and utilizes these reports to determine, among other things, whether it should exercise its enforcement powers. The FDA also may require post-market surveillance studies for specified devices.

We are subject to the Federal Food, Drug, and Cosmetic Act's, or FDCA's, general controls, including establishment registration, device listing, and labeling requirements.

The sales and advertising of our products is subject to regulation by the Federal Trade Commission, or FTC. The FTC Act prohibits unfair or deceptive acts or practices in or affecting commerce. Violations of the FTC Act, such as failure to have substantiation for product claims, would subject us to a variety of enforcement actions, including compulsory process, cease and desist orders and injunctions, which can require, among other things, limits on advertising, corrective advertising, consumer redress and restitution, as well as substantial fines or other penalties.

As a medical device sales channel partner and product reseller to healthcare facilities, we are subject to various federal, state and local laws targeting fraud and abuse in the healthcare industry, including anti-kickback and false claims laws.

Foreign Regulation

In most countries to which we seek to export our medical devices, a local regulatory clearance must be obtained. The regulatory review process varies from country to country and can be complex, costly, uncertain, and time-consuming. Our medical devices, including EECP® systems and Biox™ series products, are all manufactured in accordance with ISO 13485 (Medical device – Quality management systems – Requirement for regulatory purpose), an internationally agreed standard that sets out the requirements for a quality management system specific to the medical devices industry. All our current medical devices have obtained necessary clearances or approvals prior to their release in the appropriate jurisdictions, including CE marking certification for European Union countries, China FDA (CFDA) approval for mainland China, Korean FDA (KFDA) approval for South Korea, Agência Nacional de Vigilância Sanitária (ANVISA) approval for Brazil, Taiwan FDA (TFDA) for Taiwan, and the Saudi SFDA (MDMA) for the Kingdom of Saudi Arabia.

We are also subject to audits by organizations authorized by foreign countries to determine compliance with laws, regulations and standards that apply to the commercialization of our products in those markets. Examples include auditing by a European Union Notified Body organization (authorized by a member state's Competent Authority) to determine conformity with the Medical Device Directives (MDD) and by an organization authorized by the Brazilian government to determine conformity with the ANVISA requirement.

Patient Privacy

Federal and state laws protect the confidentiality of certain patient health information, including patient records, and restrict the use and disclosure of that protected information. The U.S. Department of Health and Human Services (HHS) published patient privacy rules under the Health Insurance Portability and Accountability Act of 1996 (HIPAA privacy rule) and the regulation was finalized in October 2002. Currently, the HIPAA privacy rule affects us only indirectly in that patient data that we access, collect and analyze may include protected health information. Additionally, we have signed some Business Associate Agreements with Covered Entities that contractually bind us to protect private health information, consistent with the HIPAA privacy rule's requirements. We do not expect the costs

and impact of the HIPAA privacy rule to be material to our business.

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Regulations in the IT Business

As a reseller of telecommunication services and network solutions provider, our products and services are subject to federal, state and local regulations. These regulations govern, in part, our rates and the way we conduct our business, including the requirement to offer telecommunications services pursuant to nondiscriminatory rates, terms, and conditions, the obligation to safeguard the confidentiality of customer proprietary network information, as well as the obligation to maintain specialized records and file reports with the Federal Communications Commission and state regulatory authorities. While we believe we are in compliance with laws and regulations in jurisdictions where we do business, we continue to monitor and assess our compliance.

The Federal Communications Commission ("FCC") exercises jurisdiction over services and regulates interstate and international communications in all 50 states, the District of Columbia and U.S territories. As an independent U.S. government agency overseen by Congress, the commission is the United States' primary authority for communications laws, regulation and technological innovation.

We maintain Certificates of Public Convenience and Necessity in all 50 states, which enable us to provide services within each state. We are therefore subject to regulation from the Public Utility Commissions in each state.

Intellectual Properties

In addition to other methods of protecting our proprietary technology, know-how and show-how as well as trade secrets, we pursue a policy of seeking patent protection, both in the US and abroad, for our proprietary technologies including those in EECP®, Biox™ and MobiCare™ products.

We own four US utility patents that expire at various times through 2023. We will from time to time file other patent applications regarding specific enhancements to the current EECP® models, future generation products, and methods of treatment in the future. Moreover, trademarks have been registered for the names "Vaso", "EECP", "AngioNew", "Natural Bypass", "Vasomedical", "Vasomedical EECP", "VasoGlobal", "VasoSolutions", "VasoHealthcare".

Through our China-based subsidiaries, we own sixteen invention and utility patents in China that expire at various times through 2028, as well as fourteen software copyright certificates in China related to proprietary technologies in physiological data acquisition, analysis and reporting. We also have eight registered trademarks in China for our products.

Through our Netwolves subsidiary we hold a patent for Secure and Remote Monitoring Management ("SRM") and we hold trademarks "NetWolves", "SRM", and "Wolfpac".

There can be no assurance that our patents will not be violated or that any issued patents will provide protection that has commercial significance. As with any patented technology, litigation could be necessary to protect our patent position. Such litigation can be costly and time-consuming, and there can be no assurance that we will be successful.

Employees

As of December 31, 2018, we employed 317 full-time persons, of which 15 are employed through our facility in Plainview, New York, 88 through VasoHealthcare, 15 through VasoHealthcare IT, 137 through our Netwolves operations, and 62 in our China operations. None of our employees are represented by a labor union. We believe that our employee relations are good.

The Company also uses several part-time employees and consultants from time to time for various purposes.

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Manufacturing

The Company conducts manufacturing activities primarily through its Biox facilities in China, while maintaining certain manufacturing capability in the Plainview, NY location to satisfy certain domestic and international needs for the EECP® systems. The Biox facilities manufacture EECP® systems, ambulatory monitoring devices and other medical devices.

All manufacturing operations are conducted under the cGMP requirements as set forth in the FDA Quality System Regulation as well as ISO 13485 (Medical device – Quality management systems – Requirement for regulatory purpose), an internationally agreed standard that sets out the requirements for a quality management system specific to the medical devices industry. We are also certified to conform to full quality assurance system requirements of the EU Medical Device Directive (MDD 93/42/EEC Annex II) and can apply CE marking to all of our current product models. Lastly, we are certified to comply with the requirements of the Brazilian Agência Nacional de Vigilância Sanitária (ANVISA). All these regulations and standards subject us to inspections to verify compliance and require us to maintain documentation and controls for the manufacturing and quality activities.

We believe our manufacturing capacity and warehouse facility are adequate to meet the current and immediately foreseeable future demand for the production of our medical devices. We believe our suppliers of the other medical devices we distribute or represent are capable of meeting our demand for the foreseeable future.

ITEM 1A - RISK FACTORS

You should carefully consider the risks and uncertainties described below, together with the information included elsewhere in this Report on Form 10K. The risks and uncertainties described below are those we have identified as material, but are not the only risks and uncertainties facing us. Our business is also subject to general risks and uncertainties that affect many other companies, such as market conditions, geopolitical events, changes in laws or accounting rules, fluctuation in interest rates, terrorism, wars or conflicts, major health concerns, natural disasters or other disruptions of expected economic or business conditions. Additional risks and uncertainties not currently known to us or that we currently believe are immaterial also may impair our business, including our results of operations, liquidity and financial position.

Financial Risks

Ability to achieve profitability and meet obligations as they come due

We have reported a net loss of $3,734,000 for the year ended December 31, 2018 as compared to a net loss of $4,539,000 for the year ended December 31, 2017. These losses were primarily attributable to operating losses in our IT segment and lower volume of products delivered by our partner in our professional sales service segment since we cannot recognize revenue until the underlying products of orders we booked are actually delivered to customers. We maintain lines of credit from a lending institution which will require further extensions after their current June 28, 2019 maturity date. These events raise substantial doubt about our ability to continue as a going concern. Our ability to continue operating as a going concern is dependent upon achieving profitability, extending the maturity date of our existing lines of credit, or through additional debt or equity financing. Achieving profitability is largely dependent on our ability to reduce operating costs and to maintain or increase our current revenue. While we believe we will continue to maintain or increase our gross revenue and are in the process of reducing operating costs, and while historically we have received extensions of the maturity dates of our lines of credit, failure to achieve these objectives could cast doubt on our ability to continue as a going concern.

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Risks Related to Our Business

We currently derive a significant amount of our revenue and segment operating income from our agreement with GEHC.

On May 19, 2010, we signed a sales representation agreement with GEHC. Under the GEHC Agreement, we have been appointed the exclusive representative for these products to specific market segments in the 48 contiguous states of the United States and the District of Columbia. The GEHC Agreement had an initial term of three years commencing July 1, 2010 and in 2012 was extended for two additional years to June 30, 2015. In December 2014, the agreement was extended again through December 31, 2018. In December 2017, the agreement was further extended through December 31, 2022, including the right to terminate without cause with certain conditions.

A significant amount of our revenue and segment operating income arise from activities under this agreement. Moreover, our growth depends partially on the territories, customer segments and product modalities assigned to us by GEHC, and thus relies on our ability to demonstrate our added value as a channel partner, and maintaining a positive relationship with GEHC. There is no assurance that the agreement will not be terminated prior to its expiration pursuant to its termination provisions, or will not extended beyond the current expiry. Should GEHC terminate the agreement, it would have a material adverse effect on our financial condition and results of operations.

We face competition from other companies and technologies.

In all segments of our business we compete with other companies that market technologies, products and services in the global marketplace. We do not know whether these companies, or other potential competitors who may succeed in developing technologies, products or services that are more efficient or effective than those offered by us, and that would render our technology and existing products obsolete or non-competitive. Potential new competitors may also have substantially greater financial, manufacturing and marketing resources than those possessed by us. In addition, other technologies or products may be developed that have an entirely different approach or means of accomplishing the intended purpose of our products. Accordingly, the life cycles of our products are difficult to estimate. To compete successfully, we must keep pace with technological advancements, respond to evolving consumer requirements and achieve market acceptance.

We depend on management and other key personnel.

We are dependent on a limited number of key management and technical personnel. The loss of one or more of our key employees may harm our business if we are unable to identify other individuals to provide us with similar services. We do not maintain “key person” insurance on any of our employees. In addition, our success depends upon our ability to attract and retain additional highly qualified management, sales, IT, manufacturing and research and development personnel in our various operations. The competition for IT personnel is intense.

We may not continue to receive necessary FDA clearances or approvals, which could hinder our ability to market and sell certain products.

If we modify our medical devices and the modifications significantly affect safety or effectiveness, or if we make a change to the intended use, we will be required to submit a new premarket notification (510(k)) or premarket approval (PMA) application to the FDA. We would not be able to market the modified device in the U.S. until the FDA issues a clearance for the 510(k).

If we offer new products that require 510(k) clearance or a PMA, we will not be able to commercially distribute those products until we receive such clearance or approval. Regulatory agency approval or clearance for a product may not

be received or may entail limitations on the device’s indications for use that could limit the potential market for the product. Delays in receipt of, or failure to obtain or maintain, regulatory clearances and approvals, could delay or prevent our ability to market or distribute our products. Such delays could have a material adverse effect on our equipment business.

If we are unable to comply with applicable governmental regulations, we may not be able to continue certain of our operations.

As a reseller of telecommunication services and network solutions provider, our products and services are subject to federal, state and local regulations. These regulations govern, in part, our rates and the way we conduct our business, including the requirement to offer telecommunications services pursuant to nondiscriminatory rates, terms, and conditions, the obligation to safeguard the confidentiality of customer proprietary network information, as well as the obligation to maintain specialized records and file reports with the Federal Communications Commission and state regulatory authorities. While we believe we are in compliance with laws and regulations in jurisdictions where we do business, we must continue to monitor and assess our compliance.

We also must comply with current Good Manufacturing Practice requirements as set forth in the Quality System Regulation to receive US FDA approval to market new products and to continue to market current products. Most states also have similar regulatory and enforcement authority for medical devices.

Our operations in China are also subject to the laws of the People's Republic of China with which we must be in compliance in order to conduct these operations.

We are subject to various federal, state and local laws targeting fraud and abuse in the healthcare industry, including anti-kickback and false claims laws.

We cannot predict the nature of any future laws, regulations, interpretations, or applications, nor can we predict what effect additional governmental regulations or administrative orders, either domestically or internationally, when and if promulgated, would have on our business in the future. We may be slow to adapt, or we may never adapt to changes in existing requirements or adoption of new requirements or policies. We may incur significant costs to comply with laws and regulations in the future or compliance with laws or regulations may create an unsustainable burden on our business.

We have foreign operations and are subject to the associated risks of doing business in foreign countries.

The Company continues to have operations in China. Operating internationally involves additional risks relating to such things as currency exchange rates, different legal and regulatory environments, political, economic risks relating to the stability or predictability of foreign governments, differences in the manner in which different cultures do business, difficulties in staffing and managing foreign operations, differences in financial reporting, operating difficulties, and other factors. The occurrence of any of these risks, if severe enough, could have a material adverse effect on the consolidated financial position, results of operations and cash flows of the Company.

Commercial law is still developing in China and there are limited legal precedents to follow in commercial transactions. There are many tax jurisdictions each of which may have changing tax laws. Applicable taxes include value added taxes ("VAT"), enterprise income tax ("EIT"), and social (payroll) taxes. Regulations are often unclear. Tax declarations (reports) are subject to review and taxing authorities may impose fines, penalties and interest. These facts create risks for our operations in China.

We depend on several suppliers for the supply of certain products.

As a GEHC channel partner, we could be negatively impacted by interruptions or delays to equipment installations, production and quality issues, and any customer concerns related to GEHC. With respect to our proprietary medical products we now manufacture our own products primarily through our China based facilities, and we depend on certain independent suppliers for parts, components and certain finished goods.

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We may not have adequate intellectual property protection.

Our patents and proprietary technology may not be able to prevent competition by others. The validity and breadth of claims in technology patents involve complex legal and factual questions. Future patent applications may not be issued, the scope of any patent protection may not exclude competitors, and our patents may not provide competitive advantages to us. Our patents may be found to be invalid and other companies may claim rights in or ownership of the patents and other proprietary rights held or licensed by us. Also, our existing patents may not cover products that we develop in the future. Moreover, when our patents expire, the inventions will enter the public domain. There can be no assurance that our patents will not be violated or that any issued patents will provide protection that has commercial significance. Litigation may be necessary to protect our patent position. Such litigation may be costly and time-consuming, and there can be no assurance that we will be successful in such litigation.

The loss or violation of certain of our patents and trademarks could have a material adverse effect upon our business.

Since patent applications in the United States are maintained in secrecy until such patent applications are issued, our current product development may infringe patents that may be issued to others. If our products were found to infringe patents held by competitors, we may have to modify our products to avoid infringement, and it is possible that our modified products would not be commercially successful.

Risks Related to Our Industries

Our growth could suffer if the markets into which we sell products decline, do not grow as anticipated or experience cyclicality.

Our growth depends in part on the growth of the IT and healthcare markets which we serve. In our professional sales services segment, our quarterly sales and profits depend significantly on the volume and timing of delivery of the underlying equipment of the orders we booked during the quarter, and the delivery of such products is difficult to forecast since it is largely dependent on GEHC. Product demand is dependent upon the customer’s capital spending budget as well as government funding policies, and matters of public policy as well as product and economic cycles that can affect the spending decisions of these entities. These factors could adversely affect our growth, financial position, and results of operations.

Technological change is difficult to predict and to manage.

We face the challenges that are typically faced by companies in the IT and medical device fields. Our products and services may require substantial development efforts and compliance with governmental clearance or approval requirements. We may encounter unforeseen technological or scientific problems that force abandonment or substantial change in the development of a specific product or process.

We are subject to product liability claims and product recalls that may not be covered by insurance.

The nature of our manufacturing operations exposes us to risks of product liability claims and product recalls. Medical devices as complex as ours frequently experience errors or failures, especially when first introduced or when new versions are released.

We currently maintain product liability insurance at $8,000,000 per occurrence and $8,000,000 in the aggregate. Our product liability insurance may not be adequate. In the future, insurance coverage may not be available on commercially reasonable terms, or at all. In addition, product liability claims or product recalls could damage our reputation even if we have adequate insurance coverage.

We do not know the effects of healthcare reform proposals.

The healthcare industry is undergoing fundamental changes resulting from political, economic and regulatory influences. In the United States, the Affordable Care Act (“ACA”) is designed to provide increased access to healthcare for the uninsured, control the escalation of healthcare expenditures within the economy and use healthcare reimbursement policies to balance the federal budget.

The United States Congress already has changed the ACA. We expect that there could be more changes or even a repeal of the ACA. In any event, we anticipate that there will continue to be a number of federal and state proposals to constrain expenditures for medical products and services, which may affect payments for products such as ours. We cannot predict which, if any of such proposals will be adopted and when they might be effective, or the effect these proposals may have on our business. Other countries also are considering health reform. Significant changes in healthcare systems could have a substantial impact on the manner in which we conduct our business and could require us to revise our strategies.

Risks Related to our Securities

The application of the "penny stock" rules could adversely affect the market price of our common stock and increase your transaction costs to sell those shares.

As long as the trading price of our common shares is below $5 per share, the open-market trading of our common shares will be subject to the "penny stock" rules. The "penny stock" rules impose additional sales practice requirements on broker-dealers who sell securities to persons other than established customers and accredited investors (generally those with assets in excess of $1,000,000 or annual income exceeding $200,000 or $300,000 together with their spouse). For transactions covered by these rules, the broker-dealer must make a special suitability determination for the purchase of securities and have received the purchaser's written consent to the transaction before the purchase. Additionally, for any transaction involving a penny stock, unless exempt, the broker-dealer must deliver, before the transaction, a disclosure schedule prescribed by the Securities and Exchange Commission relating to the penny stock market. The broker-dealer also must disclose the commissions payable to both the broker-dealer and the registered representative and current quotations for the securities. Finally, monthly statements must be sent disclosing recent price information on the limited market in penny stocks. These additional burdens imposed on broker-dealers restrict the ability and decrease the willingness of broker-dealers to sell our common shares, which we believe results in decreased liquidity for our common shares as well as increased transaction costs for sales and purchases of our common shares as compared to other securities.

Our common stock is subject to price volatility.

The market price of our common stock historically has been and may continue to be highly volatile. Our stock price could be subject to wide fluctuations in response to various factors beyond our control, including, but not limited to:

medical reimbursement;

actual or anticipated fluctuations in our operating results;

announcements of technological innovations, new products or pricing by our competitors;

the timing of patent and regulatory approvals;

the timing and extent of technological advancements;

the sales of our common stock by affiliates or other shareholders with large holdings;

overall market fluctuations and domestic and worldwide economic conditions; and

other factors described in the “Risk Factors” and elsewhere in this Report.

Our future operating results may fall below the expectations of securities industry analysts or investors. Any such shortfall could result in a significant decline in the market price of our common stock. In addition, the stock market has experienced significant price and volume fluctuations that have affected the market price of the stock of many medical device companies and that often have been unrelated to the operating performance of such companies. These broad market fluctuations may directly influence the market price of our common stock.

We do not intend to pay dividends in the foreseeable future.

We do not intend to pay any cash dividends on our common stock in the foreseeable future.

Additional Information

We are subject to the reporting requirements under the Securities Exchange Act of 1934 and are required to file reports and information with the Securities and Exchange Commission (SEC), including reports on the following forms: annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports files or furnished pursuant to Section 13(a) or 15(d) of the Securities Act of 1934.

ITEM 2 – PROPERTIES

The Company leases its headquarters at an 8,700 square foot facility at 137 Commercial Street, Plainview, New York 11803, under a lease with a term that expires on September 15, 2022 and with a base annual rental of approximately $69,000. The Company's NetWolves unit leases a 16,200 square foot facility in Tampa, Florida, under a lease expiring in May 2020 with an annual rental of approximately $174,000. VHC-IT leases a 3,500 square foot facility in Nashville, Tennessee pursuant to a one-year lease expiring April 2019 with an annual rental of $49,000. The Company is evaluating possible renewal options and believes sufficient space is available at similar cost in Nashville. We believe that our current facilities are adequate for foreseeable current and future needs.

We also lease approximately 1,500 square feet of office space in New York City under a lease that expires on May 31, 2020. The annual base rent for this lease is approximately $58,000.

We lease our engineering and production facilities in China. Specifically, we lease approximately 20,400 square feet under leases expiring in September 2019, August 2020, September 2020, and December 2020 at an aggregate annual cost of approximately $75,000 in Wuxi, China. Such leases are renewable upon expiration.

PART II

ITEM 5 –
MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Our common stock currently trades on the OTC Market under the symbol VASO. The number of record holders of common stock as of March 31, 2019, was approximately 900, which does not include approximately 8,500 beneficial owners of shares held in the name of brokers or other nominees. The table below sets forth the range of high and low trade prices of the common stock for the fiscal periods specified.

	Year ended December 31, 2018		Year ended December 31, 2017	
	High	Low	High	Low
First quarter	$0.07	$0.05	$0.14	$0.09
Second quarter	$0.06	$0.04	$0.11	$0.09
Third quarter	$0.05	$0.03	$0.09	$0.07
Fourth quarter	$0.05	$0.02	$0.08	$0.05

The last bid price of the Company's common stock on March 29, 2019, was $0.04 per share.

Dividend Policy

We have never paid any cash dividends on our common stock and do not intend to pay cash dividends in the foreseeable future.

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

This Management's Discussion and Analysis of Financial Condition and Results of Operations contains descriptions of our expectations regarding future trends affecting our business. These forward looking statements and other forward-looking statements made elsewhere in this document are made under the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. Please read the section titled "Risk Factors" in "Item One – Business" to review certain conditions, among others, which we believe could cause results to differ materially from those contemplated by the forward-looking statements.

Except for historical information contained in this report, the matters discussed are forward-looking statements that involve risks and uncertainties. When used in this report, words such as "anticipates", "believes", "could", "estimates", "expects", "may", "plans", "potential" and "intends" and similar expressions, as they relate to the Company or its management identify forward-looking statements. Such forward-looking statements are based on the beliefs of the Company's management, as well as assumptions made by and information currently available to the Company's management. Among the factors that could cause actual results to differ materially are the following: the effect of business and

economic conditions; the effect of the dramatic changes taking place in IT and healthcare; continuation of the GEHC agreements; the impact of competitive technology and products and their pricing; medical insurance reimbursement policies; unexpected manufacturing or supplier problems; unforeseen difficulties and delays in the conduct of clinical trials and other product development programs; the actions of regulatory authorities and third-party payers in the United States and overseas; and the risk factors reported from time to time in the Company's SEC reports. The Company undertakes no obligation to update forward-looking statements as a result of future events or developments.

The following discussion should be read in conjunction with the financial statements and notes thereto included in this Annual Report on Form 10-K.

Overview

Vaso Corporation (formerly Vasomedical, Inc.) (“Vaso”) was incorporated in Delaware in July 1987. We principally operate in three distinct business segments in the healthcare equipment and information technology industries. We manage and evaluate our operations, and report our financial results, through these three business segments.

IT segment, operating through a wholly-owned subsidiary VasoTechnology, Inc., primarily focuses on healthcare IT and managed network technology services;

Professional sales service segment, operating through a wholly-owned subsidiary Vaso Diagnostics, Inc. d/b/a VasoHealthcare, primarily focuses on the sale of healthcare capital equipment for General Electric Healthcare (GEHC) into the health provider middle market; and

Equipment segment, primarily focuses on the design, manufacture, sale and service of proprietary medical devices, operating through a wholly-owned subsidiary VasoMedical, Inc., which in turn operates through Vasomedical Solutions, Inc. for domestic business and Vasomedical Global Corp. for international business, respectively.
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VasoTechnology

VasoTechnology, Inc. was formed in May 2015, at the time the Company acquired all of the assets of NetWolves, LLC and its affiliates, including the membership interests in NetWolves Network Services LLC (collectively, “NetWolves”), to address a major issue facing the healthcare IT industry. It currently consists of a managed network and security service division (NetWolves) and a healthcare IT application VAR (value added reseller) division (VasoHealthcare IT). Its current offering includes:

Managed diagnostic imaging applications (national channel partner of GEHC IT).

Managed network infrastructure (routers, switches and other core equipment).

Managed network transport (FCC licensed carrier reselling 175+ facility partners).

Managed security services (partner with major cybersecurity technologies firms including IBM and Palo Alto).

VasoTechnology uses a combination of proprietary technology, methodology and best-in-class third-party applications to deliver its value proposition.

VasoHealthcare

VasoHealthcare commenced operations in 2010, in conjunction with the Company’s execution of its exclusive sales representation agreement with GEHC, which is the healthcare business division of the General Electric Company (“GE”), to further the sale of certain medical capital equipment in domestic market segments. Sales of GEHC equipment by the Company have grown significantly since then.

VasoHealthcare’s current offering consists of:

GEHC diagnostic imaging capital equipment.

GEHC service agreements for the above equipment.

GEHC and third party financial services for the above equipment.

VasoHealthcare has built a team of over 80 highly experienced sales professionals who utilize highly focused sales management and analytic tools to manage the complete sales process and to increase market penetration.

VasoMedical

The proprietary medical equipment business now all under VasoMedical traces back to 1995 when the Company began the external counterpulsation technology in the United States. Vasomedical Global was formed in 2011 to combine and coordinate the various international operations including design, development, manufacturing, and sales of medical devices, while domestic activities are under Vasomedical Solutions. These devices primarily consist of cardiovascular diagnostic and therapeutic systems. Its current offering consists of:

Biox™ series Holter monitors and ambulatory blood pressure recorders.

ARCS™ series analysis, reporting and communication software for physiological signals such as ECG and blood pressure.

MobiCare™ multi-parameter wireless vital-sign monitoring system.

EECP® therapy systems, used for non-invasive, outpatient treatment of ischemic heart disease.

This segment uses its extensive cardiovascular device knowledge coupled with its engineering resources to cost effectively create and market its proprietary technology. It sells and services its products to domestic customers directly and sells and/or services its products in the international market mainly through independent distributors.

Going concern assessment

We have incurred net losses from operations for the years ended December 31, 2018 and 2017, and we maintain lines of credit from a lending institution and these lines of credit will require further extensions after their current June 28, 2019 maturity date. These events raise substantial doubt about our ability to continue as a going concern. Our ability to continue operating as a going concern is dependent upon achieving profitability, extending the maturity date of our existing lines of credit, or through additional debt or equity financing. Achieving profitability is largely dependent on our ability to reduce operating costs and to maintain or increase our current revenue. While we believe we will continue to maintain or increase our gross revenue and are in the process of reducing operating costs, and while historically we have received extensions of the maturity dates of our lines of credit, failure to achieve these objectives could cast doubt on our ability to continue as a going concern.

Strategic Plan and Objectives

Our short- and long-term plans for the growth of the Company and to increase stockholder value are:

Continue engaging in effectively reducing operating costs.

Continue to expand our product and service offerings as well as market penetration in our healthcare IT business and managed network services business.

Build our brand name in the healthcare provision middle market with the goal of establishing our technology platform and managed services methodology as the standard for secure, efficient use of equipment and applications ecosystems.

Maintain and improve business performance in our professional sales service segment by increasing market penetration of the GE Healthcare product modalities we represent, and possibly building new teams to represent other

vendors.

Maintain and grow our equipment business by aligning the cost structure with revenue growth.

Continue to seek accretive partnership and acquisition opportunities.

Results of Operations – For the Years Ended December 31, 2018 and 2017

Total revenues increased by $1,192,000, or 2%, to $73,980,000 in the year ended December 31, 2018, from $72,788,000 in the year ended December 31, 2017. We reported a net loss of $3,734,000 for the year ended December 31, 2018 as compared to a net loss of $4,539,000 for the year ended December 31, 2017, a decrease in loss of $805,000. The decrease in net loss was primarily due to higher gross profit, the gain on sale of our investment in the VSK joint venture, and the change from income tax expense to income tax benefit. Our net loss was $0.02 and $0.03 per basic and diluted common share for the years ended December 31, 2018 and 2017, respectively.

Revenues

Revenue in the IT segment was $44,228,000 for the year ended December 31, 2018 as compared to $42,581,000 for the prior year, an increase of $1,647,000, or 4%, of which $1,372,000 was attributable to growth in NetWolves revenues, and $275,000 to growth in VHC-IT revenues. At December 31, 2018 VHC-IT had an order backlog exceeding $13.5 million.

Commission revenues in the professional sales service segment decreased by $932,000, or 4%, to $25,511,000 in the year ended December 31, 2018, as compared to $26,443,000 in the year ended December 31, 2017. The decrease was primarily due to lower volume of GEHC equipment delivered in 2018, as well as by lower blended commission rates for the equipment delivered in 2018. As discussed in Note B to the financial statements, the Company defers recognition of commission revenue until the underlying equipment is delivered. As of December 31, 2018, the Company recorded on its consolidated balance sheet for this segment a decrease of $5,028,000, or 23%, in deferred commission revenue to $17,098,000, of which $7,200,000 is long-term, compared to $22,126,000 of deferred commission revenue at December 31, 2017, of which $7,115,000 was long-term. The decrease in deferred revenue is due principally to lower total orders booked during the year, partially offset by the decrease in equipment deliveries over the same period.

Revenue in our equipment segment increased 13% to $4,241,000 for the year ended December 31, 2018 from $3,764,000 for the year ended December 31, 2017, as a result of an increase in equipment sales of $491,000, or 18%, to $3,151,000 for the year ended December 31, 2018, as compared to $2,660,000 for the year ended December 31, 2017, and a decrease in equipment rentals and services revenue of $14,000, or 1%, to $1,090,000 in the year ended December 31, 2018 from $1,104,000 in the year ended December 31, 2017. The increase in equipment sales is due primarily to increased deliveries at our China operations, as well as an 8% increase in sales in our U.S. operations, resulting from higher software deliveries. The decrease in revenue generated from equipment rentals and services is due primarily to lower recognition of service contract revenues. As of December 31, 2018, the Company recorded on its consolidated balance sheet for this segment $988,000 of deferred revenue, of which $503,000 is long-term, compared to $941,000 of deferred revenue at December 31, 2017, of which $411,000 was long-term, an increase of $47,000 or 5%. The increase in deferred revenue is due principally to a higher mix of multi-year service contracts sold during the year.

Gross Profit

The Company recorded gross profit of $41,124,000, or 56% of revenue, for the year ended December 31, 2018, compared to $40,731,000, or 56% of revenue, for the year ended December 31, 2017. The increase of $393,000, or 1%, was due primarily to a $756,000 increase in the IT segment and a $102,000 increase in the equipment segment resulting primarily from higher revenues, partially offset by a $465,000 decrease in the professional sales service segment.

IT segment gross profit increased to $18,379,000, or 42% of segment revenues, for the year ended December 31, 2018 as compared to $17,623,000, or 41% of segment revenues, in the prior year, an increase of $756,000, of which $513,000 was attributable to VHC-IT resulting from both higher revenues and higher gross profit rate, and $243,000 was attributable to NetWolves, resulting from increased revenues.

Professional sales service segment gross profit was $20,165,000, or 79% of the segment revenues, for the year ended December 31, 2018, a decrease of $465,000, or 2%, from segment gross profit of $20,630,000, or 78% of the segment revenue, for the year ended December 31, 2017. The decrease in gross profit was due primarily to lower recognized revenue in 2018 as a result of a decrease in equipment delivery volume and by lower blended commission rates on the equipment delivered during the year. Cost of commissions decreased by $467,000, or 8%, to $5,346,000 for the year

ended December 31, 2018, as compared to cost of commissions of $5,813,000 in 2017. The decrease is also due primarily to lower delivery volume. Cost of commissions reflects commission expense associated with recognized commission revenues. Commission expense associated with deferred revenue is recorded as deferred commission expense until the related commission revenue is earned.

Equipment segment gross profit increased to $2,580,000, or 61% of equipment segment revenues, for the year ended December 31, 2018 compared to $2,478,000, or 66% of equipment segment revenues, for the year ended December 31, 2017, due to higher sales volume, partially offset by lower average selling prices. Equipment segment gross profits are dependent on a number of factors including the mix of products sold, their respective models and average selling prices, the ongoing costs of servicing EECP® systems, as well as certain fixed period costs, including facilities, payroll and insurance.

Operating Loss

Operating loss was $3,724,000 for the year ended December 31, 2018 compared to operating loss of $3,832,000 for the year ended December 31, 2017, a decrease in loss of $108,000. The improvement was primarily attributable to the decrease in operating loss in the equipment segment from $1,066,000 in the year ended December 31, 2017 to $812,000 in the year ended December 31, 2018, due to higher gross profit and lower operating expenses in the segment. The 2018 professional sales service segment operating income of $1,958,000 was essentially flat as compared to 2017 operating income of $1,954,000, as reductions in gross profit were largely matched by reductions in SG&A costs. IT segment operating loss increased to $3,748,000 for the year ended December 31, 2018 from $3,375,000 for the prior year, an increase of $373,000. The increase was attributable to a $408,000 higher operating loss at NetWolves primarily due to increased spending on infrastructure and engineering efforts, and to higher sales expenses incurred in building its order backlog for future delivery, partially offset by a $35,000 lower operating loss at VHC-IT due to higher gross profit. The healthcare IT VAR business continues to grow as reflected in the significant increase in order volume and backlog, which we anticipate to continue to grow and convert to revenue, resulting in improvement in operating performance.

Selling, general and administrative (SG&A) expenses for the years ended December 31, 2018 and 2017 were $43,962,000, or 59% of revenues, and $43,618,000, or 60% of revenues, respectively, reflecting an increase of $344,000 or less than 1%. The increase in SG&A expenditures in the year ended December 31, 2018 resulted primarily from a $1,336,000 increase in the IT segment due to increased personnel and bad debt costs, partially offset by a $468,000 decrease in the professional sales service segment attributable mainly to lower sales personnel-related cost, and a $300,000 decrease in the equipment segment, and by $223,000 lower corporate expenses.

Research and development (R&D) expenses of $886,000, or 1% of revenues, for the year ended December 31, 2018 decreased by $59,000, or 6%, from $945,000, or 1% of revenues, for the year ended December 31, 2017. The decrease is primarily attributable to lower new product development costs in the NetWolves operation.

Adjusted EBITDA

We define Adjusted EBITDA (earnings before interest, taxes, depreciation and amortization), which is a non-GAAP financial measure, as net (loss) income, plus net interest expense (income), tax expense, depreciation and amortization, and non-cash expenses for share-based compensation. Adjusted EBITDA is a metric that is used by the investment community for comparative and valuation purposes. We disclose this metric in order to support and facilitate the dialogue with research analysts and investors.

Adjusted EBITDA is not a measure of financial performance under accounting principles generally accepted in the United States (“GAAP”) and should not be considered a substitute for operating income, which we consider to be the most directly comparable GAAP measure. Adjusted EBITDA has limitations as an analytical tool, and when assessing our operating performance, you should not consider Adjusted EBITDA in isolation, or as a substitute for net income or other consolidated income statement data prepared in accordance with GAAP. Other companies may calculate Adjusted EBITDA differently than we do, limiting its usefulness as a comparative measure.

A reconciliation of net loss to Adjusted EBITDA is set forth below:

	(in thousands)	
	Year ended December 31,	
	2018	2017
Net loss	$(3,734)	$(4,539)
Interest expense (income), net	727	651
Income tax (benefit) expense	(385)	134
Depreciation and amortization	2,522	2,426
Share-based compensation	313	514
Adjusted EBITDA	$(557)	$(814)

Adjusted EBITDA increased by $257,000, to $(557,000) in the year ended December 31, 2018 from $(814,000) in the year ended December 31, 2017. The increase was primarily attributable to the lower net loss, partially offset by the change from income tax expense to income tax benefit and by lower share-based compensation as compared to the prior year.

Other Income (Expense), Net

Other income (expense), net for the years ended December 31, 2018 and 2017, was $(395,000) and $(573,000), respectively, a decrease in net expense of $178,000. The decrease was due primarily to the $212,000 gain on sale of our investment in the VSK joint venture and $42,000 higher other income, primarily value-added tax refunds in our China operations, partially offset by $76,000 higher interest expense on our lines of credit and financed equipment purchases.

Income Tax (Benefit) Expense

During the year ended December 31, 2018, we recorded income tax benefit of $(385,000), as compared to income tax expense of $134,000 in the year ended December 31, 2017. The Company utilized no net operating loss carryforwards for the years ended December 31, 2018 and 2017. The change from income tax expense in 2017 to income tax benefit in 2018 arose primarily from the impact of the change in the carryforward period for 2018 net operating losses from 20 years to indefinitely on deferred tax liabilities arising from goodwill generated by the NetWolves acquisition. The Company has net operating loss carryforwards of approximately $46 million at December 31, 2018.

Liquidity and Capital Resources

Cash and Cash Flow – For the year ended December 31, 2018

We have financed our operations and investment activities primarily from working capital and additional borrowings. At December 31, 2018, we had cash and cash equivalents of $2,668,000 and negative working capital of $16,179,000. $7,797,000 in negative working capital at December 31, 2018 is attributable to the net balance of deferred commission expense and deferred revenue. These are non-cash expense and revenue items and have no impact on future cash flows. At March 31, 2019 the Company’s cash and cash equivalents were approximately $2.0 million.

Cash used by operating activities was $1,453,000 during the year ended December 31, 2018, which consisted of net loss after non-cash adjustments of $984,000 and cash used by changes in operating assets and liabilities of $469,000. The changes in the account balances primarily reflect decreases in deferred revenue and accrued commissions of $4,981,000 and $599,000, respectively, partially offset by decreases in accounts and other receivables and deferred commission expense of $1,725,000 and $1,174,000, respectively.

Cash used in investing activities during the year ended December 31, 2018 was $2,586,000 for the purchase of equipment and software, partially offset by $311,000 in proceeds from the sale of our investment in the VSK joint venture.

Cash provided by financing activities during the year ended December 31, 2018 was $1,141,000, primarily attributable to $778,000 in additional borrowings on our lines of credit, a $21,000 note issued to purchase equipment, and $500,000 in notes issued to related parties, partially offset by $156,000 in note and capital lease payments.

Liquidity

We have incurred net losses from operations for the years ended December 31, 2018 and 2017, and we maintain lines of credit from a lending institution which will require further extensions after their current June 28, 2019 maturity date. These events raise substantial doubt about our ability to continue as a going concern. Our ability to continue operating as a going concern is dependent upon achieving profitability, extending the maturity date of our existing lines of credit, or through additional debt or equity financing. Achieving profitability is largely dependent on our ability to reduce operating costs and to maintain or increase our current revenue. While we believe we will continue to maintain or increase our gross revenue and are in the process of reducing costs, and while historically we have received extensions of the maturity dates of our lines of credit, failure to achieve these objectives could cast doubt on our ability to continue as a going concern.

Off-Balance Sheet Arrangements

We do not participate in transactions that generate relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities (SPES), which would have been established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes. As of December 31, 2018, we are not involved in any unconsolidated SPES or other off-balance sheet arrangements.

Effects of Inflation

We believe that inflation and changing prices over the past two years have not had a significant impact on our revenue or on our results of operations.

Critical Accounting Policies and Estimates

Note B of the Notes to Consolidated Financial Statements includes a summary of our significant accounting policies and methods used in the preparation of our financial statements. In preparing these financial statements, we have made our best estimates and judgments of certain amounts included in the financial statements, giving due consideration to materiality. The application of these accounting policies involves the exercise of judgment and use of assumptions as to future uncertainties and, as a result, actual results could differ from these estimates. Our critical accounting policies and estimates are as follows:

Revenue Recognition

In the first quarter of 2018, we adopted Accounting Standards Update ("ASU") 2014-09, Revenue from Contracts with Customers (Topic 606). ASU 2014-09, as amended, replaced most existing revenue recognition guidance in U.S. GAAP.

This new guidance requires certain judgments and estimates in implementing its five-step process to be followed in determining the amount and timing of revenue recognition and related disclosures. Refer to Note B of the notes to consolidated financial statements for further discussion regarding significant judgments involved in our application of ASC 606.

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Inventories, net

We value inventories in the equipment segment at the lower of cost or net realizable value, with cost being determined on a first-in, first-out basis. The Company occasionally places EECP® systems and other medical device products at various field locations for demonstration, training, evaluation, and other similar purposes at no charge. The cost of these EECP® systems and other products is transferred to property and equipment and is amortized over the next two to five years. The Company records the cost of refurbished components of EECP® systems and critical components at cost plus the cost of refurbishment. The Company regularly reviews inventory quantities on hand, particularly raw materials and components, and records a provision for excess and slow moving inventory based primarily on existing and anticipated design and engineering changes to its products as well as forecasts of future product demand.

In our IT Segment, we purchase computer hardware and software for specific customer requirements and value such inventories at the lower of cost or estimated market, with cost being determined on the specific identification method.

Goodwill and Intangible Assets

Goodwill represents the excess of cost over the fair value of net assets of businesses acquired. The Company accounts for goodwill under the guidance of the ASC Topic 350, “Intangibles: Goodwill and Other”. Goodwill acquired in a purchase business combination and determined to have an indefinite useful life is not amortized, but instead tested for impairment, at least annually, in accordance with this guidance. The recoverability of goodwill is subject to an annual impairment test or whenever an event occurs or circumstances change that would more likely than not result in an impairment. The impairment test is based on the estimated fair value of the underlying businesses and performed in the fourth quarter of each year. Intangible assets consist of the value of customer contracts and relationships, patent and technology costs, and software. The cost of significant customer-related intangibles is amortized in proportion to estimated total related revenue; cost of other intangible assets is generally amortized on a straight-line basis over the asset's estimated economic life, which range from five to ten years. The Company capitalizes internal use software costs incurred during the application development stage. Costs related to preliminary project activities and post implementation activities are expensed as incurred.

Deferred Revenues

For the professional sales service segment, amounts billable under the agreement with GE Healthcare in advance of customer acceptance of the equipment are recorded initially as deferred revenue, and commission revenue is subsequently recognized as customer acceptance of such equipment is reported to us by GEHC.

For the equipment segment, we record revenue on extend