UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

(Mark One)

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

For the fiscal year ended December 31, 2019

or

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

For the transition period from _________ to _______

Commission File Number 001-38371

One Stop Systems, Inc.

(Exact name of Registrant as specified in its Charter)

Delaware	**33-0885351**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**

2235 Enterprise Street #110
Escondido, California 92029
(Address of principal executive offices, including Zip Code)

(877) 438-2724

(Registrant's telephone number, including area code)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value $0.0001 per share	**OSS**	**The Nasdaq Stock Market LLC**

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

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

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

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

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

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

Large accelerated filer	☐	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 Act). Yes ☐ No ☒

As of June 28, 2019, the aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant was $18,973,168, based on the closing price of the registrant's common stock on The Nasdaq Capital Market of $1.71 per share.

As of February 29, 2020, the registrant had 16,459,457 shares of common stock (par value $0.0001) outstanding.

DOCUMENTS INCORPORATED BY REFERENCE: None

One Stop Systems, Inc.
FORM 10-K
For the Fiscal Year Ended December 31, 2019
Table of Contents

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CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K (“Annual Report”) contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. All statements other than statements of historical fact contained in this Annual Report, including statements regarding our future operating results, financial position and cash flows, our business strategy and plans and our objectives for future operations, are forward-looking statements. These statements involve known and unknown risks, uncertainties and other important factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. This Annual Report also contains estimates and other statistical data made by independent parties and by us relating to market size and growth and other data about our industry. This data involves a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. In addition, projections, assumptions and estimates of our future performance and the future performance of the markets in which we operate are necessarily subject to a high degree of uncertainty and risk. In some cases, you can identify forward-looking statements by terms such as “may,” “will,” “would,” “could,” “should,” “expect,” “plan,” “anticipate,” “could,” “intend,” “target,” “project,” “contemplate,” “believe,” “estimate,” “predict,” “potential” or “continue” or the negative of these terms or other similar expressions. The forward-looking statements in this Annual Report are only predictions. We have based these forward-looking statements largely on our current expectations and projections about future events and financial trends that we believe may affect our financial condition, operating results, business strategy, short-term and long-term business operations and objectives. These forward- looking statements speak only as of the date of this Annual Report and are subject to a number of risks, uncertainties and assumptions, including those described in Part I, Item 1A, “Risk Factors.” The events and circumstances reflected in our forward-looking statements may not be achieved or occur and actual results could differ materially from those projected in the forward-looking statements. Moreover, we operate in a very competitive and rapidly changing environment. New risk factors and uncertainties may emerge from time to time, and it is not possible for management to predict all risk factors and uncertainties. Except as required by applicable law, we do not plan to publicly update or revise any forward-looking statements contained herein, whether as a result of any new information, future events, changed circumstances or otherwise.

One Stop Systems, the One Stop Systems logo, and other trademarks or service marks of One Stop Systems appearing in this Annual Report are the property of One Stop Systems, Inc. This Annual Report also includes trademarks, tradenames and service marks that are the property of other organizations. Solely for convenience, trademarks and tradenames referred to in this Annual Report appear without the ® and ™ symbols, but those references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights, or that the applicable owner will not assert its rights, to these trademarks and tradenames.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information required by the Securities and Exchange Act of 1934, as amended (the “Exchange Act”), with the Securities and Exchange Commission (the “SEC”). You may read and copy any document we file with the SEC at the SEC’s public reference room located at 100 F Street, N.E. Washington D.C. 20549, U.S.A. Please call the SEC at 1-800-SEC0330 for further information on the public reference room. Our SEC filings are also available to the public from the SEC’s internet site at http://www.sec.gov.

On our internet website, http://www.onestopsystems.com, we post the following recent filings as soon as reasonably practicable after they are electronically filed with or furnished to the SEC: our annual reports on Form 10-K, our quarterly reports on Form 10-Q our current reports on Form 8-K, and any amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act. The information in or accessible through the SEC and our website are not incorporated into, and are not considered part of, this filing. Further, our references to the URLs for these websites are intended to be inactive textual references only.

PART I

ITEM 1. BUSINESS.

Overview

One Stop Systems (OSS) designs, manufactures and markets specialized high-performance computing modules and systems targeting edge deployments. These specialized computers incorporate state-of-the art components and allow our customers to offer high-end computing capabilities (often embed within their equipment) to their target markets. Edge computing is when data is processed/analyzed on devices, that is, at the edge of the network, rather than in the cloud itself. Factors such as increase in load on the cloud infrastructure globally and rise in number of intelligent applications are the major factors driving the growth of the edge computing market. Our customer applications often require connection to a wide array of data sources and sensors, ultra-fast processing power and the ability to quickly access and store large and ever-growing data sets at their location not in the cloud. This equipment requires datacenter class performance optimized for deployment at the edge. We are uniquely positioned as a specialized provider for the high-end of this marketplace providing custom servers, data acquisition platforms, compute accelerators, solid-state storage arrays, system IO expansion systems as well as edge optimized industrial and panel PCs, tablets and handheld compute-devices. We deliver this high-end technology to our customers through the sale of equipment and embedded software.

The worldwide high-performance computing (HPC) market is expected to grow from $39 billion in 2019 to $50 billion by 2023, representing a compound annual growth rate (CAGR) of 7% while the overall edge computing market is forecasted to grow to $28.8 billion by 2025 with a compound annual growth rate of over 50% (Grandview research, “Edge Computing Market Size,” June 2019). We are establishing a leading position as a provider of specialized servers, compute accelerators and flash storage arrays to the high-end of this growing marketplace targeting edge deployments. OSS estimates the high-performance specialized segment at the intersection of HPC and the edge computing market will be greater than $2 billion in 2023. It is OSS’s objective to be the leading vendor and technology innovator in this targeted market segment.

Through our *AI on the Fly®* initiative, we are delivering innovative specialized high-performance edge computing building blocks and platforms used by our customers to develop products for scientists, engineers, creators and other professionals. These professional’s mission critical applications capture and store data and quickly, securely, and cost effectively transform it into actionable intelligence at the edge.

High-performance computing applications are moving beyond the traditional academic and scientific realms to broad application across the spectrum of vertical markets. These applications include computationally intense areas like artificial intelligence (AI), deep learning, media and entertainment, test and measurement, medical imaging, genomics, cyber security, automotive, aerospace and defense. We are well positioned to leverage these market trends and capitalize on our unique core competencies in high speed system design and edge system optimization. We have a proven track record of delivering first-to-market advanced technologies and have continued to do so with next generation PCI Express (PCIe) based input/output expansion systems, compute acceleration systems and high-performance flash array storage systems. PCIe offers the highest performance and lowest latency which is critical for our target applications. Edge optimizations include rugged chassis design with light-weight removable high-capacity canisters. These products fit solidly into the emerging markets for specialized high-performance computing at the edge.

The more data input, GPU compute acceleration and flash-based storage resources available to a server, the faster it can acquire, process, store, and retrieve data. In cases where the amount of these resources does not fit within the constraints of a conventional server, PCIe is used to disaggregate the resources into a multi-chassis solution. We have built leading edge expertise in PCIe expansion technology and leverage it to design and build systems that offer a high quantity and density of GPU compute acceleration, flash storage and data I/O interfaces.

A key element of our product strategy is technological leadership. We believe a first-to-market strategy is key to our ability to continue to win significant OEM design wins. As a result, we continue to develop new state-of-the-art products providing first to market next-generation PCIe based building blocks and systems. Our ability to drive the leading edge of technology is enabled by our strong relationships with strategic component manufactures, including NVIDIA (for GPUs), Western Digital and Micron (for flash memory); Broadcom (for PCIe switch components), Mellanox (for networking) and Intel, AMD and Marvel (for CPUs). In each of these cases, OSS has access to product roadmaps and other technical information relating to future technology. Access to this information allows us to begin our design process well before the future components we are designing for even exist. This accelerates our time-to-market and allows us to produce and release state-of-the-art designs well ahead of our competitors.

OSS sells its products worldwide to industry leading customers. We service over 1,800 customers per year worldwide, with major repeat customers including disguise, National Instruments, Raytheon, Thales, and Alcon. We anticipate continued market growth in our target markets and sustaining the ability to increase market share through our leading technology, engineering expertise, supply chain management and go-to-market innovation.

We were originally organized as One Stop Systems, LLC, a California limited liability company in 1998 before converting into One Stop Systems, Inc., a California corporation in 1999. On July 6, 2016, we entered into a Merger Agreement and Plan of Reorganization with Mission Technology Group, Inc. (“Magma”) whereby Magma merged with and into OSS with OSS continuing as the surviving corporation. We reincorporated as a Delaware corporation on December 14, 2017 and began trading as a public company on the Nasdaq Capital Markets on February 1, 2018. On August 31, 2018, we acquired Concept Development Inc., a provider of specialty in-flight entertainment, networking and other aerospace technology located in Irvine, California. On October 31, 2018, we acquired Bressner Technology GmbH located near Munich, Germany. Bressner is a valued-added reseller of high technology hardware which expanded the company’s high-performance computing product lines to include industrial and panel PCs, tablets and handheld compute-devices while also opening up new markets in Europe. Our principal executive offices are located at 2235 Enterprise Street, Suite 110, Escondido, California 92029 and our telephone number is (760) 745-9883. Our website address is www.onestopsystems.com. Information contained in, or accessible through, our website is for reference purposes only.

Industry Background

High performance computing refers to computing solutions capable of ingesting and processing large amounts of data and storing and retrieving that data at speeds 10-1,000 times faster than a typical corporate computer. Increasingly, commercial companies, financial entities, governmental agencies, including the Department of Defense and academic institutions are turning to high-performance computing solutions to analyze vast amounts of data to obtain meaningful and actionable insights. Three technologies are fundamental: GPU compute accelerators, flash memory based storage, and high speed data acquisition I/O. These technologies enable systems to ingest, process and store data at significantly higher rates than traditional systems. By harnessing large quantities of these components, companies can receive necessary data analyses much more quickly, turning raw data to actionable intelligence. Industry experts typically divide the high-performance computing market into the following categories:

- ***Servers*** – This market represents all high-end servers, which is composed of supercomputers, divisional servers, departmental servers, and workgroup servers.
- ***Storage*** – This includes both traditional hard disc drive and flash-based storage devices.
- ***Middleware*** – A broad category of software encompassing programming environments, schedulers, and other tools outside the operating system.
- ***Applications*** – Specific software applications for high performance computing.
- ***Services*** – All services associated with high performance computing.

Intersect360 Research categorizes and projects sales in the total high-performance computing market, as follows:

High Performance Computing Market by Product Category — Total Market Forecast by Economic Sectors ($M)

	2019	2020	2021	2022	2023	CAGR
Servers	$ 14.2	$ 15.4	$ 16.2	$ 17.2	$ 18.2	6.40 %
Storage	5.6	6.2	7.0	7.2	8.0	9.33 %
Services	3.7	3.0	3.0	3.4	3.4	-2.09 %
Software	8.7	9.4	10.0	10.4	10.6	5.06 %
Networks	2.6	3.2	3.0	3.6	3.8	9.95 %
Cloud	1.6	1.8	1.8	2.6	3.2	18.92 %
Other	2.4	2.8	3.2	2.8	3.0	5.74 %
Total	**$ 38.8**	**$ 41.8**	**$ 44.2**	**$ 47.2**	**$ 50.2**	6.65 %

Source:

Intersect360 Research, High Performance Computing (HPC) Revenue: Worldwide Market and Forecast Series, June 7, 2019.

The markets for these products are large and growing. The industry sectors that are currently or anticipated to require high-performance computing systems include:

- Artificial Intelligence
- Computer Aided Engineering
- Test and Measurement
- Media and Entertainment
- Economics/Financial
- Environmental Data Acquisition
- Geosciences
- Mechanical Design
- Defense – Intelligence, Surveillance and Reconnaissance
- Government Laboratories
- Medical Imaging
- Aerospace
- Automotive

These industry sectors expect to deploy increasingly faster computing systems to meet industry and competitive goals. GPU computer acceleration, high-performance flash storage and data acquisition are key subsets of the high-performance computing market.

GPU Compute Acceleration

The capabilities and speed of GPU accelerated computers are driving significant advances in AI and machine learning. Massive amounts of data are being collected, stored and analyzed by today’s sophisticated algorithms. AI and machine learning are poised to transform worldwide business, as advances in computing speed and storage come together to enable businesses to solve complex problems. OSS is enabling the move of this AI capability from centralized datacenters to deployments closer to the data sources at the edge.

High Density Solid-State Storage

The market for flash memory based on solid-state storage systems is large and growing. According to a study by Markets and Markets, the all-flash storage server market is growing at 25% per year, and is expected to reach $18 billion by 2023. The proliferation of larger and larger data sets used in HPC and AI are feeding the need for higher capacity and higher performance storage devices.

Traditionally, companies have used hard disk drives for their primary storage. Hard drive based systems are being replaced by flash memory based systems which offer higher capacity, performance, reliability and ruggedness. Flash-based storage systems also consume significantly less power.

Flash-based storage systems are especially useful for high performance computing applications, which deal with large amounts of data and the need for complex calculations to be completed in real time. In these applications, speed and efficiency are paramount. Military systems, for example, collect vast amounts of data using sensor systems, cameras, radar systems, and a myriad of other real-world inputs. This data needs to be collected, stored, analyzed and acted upon in a real-time environment.

High Speed Data Acquisition

At the front end of these systems is high speed data acquisition technology. Depending on the application, the data can be generated from a wide array of sensors. In the case of autonomous vehicles, data is generated through arrays of video, LIDAR and radar sensors. In battlefield applications cameras, radar, sonar, FLIR (infrared), and RF sensors are deployed. Medical applications use MRI or CT sensors. In security applications, networks of security cameras produce high volumes of video data. Industrial automation includes telemetry data from Internet of Things (IoT) sensors and video feeds at a wide spectrum of frame rates.

Although data rates vary for all of these applications based on the sensors or array of sensors deployed, the fundamental requirements for the ingest subsystem is that it supports high speed data rates, does not allow loss of data, and does not impose flow control on the sensor data stream. For many *AI on the Fly* applications, local data rates can be extremely high, requiring specialized PCIe data capture hardware. As part of the capture process, the data is often processed in real time to be formatted in a useable form prior to movement to the storage devices. Capture hardware can be in the form of PCIe FPGAs, video capture, frame grabbers, or smart NICs performing a range of functions including: tagging, encoding, sorting, and analog to digital conversion, filtering, time stamping, and channel synchronization.

Key Components of Our Business

Product Development

Our systems are built using the latest GPU and flash storage technologies and draw upon years of expertise in designing and manufacturing semi-custom systems for OEMs. We have a history of being first to market with many solutions for emerging technologies. When PCIe was introduced in 2005, we were the first company to produce PCIe over cable adapters allowing system-to-system communication at same speed as internal I/O expansion. Similarly in 2018, we introduced the first PCIe Gen 4.0 cable adapters and in 2019 introduced the first PCIe Gen 4.0 system building blocks and platforms. PCIe Gen 4.0’s ultra-high performance 16.0 GT/s (gigatransfers/second) and signal integrity challenges limits the number of players in this market and creates barriers of entry. Today, we are one of the largest providers of PCIe adapters and expansion components used worldwide.

When GPU technology and solid-state flash were first introduced, we began designing systems that maximized the effectiveness of these technologies. We now produce compute systems with large numbers of GPUs and flash memory communicating over PCIe to allow faster processing and data storage and retrieval. The more GPUs and flash devices available to a server, the faster that system can process and store data.

We use leading edge, state-of-the art components from major technology providers to design purpose-built systems that solve customer problems in an efficient, cost-effective manner. We apply the component technology provided by Intel, NVIDIA, Western Digital, Broadcom and others to deliver customer driven designs to provide true value to our customers.

Worldwide Sales

We provide our products on a worldwide basis and are supported through a network of reseller and distribution partners. Sales in North America and Europe are predominately driven by our direct sales force whereas Asian sales are driven through distributors.

On October 31, 2018, OSS GmbH acquired 100% of the outstanding stock of Bressner Technology GmbH, (Bressner) located in Gröbenzell, Germany Limited Liability Company. This acquisition provided the basis of our European operations with sales, marketing, engineering, manufacturing and support capabilities.

Recent Business Initiatives

On August 31, 2018, the OSS acquired 100% of the outstanding common stock of Concept Development Inc. (“CDI”) from CDI’s former stockholder (“CDI Stockholder”) pursuant to an Agreement and Plan of Merger and Reorganization (the “Merger Agreement”). CDI specializes in the design and manufacturing of custom high-performance computing systems for airborne and automotive applications including in-flight entertainment systems. CDI is located in Irvine, California. The acquisition increased the Company’s access to the aerospace and automotive edge markets including autonomous vehicle applications and added technical expertise in the design and manufacturing of automotive and airborne equipment.

The Company paid cash of $646,759 and issued 1,266,364 shares of the Company’s common stock to the CDI Stockholder for 100% of CDI outstanding common stock. The fair value assigned to the shares of common stock was $4,194,673 which was based upon the closing price of OSS’s stock on August 31, 2018 of $3.63 less a discount of 8.75% for lack of marketability for a one year period.

On October 31, 2018, OSS GmbH, our wholly owned subsidiary, acquired 100% of the outstanding stock of Bressner Technology GmbH, a Germany limited liability company located near Munich, Germany, from its principal owners for cash consideration of €4,725,000 (US$5,374,582) and stock consideration of 106,463 newly-issued restricted shares of the Company’s common stock. The fair value assigned to the shares of common stock was $228,779 which was based upon the closing price of OSS’s stock on October 31, 2018 of $2.47 less a discount of 13.0% for lack of marketability for a two year period. This acquisition provided the basis of our European operations with sales, marketing, engineering, manufacturing and support capabilities.

What Sets OSS Apart

Several factors differentiate OSS from other suppliers of high-performance computing solutions:

- Our expertise in PCIe expansion and building custom systems allows us to design reliable systems using this challenging high-performance technology with a greater quantity of GPUs and flash storage devices than other suppliers.
- We design systems that both attach to existing servers through high-performance PCIe over cable leveraging our customer’s existing network as well as all-in-one systems with the server, GPU computing and flash storage devices all included in a single package.
- We design the software required to operate high-capacity, low-latency storage systems used by defense systems and commercial applications.
- We ruggedize and harden systems to operate within mobile or harsh environments, including full mil-spec systems.

Our business model consists of developing specialized computing solutions that our customers utilize as a key component of the equipment that they sell to end users.

Our niche is to provide reliable purpose-built platforms with the latest high-performance computing technology focused on edge deployments.

Business Strategy

We have traditionally followed a strategy of being first-to-market in leading edge technologies by designing and developing products that are delivered before our competitors. This market leadership strategy is accomplished through what we term a "Catch the Wave" approach to the market. We currently have products spanning the spectrum of high-performance computing including servers, flash storage, GPU acceleration, networking and PCIe data acquisition I/O expansion. Within these product areas the OSS "Catch the Wave" approach implies that we:

- anticipate trends in these markets;
- continuously deploy resources in engineering and sales to bring innovative products to market before our competitors;
- work closely and leverage strategic vendor relationships to get early access to future products and technologies;
- seek to procure early design wins; and
- continually monitor the market for next generation technologies for which a new "Wave" may be forming.

Earnings Growth Strategy

OSS intends to continue its growth with a focus on growing earnings. The earnings growth will be accomplished by:

- Revenue growth: driven by existing OEM and new design wins
  - Participate in high-growth market segments
  - Demonstrate technology leadership
  - Target OEMs needing specialized solutions
  - Focus on repeat business
  - Maintain highly-skilled direct sales force
  - Expand worldwide sales and marketing
- Higher Margins
  - Provide more OSS-designed technical content
  - Increased proprietary content, software and "stickiness"
  - Maximizing military and other high value applications
  - Leverage economies of scale
  - Lower material costs
  - Increased operational efficiencies through automation, discipline and process improvements
- Manage Expenses:
  - Grow expenses at a slower rate than our revenue growth rate
  - Utilize technology to increase efficiency
  - Leverage efficiencies of scale
  - Manage portfolio of products and business units, consolidate where efficient

Our Opportunity

The worldwide high-performance computing market is expected to grow from $39 billion in 2019 to $50 billion by 2023. Within this market, OSS is positioned in the highest performance and fastest growing portions of the edge computing market including the customer server, GPU accelerators, storage (flash arrays) and PCIe data acquisition and expansion sectors.

- Custom designed servers
- GPU compute accelerators
- All flash arrays
- PCIe data acquisition I/O expansion

Custom Built Servers

Within the server sector, OSS has secured a niche position of building purpose-built specialty servers, which the major server suppliers choose not to supply as they require custom tuning and special features that major OEMs cannot easily provide. Such flexibility is difficult to maintain for major suppliers because their systems are not designed to reflect specific customer specifications. OSS on the other hand has continued to find efficient ways service this market. For example, OSS designs and builds a custom server with custom connectors and 16 high definition video media outputs that are used in the entertainment industry to provide multimedia at live performances.

We believe the custom server segment on the edge growing at a greater rate than the standard server segment. Intersect360 Research estimates that the market for high-performance servers is expected to be approximately $18 billion by 2023, with corporate market share in 2019 as follows:

Hewlett Packard	33.0 %
Dell	26.4 %
Lenovo	6.9 %
IBM	6.8 %
Cray	4.5 %
ATOS/Bull	2.6 %
Inspur	2.0 %
Fujitsu	1.8 %
Penguin	1.5 %
Huawei	1.2 %
Others	13.5 %

It is our experience that OSS is increasingly competitive in the “Others” category, where customers require their systems to meet specific operational specifications, power requirements, speed, latency, or other requirements not covered by traditional designs. We estimate that our addressable market for HPC computers is approximately 20% of the “Others” category in the above chart. This translates to an addressable market size of approximately $500 million with our current engineering capability and product set.

GPU Compute Accelerators

GPU computing uses hardware components that are optimized to perform mathematical calculations in a rapid fashion. NVIDIA is the market leader in the design and manufacturing of these components. OSS works closely with NVIDIA to design and build systems which use multiple GPUs to accelerate applications.

Markets and applications such as artificial intelligence, image rendering and processing, autonomous vehicles, deep learning, molecular modeling, genomics, advanced visualization, machine learning, and image processing, all benefit from the ability to use GPUs to accelerate the application. OSS builds specialized compute accelerators, using the latest GPU technology, to attach to traditional servers used in these emerging growth markets. We estimate these markets to be very large and growing. Because our strategy has been to be first-to-market with the fastest and densest compute accelerator appliances, we anticipate our addressable market here to be in the hundreds of millions of dollars.

We also have a strong position in the government market which, according to Intersect360, constitutes 25% of the market resulting in projected revenue of $13B by 2023. OSS products can form a basis for companies who wish to participate in the hyper-scale market, which includes deep learning and AI. This is a major technology trend that OSS is addressing. Intersect360 estimates the deep learning market was worth more than $8 billion in 2018 with projections to grow to over $28B by 2023, according to Kenneth Research dated August 2019.

All Flash Arrays

We build standard and custom flash storage arrays to customer specifications utilizing our unique know-how in PCIe device fan-out, packaging, cooling, and PCIe-over-cable. We deliver dense, high-performance systems that provide customers with high value and utility in the most demanding, data-intensive operations.

Through a strategic agreement with Western Digital, we acquired the software engineering team several years back and the appropriate source code license for the Ion flash array software. This provides OSS flash arrays with a high level of differentiation relating to storage management, latency and throughput. We provide standard flash array products and have the in-house hardware and software expertise to provide customized systems for demanding applications that are not suitable for standard offerings.

For example, we provide products to a large military contractor for integration into military aircraft that required us to design and manufacture a highly ruggedized mil-spec flash array. The resulting product provides high data density with low weight and a high degree of portability and security for the data. We believe our experience and capability in high speed, low-latency, digital signaling via PCIe gives us an edge in providing these custom designs to OEMs, military programs and other special purpose applications.

The overall market for flash arrays is growing rapidly. According to Markets and Markets All-Flash Array Market – Global Forecast to 2023 published in February 2019, the flash storage market totaled $6 billion in 2018 and is expected to grow to reach $18 billion by 2023. According to Intersect360 about 80% of the total sales in 2018 were attributed to traditional large OEMs, like Dell EMC, NetApp, HPE, Hitachi, Lenovo, DDN and IBM. The remaining 20% is addressed by many smaller flash storage providers, including OSS. We believe that because our products are positively differentiated by speed, density, and management features, our offerings compete favorably in this market and provide a substantial growth opportunity.

OSS participates in the broader market for dense, high-performance flash storage systems that may or may not be deployed into data center environments. Since we develop custom flash storage arrays, we work closely with both OEMs and end users to insure they receive the product they want in the specific configuration, size and weight required for their application. We believe this gives OSS an advantageous position in a market that is growing rapidly and allows us to favorably compete in the market.

PCIe Data Acquisition Expansion and Adaptors

PCIe is a high-speed computer expansion standard. This standard defines the signals and connectors (i.e. slots) that are used for computer add-in cards (such as Ethernet or graphics). PCIe signaling can also be routed over a cable, allowing expansion input/output slots to be physically located in a separate chassis. This provides for the high performance and low latency which are essential in this market.

Being able to separate the server from the I/O expansion, using PCIe over a cable, facilitates disaggregation of server functionality. That is, with PCIe, server I/O functions no longer need to be contained in the physical server chassis, but can instead be separated into a separate chassis and continue to operate at full speed. This offers many advantages over higher latency and power consuming traditional networking communications like Ethernet. From a practical perspective, servers can be connected directly to larger storage arrays or other peripheral devices, with the resulting group of chassis operating as if they were all in the same physical chassis.

We began developing our first PCIe-over-cable adaptor in 2006, and were one of the early providers of PCIe adaptors. We recognized this as prime opportunity to utilize our core strengths, such as:

- High-speed board design and layout
- Hardware tuning to improve signal integrity
- Design optimization for low cost
- Rapid design capability
- Manufacturing and supply chain management

This technology has now become a standard within the computer industry, and OSS customers have used our adaptors to connect their custom input/output chassis and achieve performance equivalence as if the input/output was integrated into the server box. This gives designers and integrators a degree of flexibility and utility in architecting computer systems that is unprecedented. For example, one of our customers has utilized PCIe-over-cable to connect its high-performance video editing systems to a host computer, providing a system that is optimized for an application using standard servers. We have expanded our PCIe adaptor market in breadth and depth, including making adaptors for many OEM customers. To date, we have shipped more than 100,000 PCIe adaptor cards to customers globally.

With our expertise developed in designing adaptor cards, the logical extension of our capability led us to develop a method for expanding the PCIe bus into an external chassis containing one or many expansion slots. This allowed a customer to install multiple standard PCIe boards into a chassis and expand their system without having to add additional servers. A user could now connect a multiplicity of PCIe devices to a single server, and achieve performance throughput and low latency that was not possible prior to the introduction of PCIe.

We have been a leader in PCIe expansion backplanes and chassis through generations 1, 2, 3 and 4. As PCIe evolves through generations 5 and 6, we are uniquely positioned to continue our leadership role in this market. We have introduced a full line of PCIe Gen 4.0 products and will once again take a leadership role with PCIe Gen 5.0 when the specification is complete which is anticipated in 2021. We currently offer what we believe to be the largest PCIe expansion product line breadth, with chassis and backplanes that offer expansion from one to 64 slots. Due to its greater data throughput and flexibility of design, we believe this is a growing market, and we intend to maintain our leadership role.

Our Technology

We design and manufacture high performance computing systems that increase compute performance while reducing cost and impact to the infrastructure. Our high-density compute accelerators connect directly to a server's PCIe bus, delivering substantial compute performance. Our flash storage arrays support hundreds of terabytes of high-speed storage that can also be accessed by multiple servers.

Technology Drivers for OSS High-Performance Computing Business

OSS has developed expertise and core competencies in the three fundamental technology drivers of today's high-performance computing market. Namely, high-speed serial interconnect technology, compute acceleration utilizing GPUs, and low latency flash storage. In combination, these technologies are changing the economics of computing, bringing high-performance computing within the grasp of a wide range of new industries and commercial applications. Simultaneously the emergence of massive data being generated in each of these industries is pushing the requirement for state-of-the-art technology. OSS is enabling this technology to be deployed at the edge by merging these fundamental technologies with our expertise in providing the system level customization for meeting requirements for ruggedization and SWAP constraints (space, weight and power).

The opportunity is not only to provide competitive advantage for corporations, but also address some of the most fundamental challenges in life science, energy and security. OSS is well situated to leverage these major industry forces. By exploiting its unique set of expertise in the underpinning technologies of high-performance computing, OSS will continue to deliver world leading solutions, with the opportunity to capture a growing market share of this rapidly expanding marketplace.

Switched Serial Interconnect

Switched serial interconnects are the data highways connecting many elements of today's high-performance computing platforms. At ever increasing speeds, these pathways move data between system's processing units, storage, networking, and peripheral elements. For high performance computing the primary processing, storage and peripheral interconnect is PCIe Gen 4.0. PCIe Gen 4.0 has an ability to run up to 16 lanes in parallel, which allows up to 64 gigabytes (full duplex) per second bandwidth between system elements.

Serial switches incorporated in system design allow many system elements to be connected together in a non-blocking interconnect fabric at PCIe Gen 4 speeds. This allows systems to scale internally avoiding bottlenecks. The serial interconnect can be embedded directly in the computer printed circuit boards, across connectors board-to-board, or traverse across copper or optical cables for chassis-to-chassis connection. Due to the extremely high speeds, the design considerations around signal integrity are rigorous and with unforgiving tolerances. PCIe Gen 5 will begin deployment in 2021, doubling the interconnect speed once again.

Compute Acceleration with GPUs.

GPUs have evolved from graphics display acceleration to becoming general-purpose processing workhorses for high-performance computing systems. Today, the majority of the fastest supercomputers in the world utilize GPUs as their primary compute engines. GPUs are ideal for high-performance computing workloads because of their ability to do massively parallel processing. While traditional CPUs today may have dozens of processing cores, GPUs have thousands of cores that are able to execute calculations simultaneously.

For many high-performance applications, fundamental pieces of the code can be optimized to run in parallel and therefore experience significant performance enhancements. NVIDIA, a key supplier of GPUs to the market, has done extensive benchmarking showing the ability of single GPU based machines to exceed the performance of dozens or even thousands of traditional CPU-only computers. NVIDIA has worked extensively with the software development community, and hundreds of applications have been tuned and developed to run on GPUs.

The current NVIDIA GPU Applications catalog lists more than 400 such applications across a broad set of market spaces including:

- Computational Finance
- Climate, Weather and Ocean Modeling
- Computational Chemistry and Biology
- Data Science and Analytics
- Deep Learning and Machine Learning
- Federal Defense and Intelligence
- Genomics
- Manufacturing
- Media and Entertainment
- Medical Imaging
- Oil and Gas
- Safety and Security

Many of these applications also scale performance based on the number of GPU components utilized. OSS has designed multi-GPU systems including up to 16 GPUs in a single system. Current state-of-the art GPUs provide over 7 teraflops of performance, with future products set to dramatically increase overall processing capabilities in the years to come.

GPUs also pose significant system design challenges due to their high power requirements. High-end GPUs can require as much as 350 watts of power, which generates a tremendous amount of heat. Sophisticated power distribution and cooling designs are required, especially for large scale systems with multiple GPUs per chassis.

PCI Express Flash Storage – NVMe protocol

The use of flash memory technology for system storage has gained traction over the last several years, as the cost per gigabyte has continued to drop. Flash memory is now becoming the ubiquitous storage technology in high-performance systems.

Combined with the move away from traditional rotating hard drive technology has been the trend toward eliminating traditional storage protocols in favor of low latency flash memory protocols. Newer flash memory modules utilize a protocol known as NVMe, which connects the flash memory directly to the system's PCIe interconnect. This direct connection allows for very high bandwidth between the storage and the other system elements and eliminates the need for protocol translation as data is moved from storage subsystems to and from the compute complex.

Today, flash memory modules with capacities up to 8 terabytes and PCIe Gen 4 interfaces are becoming available. OSS flash storage arrays with hundreds of terabytes of capacity are available, enabling the scaling of high-speed storage to meet the full range of high-performance application requirements.

Core Technical Capabilities

OSS has developed unique expertise and core competency across the fundamental technologies of today's rapidly expanding specialized high-performance computing marketplace. These valuable assets are embedded in the leading-edge engineering capabilities of our engineers, the proprietary intellectual property residing in our vast library of designs, and our brand equity based on our reputation as a high-quality producer of state-of-the-art custom and standard solutions across a broad array of markets.

High Speed System Interconnect Design

Our electrical engineers are experts in high speed digital signaling design. They have continually designed at the leading edge of the state-of-the-art signaling speeds, as semiconductor technology has driven up the clock rate of digital transmission. We have consistently been among a small handful of companies able to come to market first with the latest technology. In fact, we delivered the industry's first PCIe over cable solutions for PCIe Gen 1, Gen 2, Gen 3 and Gen 4 and are currently on track to accomplish this again in Gen 5. The expertise required includes circuit design, PCB (printed circuit board) layout and routing optimizations all with a focus on achieving the highest levels of signal integrity. In our current systems, PCIe Gen 4 signals are propagated across multiple PCBs, connectors, and copper cabling while maintaining the ability to recognize digital signal transitions at 16 billion times per second.

In high-performance computing systems, especially on the edge, the trajectory of ever increasing signaling speeds is continuing. An ever-shrinking set of companies have the capability to design robust, highly-reliable systems at these speeds. We believe our core competency in large-scale, high-speed design and layout will allow us to remain on the forefront of this growing industry.

Complex System Design

In addition to low-level signal integrity design expertise, we have amassed expertise and intellectual property in high-performance system architecture design. This expertise allows us to develop extremely sophisticated systems with massive scaling, while meeting customer demands for reliability, cost, and flexibility.

We have developed the deep knowledge for high-capacity input/output systems and operating system adjustments and configuration tuning required. Our engineers are often called upon to co-design with OEM designers to create the perfect fit solution for their customers.

For highly scalable systems, a deep understanding and experience with switching topologies and interconnect fabric design is required. We have worked with serial switching technology starting with the first generation of PCIe and have been an innovator in creating unique and flexible topologies to meet the specific needs of the customers. Creating custom solutions for unique customer solutions is a core competency and relies on this deep knowledge of switch capabilities and limitations.

For maximum system performance, design for optimizing data transfer speeds is also an important consideration. OSS has developed expertise in system design to leverage peer-to-peer data flows between GPUs and pioneering techniques for optimized data flows between flash storage and GPU compute engines. Our systems optimize switch and GPU configuration topologies to optimize GPU-to-GPU communication without requiring latency-inducing data transfer between host dual processors. Our platforms feature RDMA (remote direct memory access) across compute nodes, which support data transfer without burdening the host CPU.

OSS has pioneered the ability to extend the PCIe bus beyond the confines of a single enclosure, opening the possibility of flexible system expansion options. We believe we are one of the leading designers and suppliers of PCIe host bus adapters that extend PCIe signals from the host motherboard across copper or optical cables to expansion enclosures. OSS adapters provide both ends of the external cable connection. Our expertise in high-speed signal design in printed circuit boards, connectors and cables is essential to successful expansion designs. We also hold expertise in incorporating clustering and rack scale expansion into our system designs, including 100/200 gigabit Ethernet, 100/200 gigabit Infiniband, and emerging PCIe top-of-rack switch technology.

Expertise in power, cooling and mechanical design are required to address the requirements of the high-performance computing customers especially while meeting the constrained time requirements of edge deployments. We have developed leadership design capability in high-power design and distribution within large rack enclosures as well as edge optimized configurations. High-end GPUs today require 350 watts or above, and in our high-end systems up to 16 of these can reside in a single chassis. Thousands of kilowatts of redundant power are required. Power stability and huge thermal loads are some of the critical design issues that must be addressed.

We have expertise in power distribution, redundant power and complex chassis cooling design, including materials selection, airflow simulation, fan technology and cable routing. We have also developed extensive intellectual property in regulatory compliance of complex high-performance computing system design across emission, shock, vibration, thermal, humidity and other environmental requirements that are required for highly reliable and highly available solutions. OSS engineers are experts in design for regulatory testing for FCC (Federal Communications Commission), CE (European Conformity), UL (Underwriters Laboratories), and Mil-Spec (Military Standard) standards. Additionally, we have expertise in rapid prototyping, design for manufacturability, and design for serviceability.

Storage Management Software

Given our hardware design and integration expertise, we see the next natural step is to add a robust software capability that will allow us to offer more optimized and customized systems. Our Ion software design team provides the expertise to deliver full server and storage solutions that produce the highest performance from today's leading-edge flash storage devices.

The Ion software allows flash-based modules to be put into a variety of storage and network configurations which can then be accessed by multiple servers. The Ion software can do this cost-effectively, while preserving the low latency that is vital for many business and mission-critical enterprise applications, from database and transaction processing to massive data collection programs. Ion also has a full high-availability option to ensure complete data integrity.

In-house mature and established foundational storage software allows OSS to add new products and capabilities to its product portfolio. Possibilities range from increasing data efficiency with snapshot, de-duplication and compression, to improving system manageability and adding NVMe over Fabrics storage scale out capabilities to our products.

Benefits of Technology and Core Capabilities to our Customers

Due to our core capabilities, we can provide our high-performance computing customers with platforms possessing high reliability and cost effectiveness. Such performance allows our customers to solve bigger problems faster, and save the cost and time of highly-paid engineers, data scientists, and other human resources. Our technology enhances innovation by allowing more 'what-if' analysis in a finite amount of time. Our price/performance leadership enhances our customers' competitiveness, and lowers capital expense and total cost of ownership. We work with our OEM customers to develop custom 'perfect fit solutions' for their unique requirements.

Our Products

OSS has developed a complete line of products that have been customized for the benefit of its customers.

GPU Appliances – high-density, fully integrated computer clusters that are purpose-built for user applications. They provide thousands of cores and hundreds of teraflops of computing performance.

GPU Expansion – expansion units can add hundreds or thousands of computing cores with hundreds of teraflops of computing performance to virtually any OEM server.

Flash Storage and Network Appliances– networked storage appliances optimized for the environment and system software of our customers. These offer flexible and powerful turnkey, customer-driven solutions for the HPC market.

Flash Storage Arrays – arrays that provide hundreds of terabytes of storage and millions of input/output operations per second with flash memory. They are flexible, powerful, and configurable for customers in the HPC market.

Servers – OSS designs servers optimized for PCIe-over-cable expansion. Available in various turn-key and custom configurations, they provide simple, reliable and cost-effective server solutions. These servers are optimized to work seamlessly with other OSS systems and appliances.

Desktop Computing Appliances – OSS designs and builds desktop expansion appliances in many configurations that add input/output flexibility to any user's desktop system. These appliances come pre-configured with many combinations of flash memory, GPUs, and other add-in boards.

PCIe Expansion – PCIe is the standard for high speed connectivity from a server to a PCIe device. It provides vastly faster throughput compared to USB or Ethernet in a simple, cost-effective connection. It requires no special software, which adds no overhead to the system, and improves latency of throughput. OSS provides cables, kits, backplanes, enclosures, switches, and adaptor cards for this market.

Industrial and Panel PCs – OSS provides small form factor high performance compute platforms customizable to meet needs in industrial applications on the edge where space constraint is a fundamental consideration.

Tablets and Handhelds – OSS provides ruggedized mobile high-performance compute devices that meet the specialized requirement for devices deployed at the edge in a diverse set of environmental conditions.

Customers

We serve a global clientele consisting of multinational companies, governmental agencies, and leading technology providers. Some of our key customers are set forth below, including case studies illustrating how we provide custom solutions.

Raytheon – OSS worked closely with Raytheon to build a customized flash storage array, with flash drives installed in removable canisters. Raytheon has installed these storage arrays on a current military aircraft equipped with multiple sensors, encryption devices and data recorders. These devices are fully compliant with appropriate military specifications, including shock and vibration. Each canister has the capacity to save 100 terabytes of data and weighs only 6.5 pounds, a fraction of the weight of the previous spinning hard drive design. Data is captured onto the compact OSS flash array canisters, which can be easily removed at the end of the mission for analysis. Our expertise in designing and manufacturing high-density flash arrays in the lightest, most compact package allow military aircraft to realize faster turn-arounds during critical missions. These systems are intended to be incorporated into new aircraft and retrofitted into the existing fleet.

disguise– disguise is the leading provider of hardware and software that allows their customers to produce live events, television broadcasts, theater effects, and special effects for concert tours. OSS has worked with disguise to design purpose-built, custom servers that act as video controllers for special effects at these events. These edge servers work seamlessly with disguise software applications, providing up to 16 simultaneous video outputs that supports a rich array of special effects and extended reality experiences. Events like the Super Bowl halftime show, sporting events, feature films and numerous musical concerts rely upon disguise controllers, designed and produced by OSS to deliver a lasting impression on audiences.

National Instruments – National Instruments is a market leader and multinational company that produces automated test equipment and virtual instrumentation software. OSS provides several PXI/PXIe/PCIe interface cards that are branded by National Instruments. OSS acts as an extension to National Instruments' engineering group, allowing National Instruments to complete their product roadmap in a timely and cost-effective manner.

Sales and Marketing

Our sales and marketing efforts are focused on promoting sales, producing expert content and brand awareness.

Sales

Our sales efforts entail three main areas:

- *General Sales* – OSS maintains a web site, web store and direct sales team that sell directly to end-users. This includes e-commerce sales via typical web store functionality, and direct calling of potential customers to provide unique solutions that fits their needs. The OSS direct sales team typically works in the OSS booth at industry tradeshows, directly interacting with potential customers and presenting solutions for their high-performance needs.
- *OEM Focused Sales* – Our direct sales team is organized to best identify and develop the top potential commercial OEM and government program customers. These OEM and government programs form the largest and fastest growing parts of our business.
  - *Our Commercial Sales Team* focuses on OEM customers where we sell standard or design and build customer specified systems based on OSS technology expertise that are branded with the OEMs name and label. These companies, many market leaders, then resell the products through their own sales channels. We actively seek this type of relationship, which is leveraged as a sales multiplier, allowing us to grow sales at a faster rate without adding as many dedicated sales resources.
  - *Our Government Sales Team* focuses on this large (~30%) and growing portion of the OSS business which provides systems to US Federal Department of Defense programs. Our government sales team has the knowledge and expertise to identify major program opportunities and provide the extensive technical and business documentation to bring these programs from concept to successful completion.
- *Channels* – We have a dedicated sales resource that manages our worldwide network of resellers and distributors. We sell a large breadth of standard products through these channels, which allow us to achieve global customer touch without requiring a physical presence in all geographies. The master distributors in several countries have dedicated sales expertise to capture additional OEM business with both Fortune 500 and second tier OEM firms extending our international footprint. With the acquisition of Bressner, we have a greater direct presence in Europe which allows greater access to those markets.

Marketing

Our marketing department is responsible for defining our vision and product road map. They primarily focus on positioning OSS as an expert and visionary in the field of high-performance computing in edge applications utilizing PCI Express. We generate expert content to support our market leading products while also building cost effective brand/product awareness in several ways. We use traditional and non-traditional marketing as well as partnerships and word of mouth to convey the uniqueness and compelling value of our products and services. The markets and applications we target include machine learning, deep learning, finance, medical equipment, in-flight entertainment, manufacturing automation, defense/government, oil and gas exploration, media and entertainment. Among the many channels utilized are:

- *Trade Shows* – We participate in several tradeshows and events during the year to generate new and foster existing relationships with customers and partners. These face-to-face engagements allow us to showcase our standard and custom product expertise to our target markets. These events provide the fastest time to revenue of all marketing media due to the difficulties in marketing custom capabilities over electronic media. The target trade shows include AUSA (US Army), Sea-Air-Space (Navy/NASA), National Association of Broadcasters and IBC (media & entertainment), GPU Technology Conferences globally, DSEI (International Military), AI World and AI Summit, Supercomputing and International Supercomputing, Flash Memory Summit, Airline Passenger Expo and AIX (in-flight entertainment), Medica (medical) and Embedded World. OSS evaluates the ROI and costs of each show on an annual basis so participation may change from year to year.
- *Electronic Media* – We use various forms of electronic advertising media to market both the products and capabilities of OSS. Electronic media includes internal direct email campaigns such as monthly newsletters and various press releases for new products, technology developments, partnerships and significant application design wins. In addition, we use media companies relevant to our target markets to disseminate information about OSS to a larger set of potential customers. The format of the electronic advertising varies but with the common focus on content advertising with a secondary focus on brand awareness. The various electronic media formats include search engine ads and keyword campaigns, digital ads, display ads, datasheet emails, e-newsletters and text ads. Our web site is very key at leveraging our leadership content, positioning and SEO capabilities. We will continue to invest on this front.
- *Social Media* – We regularly use Facebook, Linked-in and Twitter to instantly alert the followers of OSS to new events, products, services, and customer stories.
- *Publications* – We periodically publish white papers, customer success stories, and other demand generation technology articles in printed and electronic periodicals and newsletters that include InsideHPC, Military Embedded Systems, Storage Newsletter and HPC wire. We also carefully purchase some print ads with the highest ROI in select industry magazines for brand awareness.

As we grow, it is anticipated our marketing efforts will likewise continue to increase in size and diversity.

Competition

One Stop Systems (OSS) core business is to provide specialized high-performance edge computing building blocks and platforms to OEMs who incorporate these products in their complete solutions which they sell to end users in specific vertical markets. Due to the nature of OSS's business there are a number of categories of potential competitors for its products.

Customer in-house design resources

Many of OSS's target OEM customers have in-house engineering design resources which could be used as an alternative to engaging with OSS. Examples of current OSS customers who have significant in-house resources include National Instruments, Raytheon and Lockheed Martin. This potential competition is mitigated by the technical specialization OSS has especially in high end and large scale PCI Express switch fabrics and PCI Express over cable capabilities. OEMs can invest their in-house resources on value-add capabilities within their specific vertical market and outsource these horizontal technology capabilities to OSS. OSS has also developed a trusted partner relationship with many of these OEMs and has established a market reputation for technical expertise and a responsive and cost effective engagement model. We win when our customers realize that together we can produce better products faster and more cost-effectively than they can themselves. This has proven to be particularly evident when customers require state-of-the-art products that are constructed of parts available commercially. This has resulted in several design wins that demonstrate our flexibility and how we can work closely with large OEM and government customers.

Major Tier 1 & 2 Mainstream Computer and Storage Vendors

These vendors offer mainstream high-performance computing platforms including servers and storage systems that can address some applications at the edge in OSS target markets. They do not however over ‘specialized’ platforms or customization capabilities that OSS specializes in to meet unique form factor or ruggedization or scale out requirements sought by OEM customers. OSS’s strategy is specifically designed to avoid head-to-head competition with this class of vendors. In some scenarios OSS can provide a complementary specialized component or building block which interface to one of these vendors mainstream products. Examples of companies in this space include HP, Dell/EMC, IBM, Pure Storage, and NetApp.

Chip Vendors with vertical integration offerings

Third party competitive products include cases where the manufacturers of the underlying chip or board-level products decide to also offer system-level products. This is the case with Intel, NVIDIA, Western Digital and others. These offerings tend to be tactical, short-term products that are intended to demonstrate a new technology, rather than long-term forays into the systems business. In addition, these “technology demonstration systems” tend to be priced at high levels, making them less competitive once the newness factor wears off.

Specialized Horizontal HPC Vendors

There are a handful of competitors who offer specialized products in the same categories as OSS. These companies are small and tend to focus in specific geographic area or with an established set of long-term customers. They have limited bandwidth to take on many simultaneous projects and are rarely seen in direct competitive situations. Examples of companies in this space include Trenton and Cyclone.

Multi GPU Platform Vendors

A significant area of focus for OSS is in specialized multi-GPU platforms for edge applications. Due to the tremendous interest in AI solutions using GPUs there are many vendors offering products in this space. Similar to the mainstream computer and storage vendors mentioned above these vendors offer standard solutions without the options for specialization and customization that OSS offers. As the primary GPU vendor, NVIDIA is a safe choice as a system provider for many customers who do not need or desire a level of specialization in their products. OSS has a strong and positive relationship with NVIDIA which includes receiving leads from them for specialized solutions not addressed by their mainstream system offering. Other companies such as SuperMicro and Tyan who offer their own system products directly are also happy to work with OSS to resell their products when customers need a combination of standard and specialized products. OSS offers its EOS server based on SuperMicro motherboards. Examples of companies in this space include NVIDIA, SuperMicro and Tyan.

Vertical HPC Vendors – Military/Aerospace

In certain vertical markets there are competitors who focus primarily in that market. The military and aerospace markets are prime examples. These vendors often provide complete solutions including both hardware and software and some specialization in terms of form factor and ruggedization. In these markets, OSS provides unique capability in terms of scaling of PCI Express components over cable (copper and fiber) that can address unique requirements of specific military or government programs. OSS has also established good relationships with prime contractors or agencies (Raytheon, Lockheed, Boeing, NASA, ONR, and others) which can be important influencers or decision makers on technology selection. Competitors in this space include companies such as Mercury, Crystal, Curtiss Wright, and Systel.

Vertical Vendors – M&E/Visualization

Another vertical market with different competitors is the media and entertainment and visualization markets. These companies focus on understanding and tuning their hardware systems to the specific application and data types of these markets. This focus provides them benefits in terms of brand awareness in the vertical, but often they are limited in ability to meet specialized and customized requirements of OEMs in this space. Examples of companies in this space include Boxx, Cubix and Sonnet.

Manufacturing and Operations

OSS is certified under ISO 9001-2015 for "design, manufacture, and supply of industrial computers." This means OSS has demonstrated its ability to consistently provide products that meet both customer requirements and applicable regulatory or statutory requirements. It also indicates that we have programs and processes in place to ensure a high level of customer satisfaction, as well as a continuous improvement program that ensures OSS gets better over time.

We utilize lean principles to drive our manufacturing and assembly process. One of the key aspects of this is our application of just-in-time principles that ensure effective ordering and utilization of inventory, and this helps optimize cash flow throughout the manufacturing cycle. Within the manufacturing process, our operations encompass three categories of "builds:"

- *Standard Builds* – These are builds of standard products that are sold with little or no customization or non-standard features. These are products that are ready to be installed or integrated by the customer upon receipt.
- *Custom Builds* – Custom builds involve a product built to a customer specification. Upon receipt, the customer has a unique product that performs all the functions and has the physical dimensions that match their specifications.
- *Engineering Project Builds* – OSS supports the product development process by building models and prototypes of products. Developed by the OSS engineering group, the prototypes can be of standard or custom products.

OSS is dedicated to quality and customer satisfaction. Within the manufacturing operations function at OSS, our processes begin with the end goal in mind. This means we start with the customer. All our business processes begin with the idea that the customer is the essence of why we exist. Our continuous improvement efforts require us to review products, services, and processes with the idea that minor changes can lead to greater outcomes for our customers.

While we are cognizant of the additive nature of small improvements, we believe a disciplined approach to improvement sometime leads to extraordinary, large, and positive advances in our products and services. This is extremely important to OSS, as our goal is to bring the most advanced leading-edge technologies to our customers before our competitors can. Our operations strategy supports our overall mission of being first to market with customized, leading-edge products that are best-in-market in terms of speed and overall performance.

Research and Development

Research and development at OSS is centered on the exploitation of key technologies as they evolve in the marketplace. Our product roadmap reflects new technologies for CPUs, GPUs, flash storage, and advanced PCIe switches. We design first-to-market, custom implementations utilizing market leading component technologies. Accordingly, our focus lies not in the capital-intensive development of silicon implementations of technologies (i.e., chips, processors, GPUs, or storage devices), but rather leverages leading-edge technologies and building first-to-market products that fully exploit those technologies for solving customer problems.

The OSS research and development strategy can be summarized as follows: ***OSS drives design wins by utilizing key new technologies to develop products that are leading edge and first to market.***

Some examples of OSS developments:

- GPU compute accelerators with the most GPUs per rack unit.
- Networking of GPUs.
- Broad range of solutions, due to specific customer design.
- Capability to expand existing servers from virtually any OEM.

- First-to-market products as new GPUs are introduced by NVIDIA, Intel, Western Digital and Broadcom.
- Complete customization per the needs of our OEM customers.
- Integration of multiple new technologies (servers, GPUs, flash drives, and PCIe) into optimized products for our OEM customers.

Intellectual Property

The primary intellectual property value of OSS emanates from the more than 600 individual design projects we have undertaken over the decades since our founding. These designs are archived and cataloged, so we rarely begin a new design from scratch. In general, we maintain the rights to the product to use elsewhere.

Over the years, our team has developed and maintained expertise in high-speed signal design and analysis, electronic and mechanical packaging, PCIe-over-cable, fiber optics transmission, high-speed/density flash arrays, and integration and deployment of GPUs in compute accelerators and servers. This extensive expertise positions us to expand and rationalize our product line to meet the growing and ever-changing HPC market.

Employees

As of December 31, 2019, we had approximately 118 employees of which 116 are full-time and 2 are part-time employees. Ninety-two of our employees are domestic and 26 are international. Our employees include highly skilled engineers, technicians, assemblers, and support staff. They are housed in multiple facilities, and are led by a management team that is supportive but expects a lot. We are proud of our low turnover of personnel where we keep the team challenged and encourage input and creative thinking by all. The management team provides transparency to its employees through regular communication meetings designed to update employees on current metric driven results and future expectations. None of our employees are covered by a collective bargaining agreement or represented by a labor union. We consider our relationship with our employees to be strong.

Legal Proceedings

From time to time, we may be a party to legal proceedings and subject to claims incident in the ordinary course of business. Although the results of litigation and claims cannot be predicted with certainty, we believe that the final outcome of such matters will not have a material adverse effect on our financial condition or business. Regardless of outcome, litigation can have an adverse impact on us because of defense and settlement costs, diversion of management resources, and other factors.

Environmental Matters

We believe we are in compliance in all material respects with all applicable environmental laws. Presently, we do not anticipate that such compliance will have a material effect on capital expenditures, earnings, or competitive position with respect to any of our operations.

Government Approval and Effect of Government Regulations

Because our core business is to provide specialized high performance edge computing building blocks and platforms to OEMs who incorporate these products in their complete solutions which they sell to end users in specific vertical markets, we do not believe that any government agency approval is required for the products and services that we provide to our customers.

However, governmental regulations, including but not limited to import and export law, customer, and trade regulations, may affect our business. For more information, see the section titled, “Risk Factors” found on Part I, Item1A, to this Annual Report.

ITEM 1A. RISK FACTORS

Investing in our common stock involves a high degree of risk. You should carefully consider the risks described below, as well as the other information in this Annual Report, including our financial statements and the related notes and "Management's Discussion and Analysis of Financial Condition and Results of Operations," before deciding whether to invest in our common stock. The occurrence of any of the events or developments described below could harm our business, financial condition, operating results, and growth prospects. In such an event, the market price of our common stock could decline, and you may lose all or part of your investment. Additional risks and uncertainties not presently known to us or that we currently deem immaterial also may impair our business operations.

Risks Related to Our Business and Industry

A reversal of the U.S. economic recovery and a return to volatile or recessionary conditions in the United States or abroad could adversely affect our business or our access to capital markets in a material manner.

Worsening economic and market conditions, downside shocks, or a return to recessionary economic conditions could severely reduce demand for our products and adversely affect our operating results. These economic conditions may also impact the financial condition of one or more of our key suppliers, which could affect our ability to secure product to meet our customers' demand. Our results of operations and the implementation of our business strategy could be adversely affected by general conditions in the global economy. An economic downturn may cause uncertainty in the capital and credit markets and could have a material adverse effect on us. We could also be adversely affected by such factors as changes in foreign currency rates, weak economies, and political conditions in each of the countries in which we sell our products.

The market for our products is developing and may not develop as we expect.

The market for cutting-edge, high performance computing products is characterized by rapid advances in technologies. We believe our future success will depend in large part on our ability to develop products, new business initiatives and creating innovative and custom designs for our customers. The growth of server clusters, specialized or high-performance applications, and hosted software solutions which require fast and efficient data processing, is crucial to our success. It is difficult to predict the development of the demand for high performance computing, supercomputers, and related hardware solutions, the size and growth rate for this market, the entry of competitive products, or the success of existing competitive products. Any expansion in our market depends on several factors, including the demand, cost, performance, and perceived value associated with our products. If our products are not adopted or there is a reduction in demand for our products caused by a lack of customer acceptance, a slowdown in demand for computational power, an overabundance of unused computational power, technological challenges, competing technologies and products, decreases in corporate spending, weakening economic conditions, or otherwise, it could result in reduced customer orders, early order cancellations, the loss of customers, or decreased sales, any of which would adversely affect our business, operating results, and financial condition.

Our operating results may fluctuate significantly, which makes our future operating results difficult to predict and could cause our operating results to fall below expectations or our guidance.

Our quarterly and annual operating results have fluctuated in the past and may fluctuate significantly in the future, which makes it difficult for us to predict our future operating results. The timing and size of sales of our products are variable and difficult to predict and can result in fluctuations in our net sales from period to period. In addition, our budgeted expense levels depend in part on our expectation of future sales. Any substantial adjustment to expenses to account for lower levels of sales is difficult and takes time, thus we may not be able to reduce our costs sufficiently to compensate for a shortfall in net sales, and even a small shortfall in net sales could disproportionately and adversely affect our operating margin and operating results for a given quarter.

Our operating results may also fluctuate due to a variety of other factors, many of which are outside our control, including the changing and volatile local, national, and international economic environments, any of which may cause our stock price to fluctuate. Besides the other risks in this "Risk Factors" section, factors that may affect our operations include:

- fluctuations in demand for our products and services;
- the inherent complexity, length, and associated unpredictability of product development windows and product lifecycles;
- changes in customers' budgets for technology purchases and delays in their purchasing cycles;
- changing market conditions;
- any significant changes in the competitive dynamics of our markets, including new entrants, or further consolidation;
- our ability to continue to broaden our customer base beyond our traditional customers;
- the timing of product releases or upgrades by us or our competitors; and
- our ability to develop, introduce, and ship in a timely manner new products and product enhancements and anticipate future market demands that meet our customers' requirements.

Each of these factors individually, or the cumulative effect of two or more of these factors, could result in large fluctuations in our quarterly and annual operating results. As a result, comparing our operating results on a period-to-period basis may not be meaningful. You should not rely on our past results as an indication of future performance.

Our products are subject to competition, including competition from the customers to whom we sell.

Servers, computer accelerators, flash storage arrays, PCIe expansion products, and other products that we design, manufacture, and sell or license are subject to competition. The computer hardware and technology fields are well established with limited, and in many cases no, intellectual property and technological barriers to entry. The markets in which we operate are competitive and we expect competition to increase in the future from established competitors and new market entrants. The markets are influenced by, among others, brand awareness and reputation, price, strength and scale of sales and marketing efforts, professional services and customer support, product features, reliability and performance, scalability of products, and breadth of product offerings. Due to the nature of our products, competition occurs at the design, performance, and sales stages. A design or sales win by us does not limit further competition and our customers may purchase competitive products from third parties at any time. This competition could result in increased pricing pressure, reduced profit margins, increased sales and marketing expenses and failure to increase, or the loss of, market share, any of which would likely seriously harm our business, operating results or financial condition. From a cost and control perspective, our products are specialized and thus generally cost more than our competitors' products. If our ability to design specialized solutions is deemed to be on par or of lesser value than competing solutions, we could lose our customers and prospects.

Many of our customers and competitors, often with substantially more resources or larger economies of scale, produce products that are competitive with our products. Many of these third parties mass-produce hardware solutions and have not heavily invested in or allocated resources to the smaller scale specialized products and solutions we design. A decrease in the cost of general mass-produced hardware solutions, which can serve as a substitute for our products, or the entrance of or additional allocation of resources by one of these customers or competitors into the production of specialized systems which compete with our products could create increased pricing pressure, reduced profit margins, increased sales and marketing expenses, or the loss of market share or expected market share, any of which may significantly harm our business, operating results and financial condition.

New entrants and the introduction of other distribution models in our markets may harm our competitive position.

The markets for development, distribution, and sale of our high-performance computing solutions are rapidly evolving. New entrants seeking to gain market share by introducing new technology, new products and new server configurations may make it more difficult for us to sell our products and earn design wins which could create increased pricing pressure, reduced profit margins, increased sales and marketing expenses, or the loss of market share or expected market share, any ofwhich may significantly harm our business, operating results and financial condition.

Large computer hardware and equipment manufacturers and suppliers have traditionally designed, produced, and sold general purpose servers, and storage arrays and related products and equipment. Our customers supplement these general purpose systems by purchasing our specialized or customized systems or supplemental products which improve the speed, efficiency, or performance of such systems. If the speed, efficiency, or computational power of such general purpose systems increases such that supplemental or specialized products become unnecessary, or the cost of such general purpose systems declines such that it is more cost effective for prospective customers to add general-purpose equipment rather than specialized or supplemental equipment, we could experience a significant decline in demand for the products which may significantly harm to our business, operating results and financial condition.

Our products compete with and supplement general purpose servers, storage systems and related equipment. If the producers of general purpose equipment implement proprietary standards, software, interfaces, or other interoperability restrictions, including controls which restrict the equipment's compatibility with third party systems, we could experience a significant decline in sales because our products would not be interoperable with such systems, resulting in significant harm to our business, operating results and financial condition.

In our marketplace, general-purpose equipment is traditionally mass-produced and available to order while specialized equipment and custom bulk-order equipment is subject to a bid-based purchase system. If one or more large manufacturers of general or standard servers storage arrays, or related products and equipment provide specialized, customized, or supplementary equipment on a made-to-order or generally available basis, we could be forced to reduce our prices or change our selling model to remain competitive which would significantly harm to our business, operating results and financial condition.

If we are unable to manage our growth and expand our operations successfully, our business and operating results will be harmed and our reputation may be damaged.

We have expanded our operations significantly since inception and anticipate that further significant expansion will be required to achieve our business objectives. The growth and expansion of our business and product offerings places a continuous and significant strain on our management, operational and financial resources. Any such future growth would also add complexity to and require effective coordination throughout our organization. To manage any future growth effectively, we must continue to improve and expand our information technology and financial infrastructure, our operating and administrative systems and controls, and our ability to manage headcount, capital and processes in an efficient manner. We may not be able to successfully implement improvements to these systems and processes in a timely or efficient manner, which could result in additional operating inefficiencies and could cause our costs to increase more than planned. If we do increase our operating expenses in anticipation of the growth of our business and this growth does not meet our expectations, our operating results may be negatively impacted. If we are unable to manage future expansion, our ability to provide high quality products and services could be harmed, which could damage our reputation and brand, and may have a material adverse effect on our business, operating results and financial condition.

A limited number of customers represent a significant portion of our sales. If we were to lose any of these customers, our sales could decrease significantly.

In the years ended December 31, 2019 and December 31, 2018, approximately 35%, and 53% of net sales represent customers which are greater than 10% of our consolidated annual revenue. This concentration is with two customers, disguise and Raytheon.

In addition, a few products comprise a significant amount of our sales, and the discontinuation, modification, or obsolescence of such products may materially and adversely affect our sales and results of operations. Any loss of, or a significant reduction in purchases by, these other significant customers or a decrease in the high performance applications that drive the use of our products, or the modification, discontinuation, or obsolescence of a device which constitutes a significant portion of our sales could have an adverse effect on our financial condition and operating results.

Some of our contracts allow our customers to have access to the design drawings for products which we have designed and manufacture for them.

Some of our contracts allow our customers to have access to the design drawings for products which we have designed and manufactured for them. In some cases, these drawings are included as a deliverable in conjunction with their non-recurring engineering fee, and in other cases, an additional fee is required to obtain the drawings package. Since these customers have access to the drawings, there is no guarantee that they will continue to purchase the manufactured products from OSS. This arrangement applies to our large media and entertainment customer, several of the customers within the recently acquired CDI business and other customers. Neither our media and entertainment customer, nor our current CDI customers have had any of the OSS-designed products manufactured by anyone other than OSS, but they may have the capability to do so in the future.

We rely on a limited number of parts suppliers to support our manufacturing and design processes.

We rely on a limited number of suppliers to provide us with the necessary devices, parts and systems to allow us to build, design and manufacture our products, and the failure to manage our relationships with these parties successfully could adversely affect our ability to market and sell our products. In the years ended December 31, 2019 and December 31, 2018, suppliers for which purchases represent greater than 10% of our total parts purchases accounted for approximately 11%, and 37%, respectively, of materials purchased. This concentration is with two suppliers, Concisys Inc., and Exact Computers.

Although we do believe we could locate additional suppliers to fulfill our needs, any significant change in our relationship with these suppliers could have a material adverse effect on our business, operating results, and financial condition unless and until we are able to find suitable replacements. We make substantially all of our purchases from our contract suppliers on a purchase order basis. Our suppliers are not required to supply our raw materials for any specific period or in any specific quantity or price.

Global pandemics or other disasters or public health concerns in regions of the world where we have operations or source material or sell products, such as outbreaks of novel coronavirus or H1N1 flu could result in the disruption of our business. Specifically, the ongoing coronavirus outbreak emanating from China at the beginning of 2020 has resulted in increased travel restrictions and extended shutdowns of certain businesses in the region. These or any governmental developments or health concerns in China or other countries in which we operate could result in social, economic, or labor instability. Although we are monitoring the situation regularly, it is currently unknown whether the outbreak will continue to disrupt our product shipments or impact manufacturing in the region over a prolonged period. If such disruption were to extend over a prolonged period, it could have a material adverse impact on our business and our financial results. Any disruption resulting from similar events could also cause significant delays in shipments of our products until we are able to resume normalized operations and this could have a material negative impact on our results of operations and cash flows.

Our future success depends on our ability to develop and successfully introduce new and enhanced products that meet the needs of our customers.

Our sales depend on our ability to anticipate our existing and prospective customers' needs and develop products that address those needs. Our future success will depend on our ability to design new products, anticipate technological improvements and enhancements, and to develop products that are competitive in the rapidly changing computer hardware and software industry. Introduction of new products and product enhancements will require coordination of our efforts with those of our customers, suppliers, and manufacturers to develop products that offer performance features desired by our customers and performance and functionality superior or more cost effective than solutions offered by our competitors. If we fail to coordinate these efforts, develop product enhancements or introduce new products that meet the needs of our customers as scheduled, our operating results will be materially and adversely affected, and our business and prospects will be harmed. We cannot assure that product introductions will meet our anticipated release schedules or that our products will be competitive in the market. Furthermore, given the rapidly changing nature of the computer equipment market, there can be no assurance our products and technology will not be rendered obsolete by alternative or competing technologies.

Delays in our production cycle could result in outdated equipment or decreased purchases of our products.

The design and manufacture of our products can take several months to several years. The length of such process depends on the complexity and purpose of the system or equipment being designed, and may be affected by factors such as: the development and design of unique or specialized systems, the fabrication, availability, and supply of parts, the customization of parts as applicable, the manufacture and/or assembly of the units, quality control testing, and the development and incorporation of new technologies. If our products are outdated upon completion of this process our sales could materially decline and it may be necessary to sell products at a loss.

Unsuccessful government programs or OEM contracts could lead to reduced revenues.

We design and manufacture certain products to fit the specifications of government programs or OEM contracts. These programs may take months or years to complete and involve significant investment of our time, money and resources. We generally receive upfront fees for these programs but there is often no or little obligation on the part of our customer to purchase large volumes of products at the time of final product launch. Unsuccessful product launches could lead to reduced revenues, potential returns of products and have a material adverse effect on our financial condition and operating results. We may be forced to sell products at a loss or spend a significant amount of resources to find additional customers for these products if these programs do not fit the future needs of our intended customers.

Our inventory may rapidly become obsolete.

Sales cycles for some of our products can take several months or longer. In addition, it can take time from the bid to the development and manufacture of the equipment. We maintain inventory based in large part on our forecasts of the volume and timing of orders. The varying length of the sales cycles makes accurate forecasting difficult. The delays inherent in our sales cycles raise the risk that the inventory we have on hand will become obsolete or impaired prior to its use or sale. If our forecasted demand does not materialize into purchase orders, we may be required to write off our inventory balances or reduce the value of our inventory, based on a reduced sales price. A write off of the inventory, or a reduction in the inventory value due to a sales price reduction, could have an adverse effect on our financial condition and operating results.

We offer an extended product warranty to cover defective products at no cost to the customer. An unexpected change in failure rates of our products could have a material adverse impact on our business.

We offer product warranties that generally extend for one year from date of sale that requires us to repair or replace defective products returned by the customer during the warranty period at no cost to the customer. Our product warranties are in addition to warranties we receive from our vendors. We record an estimate for anticipated warranty-related costs at the time of sale based on historical and estimated future product return rates and expected repair or replacement costs. While such costs have historically been within management's expectations and the provisions established and we receive warranty coverage from our vendors, unexpected changes in failure rates could have a material adverse impact on our business requiring additional warranty reserves. These failures could adversely impact our operating results.

If we fail to achieve design wins for our products, our business will be harmed.

Achieving design wins is an important success factor for our business. We work closely with OEM's and end users to ensure the customer gets the product they want in the specific configuration, size and weight required for the application. We have participated in many design wins based upon our ability to interpret technical specifications and proceed rapidly through prototyping, development, and delivery. This approach and expertise are two of the factors driving our growth. Failure to maintain our expertise and ability to deliver custom, specific design systems could harm our business. In order to achieve design wins, we must:

- anticipate the features and functionality that OEMs, customers and consumers will demand;
- incorporate those features and functionalities into products that meet the exacting design requirements of our customers; and
- price our products competitively.

Unanticipated changes in industry standards could render our products incompatible with products developed by major hardware manufacturers and software developers. Further, if our products are not in compliance with prevailing industry standards, our customers may not incorporate our products into their design strategies.

If we cannot retain, attract and motivate key personnel, we may be unable to effectively implement our business plan.

Our success depends in large part upon our ability to retain, attract and motivate highly skilled management, development, marketing, sales and service personnel. The loss of and failure to replace key technical management and personnel could adversely affect multiple development efforts. Recruitment and retention of senior management and skilled technical, sales and other personnel is very competitive, and we may not be successful in either attracting or retaining such personnel. We have lost key personnel to other high technology companies, and many larger companies with significantly greater resources than us having aggressively recruited, and continue to aggressively recruit, key personnel. As part of our strategy to attract and retain key personnel, we may offer equity compensation through grants of stock options, restricted stock awards or restricted stock units. Potential employees, however, may not perceive our equity incentives as attractive enough. In addition, due to the intense competition for qualified employees, we may be required to, and have had to, increase the level of compensation paid to existing and new employees, which could materially increase our operating expenses.

We have made in the past, and may make in the future, acquisitions which could require significant management attention, disrupt our business, result in dilution to our stockholders, deplete our cash reserves and adversely affect our financial results.

Acquisitions involve numerous risks, including the following:

- difficulties in successfully integrating the operations, systems, technologies, products, offerings and personnel of the acquired company or companies;
- insufficient revenue to offset increased expenses associated with acquisitions;
- diversion of management’s attention from normal daily operations of the business and the challenges of managing larger and more widespread operations resulting from acquisitions;
- potential difficulties in completing projects associated with in-process research and development intangibles;
- difficulties in entering markets in which we have no or limited direct prior experience and where competitors in such markets have stronger market positions;
- initial dependence on unfamiliar supply chains or relatively small supply partners; and
- the potential loss of key employees, customers, distributors, vendors and other business partners of the companies we acquire following and continuing after announcement of acquisition plans.

Acquisitions may also cause us to:

- use a substantial portion of our cash reserves or incur debt;
- issue equity securities or grant equity incentives to acquired employees that would dilute our current stockholders’ percentage ownership;
- assume liabilities, including potentially unknown liabilities;
- record goodwill and non-amortizable intangible assets that are subject to impairment testing on a regular basis and potential periodic impairment charges;
- incur amortization expenses related to certain intangible assets;
- incur large and immediate write-offs and restructuring and other related expenses; or
- become subject to intellectual property litigation or other litigation.

Acquisitions of high-technology companies and assets are inherently risky and subject to many factors outside of our control and no assurance can be given that our recently completed or future acquisitions will be successful and will not materially adversely affect our business, operating results, or financial condition. Failure to manage and successfully integrate acquisitions could materially harm our business and operating results.

The continuing commoditization of HPC hardware and software has resulted in increased pricing pressure and may adversely affect our operating results.

The continuing commoditization of HPC hardware, such as processors, interconnects, flash storage and other infrastructure, and the growing commoditization of software, including plentiful building blocks and more capable open source software, as well as the potential for integration of differentiated technology into already-commoditized components, has resulted in, and may result in increased pricing pressure that may cause us to reduce our pricing in order to remain competitive, which can negatively impact our gross margins and adversely affect our operating results.

Our election to not opt out of the extended accounting transition period under the Jumpstart Our Business Startups Act of 2012, or the JOBS Act, may make our financial statements difficult to compare to other companies.

Under the JOBS Act, as an emerging growth company, we can elect to opt out of the extended transition period for any new or revised accounting standards that may be issued by the Financial Accounting Standards Board ("FASB") or the U.S. Securities and Exchange Commission (the "SEC"). We have elected not to opt out of such extended transition period. This means that when a standard is issued or revised and it has different application dates for public or private companies, we, as an emerging growth company, are permitted to use any extended transition period for adoption that is provided in the new or revised accounting standard having different application dates for public and private companies. Thus, the comparison of our financial statements with any other public company, which is not either an emerging growth company nor an emerging growth company which has opted out of using the extended transition period, difficult or impossible as possible different or revised standards may be used.

Risks Relating to Intellectual Property

If we are unable to protect our proprietary design and intellectual property rights, our competitive position could be harmed or we could be required to incur significant expenses to enforce our rights.

Our ability to compete effectively is dependent in part upon our ability to protect our proprietary technology. We rely on patents, trademarks, trade secret laws, confidentiality procedures and licensing arrangements to protect our intellectual property rights. There can be no assurance these protections will be available in all cases or will be adequate to prevent our competitors from copying, reverse engineering or otherwise obtaining and using our technology, proprietary rights or products. For example, the laws of certain countries in which our products are manufactured or licensed do not protect our proprietary rights to the same extent as the laws of the United States. In addition, third parties may seek to challenge, invalidate or circumvent our patents, trademarks, copyrights and trade secrets, or applications for any of the foregoing. There can be no assurance that our competitors will not independently develop technologies that are substantially equivalent or superior to our technology or design around our proprietary rights. In each case, our ability to compete could be significantly impaired. To prevent substantial unauthorized use of our intellectual property rights, it may be necessary to prosecute actions for infringement and/or misappropriation of our trade secrets and/or proprietary rights against third parties. Any such action could result in significant costs and diversion of our resources and management's attention, and there can be no assurance we will be successful in such action. Furthermore, many of our current and potential competitors have the ability to dedicate substantially greater resources to enforce their intellectual property rights than we do. Accordingly, despite our efforts, we may not be able to prevent third parties from infringing upon or misappropriating our trade secrets and/or intellectual property.

Many of our proprietary designs are in digital form and the breach of our computer systems could result in these designs being stolen.

If our cybersecurity measures are breached or unauthorized access to private or proprietary data is otherwise obtained, our proprietary designs could be stolen. Because we hold many of these designs in digital form on our servers, there exists an inherent risk that an unauthorized third party could conduct a cybersecurity breach resulting in the theft of our proprietary information. While we have taken cybersecurity steps to protect our proprietary information, because techniques used to obtain unauthorized access or sabotage systems change frequently and generally are not identified until they are launched against a target,we may be unable to anticipate these techniques or to implement adequate preventative measures. Any or all of these issues could negatively impact our competitive edge and our ability to obtain new customers thereby adversely affecting our financial results.

Our proprietary designs are susceptible to reverse engineering by our competitors.

Much of the value of our proprietary rights is derived from our vast library of design specifications. While we consider our design specifications to be protected by various proprietary, trade secret and intellectual property laws, such information is susceptible to reverse engineering by our competitors. We may not be able to prevent our competitors from developing competing design specifications and the cost of enforcing these rights may be significant. If we are unable to adequately protect our proprietary designs our financial condition and operating results could suffer.

If we are unable to protect the confidentiality of our trade secrets, our business and competitive position would be harmed.

We consider trade secrets, including confidential and unpatented know-how and designs important to the maintenance of our competitive position. We protect trade secrets and confidential and unpatented know-how, in part, by customarily entering into non-disclosure and confidentiality agreements with parties who have access to such knowledge, such as our employees, outside technical and commercial collaborators, consultants, advisors and other third parties. We also enter into confidentiality and invention or patent assignment agreements with our employees and consultants that obligate them to maintain confidentiality and assign their inventions to us. Despite these efforts, any of these parties may breach the agreements and disclose our proprietary information, including our trade secrets, and we may not be able to obtain adequate remedies for such breaches.

Claims by others that we infringe their intellectual property or trade secret rights could harm our business.

Our industry is characterized by vigorous protection and pursuit of intellectual property rights, which has resulted in protracted and expensive litigation for many companies. Third parties may in the future assert claims of infringement of intellectual property rights against us or against our customers or channel partners for which we may be liable. As the number of products and competitors in our market increases and overlaps occur, infringement claims may increase.

Intellectual property or trade secret claims against us, and any resulting lawsuits, may result in our incurring significant expenses and could subject us to significant liability for damages and invalidate what we currently believe are our proprietary rights. Our involvement in any patent dispute or other intellectual property dispute or action to protect trade secrets and know-how could have a material adverse effect on our business. Adverse determinations in any litigation could subject us to significant liabilities to third parties, require us to seek licenses from third parties and prevent us from manufacturing and selling our products. Any of these situations could have a material adverse effect on our business. These claims, regardless of their merits or outcome, would likely be time consuming and expensive to resolve and could divert management's time and attention.

We are generally obligated to indemnify our channel partners and end-customers for certain expenses and liabilities resulting from intellectual property infringement claims regarding our products, which could force us to incur substantial costs.

We have agreed, and expect to continue to agree, to indemnify our channel partners and end-customers for certain intellectual property infringement claims regarding our products. As a result, in the case of infringement claims against these channel partners and end-customers, we could be required to indemnify them for losses resulting from such claims or to refund amounts they have paid to us. Our channel partners and other end-customers in the future may seek indemnification from us in connection with infringement claims brought.

Risks Related to Our International Operations

Our international sales and operations subject us to additional risks that can adversely affect our operating results and financial condition.

Our international operations subject us to a variety of risks and challenges, including: exposure to fluctuations in foreign currency exchange rates, increased management, travel, infrastructure and legal compliance costs associated with having international operations; reliance on channel partners; increased financial accounting and reporting burdens and complexities; compliance with foreign laws and regulations; compliance with U.S. laws and regulations for foreign operations; and reduced protection for intellectual property rights in some countries and practical difficulties of enforcing rights abroad. Any of these risks could adversely affect our international operations, reduce our international sales or increase our operating costs, adversely affecting our business, operating results and financial condition and growth prospects.

We are subject to governmental export and import controls that could impair our ability to compete in international markets due to licensing requirements and subject us to liability if we are not in compliance with applicable laws.

Our products are subject to export control and import laws and regulations, including the U.S. Export Administration Regulations, U.S. Customs regulations and various economic and trade sanctions regulations administered by the U.S. Treasury Department's Office of Foreign Assets Controls. Exports of our products must be made in compliance with these laws and regulations. If we violate these laws and regulations, we and certain of our employees could be subject to substantial civil or criminal penalties, including the possible loss of export or import privileges, fines, which may be imposed on us and responsible employees or managers and, in extreme cases, the incarceration of responsible employees or managers. In addition, if our channel partners, agents or consultants fail to obtain appropriate import, export or re-export licenses or authorizations, we may also be adversely affected through reputational harm and penalties. Obtaining the necessary authorizations, including any required license, for a particular sale may be time-consuming, is not guaranteed and may result in the delay or loss of sales opportunities. Changes in our products or changes in applicable export or import laws and regulations may also create delays in the introduction and sale of our products in international markets, prevent our end-customers with international operations from deploying our products or, in some cases, prevent the export or import of our products to certain countries, governments or persons altogether. Any change in export or import laws and regulations, shift in the enforcement or scope of existing laws and regulations, or change in the countries, governments, persons or technologies targeted by such laws and regulations, could also result in decreased use of our products, or in our decreased ability to export or sell our products to existing or potential end-customers with international operations. Any decreased use of our products or limitation on our ability to export or sell our products would likely adversely affect our business, financial condition and operating results.

New regulations or standards or changes in existing regulations or standards in the United States or internationally related to our suppliers products may result in unanticipated costs or liabilities, which could have a material adverse effect on our business, operating results and future sales, and could place additional burdens on the operations of our business.

Our suppliers' products are subject to governmental regulations in many jurisdictions. To achieve and maintain market acceptance, our suppliers' products must continue to comply with these regulations and many industry standards. As these regulations and standards evolve, and if new regulations or standards are implemented, our suppliers may have to modify their products. The failure of their products to comply, or delays in compliance, with the existing and evolving industry regulations and standards could prevent or delay introduction of our products, which could harm our business. Supplier uncertainty regarding future policies may also affect demand for HPC products, including our products. Moreover, channel partners or customers may require us, or we may otherwise deem it necessary or advisable, to alter our products to address actual or anticipated changes in the regulatory environment. Our inability to alter our products to address these requirements and any regulatory changes may have a material adverse effect on our business, operating results and financial condition.

We could be adversely affected by violations of the U.S. Foreign Corrupt Practices Act and similar worldwide anti-bribery laws.

We have international operations. The U.S. Foreign Corrupt Practices Act and similar anti-bribery laws generally prohibit companies and their intermediaries from making improper payments to foreign government officials for the purpose of obtaining or retaining business. Practices in the local business communities of many countries outside the United States have a level of government corruption that is greater than that found in the developed world. Our policies mandate compliance with these anti-bribery laws and we have established policies and procedures designed to monitor compliance with these anti-bribery law requirements; however, we cannot assure that our policies and procedures will protect us from potential reckless or criminal acts committed by individual employees or agents. If we are found to be liable for anti-bribery law violations, we could suffer from criminal or civil penalties or other sanctions that could have a material adverse effect on our business.

Risks Related to Our Common Stock

The price of our common stock may be volatile, and you could lose all or part of your investment.

The trading price of our common stock may fluctuate substantially. The trading price of our common stock will depend on several factors, including those described in this "Risk Factors" section, many of which are beyond our control and may not be related to our operating performance. These fluctuations could cause you to lose all or part of your investment in our common stock since you might be unable to sell your shares at or above the price you paid. Factors that could cause fluctuations in the trading price of our common stock include:

- price and volume fluctuations in the overall stock market from time to time;
- volatility in the market prices and trading volumes of technology stocks;
- changes in operating performance and stock market valuations of other technology companies generally, or those in our industry in particular;
- sales of shares of our common stock by us or our stockholders;
- failure of financial analysts to maintain coverage of us, changes in financial estimates by any analysts who follow our company, or our failure to meet these estimates or the expectations of investors;
- the financial projections we may provide to the public, any changes in those projections or our failure to meet those projections;
- announcements by us or our competitors of new products or new or terminated significant contracts, commercial relationships or capital commitments;
- the public's reaction to our press releases, other public announcements and filings with the SEC;
- rumors and market speculation involving us or other companies in our industry;
- actual or anticipated changes in our operating results or fluctuations in our operating results;
- actual or anticipated developments in our business or our competitors' businesses or the competitive landscape generally;
- litigation involving us, our industry or both or investigations by regulators into our operations or those of our competitors;
- developments or disputes concerning our intellectual property or other proprietary rights;
- announced or completed acquisitions of businesses or technologies by us or our competitors;
- new laws or regulations or new interpretations of existing laws or regulations applicable to our business;
- changes in accounting standards, policies, guidelines, interpretations or principles;
- any major change in our management;
- general economic conditions and slow or negative growth of our markets; and
- other events or factors, including those resulting from war, incidents of terrorism or responses to these events.

In addition, the stock market in general, and the market for technology companies in particular, have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of those companies. Broad market and industry factors, as well as general economic, political and market conditions such as recessions or interest rate changes, may seriously affect the market price of our common stock, regardless of our actual operating performance.

In the past, following periods of volatility in the overall market and the market prices of particular companies' securities, securities class action litigations have often been instituted against these companies. Litigation of this type, if instituted against us, could result in substantial costs and a diversion of our management's attention and resources. Any adverse determination in any such litigation or any amounts paid to settle any such actual or threatened litigation could require that we make significant payments.

Our directors and principal stockholders own a significant percentage of our stock and will be able to exert significant control over matters subject to stockholder approval.

Our directors, executive officers and significant stockholders have substantial control over the Company and could delay or prevent a change in corporate control. Our directors, executive officers and holders of more than 5% of our common stock, together with their affiliates, beneficially own, in the aggregate, 25.1% of our outstanding common stock, based on the number of shares outstanding as of February 29, 2020. As a result, these stockholders, acting together, would have the ability to control the outcome of matters submitted to our stockholders for approval, including the election of directors and any merger, consolidation or sale of all or substantially all of our assets. In addition, these stockholders, acting together, would have the ability to control the management and affairs of our company. Accordingly, this concentration of ownership might adversely affect the market price of our common stock by:

- delaying, deferring or preventing a change in control of the Company;
- impeding a merger, consolidation, takeover, or other business combination involving us; or
- discouraging a potential acquirer from making a tender offer or otherwise attempting to obtain control of the company.

If securities or industry analysts issue an adverse opinion regarding our stock or do not publish research or reports about our company, our stock price and trading volume could decline.

The trading market for our common stock will depend in part on the research and reports that equity research analysts publish about us and our business. We anticipate having limited analyst coverage and we may continue to have inadequate analyst coverage in the future. Even if we obtain adequate analyst coverage, we would have no control over such analysts or the content and opinions in their reports. Securities analysts may elect not to provide research coverage of our company and such lack of research coverage may adversely affect the market price of our common stock. The price of our common stock could also decline if one or more equity research analysts downgrade our common stock or if those analysts issue other unfavorable commentary or cease publishing reports about us or our business. If one or more equity research analysts cease coverage of our company, we could lose visibility in the market, which in turn could cause our stock price to decline.

Substantial future sales of shares of our common stock could cause the market price of our common stock to decline.

The market price of shares of our common stock could decline as a result of substantial sales of our common stock, particularly sales by our directors, executive officers and significant stockholders, a large number of shares of our common stock becoming available for sale or the perception in the market that holders of a large number of shares intend to sell their shares. As of February 29, 2020, we have 16,459,457 shares of our common stock outstanding.

Moreover, certain holders of our common stock will have rights, subject to some conditions, to require us to file registration statements covering their shares or to include their shares in registration statements that we may file for ourselves or our stockholders.

Anti-takeover provisions in our charter documents and under Delaware law could make an acquisition of us, which may be beneficial to our stockholders, more difficult and may prevent attempts by our stockholders to replace or remove our current management and limit the market price of our common stock.

Provisions in our certificate of incorporation and amended and restated bylaws may have the effect of delaying or preventing a change of control or changes in our management. Some of these provisions:

- authorize our board of directors to issue, without further action by the stockholders, up to 10,000,000 shares of undesignated preferred stock and up to 50,000,000 shares of authorized common stock;
- require that any action to be taken by our stockholders be affected at a duly called annual or special meeting and not by written consent;
- specify that special meetings of our stockholders can be called only by our board of directors, the chairman of the board of directors, the chief executive officer or the president;
- establish an advance notice procedure for stockholder approvals to be brought before an annual meeting of our stockholders, including proposed nominations of persons for election to our board of directors;
- provide that our directors may be removed only for cause; and,
- provide that vacancies on our board of directors may, except as otherwise required by law, be filled only by a majority of directors then in office, even if less than a quorum.

In addition, we are subject to the provisions of Section 203 of the Delaware General Corporation Law, which limits the ability of stockholders owning in excess of 15% of our outstanding voting stock to merge or combine with us. Furthermore, our certificate of incorporation specifies that, unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware will be the sole and exclusive forum for most legal actions involving actions brought against us by stockholders. We believe this provision benefits us by providing increased consistency in the application of Delaware law by chancellors particularly experienced in resolving corporate disputes, efficient administration of cases on a more expedited schedule relative to other forums and protection against the burdens of multi-forum litigation. However, the provision may have the effect of discouraging lawsuits against our directors and officers. The enforceability of similar choice of forum provisions in other companies' certificates of incorporation has been challenged in legal proceedings, and it is possible that, in connection with any applicable action brought against us, a court could find the choice of forum provisions contained in our certificate of incorporation to be inapplicable or unenforceable in such action.

These anti-takeover provisions and other provisions in our certificate of incorporation and amended and restated bylaws make it more difficult for stockholders or potential acquirers to obtain control of our board of directors or initiate actions that are opposed by the then-current board of directors and could also delay or impede a merger, tender offer or proxy contest involving our company. These provisions could also discourage proxy contests and make it more difficult for you and other stockholders to elect directors of your choosing or cause us to take other corporate actions you desire. Any delay or prevention of a change of control transaction or changes in our board of directors could cause the market price of our common stock to decline.

We have never paid cash dividends on our capital stock, and we do not anticipate paying cash dividends in the foreseeable future.

We have never declared or paid any cash dividends on our common stock and do not intend to pay any cash dividends in the foreseeable future. In addition, we may also enter into credit agreements or other borrowing arrangements in the future that will restrict our ability to declare or pay cash dividends on our common stock. We currently intend to retain any future earnings to fund the growth of our business. Any determination to pay dividends in the future will be at the discretion of our board of directors and will depend on our financial condition, operating results, capital requirements, general business conditions and other factors that our board of directors may deem relevant.

Our inability to raise additional capital on acceptable terms in the future may limit our ability to develop and commercialize new solutions and technologies and expand our operations.

If our available cash balances and anticipated cash flow from operations are insufficient to satisfy our liquidity requirements, due to lower demand for our products as a result of other risks described in this "Risk Factors" section, we may seek to raise additional capital through equity offerings, debt financings, collaborations or licensing arrangements.

We may also consider raising additional capital in the future to expand our business, pursue strategic investments, take advantage of financing opportunities, or other reasons.

Additional funding may not be available to us on acceptable terms, or at all. If we raise funds by issuing equity securities, dilution to our stockholders could result. Any equity securities issued also may provide for rights, preferences or privileges senior to those of holders of our common stock. The terms of debt securities issued or borrowings could impose significant restrictions on our operations. The incurrence of indebtedness or the issuance of certain equity securities could result in increased fixed payment obligations and could also result in restrictive covenants, such as limitations on our ability to incur additional debt or issue additional equity, limitations on our ability to acquire or license intellectual property rights, and other operating restrictions that could adversely affect our ability to conduct our business. In addition, the issuance of additional equity securities by us, or the possibility of such issuance, may cause the market price of our common stock to decline. If we do not have, or are not able to obtain, sufficient funds, we may have to delay development or commercialization of our products or license to third parties the rights to commercialize products or technologies that we would otherwise seek to commercialize. If we raise additional funds through collaboration and licensing arrangements with third parties, it may be necessary to relinquish some rights to our technologies or our products, or to grant licenses on terms that are not favorable to us. If we are unable to raise adequate funds, we may have to liquidate some or all of our assets, or delay, reduce the scope of or eliminate some or all of our development programs. We also may have to reduce marketing, customer support or other resources devoted to our products or cease operations. Any of these actions could harm our business, operating results and financial condition.

We are an "emerging growth company" and we cannot be certain if the reduced disclosure requirements applicable to emerging growth companies will make our common stock less attractive to investors.

We are an "emerging growth company" as defined in the JOBS Act. For as long as we continue to be an emerging growth company, we may choose to take advantage of certain exemptions from various reporting requirements applicable to other public companies but not to emerging growth companies, which includes, among other things:

- exemption from the auditor attestation requirements under Section 404(b) of the Sarbanes-Oxley Act of 2002;
- reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements; and
- exemption from the requirements of holding non-binding stockholder votes on executive compensation arrangements.

We could be an emerging growth company until the last day of the fiscal year following the fifth anniversary after our initial public offering, or until the earliest of (i) the last day of the fiscal year in which we have annual gross revenue of $1.07 billion or more, (ii) the date on which we have, during the previous three year period, issued more than $1.07 billion in non-convertible debt or (iii) the date on which we are deemed to be a large accelerated filer under the federal securities laws. We will qualify as a large accelerated filer as of the first day of the first fiscal year after we have (i) more than $700 million in outstanding common equity held by our non-affiliates and (ii) been public for at least 12 months. The value of our outstanding common equity will be measured each year on the last day of our second fiscal quarter.

We cannot predict if investors will find our common stock less attractive if we rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile.

ITEM 1B. UNRESOLVED STAFF COMMENTS.

Not applicable.

ITEM 2. PROPERTIES.

Our corporate headquarters are in a leased space comprising approximately 29,342 square feet in Escondido, California under a lease that was modified in February 2020 and expires in August 2024. We also lease a 3,208 square foot facility in Salt Lake City, Utah that houses our Ion software development team that expires in August 2020. CDI is the lessee of approximately 12,000 square feet located in Irvine, California with the lease expiring in June 2021. Bressner Technology, which was acquired in October 2018, leases space comprising 8,073 square feet on a month-to-month lease.

ITEM 3. LEGAL PROCEEDIN GS.

We are subject to litigation, claims, investigations and audits arising from time to time in the ordinary course of our business. However, at this time, we are not aware of any material pending, threatened or unasserted claims.

ITEM 4. MINE SAFETY DIS CLOSURES.

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, par value $0.0001, has been publicly traded on The Nasdaq Capital Market under the symbol "OSS" since our initial public offering on February 1, 2018, which was completed at an offering price to the public of $5.00 per share. Prior to our initial public offering, there was no public market for our common stock. Due to the fact that our common stock has only been traded on a public market since February 1, 2018, we have only set forth quarterly information with respect to the high and low sale prices for our common stock for such time period.

Year ended December 31, 2020	High	Low	
First Quarter (through February 29, 2020)	$ 3.01	$ 1.93	*

* On March 23, 2020, the closing price was $1.03

	2019		2018	
Year ended December 31, 2019 and 2018	High	Low	High	Low
First Quarter (beginning February 1, 2018)	$ 3.09	$ 1.78	$ 6.25	$ 4.40
Second Quarter	$ 2.75	$ 1.52	$ 5.00	$ 4.10
Third Quarter	$ 3.04	$ 1.32	$ 4.75	$ 3.20
Fourth Quarter	$ 3.25	$ 1.62	$ 3.99	$ 1.81

Holders

As of February 29, 2020, there were 16,459,457 shares of our common stock outstanding held by approximately 2,750 holders of record of our common stock. This number was derived from our stockholder records and does not include beneficial holders of our common stock whose shares are held in "street name" with various dealers, clearing agencies, banks, brokers and other fiduciaries.

Dividend Policy

We have never declared or paid cash dividends on our common stock. We currently intend to retain all available funds and any future earnings for use in the operation of our business and do not anticipate paying any cash dividends on our common stock in the foreseeable future. We may enter into credit agreements or other borrowing arrangements in the future that will restrict our ability to declare or pay cash dividends on our common stock. Any future determination to declare dividends will be made at the discretion of our board of directors and will depend on our financial condition, operating results, capital requirements, general business conditions and other factors that our board of directors may deem relevant.

Equity Compensation Plan Information

See Part III, Item 12, "Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters" for information regarding securities authorized for issuance under equity compensation plans.

Unregistered Sales of Equity Securities

None.

Issuer Repurchases of Equity Securities

None.

ITEM 6. SELECTED FINANCIAL DATA.

Not Applicable.

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

You should read the following discussion and analysis of our financial condition and operating results together with our financial statements and related notes included elsewhere in this Annual Report. This discussion and analysis contains forward-looking statements based upon current beliefs, plans and expectations that involve risks, uncertainties and assumptions. Our actual results may differ materially from those anticipated in these forward-looking statements as a result of various factors, including those set forth under "Risk Factors" or in other parts of this Annual Report.

Overview

OSS designs, manufactures and markets custom high-speed computing systems for high-performance edge computing (HPC) applications. These applications require ultra-fast processing power and the ability to quickly access and store ever-growing data sets. Systems are built using the latest GPU (graphical processing unit) and solid-state flash (memory) technologies. We are a niche provider of HPC custom servers, compute accelerators, and flash storage arrays. We deliver this technology to customers through sale of equipment and software to customers. Concept Development Inc., (CDI) which was acquired on August 31, 2018, specializes in the design and manufacture of specialized high-performance in-flight entertainment systems for commercial aircraft. CDI's capabilities include electrical, mechanical and software design as well as extensive experience in test and certifications required for airborne systems. Bressner Technology GmbH, (Bressner) which was acquired on October 31, 2018, provides standard and customized servers, panel PCs, and PCIe expansion systems. Bressner provides manufacturing, test, sales and marketing services for customers throughout Europe.

Business Developments

On July 15, 2016, we acquired 100% of the outstanding common shares of Mission Technology Group, Inc. ("Magma"). Magma designs, manufactures, and markets industrial grade computer systems and components and operates out of our main facility in Escondido, California.

On April 6, 2017, we formed SkyScale, LLC ("SkyScale"), a High-Performance Computing as a Service (HPCaaS) provider to offer customers world-class, ultra-fast, multi-GPU hardware platforms in the cloud. SkyScale was jointly owned with Jacoma Investments, LLC, an entity controlled by our board member Jack Harrison. In accordance with the terms of the operating agreement, Jacoma Investments, LLC agreed to contribute $750,000 in capital and we agreed to contribute $750,000 in the form of credits to purchase equipment, personnel or support services. Each of us received a 50% membership interest. On December 31, 2018, as a result of changes in the competitive landscape and downward pressure on pricing from large competitors, the members to the joint venture agreement agreed to begin the dissolution of SkyScale.

On May 9, 2017, we entered into an agreement to acquire the source code license to the Ion flash array software from Western Digital. We plan to continue to develop and sell Ion software with our high-density storage arrays, as well as servicing existing Western Digital software users. OSS Ion software works with our all-flash storage systems, and provides them with a critical point of differentiation with respect to speed and throughput. The OSS Ion software leverages flash storage and open server hardware to accelerate applications and SAN performance through sharing or clustering high-speed all-flash storage arrays. The software supports many major OEM servers and provides an intuitive interface for system users to manage its many features. Having the Ion software source code and engineering team on-board allows us to strategically grow our all-flash storage business in the many "Big Data" and HPC markets going forward.

On July 1, 2017, we entered in to a Service Agreement with Western Digital to service their existing customer base that utilizes Ion flash storage software. Additionally, we purchased certain equipment from Western Digital and hired selected employees to assist in the servicing of these existing customers.

On December 18, 2017, the Company filed a Registration Statement on Form S-1 with the SEC related to a firm commitment underwritten initial public offering of the Company's common stock, par value $0.0001 per share. The initial public offering was declared effective by the SEC on January 31, 2018. The Company commenced trading on The Nasdaq Capital Market under the symbol "OSS" on February 1, 2018. On February 5, 2018, the Company closed the initial public offering selling an aggregate of 3,800,000 shares of common stock at a price to the public of $5.00 for total grossproceeds to the Company of $19,000,000, after deducting underwriting discounts and commissions of approximately $1,330,000 and underwriter offering-related transaction costs of $185,000, the Company received net proceeds of $17,485,000.

On February 1, 2018, the Company issued warrants to purchase 380,000 shares of common stock at a price of $6.00 to Roth Capital Partners LLC.

Subsequent to completion of the Company's initial public offering in February 2018, the Company used proceeds to pay down the outstanding standing balance of our line of credit of $2,758,517 and other debt obligations $1,096,343.

On February 9, 2018, the underwriters exercised their over-allotment option to purchase an additional 200,000 shares of common stock at the public offering price of $5.00 per share of which 100,000 newly issued shares of common stock were purchased directly from the Company and 100,000 shares were sold by our former CEO's family trust as selling stockholder. The Company received gross proceeds of $500,000, which resulted in net proceeds of $465,000 to the Company, after deducting underwriting discounts and commissions of $35,000.

On August 31, 2018, the Company acquired Concept Development Inc. (CDI) located in Irvine, California for cash of $646,759, and common stock of $4,194,673 (Note 3). CDI specializes in the design and manufacture of custom high-performance computing systems for airborne in-flight entertainment systems.

On October 31, 2018, the Company's wholly-owned German subsidiary, OSS GmbH, acquired 100% of the outstanding stock of Bressner Technology GmbH, a Germany limited liability company located near Munich, Germany, from its principal owners for cash consideration of €4,725,000 (US$5,374,582) and stock consideration of 106,463 newly-issued restricted shares of the Company's common stock.

In April 2019, certain members of the Company's Board of Directors executed definitive agreements to commit funds of up to $4,000,000 as a credit facility. The Company initially borrowed $1,150,000 from members of the Board of Directors and $350,000 from other shareholders for a two year period at an interest rate of 9.5% which requires the Company to make monthly principal and interest payment of $69,000 per month. In connection with these loans, the Company issued the note holders warrants to purchase shares of the Company's common stock equal to 10% of the original principal as a price per share equal to $2.15 per share. Accordingly, the Company issued to the note holders warrants to purchase 69,766 share of the Company's common stock. The relative fair value of the warrants issued was $60,158.

During the year ended December 31, 2019, the Company sold 1,554,832 shares of common stock through this offering for total gross proceeds of $2,700,714, which resulted in net proceeds to the company of $2,488,148, after deducting compensation payable to Noble of $55,127 and other expenses of $157,439. The Equity Distribution Agreement was terminated on August 26, 2019.

In December 2019, a strain of coronavirus surfaced in China. As a result, there have been numerous factory closures. While many factories were closed for a few days because of the Chinese New Year holiday, the Chinese government ordered that businesses in various areas extend the Chinese New Year holiday due to the coronavirus outbreak and it is possible that the Chinese government will announce new closures in the future. Some of our suppliers in China as well as other locations throughout the world have similarly been affected and experienced closures and risks of labor shortages. If our suppliers experience additional closures in the future, we may have difficulty sourcing materials necessary to fulfill production requirements and meet scheduled shipments, which will negatively affect our revenues. Even if we are able to find alternate sources for such materials, they may cost more, which will affect our profitability. If our suppliers in China and other Asian markets experience additional closures in the future and are not able to accept orders or if they delay or cancel such orders, our revenues will be negatively affected. At this point in time, there is significant uncertainty relating to the potential effect of the coronavirus on our business. Infections may become more widespread and there might be additional factory closures in the future, all of which will have a negative impact on our business, financial condition and operating results. Additionally, as a result of significant changes in the worldwide capital markets and general business climate, the impact on the future demand for our products is unknown at this time.

On February 15, 2020, Steve Cooper was terminated as President and CEO of One Stop Systems, Inc., and was replaced by David Raun who has become interim CEO of the Company.

Our Business Model

OSS designs, manufactures and sells specialized high-performance edge computing (HPC) systems to customers world-wide. We differentiate ourselves from other suppliers of HPC solutions by utilizing our high-performance expertise in custom systems design and PCIe expansion to build systems with a greater quantity of PCIe add-in slots, GPU-based compute cards and/or flash cards. Our systems offer industry leading capabilities that occupy less physical space and power consumption.

Components of Results of Operations

Revenue

On January 1, 2019, the Company adopted the new accounting standard update ASC 606, Revenue from Contracts with Customers, which superseded nearly all existing revenue recognition guidance under GAAP, to all contracts using the modified retrospective method. The comparative information has not been restated and continues to be reported under the accounting standards in effect for those periods.

The Company’s performance obligations are satisfied over time as work is performed or at a point in time. The majority of the Company’s revenue is recognized at a point in time when products ship and control is transferred to the customer. The Company determines revenue recognition through the following steps: (1) identification of the contract with a customer; (2) identification of the performance obligations in the contract; (3) determination of the transaction price; (4) allocation of the transaction price to the performance obligations in the contract; and (5) recognition of revenue when, or as, a performance obligation is satisfied.

The Company’s contracts are executed through a combination of written agreements along with purchase orders with all customers including certain general terms and conditions. Generally, purchase orders entail products, quantities and prices, which define the performance obligations of each party and are approved and accepted by the Company. The Company’s contracts with customers do not include extended payment terms. Payment terms vary by contract type and type of customer and generally range from 30 to 60 days from invoice. Additionally, taxes assessed by a governmental authority that are both imposed on and concurrent with a specific revenue-producing transaction, that are collected by the Company from a customer and deposited with the relevant government authority, are excluded from revenue.

The transaction price is determined based on the consideration to which the Company will be entitled in exchange for transferring goods or services to the customer adjusted for estimated variable consideration, if any. Variable consideration may include discounts, rights of return, refunds, and other similar obligations. The Company allocates the transaction price to each distinct product and service based on its relative standalone selling price. The standalone selling price for products primarily involves the cost to produce the deliverable plus the anticipated margin and for services is estimated based on the Company’s approved list price.

In the normal course of business, the Company does not accept product returns unless the items are defective as manufactured. The Company establishes provisions for estimated returns and warranties. In addition, the Company does not typically provide customers with the right to a refund and does not transact for noncash consideration.

Customer agreements include one vendor managed inventory program. The Company recognizes revenue under this arrangement when all of the following criteria are met: (i) the goods have been identified separately as belonging to the customer; (ii) the goods are ready for physical shipment to the customer; (iii) the Company does not have the ability to direct the goods to another customer; and (iv) the arrangement was requested by the customer and that the customer has sufficiently explained a substantial business purpose for the arrangement. Management also considers whether the customer's custodial risks are insured and whether modifications to the Company's normal billing and credit terms were required.

Revenues on certain fixed-price contracts where we provide engineering services, prototypes and completed products are recognized over the contract term based upon percentage of completion or based upon milestones delivered that are provided during the period and compared to milestone goals to be provided over the entire contract. These services require that we perform significant, extensive and complex design, development, modification or implementation of our customers' systems. Performance will often extend over long periods of time, and our right to receive future payment depends on our future performance in accordance with the agreement.

The percentage-of-completion methodology involves recognizing probable and reasonably estimable revenue using the percentage of services completed, on a current cumulative cost to estimated total cost basis, using a reasonably consistent profit margin over the period. Due to the long-term nature of these projects, developing the estimates of costs often requires significant judgment. Factors that must be considered in estimating the progress of work completed and ultimate cost of the projects include, but are not limited to, the availability of labor and labor productivity, the nature and complexity of the work to be performed and the impact of delayed performance. If changes occur in delivery, productivity or other factors used in developing the estimates of costs or revenues, we revise our cost and revenue estimates, which may result in increases or decreases in revenues and costs, and such revisions are reflected in earnings in the period in which the revision becomes known.

On certain contracts with several of the Company's significant customers, the Company receives payments in advance of manufacturing. Advanced payments are recorded as deferred revenue until the revenue recognition criteria described above has been met.

Related billings that are in excess of revenue earned are deferred and recorded as a liability on the balance sheet until the related services are provided. The Company recognizes revenues for non-refundable, upfront implementation fees on a straight-line basis over the period beginning with initiation of ongoing services through the end of the contract term.

Cost of revenue

Cost of revenue primarily consists of costs of materials, costs paid to third-party contract manufacturers (which may include the costs of components), and personnel costs associated with manufacturing and support operations. Personnel costs consist of wages, bonuses, benefits, stock-based compensation expenses. Cost of revenue also includes freight, allocated overhead costs and inventory write-offs and changes to our inventory and warranty reserves. Allocated overhead costs consist of certain facilities and utility costs. We expect cost of revenue to increase in absolute dollars with an improvement in margin, as product revenue increases.

Operating expenses

Our operating expenses consist of general and administrative, sales and marketing and research and development expenses. Salaries and personnel-related costs, benefits, and stock-based compensation expense, are the most significant components of each category of operating expenses. Operating expenses also include allocated overhead costs for facilities and utility costs.

General and Administrative - General and administrative expense consists primarily of employee compensation and related expenses for administrative functions including finance, legal, human resources and fees for third-party professional services, as well as allocated overhead. For 2018, general and administrative expenses include the costs related to the dissolution of SkyScale, LLC. We expect our general and administrative expense to increase in absolute dollars as we continue to invest in growing the business.

Sales and Marketing - Sales and marketing expense consists primarily of employee compensation and related expenses, sales commissions, marketing programs, travel and entertainment expenses as well as allocated overhead. Marketing programs consist of advertising, tradeshows, events, corporate communications and brand-building activities. We expect sales and marketing expenses to increase in absolute dollars as we expand our sales force, increase marketing resources, and further develop sales channels.

Research and Development - Research and development expense consists primarily of employee compensation and related expenses, prototype expenses, depreciation associated with assets acquired for research and development, third-party engineering and contractor support costs, as well as allocated overhead. We expect our research and development expenses to increase in absolute dollars as we continue to invest in new and existing products.

Other Income (Expense), net

Other income consists of income received for activities outside of our core business. This includes interest income from investments and finance charges from customers. Other expense includes expenses for activities outside of our core business. These expenses consist primarily of loan amortization and interest expense.

Provision for Income Taxes

Provision for income taxes consists of estimated income taxes due to the United States and German governments as well as state tax authorities in jurisdictions in which we conduct business, along with the change in our deferred income tax assets and liabilities.

Results of Operations

Results of operations for the years ended December 31, 2019 and 2018 include Magma, SkyScale (through December 31, 2018 dissolution date), the Ion business from Western Digital on July 1, 2017, Concept Development Inc., which was acquired on August 31, 2018, and Bressner Technology GmbH, which was acquired on October 31, 2018.

Accordingly, the periods presented below are not directly comparable. After the completion of four quarters, these businesses for both revenue and expense reporting will be treated as organic operating activity for current and comparable historical periods. The following tables set forth our results of continued operations for the years ended December 31, 2019 and 2018 respectively, presented in dollars and as percentage of net revenue.

The following tables set forth our results of operations for the years ended December 31, 2019 and 2018 respectively, presented in dollars and as a percentage of net revenue.

	For the Year Ended December 31,	
	2019	**2018**
Revenue	$ 58,308,019	$ 37,027,382
Cost of revenue	38,905,756	25,692,658
Gross profit	19,402,263	11,334,724
Operating expenses:		
General and administrative	8,501,572	6,513,298
Impairment of goodwill	1,697,394	-
Marketing and selling	5,138,762	3,995,258
Research and development	4,843,554	4,001,757
Total operating expenses	20,181,282	14,510,313
Loss from operations	(779,019)	(3,175,589)
Other income (expense):		
Interest expense	(165,560)	(65,693)
Other income (expense), net	281,494	271,878
Total other income, net	115,934	206,185
Loss before income taxes	(663,085)	(2,969,404)
Provision (benefit) for income taxes	237,252	(1,396,784)
Net loss	$ (900,337)	$ (1,572,620)
Net loss attributable to noncontrolling interest	$ -	$ (436,342)
Net loss attributable to common stockholders	$ (900,337)	$ (1,136,278)

	For the Year Ended December 31,	
	2019	2018
Revenue	100.0 %	100.0 %
Cost of revenue	66.7 %	69.4 %
Gross profit	33.3 %	30.6 %
Operating expenses:		
General and administrative	14.6 %	17.6 %
Impairment of goodwill	2.9 %	0.0 %
Marketing and selling	8.8 %	10.8 %
Research and development	8.3 %	10.8 %
Total operating expenses	34.6 %	39.2 %
Loss from operations	-1.3 %	-8.6 %
Other income (expense):		
Interest expense	-0.3 %	-0.2 %
Other income (expense), net	0.5 %	0.7 %
Total other income, net	0.2 %	0.6 %
Loss before income taxes	-1.1 %	-8.0 %
Provision (benefit) for income taxes	0.4 %	-3.8 %
Net loss	-1.5 %	-4.2 %
Net loss attributable to noncontrolling interest	0.0 %	-1.2 %
Net loss attributable to common stockholders	-1.5 %	-3.1 %

Non-GAAP Financial Measures

Adjusted EBITDA

We believe that the use of adjusted earnings before interest, taxes, depreciation and amortization, or adjusted EBITDA, is helpful for an investor to assess the performance of the Company. The Company defines adjusted EBITDA as income (loss) attributable to common stockholders before interest, taxes, depreciation, amortization, acquisition expense, impairment of long-lived assets, financing costs, fair value adjustments from purchase accounting, stock-based compensation expense and expenses related to discontinued operations.

Adjusted EBITDA is not a measurement of financial performance under generally accepted accounting principles in the United States, or GAAP. Because of varying available valuation methodologies, subjective assumptions and the variety of equity instruments that can impact a company's non-cash operating expenses, we believe that providing a non-GAAP financial measure that excludes non-cash and non-recurring expenses allows for meaningful comparisons between our core business operating results and those of other companies, as well as providing us with an important tool for financial and operational decision making and for evaluating our own core business operating results over different periods of time.

Our adjusted EBITDA measure may not provide information that is directly comparable to that provided by other companies in our industry, as other companies in our industry may calculate non-GAAP financial results differently, particularly related to non-recurring and unusual items. Our adjusted EBITDA is not a measurement of financial performance under GAAP, and should not be considered as an alternative to operating income or as an indication of operating performance or any other measure of performance derived in accordance with GAAP. We do not consider adjusted EBITDA to be a substitute for, or superior to, the information provided by GAAP financial results.

	For the Years Ended December 31,	
	2019	2018
Net loss attributable to common stockholders	$ (900,337)	$ (1,136,278)
Depreciation and amortization	1,655,288	1,350,329
Amortization of debt discount	21,303	24,830
Amortization of deferred gain	(57,675)	(134,640)
Impairment of goodwill	1,697,394	-
Stock-based compensation expense	649,469	527,335
Interest expense	165,560	65,693
Interest income	(151,113)	(85,710)
Cost resulting from dissolution of SkyScale	(146,150)	705,309
Acquisition expenses (1)	4,075	664,394
Benefit for income taxes	237,252	(1,396,784)
Adjusted EBITDA	$ 3,175,066	$ 584,478

(1) Expenses incurred in the acquisition of CDI and Bressner.

Adjusted EPS

Adjusted EPS excludes the impact of certain items and, therefore, has not been calculated in accordance with GAAP. We believe that exclusion of certain selected items assists in providing a more complete understanding of our underlying results and trends and allows for comparability with our peer company index and industry. We use this measure along with the corresponding GAAP financial measures to manage our business and to evaluate our performance compared to prior periods and the marketplace. The Company defines non-GAAP (loss) income attributable to common stockholders as (loss) or income before amortization, stock-based compensation, expenses related to discontinued operations, and acquisition costs. Adjusted EPS expresses adjusted (loss) income on a per share basis using weighted average diluted shares outstanding.

Adjusted EPS is a non-GAAP financial measure and should not be considered in isolation or as a substitute for financial information provided in accordance with GAAP. These non-GAAP financial measures may not be computed in the same manner as similarly titled measures used by other companies. We expect to continue to incur expenses similar to the adjusted income from continuing operations and adjusted EPS financial adjustments described above, and investors should not infer from our presentation of these non-GAAP financial measures that these costs are unusual, infrequent or non-recurring.

The following table reconciles net loss attributable to common stockholders and diluted earnings per share:

	For the Years Ended December 31,	
	2019	2018
Net loss attributable to common stockholders	$ (900,337)	$ (1,136,278)
Amortization of intangibles	984,065	630,258
Impairment of goodwill	1,697,394	-
Stock-based compensation expense	649,469	527,335
Cost resulting from dissolution of SkyScale	(146,150)	705,309
Acquisition expenses	4,075	664,394
Non-GAAP net income attributable to common stockholders	$ 2,288,516	$ 1,391,018
Non-GAAP net income per share attributable to common stockholders:		
Basic	$ 0.15	$ 0.11
Diluted	$ 0.14	$ 0.10
Weighted average common shares outstanding:		
Basic	15,148,613	12,586,513
Diluted	16,158,627	13,741,343

Free cash flow, a non-GAAP measure for reporting cash flow, is defined as cash provided by operating activities less capital expenditures for property and equipment, which includes capitalized software development costs. We believe free cash flow provides investors with an important perspective on cash available for investments and acquisitions after making capital investments required to support ongoing business operations and long-term value creation. We believe that trends in our free cash flow can be valuable indicators of our operating performance and liquidity.

Free cash flow is a non-GAAP financial measure and should not be considered in isolation or as a substitute for financial information provided in accordance with GAAP. This non-GAAP financial measure may not be computed in the same manner as similarly titled measures used by other companies.

We expect to continue to incur expenditures similar to the free cash flow adjustments described above, and investors should not infer from our presentation of this non-GAAP financial measure that these expenditures reflect all of our obligations which require cash. The following table reconciles cash provided by operating activities, the most directly comparable GAAP financial measure, to free cash flow:

	For the Year Ended December 31,		
Cash flow:	**2019**	**2018**	**Change**
Cash provided by (used in) operating activities	$ 2,374,868	$ (3,890,786)	$ 6,265,654
Capital expenditures	(2,386,227)	(623,166)	(1,763,061)
Free cash flow	$ (11,359)	$ (4,513,952)	$ 4,502,593

Comparison of the Years Ended December 31, 2019 and 2018

	For the Year Ended December 31, 2019					For the Year Ended December 31, 2018				
	OSS	Concept Development Inc.	Bressner Technology GmbH	SkyScale	Total	OSS	Concept Development Inc.	Bressner Technology GmbH	SkyScale	Total
Revenue	$ 37,518,074	$ 2,537,334	$ 18,252,611	$ -	$ 58,308,019	$ 32,357,591	$ 755,259	$ 3,756,018	$ 158,514	$ 37,027,382
Cost of sales	(22,799,121)	(1,963,691)	(14,142,944)		(38,905,756)	(21,473,133)	(748,230)	(2,796,237)	(675,059)	(25,692,659)
Gross Profit	$ 14,718,953	$ 573,643	$ 4,109,667	$ -	$ 19,402,263	$ 10,884,458	$ 7,029	$ 959,781	$ (516,545)	$ 11,334,723
Gross Margin	39.23%	22.61%	22.52%		33.28%	33.64%	0.93%	25.55%	-325.87%	30.61%

Revenue

For the year ended December 31, 2019, total revenue increased $21,280,637 or 57.5%, as compared to the same period in 2018. The increase in revenue was primarily driven by revenue from acquisitions which provided $16,278,668 of which Bressner contributed $14,496,593 or 39.2 percentage points and CDI contributed $1,782,075 or 4.8 percentage points of the total increase in revenue. OSS saw an increase in revenue of $5,160,483 or 13.9 percentage points as compared to same period in the prior year. The majority of this increase is attributable to shipments associated with our flash arrays on our airborne military flash contract as well as improvements in our sales of media and entertainment products. There was also a small decrease of $(158,514) or a decrease of (0.4) percentage points attributable to SkyScale which has been dissolved.

Cost of revenue and gross profit

Cost of revenue increased by $13,213,097 or 51.4%, for the year ended December 31, 2019 as compared to the same period in 2018. The increase in cost of revenue was primarily driven by cost of revenue from acquisitions which contributed $12,562,168 of which Bressner contributed $11,346,707 or 44.2 percentage points and CDI contributed $1,215,461or 4.7 percentage points of the total increase in cost of revenue. OSS saw an increase in cost of revenue of $1,325,988 or 5.2 percentage points as compared to same period in the prior year. This change is attributable to a reduction of $957,693 in applied labor and overhead into inventory from the previous year, offset by costs of goods associated with increased sales of our flash array systems and media and entertainment products in the current year. There was also a decrease of $(675,059) or a decrease of (2.6) percentage points attributable to SkyScale which has been dissolved.

The overall gross margin percentage increase from 30.6% for the year ended December 31, 2018 to 33.3% for the year ended December 31, 2019, an increase of 2.7 percentage points. OSS gross margin percentage for the year ended December 31, 2019 was 39.2%, which was 5.6 percentage points more in comparison to the prior year period of 33.6%. The 5.6 percentage point increase is attributable to change in mix attributable to higher sales of our flash array systems. CDI contributed gross margin at a rate of 22.6% due to cost engineering projects on fixed price contracts, while Bressner contributed gross margin at a rate of 22.5%.

Operating expenses

General and administrative expense

General and administrative expense increased $1,988,274 or 30.5%, for the year ended December 31, 2019 as compared to same period in 2018. OSS experienced a reduction of $(379,882) or (19.0%) of the total annual increase in these expenses. The decrease in general and administrative expense for OSS was primarily attributable to not incurring acquisition costs in the current year which was a saving of approximately $628,000 as compared to the prior year, costs associated with the winding down of SkyScale in the prior year which resulted in a savings of approximately $778,000 and a reduction in amortization expense. These savings were offset by some degree by additional compensation costs and third party service costs associated with being a public company which includes legal, accounting costs, insurance, listing fees and reporting and compliance costs and employee costs. CDI contributed $871,422 or 43.8% which is attributable to a full year of operations as compared to only four months of activity in 2018, as a result of being acquired on August 31, 2018. Bressner contributed $1,855,458 or 93.3% of the total annual increase, which is attributable to a full year of operations as compared to only two months of activity in 2018, as a result of being acquired on October 31, 2018. There was also a decrease of $(358,724) or (18.1%) attributable to SkyScale which has been dissolved. Overall general and administrative expenses decreased as a percentage of revenue to 14.6% during the year ended December 31, 2019 as compared to 17.6% during the same period in 2018.

Impairment of goodwill

During the current year, the Company took a write-down of $1,697,394 attributable to impairment of goodwill of CDI due to a short-fall in the actual overall financial performance of CDI as compared to plan, a recurring need for working capital, and a decrease in the overall Company's stock price. There was no such impairment charge in 2018.

Marketing and selling expense

Marketing and selling expense increased $1,143,234 or 28.6% during the year ended December 31, 2019 as compared to the same period in 2018. OSS had an increase of $172,128 or 15.1% of the total increase. There was also a reduction in marketing and selling expense of $(132,004) or (11.6%) as a result of the dissolution of SkyScale. CDI's marketing expense for the year ended December 31, 2019 increased $195,295 or 17.1%, which represented twelve months of activity as compared to the prior year which included only four months of activity. Bressner contributed $907,815 or 79.4% which represented twelve months of activity as compared to the prior year which included only two months of activity. Overall, total marketing and selling expense decreased as a percentage of revenue to 8.8% during the year ended December 31, 2019 as compared to 10.8% during the same period in 2018.

Research and development expense

Research and development expense increased by $841,799 or 21% during the year ended December 31, 2019 as compared to same period in 2018. OSS saw an increase of $291,643 or 34.7%. The increase was largely driven by increased employee compensation costs. CDI contributed $240,154 or 28.5% of the annual increase while Bressner contributed $310,002 or 36.8% of the annual increase for 2019. Overall, total research and development expense decreased as a percentage of revenue to 8.3% during the year ended December 31, 2019 as compared to 10.8% during the same period in 2018.

Interest expense

Interest expense increased $99,867 or 152% for the year ended December 31, 2019 as compared to the same period in 2018. The Company borrowed $1,500,000 from individuals and related parties at an annual interest rate of 9.5%, additionally, warrants of 10% of the value of the borrowing were also granted. The fair value of the warrants is amortized over the life of the loans and such costs are included as interest expense. On October 31, 2018, the Company acquired Bressner which has a line of credit and certain term loans outstanding and as a result, incurred interest charges of $39,292 during the year. The outstanding debt associated with OSS in 2018 was paid down in its entirety with proceeds from its public offering in February 2018.

Other income (expense), net

Other income (expense), for the year ended December 31, 2019 resulted in income of $281,494 as compared to $271,877 in the same period in 2018. The majority of the income for the current year is attributable to interest earned by OSS of $151,113 on deposits, and interest on outstanding customer invoices that were on extended terms. Additionally, the Company recognized a benefit of $208,332 from estimated expenses that had been accrued in the dissolution process of SkyScale which were not realized. This other income was offset during the period by foreign currency transactions losses.

Provision for income taxes / Income tax benefits

We have recorded an income tax benefit of $54,055, for the year ended December 31, 2019 as compared to tax benefits of $1,396,784, for the same period in 2018. The provision for the current period is attributable to annual taxable income for 2019 of $1,772,975 with a projected tax rate of 13.4%. The projected effective tax rate for the year differs from the statutory rate mainly due to permanent non-deductible goodwill amortization for Bressner Technology GmbH, income from the Global Intangible Low-Taxed Income inclusion, as well as projecting federal, foreign and state tax liabilities for the year.

Liquidity and capital resources

Given our recent operating losses, the Company's primary sources of liquidity have been provided by (i) the Company's February 2018 initial public offering (net proceeds were approximately $16,100,000), (ii) March 2019 notes payable from members of the Board of Directors and others of $1,500,000, and (iii) the June 2019 sale of 1,554,832 shares of the Company's common stock for net cash proceeds of $2,488,148.

As of December 31, 2019, the Company's cash and cash equivalents were approximately $5,200,000 and working capital approximated $14,000,000. Cash and cash equivalents held by Bressner totaled $745,000 (USD) at December 31, 2019, and Bressner's debt covenants do not permit the use of those funds by its parent company. During the year ended December 31, 2019, the Company experienced an operating loss of $779,000, but cash flows provided by operating activities approximated $2,400,000.

The Company's revenue growth, inclusive of two acquisitions made in 2018, has resulted in growth of the Company as a whole, but has been offset by increased spending in all areas of operating expenses: general and administrative, marketing and selling, and research and development. Further, in late 2019, a novel strain of coronavirus was first detected in Wuhan, China. Following the outbreak of this virus, governments throughout the world, including in the United States of America, have quarantined certain affected regions, restricted travel and imposed significant limitations on other economic activities. The Company's operations team is closely monitoring the potential impact to the Company's business, including its cash flows, supply chains, customers and employees. Though management has successfully managed through the current known impacts, if the situation further deteriorates or the outbreak results in further restriction on both supply and demand factors, our cash flows, financial position and operating results for fiscal year 2020 and beyond will be negatively impacted. Neither the length of time nor the magnitude of the negative impacts can be presently determined.

Management's plans with respect to the above is to continue its efforts to restructure the Company with the primary objectives of reducing costs, conserving cash, strengthening margins, and improving company-wide execution. Specific actions already implemented by management include the deferral of certain executive and Board compensation payments, a freeze on hiring and minimizing overtime, travel and entertainment, and contractor costs. In addition, management continues to review its expenses on a line item-by-line item basis for cost reduction opportunities, as well as opportunities to increase efficiencies through automation.

While management expects these actions to result in prospective cost reductions, management is also committed to securing debt and/or equity financing to ensure that liquidity will be sufficient to meet the Company's cash requirements through at least a period of the next twelve months. Management believes potential sources of liquidity include at least the following:

- In March 2019, the Company received funding commitments in the amount of $4,000,000 from members of the Board of Directors, of which $1,500,000 has been drawn through December 31, 2019. As of March 26, 2020, management expects that $750,000 of such commitments are currently available to the Company.

- In March 2020, the Company signed a term sheet with Ayrton Capital LLC for a $5.0 million non-interest bearing convertible note with a 10% original issue discount. The first tranche of $3.0 million is available upon closing with $2.0 million available seven months from the date of closing at the option of the Company. The note is repayable in twenty-two installments beginning three months after closing. While this transaction has not been completed as of March 26, 2020, management expects that the transaction will close prior to April 15, 2020.

- In May 2019, the Company filed a Form S-3 prospectus with the Securities and Exchange Commission which became effective on June 19, 2019, and allows the Company to offer up to $100,000,000 aggregate dollar amount of shares of its common stock or other financial instruments.

As a result of management's cost reduction plans, the Company's potential sources of liquidity and management's most recent cash flow forecasts, management believes that the Company has sufficient liquidity to satisfy its anticipated cash requirements for at least the next twelve months. However, there can be no assurance that management's cost reduction efforts will be effective, the forecasted cash flows will be achieved, or that external sources of financing, including the issuance of debt and/or equity securities, will be available at times and on terms acceptable to the Company, or at all.

The following table summarizes our cash flows for the years ended December 31, 2019 and 2018:

	For the Year Ended December 31,	
Cash flows:	**2019**	**2018**
Net cash provided by (used in) operating activities	$ 2,374,868	$ (3,890,786)
Net cash used in investing activities	$ (2,385,177)	$ (5,909,192)
Net cash provided by financing activities	$ 2,922,101	$ 11,900,178

Operating Activities

During the year ended December 31, 2019, wegenerated $2,374,868 in cash from operating activities, an increase in cash of $6,265,654 when compared to the cash used in operating activities of $3,890,786 during the same period in 2018. The increase in cash provided by operating activities was primarily a result of a reduction in working capital requirements of $2,392,755, a reduction in net loss of $235,941, and an increase in non-cash adjustments of $3,636,958. Non-cash adjustments include increases of $4,049,059 comprised of the loss attributable to noncontrolling interest, deferred benefit for income taxes, loss on foreign currency transactions, provision for bad debt, impairment of goodwill, amortization of deferred gain, depreciation and amortization, inventory reserves, stock-based compensation expense an unrealized loss on forward currency contracts. These increases were offset by $(412,101) in decreases in non-cash adjustments attributable to, gain on disposal of property and equipment, provision, warranty reserves, and amortization of debt discount.

Working capital requirements decreased overall by $2,392,755. The sources of working capital of $3,770,079 were attributable to reductions in accounts receivable and prepaids and other assets, and increases in accounts payable for the comparable period. These sources were offset by uses of working capital due to increased inventory levels and reduced accrued expenses and other liabilities of $1,377,324.

Our ability to generate cash from operations in future periods will depend in large part on our profitability, the rate and timing of collections of our accounts receivable, our inventory turns and our ability to manage other areas of working capital including accounts payable.

Investing Activities

During the year ended December 31, 2019, we used cash of $2,385,177 in investing activities as compared to $5,909,192 used during the same period in 2018, a decrease of $1,850,567. The expenditures in the current year are primarily due to tenant improvements to our headquarter facility and software costs and external consulting costs associated with the implementation of our ERP system for which phase one of the project was substantially completed in 2019. We currently do not anticipate any other significant purchases of equipment nor expansion of our ERP system beyond completion of phase II of the project, which is the integration of certain sales functions.

Financing Activities

During the year ended December 31, 2019, we generated $2,922,101 from financing activities as compared to the cash generated of $11,900,178 during the same period in 2018. During the year ended December 31, 2019, we raised $1,500,000 from individuals and related parties through the issuance of notes payable that bear interest at an annual rate of 9.5% and are repaid through 24 months monthly installments. Additionally, during the third quarter of the year, the Company sold 1,554,832 shares of common stock for total gross proceeds of $2,700,714, which after commissions to brokers and other expenses resulted in net proceeds to us of $2,488,148. The Company also received proceeds of $47,334 from the exercise of warrants and stock options.

Bressner increased borrowing under its lines of credit for the purchase of inventories and also borrowed funds through term loans at interest rates of 2.125% - 2.250% that are repaid through monthly installments of up to 24 months.

During year ended December 31, 2018, the Company received proceeds from the saleof common stock in our initial public offering of $19,500,000 which was offset by our stock issuance costs for commissions and third party professional services. We also received $113,168 from the exercise of warrants and stock options. With the proceeds from our initial public offering, we paid off our line of credit and retired all outstanding debt obligations.

Contractual obligations and commitments

The following table sets forth our non-cancellable contractual obligations as of December 31, 2019.

Contractual Obligations:	Total	Less than 1 year	1-3 years	3-5 years	More than 5 Years
Notes payable	$ 2,327,288	$ 1,969,271	$ 358,017	$ -	$ -
Operating leases	2,414,835	713,471	1,489,630	211,734	-
Total	$ 4,742,123	$ 2,682,742	$ 1,847,647	$ 211,734	$ -

We have made certain indemnities, under which the Company may be required to make payments to an indemnified party, in relation to certain transactions. We indemnify our directors, officers, employees and agents to the maximum extent permitted under the laws of the State of Delaware. In connection with our facilities leases, we indemnify our lessors for certain claims arising from the use of our facilities. The duration of the indemnities varies, and in many cases is indefinite. These indemnities do not provide for any limitation of the maximum potential future payments we could be obligated to make. Historically, we have not been obligated to make any payments for these obligations and no liabilities have been recorded for these indemnities.

Off balance sheet arrangements

Other than lease commitments incurred in the normal course of business and certain indemnification provisions, we do not have any off-balance sheet financing arrangements or liabilities, guarantee contracts, retained or contingent interests in transferred assets, or any obligation arising out of a material variable interest in an unconsolidated entity.

We do not have any majority-owned subsidiaries that are not consolidated in the financial statements. Additionally, we do not have an interest in, or relationships with, any special purpose entities.

Stockholder transactions

Effective August 1, 2016, we entered into a management services agreement with a company owned by the former Chief Executive Officer of Magma. The agreement called for payments of $180,000 per year for the first two years paid in monthly installments. In year three, the amount was reduced to $37,500 for the year paid in monthly installments. Additionally, we granted 30,000 options in conjunction with execution of this agreement. Payments for the years ended December 31, 2019 and 2018 were $21,875 and $120,635, respectively. Such management services agreement has been now fully completed.

In April 2019, certain members of the Company's Board of Directors executed definitive agreements to commit funds of up to $4,000,000 as a credit facility. The Company initially borrowed $1,150,000 from members of the Board of Directors and $350,000 from other shareholders for a two year period at an interest rate of 9.5% which requires the Company to make monthly principal and interest payment of $69,000 per month. In connection with these loans, the Company issued the note holders warrants to purchase shares of the Company's common stock equal to 10% of the original principal as a price per share equal to $2.15 per share. Accordingly, the Company issued to the note holders warrants to purchase 69,766 shares of the Company's common stock. The relative fair value of the warrants issued was $60,158.

Critical accounting policies and estimates

Our consolidated financial statements are prepared in accordance with U.S. generally accepted accounting principles (GAAP). The preparation of these financial statements requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue, expenses, and related disclosures. We evaluate our estimates and assumptions on an ongoing basis. Our estimates are based on historical experience and various other assumptions that we believe to be reasonable under the circumstances. Our actual results could differ from these estimates. The critical accounting estimates, assumptions and judgments that we believe have the most significant impact on our consolidated financial statements are described below.

Revenue Recognition

On January 1, 2019, the Company adopted the new accounting standard update ASC 606, Revenue from Contracts with Customers, which superseded nearly all existing revenue recognition guidance under GAAP, to all contracts using the modified retrospective method. The comparative information has not been restated and continues to be reported under the accounting standards in effect for those periods.

The Company's performance obligations are satisfied over time as work is performed or at a point in time. The majority of the Company's revenue is recognized at a point in time when products ship and control is transferred to the customer. The Company determines revenue recognition through the following steps: (1) identification of the contract with a customer; (2) identification of the performance obligations in the contract; (3) determination of the transaction price; (4) allocation of the transaction price to the performance obligations in the contract; and (5) recognition of revenue when, or as, a performance obligation is satisfied.

The Company's contracts are executed through a combination of written agreements along with purchase orders with all customers including certain general terms and conditions. Generally, purchase orders entail products, quantities and prices, which define the performance obligations of each party and are approved and accepted by the Company. The Company's contracts with customers do not include extended payment terms. Payment terms vary by contract type and type of customer and generally range from 30 to 60 days from invoice. Additionally, taxes assessed by a governmental authority that are both imposed on and concurrent with a specific revenue-producing transaction, that are collected by the Company from a customer and deposited with the relevant government authority, are excluded from revenue.

The transaction price is determined based on the consideration to which the Company will be entitled in exchange for transferring goods or services to the customer adjusted for estimated variable consideration, if any. Variable consideration may include discounts, rights of return, refunds, and other similar obligations. The Company allocates the transaction price to each distinct product and service based on its relative standalone selling price. The standalone selling price for products primarily involves the cost to produce the deliverable plus the anticipated margin and for services is estimated based on the Company's approved list price.

In the normal course of business, the Company does not accept product returns unless the items are defective as manufactured. The Company establishes provisions for estimated returns and warranties. In addition, the Company does not typically provide customers with the right to a refund and does not transact for noncash consideration.

Customer agreements include one vendor managed inventory program. The Company recognizes revenue under this arrangement when all of the following criteria are met: (i) the goods have been identified separately as belonging to the customer; (ii) the goods are ready for physical shipment to the customer; (iii) the Company does not have the ability to direct the goods to another customer; and (iv) the arrangement was requested by the customer and that the customer has sufficiently explained a substantial business purpose for the arrangement. Management also considers whether the customer's custodial risks are insured and whether modifications to the Company's normal billing and credit terms were required.

Revenues on certain fixed-price contracts where we provide engineering services, prototypes and completed products are recognized based upon percentage of completion or based upon milestones delivered that are provided during the period and compared to milestone goals to be provided over the entire contract. These services require that we perform significant, extensive and complex design, development, modification or implementation of our customers' systems. Performance will often extend over long periods of time, and our right to receive future payment depends on our future performance in accordance with the agreement.

The percentage-of-completion methodology involves recognizing probable and reasonably estimable revenue using the percentage of services completed, on a current cumulative cost to estimated total cost basis, using a reasonably consistent profit margin over the performance period. Due to the long-term nature of these projects, developing the estimates of costs often requires significant judgment. Factors that must be considered in estimating the progress of work completed and ultimate cost of the projects include, but are not limited to, the availability of labor and labor productivity, the nature and complexity of the work to be performed and the impact of delayed performance. If changes occur in delivery, productivity or other factors used in developing the estimates of costs or revenues, we revise our cost and revenue estimates, which may result in increases or decreases in revenues and costs, and such revisions are reflected in earnings in the period in which the revision becomes known.

On certain contracts with several of the Company's significant customers, the Company receives payments in advance of manufacturing. Advanced payments are recorded as deferred revenue until the revenue recognition criteria described above has been met.

Related billings that are in excess of revenue earned are deferred and recorded as a liability on the consolidated balance sheet until the related services are provided. Deferred revenue was $24,718 and $133,995 as of December 31, 2019 and 2018, respectively. The Company recognizes revenues for non-refundable, upfront implementation fees on a straight-line basis over the period beginning with initiation of ongoing services through the end of the contract term.

Stock-Based Compensation

We measure and recognize compensation expense for all stock-based awards granted to our employees and other service providers, including stock options granted under the 2017 Plan and 2015 Stock Option Plan that was approved in December 2015 (the "2015 Plan"), based on the estimated fair value of the award. We use the Black-Scholes option pricing model to estimate the fair value of stock option awards granted under the 2017 Plan and 2015 Plan. We recognize the fair value of stock options granted under the 2017 Plan and 2015 Plan as stock-based compensation on a straight line basis over the requisite service period. We record expense net of anticipated forfeitures and adjust the annual expense based upon actual experience.

Compensation cost for stock awards, which include restricted stock units ("RSUs") is measured at the fair value on the grant date and recognized as expense, net of estimated forfeitures, over the related service period. The fair value of stock awards is based on the quoted price of our common stock on the grant date less the present value of expected dividends not received during the vesting period.

Our use of the Black-Scholes option pricing model requires the input of highly subjective assumptions, including the fair value of the underlying common stock, expected term of the option, expected volatility of the price of our common stock, risk-free interest rates and the expected dividend yield of our common stock. The assumptions used in our option pricing model represent management's best estimates. These estimates involve inherent uncertainties and the application of management's judgment. If factors change and different assumptions are used, our stock-based compensation expense could be materially different in the future.

These assumptions and estimates are as follows:

- Fair Value of Common Stock. Since the completion of our IPO, we use the closing quoted price of our common stock on the date of grant.
- Expected Term. The expected term represents the period that our stock-based awards are expected to be outstanding. The expected term assumptions were determined based on the vesting terms and contractual lives of the options, using the simplified method.

- Expected Volatility. Since we do not have sufficient trading history of our common stock, the expected volatility was determined based on the historical stock volatilities of comparable companies. Comparable companies consist of public companies in our industry that is similar in size, stage of life cycle and financial leverage. We intend to continue to apply this process using the same or similar public companies until a sufficient amount of historical information regarding the volatility of our own share price becomes available, or unless circumstances change such that the identified companies are no longer similar to us, in which case, more suitable companies whose share prices are publicly available would be used in the calculation.
- Risk-Free Interest Rate. The risk-free interest rate is based on the implied yield available on U.S. Treasury zero-coupon issues with remaining terms similar to the expected term on the options.
- Dividend Rate. We have never declared or paid any cash dividends and do not plan to pay cash dividends in the foreseeable future, and, therefore, use an expected dividend yield of zero.

We will continue to use judgment in evaluating the assumptions related to our stock-based compensation on a prospective basis. As we continue to accumulate additional data related to our common stock, we may refine our estimation process, which could materially impact our future stock-based compensation expense.

Inventory Valuation

We value our inventory at the lower of cost or its estimated net realizable value. We use the average cost method for purposes of determining cost, which approximates the first-in, first-out method. We write down inventory for excess and obsolescence based upon a review of historical usage and assumptions about future demand, product mix and possible alternative uses. Actual demand, product mix and alternative usage may be lower than those that we project and this difference could have a material adverse effect on our gross margin if inventory write-downs beyond those initially recorded become necessary. Alternatively, if actual demand, product mix and alternative usage are more favorable than those we estimated at the time of such a write-down, our gross margin could be favorably impacted in future periods.

Goodwill, Intangible Assets and Long-lived Assets

We evaluate our goodwill, intangible and long-lived assets for impairment when events or circumstances arise that indicate our goodwill, intangible and long–assets may be impaired. Indicators of impairment include, but are not limited to, a significant deterioration in overall economic conditions, a decline in our market capitalization, the loss of significant business, significant decreases in funding for our contracts, or other significant adverse changes in industry or market conditions. Regardless, goodwill is tested for potential impairment at least annually.

Income Taxes

The determination of income tax expense requires us to make certain estimates and judgments concerning the calculation of deferred tax assets and liabilities, as well as the deductions and credits that are available to reduce taxable income. We recognize deferred tax assets and liabilities for the expected future tax consequences of events that have been included in our consolidated financial statements. Under this method, deferred tax assets and liabilities are determined based on the difference between the financial statement and tax basis of assets and liabilities using enacted tax rates for the year in which the differences are expected to reverse.

In evaluating our ability to recover deferred tax assets, we consider all available positive and negative evidence, including our past operating results, our forecast of future earnings, future taxable income, and tax planning strategies. The assumptions utilized in determining future taxable income require significant judgment. We record a valuation allowance against deferred tax assets if, based upon the available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized. If it becomes more likely than not that a tax asset will be used for which a reserve has been provided, we reverse the related valuation allowance. If our actual future taxable income by tax jurisdiction differs from estimates, additional allowances or reversals of reserves may be necessary.

We use a two-step approach to recognize and measure uncertain tax positions. First, the tax position must be evaluated to determine the likelihood that it will be sustained upon external examination. If the tax position is deemed more-likely-than-not to be sustained, the tax position is then assessed to determine the amount of benefit to recognize in the financial statements. The amount of the benefit that may be recognized is the largest amount that has a greater than 50% likelihood of being realized upon ultimate settlement. We reevaluate our uncertain tax positions on a quarterly basis and any changes to these positions as a result of tax audits, tax laws or other facts and circumstances could result in additional charges to operations.

Business Combinations

We utilize the acquisition method of accounting for business combinations and allocate the purchase price of an acquisition to the various tangible and intangible assets acquired and liabilities assumed based on their estimated fair values. We primarily establish fair value using the income approach based upon a discounted cash flow model. The income approach requires the use of many assumptions and estimates including future revenues and expenses, as well as discount factors and income tax rates. Other estimates include:

- Estimated step-ups or write-downs for fixed assets and inventory;
- Estimated fair values of intangible assets; and
- Estimated income tax assets and liabilities assumed from the target

While we use our best estimates and assumptions as part of the purchase price allocation process to accurately value assets acquired and liabilities assumed at the business acquisition date, our estimates and assumptions are inherently uncertain and subject to refinement. As a result, during the purchase price allocation period, which is generally no longer than one year from the business acquisition date, we record adjustments to the assets acquired and liabilities assumed, with the corresponding offset to goodwill.

For changes in the valuation of intangible assets between preliminary and final purchase price allocation, the related amortization is adjusted in the period it occurs. Subsequent to the purchase price allocation period any adjustment to assets acquired or liabilities assumed is included in operating results in the period in which the adjustment is determined. Should we issue shares of our common stock in an acquisition, we will be required to estimate the fair value of the shares issued.

Recently implemented accounting pronouncements

Per the Company's consolidated financial statements Note 2 – Significant Accounting Policies, we have implemented a number of changes, as required by FASB. See Note 2 for further details.

Recent accounting pronouncements

Per the Company's consolidated financial statements Note 2 – Significant Accounting Policies, we may be implementing a number of changes, as required by FASB. See Note 2 for further details.

Interest rate risk

Our exposure to interest rate risk is primarily associated with borrowing on revolving lines of credit denominated in both U.S. dollars and Euros. We are exposed to the impact of interest rate changes primarily through our borrowing activities for our variable rate borrowings.

Concentration of credit risk

Financial instruments that potentially expose us to concentrations of credit risk consist principally of cash, cash equivalents and accounts receivable. We place our cash and cash equivalents with financial institutions with high credit quality. At December 31, 2019 and 2018, we had $5,185,321 and $2,272,256 respectively, of cash and cash equivalents on deposit or invested with our financial and lending institutions. In Germany, the deposit insurance is €100,000 per bank, per customer. Bressner has funds on deposit in both Euro and U.S. dollar denominations of €508,316 (US$570,686) with banks in excess of the insurance limits.

We provide credit to our customers in the normal course of business. We perform ongoing credit evaluations of our customers' financial condition and limit the amount of credit extended when deemed necessary.

Foreign currency risk

We operate primarily in the United States. Foreign sales of products and services are primarily denominated in U.S. dollars. We also conduct business outside the United States through our foreign subsidiary in Germany, where business is largely transacted in non-U.S. dollar currencies particularly the Euro, which is subject to fluctuations due to changes in foreign currency exchange rates. Accordingly, we are subject to exposure from changes in the exchange rates of local currencies. Foreign currency transaction gains and losses are recorded in other income (expense), net in the consolidated statements of operations.

OSS GmbH operates as an extension of OSS' domestic operations and acquired Bressner Technology GmbH in October 2018. The functional currency of OSS GmbH is the Euro. Transactions denominated in currencies other than the functional currency are remeasured to the functional currency at the average exchange rate in effect during the period. At the end of each reporting period, monetary assets and liabilities are translated using exchange rates in effect at the balance sheet date. Non-monetary assets and liabilities are remeasured at historical exchange rates. Consequently, changes in the exchange rates of the currencies may impact the translation of the foreign subsidiaries' statements of operations into U.S. dollars, which may in turn affect our consolidated statement of operations. The resulting foreign currency translation adjustments are recorded as a separate component of accumulated other comprehensive income in the consolidated statement of comprehensive income.

Derivative Financial Instruments

We employ derivatives to manage certain currency market risks through the use of foreign exchange forward contracts. We do not use derivatives for trading or speculative purposes. Our derivatives are designated as a hedge of a forecasted transaction or of the variability of cash flows to be received or paid related to a recognized asset or liability (cash flow hedge). We hedge a portion of the exchange risk involved in anticipation of highly probable foreign currency-denominated transactions. In anticipation of these transactions, we enter into foreign exchange contracts to provide currency at a fixed rate.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK.

Not Applicable.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA.

See the financial statements included elsewhere in this report beginning at page F-1, which are incorporated herein by reference.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE.

None.

ITEM 9A. CONTROLS AND PROCEDURES.

Conclusion Regarding the Effectiveness of Disclosure Controls and Procedures

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in our periodic and current reports that we file with the SEC is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate, to allow timely decisions regarding required disclosure. In designing and evaluating the disclosure controls and procedures, management recognized that any controls and procedures, no matter how well designed and operated, can provide only reasonable and not absolute assurance of achieving the desired control objectives. In reaching a reasonable level of assurance, management necessarily was required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures. In addition, the design of any system of controls also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions; over time, control may become inadequate because of changes in conditions, or the degree of compliance with policies or procedures may deteriorate. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

Our management, with the participation of our principal executive officer and principal financial officer, has evaluated the effectiveness of our disclosure controls and procedures as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended, or the Exchange Act, as of the end of the period covered by this Annual Report. Based on such evaluation, our principal executive officer and principal financial officer have concluded that as of such date, our disclosure controls and procedures were effective at the reasonable assurance level.

Management's Annual Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal controls over financial reporting, as such term is defined in Rules 13a-15(f) and 15d-15(f) of the Exchange Act. Internal control over financial reporting is a process designed under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with GAAP. Our internal control over financial reporting includes those policies and procedures that: (i) pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of our assets, (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with GAAP, and that our receipts and expenditures are being made only in accordance with authorizations of our management and directors, and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on our financial statements. Because of its inherent limitations, internal controls over financial reporting may not prevent or detect all misstatements. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation. We have conducted an evaluation of the effectiveness of our internal control over financial reporting. Based on our evaluation, management has concluded that our internal control over financial reporting was effective as of December 31, 2019.

Attestation Report of the Registered Public Accounting Firm

This annual report does not include an attestation report of our independent registered public accounting firm due to an exemption established by the JOBS Act for "emerging growth companies."

Changes in Internal Control over Financial Reporting

There have been changes in our internal control over financial reporting during the year ended December 31, 2019, that management expects will improve our internal control over financial reporting. Specifically, management expects that the following actions will improve key internal controls:

- In October 31, 2018, the Company contracted for a new Enterprise Resource Planning (ERP) and accounting system with Infor. The implementation of the company-wide system allowed the Company to improve management and accounting controls over manufacturing and reporting. The initial implementation phase which included the financial, provisioning and manufacturing modules was completed in the fourth quarter of 2019.

- To improve the control environment surrounding segregation of duties, supervision and expertise, we have implemented new processes and procedures concurrent with the implementation of our new ERP system and have introduced best practices to conform with the control features that are inherent in the ERP system. In June 2018, we hired a controller for the Company who is responsible for the day-to-day activities and supervision of the Accounting Department. With this introduction of additional personnel, incompatible functions with respect to the segregation of duties and the recording of a transaction (including the review and approval processes) have been assigned to different personnel to strengthen the control environment.

- With the introduction of a robust ERP system, the Company now has material resource planning tools and tools to monitor labor inputs and production efficiencies. To strengthen the control environment surrounding inventory and inventory valuation, we continue to evolve a new analytical process to identify slow-moving and obsolete inventory and we have re-evaluated our methodology of applying labor and overhead to work-in-process and finished goods inventory. We are also continuing to strengthening the controls regarding physical verification of inventory on-hand by introducing cycle counts and doing periodic inventory counts.

- On February 13, 2019, our Board of Directors decided, based on the recommendation of its Nominating and Governance Committee, to separate the roles of Chairman of the Board and Chief Executive Officer. We believe the appointment of an independent director as our Chairman and the separation of roles further solidifies the segregation of duties and board oversite as it relates to internal controls over financial reporting.

Management's goal is to continue to improve upon our internal control environment as we refine our processes and procedures to address our growing business and operations in other geographies. As we continue to evaluate and take actions to improve our internal control over financial reporting, we may determine to take additional actions to address control deficiencies or determine to modify our plan based upon changes in our internal control environment.

ITEM 9B. OTHER INFORMATION.

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE.

Executive Officers and Directors

The following table sets forth the names, ages, and positions of our executive officers and directors as of February 29, 2020. There are no arrangements, agreements or understandings between non-management security holders and management under which non-management security holders may directly or indirectly participate in or influence the management of our affairs. There are no arrangements or understandings between any director and any other person pursuant to which any director or executive officer was or is to be selected as a director or executive officer, as applicable. There currently are no legal proceedings, and during the past ten years there have been no legal proceedings that are material to the evaluation of the ability or integrity of any of our directors or director nominees.

Name	Age	Position
Executive Officers		
David Raun (1)	58	Interim Chief Executive Officer
John W. Morrison, Jr.	62	Chief Financial Officer
Jim Ison	50	Chief Sales & Marketing Officer
Non-Employee Directors		
Kenneth Potashner (2)(3)(4)	62	Chairman
John Reardon	59	Director
Kimberly Sentovich (2)(3)(4)	52	Director
Jack Harrison (2)(3)(4)	64	Director
Steve Cooper (1)	62	Director

(1) On February 15, 2020, Mr. Cooper was terminated as President and CEO of One Stop Systems, Inc., but will remain as a member of the board of directors. Mr. Cooper was replaced by Interim CEO David Raun, a member of the board of directors. Mr. Raun was replaced on relevant Board committees as a result of his appointment as Interim CEO.
(2) Member of the Nominating and Corporate Governance Committee.
(3) Member of the Compensation Committee.
(4) Member of the Audit Committee.

Executive Officers

David Raun has served as our interim chief executive officer since his appointment on February 15, 2020. Mr. Raun formerly served as the audit chair on the One Stop Systems board of directors and will remain as a director. Mr. Raun was with PLX Technology, Inc., a publicly traded company on Nasdaq, from 2004-2014 where he eventually became president, chief executive officer and a director. In this role, he led the company to an acquisition by Avago (now Broadcom) after driving the company to large PCI Express market share, record revenues and profits. This PCIe switch leadership position at PLX makes him very familiar with the OSS markets and the components he defined and marketed are key to many of OSS products. Mr. Raun also served as chief operations officer at Home Bay Technologies, an on-line technology based real estate company in 2019. Prior to Home Bay, he was the president, COO and interim chief financial officer at ASSIA, Inc. a Silicon Valley-based SaaS providers from 2016-2018. Here he led a turnaround driving to record revenues and sizable operating margins. Prior to these roles he had multiple VP of Marketing, Business Development, Corporate Development and Sales roles. He was chairman of the board at Kilopass, a semiconductor IP supplier until they were acquired by Synopsys in 2018. Mr. Raun holds a B.S. in computer and electrical engineering from University of California, Santa Barbara. David Raun has more than 24 years of experience at senior management and board levels in public and private companies including over 10 M&A/fund raising events which is a great benefit to OSS.

John W. Morrison, Jr. has served as our chief financial officer since September 1, 2017. Mr. Morrison is a CPA with more than 30 years' experience in public accounting and all aspects of financial reporting and financing. From June 2014 to September 2017, he served as the chief financial and operations officer for Carol Cole Company. Prior to Carol Cole, he served as a consultant to various private companies regarding their financial and operational affairs. From January 2013 to September 2013 he served as the chief financial officer of Gen-E, an information technology and services company. Mr. Morrison also served as the executive vice president and chief financial officer for the Kelley Blue Book Company for 11 years. He began his career working 15 years for the public accounting firm PricewaterhouseCoopers (now PwC) both in the U.S. and Asia. Mr. Morrison holds a B.S. in accounting and business management and MACC in Accounting from Brigham Young University.

Jim Ison, has been with OSS since 2004 and currently serves as the Chief Sales and Marketing Officer. Mr. Ison has 28 years' combined sales, product management and marketing management experience in leading-edge large-scale electronic systems using breakthrough technologies. His expertise covers government, communications and HPC markets with particular focus on AI applications in unique environments. Prior to OSS, Mr. Ison held senior sales and marketing positions for Ziatech and Rittal. During the 15 years in OSS management, he has led the technological evolution and integration of OSS' many mergers and acquisitions. Mr. Ison holds a bachelor's degree in Aeronautical Engineering from CalPoly SLO and an MBA from University of Florida.

Board of Directors

Kenneth Potashner has served as Chairman of our board of directors since May 2019. Mr. Potashner has extensive BOD experience in high growth, high technology global organizations. He has served as Chairman of Newport Corporation where he provided 18 years of service culminating in the sale of Newport in 2016 for $980M. Mr. Potashner was Chairman of Maxwell Technologies and directed it through a period of rapid expansion. He has also served on the BOD of California Micro Devices, SonicBlue Inc, and Singapore Technologies, all publicly traded companies. Mr. Potashner is currently serving as the Executive Chairman of Home Bay Technologies. He has also has served on the Board of many private companies as well including DynaOptics, MyOffice.com, Underground Elephant, Lumedyne, Events.com, and several others. Several of the private companies that Mr. Potashner has had affiliations with have achieved successful exits or significant financings. Mr. Potashner has a BSEE from Lafayette College and an MSEE from SMU, Executive certifications from Columbia and INSEAD in Lausanne, Switzerland. He also has an Advanced Professional Director certification from American Board of Directors.

John Reardon has served on our board of directors since 2000. As an early investor in OSS, John Reardon has served as a member of the board since 2000. During his service, Mr. Reardon introduced and/or aided in a number of key acquisitions that transitioned the OSS to a leading IP company. Mr. Reardon, having extensive industry knowledge continues to aid the company with its strategic vision. Corporate Director's Forum recognized this contribution by awarding him the Director of the Year Award. He has served on numerous Public and Private boards throughout his career that include Neonode, (Nasdaq, Neon) a company located in Stockholm, Sweden and SBE, Inc. (Nasdaq, SBEi) a telecommunications company located in San Ramon, California. Mr. Reardon founded RTC Media in 1986 after graduating from National University with a Bachelor's in Marketing. Moving through the millennium, RTC was expanded to include Europe and Asia as key markets. Today RTC Media continues its history as a technical marketing firm for the Military and Embedded space through its publications and content generation. After 15 years of volunteering as a Senior Mentor through Chairman's Round Table, Mr. Reardon has aided over 2-dozen San Diego tech CEO's with their strategic goals. Mr. Reardon continues to reside in Carlsbad, California with his wife and four children.

Jack Harrison has served on our board of directors since December 2016. He was founder, president and chief executive officer of Aspen Integrated Technologies, a microelectronics and MEMS company, which he sold in 2011. Mr. Harrison is currently the president of Integrity Energy, an oil and gas company, and also serves as the chairman of the board of Reach Beyond: a non-profit charitable organization of which he has been affiliated for more than 20 years. Mr. Harrison holds a BME degree from Wheaton College. He brings decades of experience in the microelectronics space and his business and technical expertise represent important assets to OSS.

Kimberly Sentovich joined the board in February 2019 and is a seasoned merchandising, operations, IT and supply chain executive with 30 years of experience with multi-billion-dollar profit and loss responsibility. From 2017 to 2018, Ms. Sentovich served as the Senior Vice President of Operations for Torrid, an apparel retailer. From 2015 to 2017, Ms. Sentovich was Executive Vice President of Stores and Logistics at Gymboree, responsible for all 1300 company owned stores in North America. Ms. Sentovich previously spent seven years (2008-2015) at Walmart rising from Regional Vice President of Operations – California to Divisional Senior Vice President of Operations – Pacific Division and fifteen years at The Home Depot (1993-2008) rising to the level of Regional Vice President of Operations. Ms. Sentovich obtained her MBA from The Paul Merage School of Business, University of California, Irvine and her B.A. in Philosophy and Political Science with a Minor in economics from Bryn Mawr College. Ms. Sentovich's extensive executive and operations experience, as well as her independence, judgment and exceptional leadership experience makes her a valuable addition to the Board.

Steve Cooper served on our board of directors since inception and previously as our chief executive officer and president from 1998 until February 15, 2020. He brought more than 40 years of experience running high technology, high growth rate businesses as a technologist with a long record of technical innovations, including multiple patents. Mr. Cooper began his career with Intel and RadiSys in engineering, marketing and technology roles. He has authored and published more than 30 articles and technical conference papers dealing with computer technology, fault-tolerant computer architectures, bus interfacing standards, open systems and related business and technology issues. He holds a B.S. in electrical engineering from the University of California at Santa Barbara.

Board Composition and Election of Directors

Director Independence

Our board of directors currently consists of six (6) members. Our board of directors has determined that Kenneth Potashner, Jack Harrison, and Kim Sentovich are all independent directors in accordance with the listing requirements of The Nasdaq Capital Market. The Nasdaq independence definition includes a series of objective tests, including that the director is not, and has not been for at least three years, one of our employees and that neither the director nor any of his family members has engaged in various types of business dealings with us. In addition, as required by Nasdaq rules, our board of directors has made a subjective determination as to each independent director that no relationships exist, which, in the opinion of our board of directors, would interfere with the exercise of independent judgment in carrying out the responsibilities of a director. In making these determinations, our board of directors reviewed and discussed information provided by the directors and us with regard to each director's business and personal activities and relationships as they may relate to us and our management. Pursuant to a Form 8-K filed with the Securities and Exchange Commission on February 21, 2020, we disclosed that we are currently not in compliance with Nasdaq's majority independent board requirements as a result of the appointment of Mr. Raun, a former independent director, to the role of Interim CEO. Mr. Raun will regain his director independence if he is in interim CEO role less than one year. We requested and have been granted a cure period to regain compliance with this standard and expect to do so by our next annual shareholder meeting tentatively scheduled for May 20, 2020.

Except for the following, there are no family relationships among any of our directors of executive officers. John Reardon, a director of the Company, and James Reardon, President of the CDI Division of the Company are brothers. Upon acquisition of CDI and James Reardon's affiliation with the Company, John Reardon was no longer deemed an independent director of the Company.

Board Committees and Independence

Our board of directors has established three standing committees – audit, compensation and nominating and corporate governance – each of which operates under a charter that has been approved by our board of directors.

Audit Committee

The audit committee's main function is to oversee our accounting and financial reporting processes and the audits of our financial statements. This committee's responsibilities include, among other things:

- Selecting and retaining (subject to approval by the Company's stockholders) our independent registered public accounting firm;
- Setting the compensation of our independent registered public accounting firm;
- Overseeing the work of our independent registered public accounting firm and pre-approving all audit services they provide;
- Approving all permitted non-audit services performed by our independent registered public accounting firm;
- Establishing policies and procedures for engagement of our independent registered public accounting firm for permitted audit and non-audit services;
- Evaluating the qualifications, independence and performance of our independent registered public accounting firm;
- Reviewing the design, implementation, adequacy and effectiveness of our internal accounting controls and our critical accounting policies;
- Discussing with management and the independent registered public accounting firm the results of our annual audit and the review of our quarterly unaudited financial statements;
- Reviewing the scope and plan of our independent registered public accounting firm and their effective use of audit resources;
- Reviewing with management and independent auditors their significant audit findings, and assess the steps that management has taken or proposes to take to minimize significant risks or exposures facing the Company, and periodically review compliance with such steps;
- Establishing procedures for the Company's confidential and anonymous receipt, retention and treatment of complaints regarding the Company's accounting, internal controls and auditing matters, as well as for the confidential, anonymous submissions by Company employees of concerns regarding questionable accounting or auditing matters;
- Obtaining the advice and assistance, as appropriate, of independent counsel and other advisors as necessary to fulfill the responsibilities of the audit committee, and receive appropriate funding from the Company, as determined by the audit committee, for the payment of compensation to any such advisors;
- Reviewing, overseeing and monitoring the integrity of our financial statements and our compliance with legal and regulatory requirements as they relate to financial statements or accounting matters; and
- Reviewing and evaluating, at least annually, the performance of the audit committee and its members including compliance of the audit committee with its charter.

The members of our audit committee are Mr. Potashner, Mr. Harrison and Ms. Sentovich. Ms. Sentovich serves as the chairwoman of the committee. All members of our audit committee meet the requirements for financial literacy under the applicable rules and regulations of the SEC and The Nasdaq Capital Market. Our board of directors has determined that Ms. Sentovich is an "audit committee financial expert" as defined by applicable SEC rules and has the requisite financial sophistication as defined under the applicable Nasdaq rules and regulations. Our board of directors has determined that Mr. Potashner, Mr. Harrison and Ms. Sentovich are independent under the applicable rules of the SEC and The Nasdaq Capital Market. We are currently in compliance with Nasdaq rules and Rule 10A-3 due to the fact that all members of our audit committee have been deemed independent by our board of directors. The audit committee operates under a written charter that satisfies the applicable standards of the SEC and The Nasdaq Capital Market.

Compensation Committee

Our compensation committee approves, or recommends to our board of directors, policies relating to compensation and benefits of our officers and employees. The compensation committee approves, or recommends to our board of directors, annual and long-term corporate goals and objectives relevant to the compensation of our chief executive officer and other executive officers, evaluates the performance of these officers in light of those goals and objectives and approves, or recommends to our board of directors, the compensation of these officers based on such evaluations. The compensation committee also approves, or recommends to our board of directors, the issuance of stock options and other awards under our equity plan. The compensation committee will review and evaluate, at least annually, the performance of the compensation committee and its members, including compliance by the compensation committee with its charter.

The members of our compensation committee are Ms. Sentovich, Mr. Harrison, and. Mr. Potashner. Mr. Potashner serves as the chairperson of the committee. Our board of directors has determined that Ms. Sentovich, Mr. Harrison, and Mr. Potashner are independent under the applicable rules and regulations of The Nasdaq Capital Market and all current members qualify as a "non-employee director" as defined in Rule 16b-3 promulgated under the Exchange Act. Our board of directors has determined that each of the members of our compensation committee is an "outside director" as that term is defined in Section 162(m) of the U.S. Internal Revenue Code of 1986, as amended, or Section 162(m). We are currently in compliance with Nasdaq rules due to the fact that all members of our compensation committee have been deemed independent by our board of directors. The compensation committee operates under a written charter, which the compensation committee will review and evaluate at least annually.

Nominating and Corporate Governance Committee

The nominating and corporate governance committee is responsible for assisting our board of directors in discharging the board of directors' responsibilities regarding the identification of qualified candidates to become board members, the selection of nominees for election as directors at our annual meetings of stockholders (or special meetings of stockholders at which directors are to be elected), and the selection of candidates to fill any vacancies on our board of directors and any committees thereof. In addition, the nominating and corporate governance committee is responsible for overseeing our corporate governance policies, reporting and making recommendations to our board of directors concerning governance matters and oversight of the evaluation of our board of directors. In February 2020, this committee added risk assessment and management to their charter.

The members of our nominating and corporate governance committee are Ms. Sentovich, Mr. Potashner, and Mr. Harrison. Mr. Harrison serves as the chairman of the committee. Our board of directors has determined that Ms. Sentovich, Mr. Potashner, and Mr. Harrison and are independent under the applicable rules and regulations of The Nasdaq Capital Market relating to nominating and corporate governance committee independence. We are currently in compliance with Nasdaq rules due to the fact that all members of our nominating and corporate governance committee have been deemed independent by our board of directors. The nominating and corporate governance committee operates under a written charter, which the nominating and corporate governance committee will review and evaluate at least annually.

Board Diversity

Our nominating and corporate governance committee is responsible for reviewing with the board of directors, on an annual basis, the appropriate characteristics, skills and experience required for the board of directors as a whole and its individual members. In evaluating the suitability of individual candidates (both new candidates and current members), the nominating and corporate governance committee, in recommending candidates for election, and the board of directors, in approving (and, in the case of vacancies, appointing) such candidates, will take into account many factors, including the following:

- Personal and professional integrity, ethics and values;
- Experience in corporate management, such as serving as an officer or former officer of a publicly-held company;
- Experience as a board member or executive officer of another publicly-held company;
- Strong finance experience;

- Diversity of expertise and experience in substantive matters pertaining to our business relative to other board members;
- Diversity of background and perspective, including, but not limited to, with respect to age, gender, race, place of residence and specialized experience;
- Experience relevant to our business industry and with relevant social policy concerns; and
- Relevant academic expertise or other proficiency in an area of our business operations.

Currently, our board of directors evaluates each individual in the context of the board of directors as a whole, with the objective of assembling a group that can best maximize the success of the business and represent stockholder interests through the exercise of sound judgment using its diversity of experience in these various areas.

Code of Business Conduct and Ethics

We have adopted a written code of business conduct and ethics that applies to our directors, officers and employees, including our principal executive officer, principal financial and accounting officer, controller, or persons performing similar functions. Our code of business conduct and ethics is available under the Investors – Corporate Governance section of our website at www.onestopsystems.com. In addition, we post on our website all disclosures that are required by law or the listing standards of The Nasdaq Capital Market concerning any amendments to, or waivers from, any provision of the code. The reference to our website address does not constitute incorporation by reference of the information contained at or available through our website, and should not consider it to be a part of this Annual Report.

Section 16(a) Beneficial Ownership Reporting Compliance

Under Section 16(a) of the Exchange Act, directors, executive officers and beneficial owners of 10% or more of our common stock, or reporting persons, are required to report to the SEC on a timely basis the initiation of their status as a reporting person and any changes with respect to their beneficial ownership of our common stock. Based solely on our review of copies of such forms that we have received, or written representations from reporting persons, we believe that during the fiscal year ended December 31, 2019, all executive officers, directors and greater than 10% stockholders complied with all applicable filing requirements, other than each of Kimberly Sentovich, Barbara D'Amato, John Morrison, Jim Ison and Josef Bressner filed one (1) late report, John Reardon, Randy Jones and James Reardon filed two (2) reports, David Raun filed three (3) late reports and Ken Potashner, Jack Harrison and Steve Cooper each filed four (4) late reports. There were no known failures to file a required form.

ITEM 11. EXECUTIVE COMPENSATION.

This section discusses the material components of the executive compensation program for our executive officers who are named in the "Summary Compensation Table" below. In 2019, our "named executive officers" and their positions were as follows:

- Steve Cooper, Former President and Chief Executive Officer;
- John W. Morrison Jr. Chief Financial Officer and Treasurer
- Jim Ison, VP of Sales and Marketing.

This discussion may contain forward-looking statements that are based on our current plans, considerations, expectations and determinations regarding future compensation programs. Actual compensation programs that we adopt in the future may differ materially from the currently planned programs summarized in this discussion.

Summary Compensation Table

The following table provides information regarding the total compensation for services rendered in all capacities that was earned by each individual who served as our principal executive officer at any time in 2019 and 2018, and our two other most highly compensated executive officers who were serving as executive officers as of December 31, 2019 and 2018. These individuals are our named executive officers for both 2019 and 2018.

Name and Principal Position	Year	Salary ($)	Bonus ($)	Option Awards ($) (1)	Non-Equity Incentive Plan Compensation ($)	All Other Compensation ($) (2)	Total ($)
Steve Cooper (3)	2019	$ 337,314	$ 82,201	$ 72,900	$ -	$ 23,692	$ 516,107
Former President and Chief Executive Officer	2018	$ 300,984	$ 38,523	$ 125,100	$ -	$ 34,731	$ 499,338
Jim Ison	2019	$ 248,852	$ 30,577	$ 24,300	$ -	$ 34,689	$ 338,418
Chief Sales and Marketing Officer	2018	$ 221,587	$ 14,799	$ 41,700	$ -	$ 30,097	$ 308,183
John W. Morrison Jr.	2019	$ 270,382	$ 37,838	$ 36,450	$ -	$ 35,944	$ 380,614
Chief Financial Officer	2018	$ 247,083	$ 16,131	$ 413,000	$ -	$ 33,199	$ 709,413

(1) Amounts reflect the full grant-date fair value of stock awards granted during the relevant fiscal year computed in accordance with ASC Topic 718, rather than the amounts paid to or realized by the named individual. We provide information regarding the assumptions used to calculate the value of all stock awards and option awards made to our officers in Note 9 to the audited consolidated financial statements for the year ended December 31, 2019 contained elsewhere in this Annual Report.

(2) Represents payment of health insurance premiums and 401(k) contributions.

(3) On February 15, 2020, Mr. Cooper was terminated as President and CEO of One Stop Systems, Inc., but will remain as a member of the board of directors. Mr. Cooper was replaced by Interim CEO David Raun, a member of the board of directors.

Narrative Disclosure to Compensation Tables

Employment Agreements

Executive Employment Agreement with Steve Cooper

Mr. Cooper is entitled to a base salary of $345,000, as approved by the Board of Directors on February 13, 2019, and subsequent annual increases as determined by the compensation committee and a target quarterly bonus in the amount of 50% of his quarterly base salary. The target quarterly bonus is based on Mr. Cooper's performance, as determined by the board of directors in its sole discretion, against fundamental corporate and/or individual objectives to be determined by the board of directors. Mr. Cooper is eligible to participate in our 2017 Equity Incentive Plan subject to the discretion of the board of directors if and when the board of directors determines to make a grant to him.

Under the terms of the employment agreement with Mr. Cooper, if we terminate his employment without cause (as defined below) or he resigns for good reason (as defined below) at any time other than within three (3) months immediately preceding or twelve (12) months immediately following the effective date of a change in control (as defined below), he is entitled to the following payments and benefits: (1) his fully earned but unpaid base salary through the date of termination at the rate then in effect, plus all other amounts under any compensation plan or practice to which he is entitled; (2) severance payments in an aggregate amount up to twelve (12) months of Mr. Cooper's then-current Base Salary, paid to Mr. Cooper on OSS's regular paydays until the earlier of (i) the date that is twelve (12) months following his termination or (ii) the date as of which he commences employment with another employer, subject to standard payroll deductions and withholdings; (3) a lump sum payment equal to Mr. Cooper's then-current target bonus; (4) the continuation of Mr. Cooper's group health continuation coverage under the Consolidated Omnibus Budget Reconciliation Act of 1986 ("COBRA") at OSS's expense for a period of twelve (12) months following the termination date; *provided, however*, that in the event Mr. Cooper becomes eligible for comparable group insurance coverage in connection with new employment, such COBRA premium payments by OSS shall terminate immediately; and (5) the automatic acceleration of the vesting and exercisability of his equity awards and stock options. Mr. Cooper must provide a release and waiver to OSS as a condition of receiving benefits (2)-(5) set forth in this paragraph.

In the event Mr. Cooper's termination without cause or resignation for good reason occurs within the three (3) months immediately preceding or twelve (12) months immediately following a change in control, he is entitled to the following payments and benefits: (1) a single lump-sum payment in an amount equal to twelve (12) months of Mr. Cooper's then-current base salary, subject to standard payroll deductions and withholdings, payable within ten (10) business days of the date the release and waiver becomes effective; and (2) provided that Mr. Cooper timely elect such coverage, the continuation of Mr. Cooper's group health continuation coverage under COBRA at OSS's expense for a period of twelve (12) months following the termination date; provided, however, that in the event Mr. Cooper becomes eligible for comparable group insurance coverage in connection with new employment, such COBRA premium payments by OSS shall terminate immediately; and (3) the vesting of the shares subject to each of Mr. Cooper's equity awards and stock options shall be accelerated such that one hundred percent (100%) of said shares shall be deemed fully-vested and, if applicable, immediately exercisable effective as of the date of such termination.

If Mr. Cooper's employment is terminated as a result of his death or following his permanent disability, Mr. Cooper or his estate, as applicable, is entitled to the following payments and benefits: (1) his fully earned but unpaid base salary through the date of termination at the rate then in effect, plus all other amounts under any compensation plan, expense reimbursement or practice to which he is entitled; (2) a lump sum cash payment in an amount equal to his "earned" bonus for the calendar quarter during which his date of termination occurs calculated as of the date of termination (wherein "earned" means that he has met the applicable bonus metrics as of date of such termination, as determined by the board of directors), prorated for such portion of the calendar quarter during which such termination occurs that has elapsed through the date of termination; and (3) a one-time payment of $500,000.

Executive Employment Agreement with John Morrison

Mr. Morrison is entitled to a base salary of $290,000, as approved by the Board of Directors on February 13, 2019, and subsequent annual increases as determined by the compensation committee and a target quarterly bonus in the amount of 35% of his quarterly base salary. The target quarterly bonus is based on Mr. Morrison's performance, as determined by the board of directors in its sole discretion, against fundamental corporate and/or individual objectives to be determined by the board of directors. Mr. Morrison is eligible to participate in our 2017 Equity Incentive Plan subject to the discretion of the board of directors if and when the board of directors determines to make a grant to him.

Under the terms of the employment agreement with Mr. Morrison, if we terminate his employment without cause (as defined below) or he resigns for good reason (as defined below) at any time other than within three (3) months immediately preceding or twelve (12) months immediately following the effective date of a change in control (as defined below), he is entitled to the following payments and benefits: (1) his fully earned but unpaid base salary through the date of termination at the rate then in effect, plus all other amounts under any compensation plan or practice to which he is entitled; (2) severance payments in an aggregate amount up to six (6) months of Mr. Morrison's then-current Base Salary, paid to Mr. Morrison on OSS's regular paydays until the earlier of (i) the date that is six (6) months following his termination or (ii) the date as of which he commences employment with another employer, subject to standard payroll deductions and withholdings; (3) a lump sum payment equal to Mr. Morrison's then-current target bonus; (4) the continuation of Mr. Morrison's group health continuation coverage under COBRA at OSS's expense for a period of six (6) months following the termination date; *provided, however*, that in the event Mr. Morrison becomes eligible for comparable group insurance coverage in connection with new employment, such COBRA premium payments by OSS shall terminate immediately; and (5) the automatic acceleration of the vesting and exercisability of his equity awards and stock options. Mr. Morrison must provide a release and waiver to OSS as a condition of receiving benefits (2)-(5) set forth in this paragraph.

In the event Mr. Morrison's termination without cause or resignation for good reason occurs within the three (3) months immediately preceding or twelve (12) months immediately following a change in control, he is entitled to the following payments and benefits: (1) a single lump-sum payment in an amount equal to six (6) months of Mr. Morrison's then-current base salary, subject to standard payroll deductions and withholdings, payable within ten (10) business days of the date the release and waiver becomes effective; and (2) provided that Mr. Morrison timely elect such coverage, the continuation of Mr. Morrison's group health continuation coverage under COBRA at OSS's expense for a period of six

(6) months following the termination date; provided, however, that in the event Mr. Morrison becomes eligible for comparable group insurance coverage in connection with new employment, such COBRA premium payments by OSS shall terminate immediately; and (3) the vesting of the shares subject to each of Mr. Morrison's equity awards and stock options shall be accelerated such that one hundred percent (100%) of said shares shall be deemed fully-vested and, if applicable, immediately exercisable effective as of the date of such termination.

If Mr. Morrison's employment is terminated as a result of his death or following his permanent disability, Mr. Morrison or his estate, as applicable, is entitled to the following payments and benefits: (1) his fully earned but unpaid base salary through the date of termination at the rate then in effect, plus all other amounts under any compensation plan, expense reimbursement or practice to which he is entitled; and (2) a lump sum cash payment in an amount equal to his "earned" bonus for the calendar quarter during which his date of termination occurs calculated as of the date of termination (wherein "earned" means that he has met the applicable bonus metrics as of date of such termination, as determined by the board of directors), prorated for such portion of the calendar quarter during which such termination occurs that has elapsed through the date of termination.

Executive Employment Agreement with Jim Ison

Mr. Ison is entitled to a base salary of $275,000, as approved by the Board of Directors on February 13, 2019, and subsequent annual increases as determined by the compensation committee and a target quarterly bonus in the amount of 25% of his quarterly base salary. The target quarterly bonus is based on Mr. Ison's performance, as determined by the board of directors in its sole discretion, against fundamental corporate and/or individual objectives to be determined by the board of directors. Mr. Ison is eligible to participate in our 2017 Equity Incentive Plan subject to the discretion of the board of directors if and when the board of directors determines to make a grant to him.

Under the terms of the employment agreement with Mr. Ison, if we terminate his employment without cause (as defined below) or he resigns for good reason (as defined below) at any time other than within three (3) months immediately preceding or twelve (12) months immediately following the effective date of a change in control (as defined below), he is entitled to the following payments and benefits: (1) his fully earned but unpaid base salary through the date of termination at the rate then in effect, plus all other amounts under any compensation plan or practice to which he is entitled; (2) severance payments in an aggregate amount up to six (6) months of Mr. Ison's then-current Base Salary, paid to Mr. Ison on OSS's regular paydays until the earlier of (i) the date that is six (6) months following his termination or (ii) the date as of which he commences employment with another employer, subject to standard payroll deductions and withholdings; (3) a lump sum payment equal to Mr. Ison's then-current target bonus; (4) the continuation of Mr. Ison's group health continuation coverage under COBRA at OSS's expense for a period of six (6) months following the termination date; *provided, however*, that in the event Mr. Ison becomes eligible for comparable group insurance coverage in connection with new employment, such COBRA premium payments by OSS shall terminate immediately; and (5) the automatic acceleration of the vesting and exercisability of his equity awards and stock options. Mr. Ison must provide a release and waiver to OSS as a condition of receiving benefits (2)-(5) set forth in this paragraph.

In the event Mr. Ison's termination without cause or resignation for good reason occurs within the three (3) months immediately preceding or twelve (12) months immediately following a change in control, he is entitled to the following payments and benefits: (1) a single lump-sum payment in an amount equal to six (6) months of Mr. Ison's then-current base salary, subject to standard payroll deductions and withholdings, payable within ten (10) business days of the date the release and waiver becomes effective; and (2) provided that Mr. Ison timely elect such coverage, the continuation of Mr. Ison's group health continuation coverage under COBRA at OSS's expense for a period of six (6) months following the termination date; provided, however, that in the event Mr. Ison becomes eligible for comparable group insurance coverage in connection with new employment, such COBRA premium payments by OSS shall terminate immediately; and (3) the vesting of the shares subject to each of Mr. Ison's equity awards and stock options shall be accelerated such that one hundred percent (100%) of said shares shall be deemed fully-vested and, if applicable, immediately exercisable effective as of the date of such termination.

If Mr. Ison's employment is terminated as a result of his death or following his permanent disability, Mr. Ison or his estate, as applicable, is entitled to the following payments and benefits: (1) his fully earned but unpaid base salary through the date of termination at the rate then in effect, plus all other amounts under any compensation plan, expense reimbursement or practice to which he is entitled; and (2) a lump sum cash payment in an amount equal to his "earned" bonus for the calendar quarter during which his date of termination occurs calculated as of the date of termination (wherein "earned" means that he has met the applicable bonus metrics as of date of such termination, as determined by the board of directors), prorated for such portion of the calendar quarter during which such termination occurs that has elapsed through the date of termination.

Defined Terms Applicable to Executive Employment Agreements

For purposes of executive employment agreements, "change in control" shall mean:

(i) The direct or indirect sale or transfer, in a single transaction or a series of related transactions, by the stockholders of the Company of voting securities, in which the holders of the outstanding voting securities of the Company immediately prior to such transaction or series of transactions hold, as a result of holding Company securities prior to such transaction, in the aggregate, securities possessing less than fifty percent (50%) of the total combined voting power all outstanding voting securities of the Company or of the acquiring entity immediately after such transaction or series of related transactions;

(ii) A merger or consolidation in which the Company is not the surviving entity, except for a transaction in which the holders of the outstanding voting securities of the Company immediately prior to such merger or consolidation hold as a result of holding Company securities prior to such transaction, in the aggregate, securities possessing more than fifty percent (50%) of the total combined voting power of all outstanding voting securities of the surviving entity (or the parent of the surviving entity) immediately after such merger or consolidation;

(iii) A reverse merger in which the Company is the surviving entity but in which the holders of the outstanding voting securities of the Company immediately prior to such merger hold as a result of holding Company securities prior to such transaction, in the aggregate, securities possessing less than fifty percent (50%) of the total combined voting power of all outstanding voting securities of the Company or of the acquiring entity immediately after such merger;

(iv) The sale, transfer or other disposition (in one transaction or a series of related transactions) of all or substantially all of the assets of the Company, except for a transaction in which the holders of the outstanding voting securities of the Company immediately prior to such transaction(s) receive as a distribution with respect to securities of the Company, in the aggregate, securities possessing more than fifty percent (50%) of the total combined voting power of all outstanding voting securities of the acquiring entity immediately after such transaction(s); or

(v) Any time individuals who, on the date this Plan is adopted by the board of directors, are members of the board of directors (the "Incumbent Board") cease for any reason to constitute at least a majority of the members of the input/output; *provided, however*, that if the appointment or election (or nomination for election) of any new board member was approved or recommended by a majority vote of the members of the Incumbent Board then still in office, such new member shall, for purposes of this Plan, be considered as a member of the Incumbent Board.

For purposes of the executive employment agreements, "cause" means as determined in the sole discretion of the board of directors following written notice of the condition(s) believed to constitute cause, which notice shall briefly describe such condition(s), one or more of the following condition(s): (i) Executive's failure to substantially perform Executive's job duties (other than any such failure resulting from Executive's incapacity due to physical or mental illness or any such actual or anticipated failure after his issuance of written notice of the occurrence of an event alleged by Executive to constitute good reason); (ii) Executive's failure to comply with all material applicable laws in performing Executive's job duties or in directing the conduct of OSS's business; (iii) Executive's commission of any felony or intentionally fraudulent acts against OSS, its affiliates, executives, agents or customers; (iv) Executive's participation in any activity that is directly competitive with or intentionally injurious to OSS or any of its affiliates or which violates the terms of Executive's proprietary information and inventions agreement; (iv) Executive's material breach of the terms of Executive's proprietary information and inventions agreement; (v) Executive's commission of any act of fraud, embezzlement or dishonesty against OSS or any of its affiliates, or use or intentional appropriation for Executive's personal use or benefit of any funds or material properties of OSS or any of its affiliates not authorized by the board of directors to be so used or appropriated; (vi) Executive's breach of any material provision of the employment agreement;

and (vii) Executive's gross negligence, insubordination or material violation of any duty of loyalty to OSS or any other demonstrable material misconduct on the part of Executive; provided, however, that, termination by OSS under subsections (i) or (vi) of this Section 3.8(c), shall only be deemed for "cause" pursuant to the foregoing definition if Executive fails to remedy such condition(s) within thirty (30) days following delivery of the notice of termination for cause.

For purposes of the executive employment agreements, "good reason" means the occurrence of any of the following events without Executive's consent: (i) a material adverse change in Executive's duties, authority or responsibilities relative to the duties, authority or responsibilities in effect immediately prior to such reduction, or, as it relates to Mr. Cooper, the removal of Executive as chief executive officer of OSS; provided, however, that a reduction in duties, position or responsibilities solely by virtue of OSS being acquired and made part of a larger entity (as, for example, when Executive retains a similar position with a subsidiary of the acquiring entity following a change in control, but Executive does not hold the same position in the acquiring entity) shall not constitute "good reason;" and, provided, further that Executive's removal from the board of directors shall not constitute "good reason;" (ii) a material diminution in Executive's base compensation; or (iii) a material breach by OSS of its obligations under this Agreement; provided, however, that, such termination by Executive shall only be deemed for "good reason" pursuant to the foregoing definition if: (A) Executive gives OSS written notice of Executive's intent to terminate for good reason within sixty (60) days following the first occurrence of the condition(s) that Executive believes constitute(s) good reason, which notice shall describe such condition(s); (B) OSS fails to remedy such condition(s) within thirty (30) days following receipt of the written notice (the "Cure Period"); and (C) Executive voluntarily terminates Executive's employment within sixty (60) days following the end of the Cure Period.

Annual Cash Bonus

For 2019 and 2018, Mr. Cooper, Mr. Ison and Mr. Morrison were eligible for bonuses. The executives' bonuses for 2019 and 2018 were determined at the discretion of our board of directors based on its assessment of our corporate performance. Based on this assessment, our board of directors determined to award and paid Mr. Cooper a bonus of $81,869 and $38,523 for 2019 and 2018, respectively representing 24.3% and 12.8% of his paid salary for 2019 and 2018; Mr. Ison a bonus of $30,060 and $14,799, representing 12.3% and 6.6% of his paid salary for 2019 and 2018, respectively and Mr. Morrison received a bonus of $37,326 and $16,131, of his paid salary representing 14.0% and 6.5% for 2019 and 2018, respectively.

Equity Compensation

We primarily offer stock options to our named executive officers as the long-term incentive component of our compensation program. Our stock options allow employees to purchase shares of our common stock at a price per share equal to the fair market value of our common stock on the date of grant and may or may not be intended to qualify as "incentive stock options" for U.S. federal income tax purposes. In the past, our board of directors has determined the fair market value of our common stock based upon inputs including valuation reports prepared by third-party valuation firms from time to time. Generally, the stock options we grant vest over three years, subject to the employee's continued employment with us on the vesting date.

On April 11, 2018, Mr. Cooper received a restricted stock unit (RSU's) grant of 30,000 shares of our common stock. The RSU's vest over three years, with equal quarterly installments over a period of three years, subject to his continued employment with us on each vesting date.

On February 13, 2019, Mr. Cooper received a restricted stock unit (RSU's) grant of 30,000 shares of our common stock. The RSU's vest over three years, with equal quarterly installments over a period of three years, subject to his continued employment with us on each vesting date.

On April 11, 2018, Mr. Ison received a restricted stock unit (RSU's) grant of 10,000 shares of our common stock. The RSU's vest over three years, with equal quarterly installments over a period of three years, subject to his continued employment with us on each vesting date.

On February 13, 2019, Mr. Ison received a restricted stock unit (RSU's) grant of 15,000 shares of our common stock. The RSU's vest over three years, with equal quarterly installments over a period of three years, subject to his continued employment with us on each vesting date.

On February 10, 2020, Mr. Ison received a restricted stock unit (RSU's) grant of 15,000 shares of our common stock. The RSU's vest over three years, with equal semi-annual installments over a period of three years, subject to his continued employment with us on each vesting date.

On April 11, 2018, Mr. Morrison received a restricted stock unit (RSU's) grant of 50,000 shares of our common stock. The RSU's vests over three years, with 1/3 of the shares subject to the option vested upon the anniversary of the date of initial employment and the remainder vesting in equal quarterly installments over a period of two years thereafter, subject to his continued employment with us on each vesting date.

On July 2, 2018, Mr. Morrison received a restricted stock unit (RSU's) grant of 50,000 shares of our common stock. The RSU's vests over three years, with 1/3 of the shares subject to the option vested upon the anniversary of the date of initial employment and the remainder vesting in equal quarterly installments over a period of two years thereafter, subject to his continued employment with us on each vesting date.

On February 13, 2019, Mr. Morrison received a restricted stock unit (RSU's) grant of 15,000 shares of our common stock. The RSU's vest over three years, with equal quarterly installments over a period of three years, subject to his continued employment with us on each vesting date.

On February 10, 2020, Mr. Morrison received a restricted stock unit (RSU's) grant of 15,000 shares of our common stock. The RSU's vest over three years, with equal semi-annual installments over a period of three years, subject to his continued employment with us on each vesting date.

Stock awards granted to our named executive officers may be subject to accelerated vesting in certain circumstances. For additional discussion, please see "– Employment Agreements" above and "– Change in Control Benefits" below.

Prior to our initial public offering, we adopted a 2017 Equity Incentive Plan, in order to facilitate the grant of cash and equity incentives to directors, employees (including our named executive officers) and consultants of our company and certain of its affiliates to enable our company and certain of its affiliates to obtain and retain services of these individuals, which is essential to our long-term success. For additional information about the 2017 Equity Incentive Plan, please see the section titled "Incentive Award Plans" below.

Other Elements of Compensation

Retirement Plans

We have a 401(k) retirement plan. Under the terms of the plan, eligible employees may defer up to 20% of their pre-tax earnings, subject to the Internal Revenue Service annual contribution limit. Additionally, the Plan allows for discretionary matching contributions by us. In 2019 and 2018, the matching contribution was increased to 100% of the employee's contribution up to a maximum of 5% of the employee's annual compensation.

Employee Benefits and Perquisites

Our named executive officers are eligible to participate in our health and welfare plans which include health, vision, dental, disability, flex-spending, life insurance and 401(k) plan.

Change in Control Benefits

Our named executive officers may become entitled to certain benefits or enhanced benefits in connection with a change in control of our company. Each of our named executive officers' employment agreements entitles them to accelerated vesting of all outstanding equity awards, as well as certain other benefits, upon a change in control of our company. For additional discussion, please see "Employment Agreements" above.

Outstanding Equity Awards at Fiscal Year End

The following table summarizes the number of shares of common stock underlying outstanding equity incentive plan awards for each named executive officer as of December 31, 2019.

	Option Awards						Stock Awards			
Name	**Grant Date**	**Number of securities underlying unexercised options (#) exercisable**	**Number of securities underlying unexercised options (#) unexercisable**	**Equity Incentive plan awards: Number of securities underlying unexercised unearned options (#)**	**Option Exercise Price ($)**	**Option expiration date**	**Number of shares or units of stock that have not vested (#)**	**Market value of shares of units of stock that have not vested ($)**	**Equity Incentive plan awards: Number of unearned shares, units or other rights that have not vested (#)**	**Equity Incentive plan awards: Market or payout value of unearned share, units or other right that have not vested ($)**
Steve Cooper	12/7/2011	200,000			$ 0.76	12/6/2021				
	1/18/2012	100,000			$ 0.76	1/17/2022				
	7/16/2014	180,000			$ 0.46	7/15/2024				
	4/2/2016	90,000		-	$ 1.08	4/1/2026				
	4/18/2017	37,500		7,500	$ 1.95	4/17/2027				
	4/11/2018					4/10/2028	15,000	30,300		
	2/13/2019					2/13/2019	25,000	50,500		
	10/1/2012	27,460			$ 0.76	9/30/2022				
Jim Ison	7/16/2014	50,000			$ 0.46	7/15/2024				
	4/2/2016	25,000			$ 1.08	4/1/2026				
	4/18/2017	16,666		3,334	$ 1.95	4/17/2027				
	4/11/2018					4/10/2028	5,002	10,104		
	2/13/2019					2/13/2019	8,333	16,833		
	4/11/2018					4/10/2028	12,500	25,250		
John W. Morrison Jr.	7/2/2018					7/1/2028	12,500	25,250		
	2/13/2019					2/13/2019	12,500	25,250		

Directors Compensation

Mr. Cooper, who was our chief executive officer until February 15, 2020, received no compensation for his service as a director. The compensation received by Mr. Cooper as an officer for the year ended December 31, 2019 is presented in "Executive Compensation – Summary Compensation Table."

The following table sets forth information for the year ended December 31, 2019, regarding the compensation awarded to, earned by or paid to our non-employee directors who served on our board of directors during 2019.

Name	Fees earned or paid in cash ($)	Stock awards ($)	RSU Awards awards ($)	Non-equity incentive plan compensation ($)	Nonqualified deferred compensation earnings ($)	All other compensation ($)	Total ($)
Ken Potashner	$ 21,000	$ -	$ 18,225	$ -	$ -	$ -	$ 39,225
Jack Harrison	$ 21,000	$ -	$ 18,225	$ -	$ -	$ -	$ 39,225
John Reardon	$ 21,000	$ -	$ 18,225	$ -	$ -	$ -	$ 39,225
David Raun	$ 21,000	$ -	$ 18,225	$ -	$ -	$ -	$ 39,225
Kimberly Sentovich	$ 19,250	$ -	$ 18,225	$ -	$ -	$ -	$ 37,475
Randy Jones (1)	$ 7,875	$ -	$ -	$ -	$ -	$ -	$ 7,875

(1) Mr. Jones elected not to stand for re-election to the board of directors effective May 15, 2019.

Stock Option Plans

2017 Equity Incentive Plan

Our board of directors adopted our 2017 Equity Incentive Plan on October 10, 2017 (the “2017 Plan”). Our 2017 Plan allows for the grant of a variety of equity vehicles to provide flexibility in implementing equity awards, including incentive stock options, non-qualified stock options, restricted stock grants, unrestricted stock grants and restricted stock units.

Authorized Shares. A total of 1,500,000 shares of common stock were authorized under the 2017 Plan.

Plan Administration. As permitted by the terms of the 2017 Plan, the board of directors has delegated administration of the 2017 Plan to the compensation committee. As used herein with respect to the 2017 Plan, the “Board of Directors” refers to any committee the Board of Directors appoints as well as to the Board of Directors itself. Subject to the provisions of the 2017 Plan, the Board of Directors has the power to construe and interpret the 2017 Plan and awards granted under it and to determine the persons to whom and the dates on which awards will be granted, the number of shares of common stock to be subject to each award, the time or times during the term of each award within which all or a portion of such award may be exercised, the exercise price, the type of consideration and other terms of the award. Subject to the limitations set forth below, the Board of Directors will also determine the exercise price of options granted under the 2017 Plan and, with the consent of any adversely affected option holder, may reduce the exercise price of any outstanding option, cancel an outstanding option in exchange for a new option covering the same or a different number of shares of common stock or another equity award or cash or other consideration, or any other action that is treated as a repricing under generally accepted accounting principles. All decisions, determinations and interpretations by the Board of Directors regarding the 2017 Plan shall be final and binding on all participants or other persons claiming rights under the 2017 Plan or any award.

Options. Options granted under the 2017 Plan may become exercisable in cumulative increments (“vest”) as determined by the Board of Directors. Such increments may be based on continued service to the Company over a certain period of time, the occurrence of certain performance milestones, or other criteria. Options granted under the 2017 Plan may be subject to different vesting terms. The Board of Directors has the power to accelerate the time during which an option may vest or be exercised. In addition, options granted under the 2017 Plan may permit exercise prior to vesting, but in such event the participant may be required to enter into an early exercise stock purchase agreement that allows the Company to repurchase unvested shares, generally at their exercise price, should the participant’s service terminate before vesting. To the extent provided by the terms of an option, a participant may satisfy any federal, state or local tax withholding obligation relating to the exercise of such option by a cash payment upon exercise, by authorizing the Company to withhold a portion of the stock otherwise issuable to the participant, or by such other method as may be set forth in the option agreement. The maximum term of options under the 2017 Plan is 10 years, except that in certain cases the maximum term of certain incentive stock options is five years. Options under the 2017 Plan generally terminate three months after termination of the participant’s service. Incentive stock options are not transferable except by will or by the laws of descent and distribution, provided that a participant may designate a beneficiary who may exercise an option following the participant’s death. Non-statutory stock options are transferable to the extent provided in the option agreement.

Stock Bonuses and Restricted Stock Awards. Subject to certain limitations, the consideration, if any, for restricted stock unit awards must be at least the par value of our common stock. The consideration for a stock unit award may be payable in any form acceptable to the Board of Directors and permitted under applicable law. The Board of Directors may impose any restrictions or conditions upon the vesting of restricted stock unit awards, or that delay the delivery of the consideration after the vesting of stock unit awards, that it deems appropriate. Restricted stock unit awards are settled in shares of the Company’s common stock. Dividend equivalents may be credited in respect of shares covered by a restricted stock unit award, as determined by the Board of Directors. At the discretion of the Board of Directors, such dividend equivalents may be converted into additional shares covered by the restricted stock unit award. If a restricted stock unit award recipient’s service relationship with the Company terminates, any unvested portion of the restricted stock unit award is forfeited upon the recipient’s termination of service.

Certain Adjustments. Transactions not involving receipt of consideration by the Company, such as a merger, consolidation, reorganization, recapitalization, reincorporation, reclassification, stock dividend, dividend in property other than cash, stock split, liquidating dividend, combination of shares, exchange of shares, or a change in corporate structure may change the type(s), class(es) and number of shares of common stock subject to the 2017 Plan and outstanding awards. In that event, the 2017 Plan will be appropriately adjusted as to the type(s), class(es) and the maximum number of shares of common stock subject to the 2017 Plan and the Section 162(m) Limitation, and outstanding awards will be adjusted as to the type(s), class(es), number of shares and price per share of common stock subject to such awards.

2015 Stock Option Plan

Our board of directors adopted, and our stockholders approved, our 2015 Stock Option Plan in December 2015 (the “2015 Plan”). Our 2015 Plan allows for the grant of incentive stock options, within the meaning of Section 422 of the Code, to our employees and our parent and subsidiary corporations’ employees, and for the grant of non-statutory stock options to our employees, directors and consultants and our parent and subsidiary corporations’ employees, directors and consultants.

Authorized Shares. A total of 1,500,000 shares of common stock were authorized for grant under the 2015 Plan. Our 2015 Plan was terminated by the board of directors on October 10, 2017, and accordingly, no shares are available for issuance under the 2015 Plan. Our 2015 Plan will continue to govern outstanding awards granted thereunder.

Plan Administration. Our board of directors or a committee of our board (the administrator) administers our 2015 Plan. Subject to the provisions of the 2015 Plan, the administrator has the full authority and discretion to take any actions it deems necessary or advisable for the administration of the 2015 Plan. The administrator has the power to construe and interpret the terms of our 2015 Plan and awards granted under it, to prescribe, amend and rescind rules relating to our 2015 Plan, including rules and regulations relating to sub-plans, and to determine the terms and conditions of the awards, including the exercise price, the number of shares of our common stock subject to each such award, any vesting acceleration or waiver of forfeiture restrictions, and any restrictions or limitations regarding awards or the shares relating thereto. All decisions, interpretations and other actions of the administrator are final and binding on all participants in the 2015 Plan.

Options. Stock options may be granted under our 2015 Plan. The exercise price per share of all options must equal at least 100% of the fair market value per share of our common stock on the date of grant, as determined by the administrator. The term of a stock option may not exceed 10 years. With respect to any participant who owns 10% of the voting power of all classes of our outstanding stock as of the grant date, the term of an incentive stock option granted to such participant must not exceed five years and the exercise price per share of such incentive stock option must equal at least 110% of the fair market value per share of our common stock on the date of grant, as determined by the administrator.

After termination of an employee, director or consultant, he or she may exercise his or her option for the period of time as specified in the applicable option agreement. If termination is due to death or disability, the option generally will remain exercisable for at least twelve months. In all other cases, the option will generally remain exercisable for at least 90 days. However, an option generally may not be exercised later than the expiration of its term.

Transferability of Options. Unless our administrator provides otherwise, our 2015 Plan generally does not allow for the transfer or assignment of options, except by will or by the laws of descent and distribution.

Certain Adjustments. In the event of certain changes in our capitalization, in order to prevent diminution or enlargement of the benefits or potential benefits intended to be made available under the 2015 Plan, the administrator will adjust the number and class of shares that may be delivered under our 2015 Plan and/or the number, class and price of shares covered by each outstanding award.

2011 Stock Option Plan

Our board of directors adopted, and our stockholders approved, our 2011 Stock Option Plan in December 2011 (the “2011 Plan”). Our 2011 Plan allows for the grant of incentive stock options, within the meaning of Section 422 of the Code, to our employees and our parent and subsidiary corporations’ employees, and for the grant of non-statutory stock options to our employees, directors and consultants and our parent and subsidiary corporations’ employees, directors and consultants.

Authorized Shares. A total of 1,500,000 shares of common stock were authorized for grant under the 2011 Plan. Our 2011 Plan was terminated by the board of directors on October 10, 2017, and accordingly, no shares are available for issuance under the 2011 Plan. Our 2011 Plan will continue to govern outstanding awards granted thereunder.

Plan Administration. Our board of directors administers our 2011 Plan. Subject to the provisions of the 2011 Plan, the board of directors has the full authority and discretion to take any actions it deems necessary or advisable for the administration of the 2011 Plan. The board of directors has the power to construe and interpret the terms of our 2011 Plan and awards granted under it, to prescribe, amend and rescind rules relating to our 2011 Plan, including rules and regulations relating to sub-plans, and to determine the terms and conditions of the awards, including the exercise price, the number of shares of our common stock subject to each such award, any vesting acceleration or waiver of forfeiture restrictions, and any restrictions or limitations regarding awards or the shares relating thereto. All decisions, interpretations and other actions of the board of directors are final and binding on all participants in the 2011 Plan.

Options. Stock options may be granted under our 2011 Plan. The exercise price per share of all options must equal at least 100% of the fair market value per share of our common stock on the date of grant, as determined by the board of directors. The term of a stock option may not exceed 10 years. With respect to any participant who owns 10% of the voting power of all classes of our outstanding stock as of the grant date, the term of an incentive stock option granted to such participant must not exceed five years and the exercise price per share of such incentive stock option must equal at least 110% of the fair market value per share of our common stock on the date of grant, as determined by the board of directors.

After termination of an employee, director or consultant, he or she may exercise his or her option for the period of time as specified in the applicable option agreement. If termination is due to death or disability, the option generally will remain exercisable for at least twelve months. In all other cases, the option will generally remain exercisable for at least 90 days. However, an option generally may not be exercised later than the expiration of its term.

Transferability of Options. Unless our board of directors provides otherwise, our 2011 Plan generally does not allow for the transfer or assignment of options, except by will or by the laws of descent and distribution. Notwithstanding the foregoing, to the extent permitted by the board of directors, in its discretion, a non-statutory option shall be assignable or transferable subject to the applicable limitations, if any, described in Rule 701 under the Securities Act.

Certain Adjustments. In the event of certain changes in our capitalization, in order to prevent diminution or enlargement of the benefits or potential benefits intended to be made available under the 2011 Plan, the board of directors will adjust the number and class of shares that may be delivered under our 2 Plan and/or the number, class and price of shares covered by each outstanding award.

2000 Stock Option Plan

Our board of directors adopted, and our stockholders approved, our 2000 Stock Option Plan (the “2000 Plan”). Our 2000 Plan allows for the grant of incentive stock options, within the meaning of Section 422 of the Code, to our employees and our parent and subsidiary corporations' employees, and for the grant of non-statutory stock options to our employees, directors and consultants and our parent and subsidiary corporations' employees, directors and consultants.

Authorized Shares. A total of 1,500,000 shares of common stock were authorized for grant under the 2000 Plan. In November 2008, the 2000 Plan was increased to allow for an aggregate of 3,000,000 shares authorized under the plan. Our 2000 Plan expired on its terms in 2010, and accordingly, no shares are available for issuance under the 2000 Plan. Our 2000 Plan will continue to govern outstanding awards granted thereunder.

Plan Administration. Our board of directors administers our 2000 Plan. Subject to the provisions of the 2000 Plan, the board of directors has the full authority and discretion to take any actions it deems necessary or advisable for the administration of the 2000 Plan. The board of directors has the power to construe and interpret the terms of our 2000 Plan and awards granted under it, to prescribe, amend and rescind rules relating to our 2000 Plan, including rules and regulations relating to sub-plans, and to determine the terms and conditions of the awards, including the exercise price, the number of shares of our common stock subject to each such award, any vesting acceleration or waiver of forfeiture restrictions, and any restrictions or limitations regarding awards or the shares relating thereto. All decisions, interpretations and other actions of the board of directors are final and binding on all participants in the 2000 Plan.

Options. Under the 2000 Plan, the exercise price per share of all options must equal at least 100% of the fair market value per share of our common stock on the date of grant, as determined by the board of directors. The term of a stock option may not exceed 10 years. With respect to any participant who owns 10% of the voting power of all classes of our outstanding stock as of the grant date, the term of an incentive stock option granted to such participant must not exceed five years and the exercise price per share of such incentive stock option must equal at least 110% of the fair market value per share of our common stock on the date of grant, as determined by the board of directors.

After termination of an employee, director or consultant, he or she may exercise his or her option for the period of time as specified in the applicable option agreement. If termination is due to death or disability, the option generally will remain exercisable for at least twelve months. In all other cases, the option will generally remain exercisable for at least 90 days. However, an option generally may not be exercised later than the expiration of its term.

Transferability of Options. Unless our board of directors provides otherwise, our 2000 Plan generally does not allow for the transfer or assignment of options, except by will or by the laws of descent and distribution. Notwithstanding the foregoing, to the extent permitted by the board of directors, in its discretion, a non-statutory option shall be assignable or transferable subject to the applicable limitations, if any, described in Rule 701 under the Securities Act.

Certain Adjustments. In the event of certain changes in our capitalization, in order to prevent diminution or enlargement of the benefits or potential benefits intended to be made available under the 2015 Plan, the board of directors will adjust the number and class of shares that may be delivered under our 2000 Plan and/or the number, class and price of shares covered by each outstanding award.

S-8 Registration Statement:

On October 3, 2018, the Company filed a Form S-8 Registration Statement relating to 3,432,525 shares of the Company's common stock, par value $0.0001 per share issuable to the employees, officers, directors, consultants and advisors of the Company under the Company's 2017 Plan, 2015 Plan, 2011 Plan, and 2000 Plan.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS.

The following table sets forth information regarding beneficial ownership of our common stock, as of February 29, 2020, by:

- each person, or group of affiliated persons, known by us to be the beneficial owner of more than 5% of our common stock;
- each of our named executive officers;

- each of our directors; and
- all of our executive officers and directors as a group.

We have determined beneficial ownership in accordance with SEC rules. The information does not necessarily indicate beneficial ownership for any other purpose. Under these rules, the number of shares of common stock deemed outstanding includes shares issuable upon exercise of stock options or warrants held by the respective person or group that may be exercised or converted within 60 days after February 29, 2020. For purposes of calculating each person's or group's percentage ownership, stock options and warrants exercisable within 60 days after February 29, 2020 are included for that person or group but not for any other person or group.

Applicable percentage ownership is based on 16,459,457 shares of common stock outstanding at February 29, 2020.

Unless otherwise indicated and subject to applicable community property laws, to our knowledge, each stockholder named in the following table possesses sole voting and investment power over the shares listed. Unless otherwise noted below, the address of each person listed on the table is c/o One Stop Systems, Inc., 2235 Enterprise Street, #110, Escondido, CA 92029.

Name and Address of Beneficial Owner (1)	Number of Shares of Common Stock Beneficially Owned (2)	Percent of Common Stock Beneficially Owned
5% or greater stockholders:		
James Reardon (10)	1,280,519	7.8 %
Wasatch Advisors, Inc. (11)	1,044,280	6.3 %
Bard & Associate (12)	993,196	6.0 %
Named Executive Officer and Directors:		
Steve Cooper (1)	3,198,805	19.4 %
John Reardon (2)	389,732	2.3 %
Ken Potashner (3)	406,440	2.4 %
Jack Harrison (4)	45,218	*
David Raun (5)	71,863	*
Kimberly Sentovich (6)	7,500	*
Jim Ison (7)	132,157	*
John Morrison (8)	49,587	*
All executive officers and directors as a group (8 persons)(9)	4,301,302	25.1 %

* Less than 1%.

(1) Consists of 3,198,805 shares of common stock held by The Cooper Revocable Trust dated April 25, 2001, Steve Cooper shares joint voting and investment control of The Cooper Revocable Trust dated April 25, 2001 with his wife Lori Cooper. Mr. Cooper served as our chief executive officer and president until February 15, 2020. Mr. Cooper still serves as a member of the board of directors.

(2) Consists of (i)170,362 shares of common stock held by the Reardon Family Trust dated August 31, 2011 of which Mr. Reardon holds joint voting and investment control with his wife Dawn Reardon and (ii)145,000 shares of common stock and 7,500 RSU's that Mr. Reardon has the right to acquire or receive from us within 60 days of February 29, 2020 pursuant to exercise of stock options, (iii) 66,870 shares of common stock held by The RTC Group, Inc. of which Mr. Reardon exercises sole voting and investment control Mr. Reardon is a member of the board of directors.

(3) Consists of (i) 94,240 shares of common stock held by Mr. Potashner, (ii) 159,700 shares of common stock that Kenco, Inc. has the right to exercise within 60 days of February 29 2020 (pursuant to common stock warrants, and (iii) 145,000 shares of common stock and 7,500 RSU's that Mr. Potashner has the right to acquire or receive from us within 60 days of February 29, 2020 pursuant to the exercise of stock options. Mr. Potashner has sole voting and investment control over Kenco, Inc. Mr. Potashner is the chairman of the board of directors.

(4) Consists of (i) 7,951 shares of common stock held by Mr. Harrison, (ii) 10,000 shares of common stock and 7,500 RSU's that Mr. Harrison has the right to acquire or receive from us within 60 days of February 29, 2020 pursuant to the exercise of stock options and (iii) 19,767 shares of common stock that Mr. Harrison has the right to exercise

within 60 days of February 29, 2020 pursuant to common stock warrants. Mr. Harrison is a member of the board of directors.

(5) Consists of (i) 40,410 shares of common stock held by Mr. Raun, (ii) 10,000 shares of common stock and 7,500 RSU's that Mr. Raun has the right to acquire or receive from us within 60 days of February 29, 2020 pursuant to the exercise of stock options and (iii) 13,953 shares of common stock that Mr. Raun has the right to exercise within 60 days of February 29, 2020 pursuant to common stock warrants. Mr. Raun is a member of the board of directors.

(6) Includes 7,500 RSU's that Ms. Sentovich has the right to receive from us within 60 days of February 29, 2020 pursuant to the exercise of stock options. Ms. Sentovich is a member of the board of directors.

(7) Consists of (i) 14,096 shares of common stock held by Mr. Ison and (ii) 115,560 shares of common stock and 2,501 RSU's that Mr. Ison has the right to acquire or receive from us within 60 days of February 29, 2020 pursuant to the exercise of stock options. Mr. Ison is the VP of Sales for the Company.

(8) Consists of (i) 38,753 shares of common stock held by Mr. Morrison, (ii) 10,834 of RSU's that Mr. Morrison has a right to receive. Mr. Morrison is the Chief Financial Officer of the company.

(9) Includes (i) 3,631,487 shares beneficially owned by our current named executive officers and directors, (ii) 618,980 shares subject to options, warrants or convertible securities and (iii) 50,835 RSU's that are either exercisable or such person has a right to receive within 60 days of February 29, 2020, as set forth in the previous footnotes.

(10) Consists of (i) 1,267,185 shares of common stock and (ii) 12,500 shares of common stock and 834 RSU's that Mr. James Reardon has the right to acquire or receive from us within 60 days of February 29, 2020 pursuant to exercise of stock option. Mr. Reardon is also the President, CDI Division of the Company.

(11) Schedule 13G filed with the SEC on February 10, 2020.

(12) Schedule 13G filed with the SEC on February 10, 2020.

Equity Compensation Plan Information:

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted-average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
2017 Stock Option Plan	385,670	$ 1.48	1,070,168
2015 Stock Option Plan	641,061	$ 1.68	-
2011 Stock Option Plan	876,383	$ 0.65	-
Warrants	630,947	$ 4.16	-

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE.

We describe below the transactions and series of similar transactions, since January 1, 2018, to which we were a party or will be a party, in which:

- the amounts involved exceeded or will exceed $120,000; and
- any of our directors, executive officers, holders of more than 5% of our capital stock or any member of their immediate family had or will have a direct or indirect material interest, other than equity and other compensation, termination, change in control and other arrangements with directors and executive officers, which are described where required under the section above titled "Executive Compensation."

SkyScale Joint Venture

On April 6, 2017, OSS and Jacoma Investments, LLC, an entity controlled by our board member Jack Harrison, formed a joint venture named SkyScale, LLC in the State of California. In accordance with the terms of the joint venture, Jacoma Investments, LLC agreed to contribute $750,000 in capital and OSS agreed to contribute $750,000 in the form of credits to purchase equipment, personnel or support services from OSS. Each party received a 50% membership interest in the joint venture. The purpose of SkyScale, LLC was to engage in the business of providing high performance computing capabilities as cloud services. This joint venture has now been completely closed with no further activities. On December 31, 2018, as a result of changes in the competitive landscape and downward pressure on pricing from large competitors, the members to the SkyScale joint venture agreement agreed to begin the dissolution of SkyScale.

Convertible Note and Warrant Financing

In April 2019, certain members of the Company's Board of Directors executed definitive agreements to commit funds of up to $4,000,000 as a credit facility. The Company initially borrowed $1,150,000 from members of the Board of Directors for a two year period at an interest rate of 9.5% which requires the Company to make monthly principal and interest payment of $52,900 per month. In connection with these loans, the Company issued to these note holders warrants to purchase shares of the Company's common stock equal to 10% of the original principal as a price per share equal to $2.15 per share. Accordingly, the Company issued to these note holders warrants to purchase 53,490 shares of the Company's common stock. The relative fair value of the warrants issued was $46,121.

Management Services Agreement

Effective August 1, 2016, we entered into a management services agreement with a company owned by the former chief executive officer of Magma. The agreement calls for payments of $180,000 per year for the first two years paid in monthly installments. In the third year, the amount is reduced to $37,500 for the year paid in monthly installments. Additionally, we granted 30,000 non-statutory stock options in conjunction with execution of this agreement with an exercise price of $1.78 per share. Payments for the year ended December 31, 2019 and 2018 were $21,875 and $120,625, respectively.

Investors' Rights Agreement

We entered into a second amended and restated investors' rights agreement in January 2007 with the holders of our preferred stock, including entities with which certain of our directors are affiliated. This agreement provides for certain rights relating to the registration of their shares of common stock issuable upon conversion of their preferred stock, a right of first refusal for certain holders of preferred stock to purchase future securities sold by us and certain additional covenants made by us. Except for the registration rights (including the related provisions pursuant to which we have agreed to indemnify the parties to the investors' rights agreement), all rights under this agreement terminated upon closing of our initial public offering. The registration rights will continue and will terminate two years following the closing of our initial public offering, or for any particular holder with registration rights, at such time when such holder may sell all of such shares pursuant to Rule 144(b)(1) under the Securities Act. Our common holders also have certain rights to "piggyback" onto the registration rights provided to our former holders of preferred stock. See "Description of Capital Stock—Registration Rights" for additional information.

Personal Guarantees of Chief Executive Officer

Steve Cooper, who served as our CEO until February 15, 2020, personally guaranteed (by himself personally and/or via a family trust) certain loans and lines of credit held by the Company. Mr. Cooper has personally guaranteed indebtedness owed by OSS pursuant to certain business loans, including related party debt owed to Kenco, Inc. (beneficially owned by our director Kenneth Potashner) and Tim Rueth (stockholder), and also a revolving line of credit with Bank of the West. Proceeds received from our initial public offering were used to retire these debt obligations and as of March 2, 2018, the line of credit with the Bank of the West was cancelled by the Company, which released Mr. Cooper from such personal guarantees.

Executive Compensation and Employment Arrangements

Please see "Item 11 Executive Compensation" for information on compensation arrangements with our executive officers and agreements with our executive officers containing compensation and termination provisions, among others.

Director and Officer Indemnification and Insurance

We will enter into indemnification agreements with each of our directors and executive officers, and we maintain directors' and officers' liability insurance. These agreements, among other things, require us or will require us to indemnify each director and executive officer to the fullest extent permitted by Delaware law, including indemnification of expenses such as attorneys' fees, judgments, fines and settlement amounts incurred by the director or executive officer in any action or proceeding, including any action or proceeding by or in right of us, arising out of the person's services as a director or executive officer.

Our certificate of incorporation and our amended and restated bylaws provide that we will indemnify each of our directors and officers to the fullest extent permitted by the Delaware General Corporation Law. Further, we have entered into indemnification agreements with each of our directors and officers, and we have purchased a policy of directors' and officers' liability insurance that insures our directors and officers against the cost of defense, settlement or payment of a judgment under certain circumstances. For further information, see "Executive Compensation—Limitations of Liability and Indemnification Matters."

Board Committees and Independence

Our board of directors has established three standing committees – audit, compensation and nominating and corporate governance – each of which operates under a charter that has been approved by our board of directors.

Policies and Procedures Regarding Related Party Transactions

Our board of directors has adopted a written related person transaction policy setting forth the policies and procedures for the review and approval or ratification of related-person transactions. This policy covers, with certain exceptions set forth in Item 404 of Regulation S-K under the Securities Act, any transaction, arrangement or relationship, or any series of similar transactions, arrangements or relationships in which we were or are to be a participant, where the amount involved exceeds $120,000 and a related person had or will have a direct or indirect material interest, including, without limitation, purchases of goods or services by or from the related person or entities in which the related person has a material interest, indebtedness, guarantees of indebtedness and employment by us of a related person. In reviewing and approving any such transactions, our audit committee is tasked to consider all relevant facts and circumstances, including, but not limited to, whether the transaction is on terms comparable to those that could be obtained in an arm's length transaction and the extent of the related person's interest in the transaction. All of the transactions described in this section occurred prior to the adoption of this policy.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES.

The Audit Committee of the Board has selected Haskell & White LLP ("H&W") as our independent registered public accounting firm for the fiscal year ending December 31, 2019. H&W has audited our consolidated financial statements for the years ended December 31, 2019 and 2018.

Principal Accountant Fees and Services

The aggregate fees for professional services rendered to us by Haskell &White LLP, our independent registered public accounting firm which performed our audits for the years ended December 31, 2019 and 2018, and for other services were as follows:

	2019	2018
Audit fees (1)	$ 201,400	$ 158,470
Audit-Related fees (2)	24,075	145,505
Tax fees	-	-
Other fees	-	-
Total fees	$ 225,475	$ 303,975

(1) Includes fees for (i) audits of our consolidated financial statements for the fiscal years ended December 31, 2019 and 2018, and (ii) reviews of our interim period financial statements for fiscal year 2019 and 2018.

(2) Included fees related to (i) the initial and subsequent review of our registration on Form S-3 in 2019, and (ii) review procedures for Form 8-K for the acquisition of CDI and Bressner Technology GmbH in 2018.

Pre-Approval Policies and Procedures

The Audit Committee pre-approves all auditing services and the terms of non-audit services provided by our independent registered public accounting firm, but only to the extent that the non-audit services are not prohibited under applicable law and the committee determines that the non-audit services do not impair the independence of the independent registered public accounting firm.

In situations where it is impractical to wait until the next regularly scheduled quarterly meeting, the chairman of the committee has been delegated authority to approve audit and non-audit services to be provided by our independent registered public accounting firm. Fees payable to our independent registered public accounting firm for any specific, individual service approved by the chairman pursuant to the above-described delegation of authority may not exceed $25,000, and the chairman is required to report any such approvals to the full committee at its next scheduled meeting. In addition, the Audit Committee has pre-approved a list of acceptable services and fees payable to H & W in an aggregate amount of up to $12,500 per quarter for such services, including without limitation audit and allowable non-audit and tax consulting. This pre-approval is for small projects needing quick reaction and judged by the Audit Committee not to raise any independence issues with H&W. Such projects and fees are required to be presented in detail at the next Audit Committee meeting. Fees that were incurred in 2018 and 2019 were pre-approved by the Audit Committee.

The Audit Committee has considered and determined that the provision of the non-audit services described is compatible with maintaining the independence of our registered public accounting firm.

PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES.

1. Financial Statements.

The financial statements of One Stop Systems, Inc., together with the report thereon of Haskell & White LLP, an independent registered public accounting firm, are included in this Annual Report on Form 10-K.

2. Financial Statement Schedules.

All schedules are omitted because they are not applicable or the required information is shown in the financial statements or notes thereto.

3. Exhibits

A list of exhibits is set forth on the Exhibit Index immediately preceding the signature page of this Annual Report on Form 10-K and is incorporated herein by reference.

ITEM 16. FORM 10-K SUMMARY.

Not applicable.

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of
One Stop Systems, Inc.

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of One Stop Systems, Inc. (the "Company") as of December 31, 2019 and 2018, the related consolidated statements of operations, comprehensive loss, stockholders' equity, and cash flows for each of the years then ended, and the related notes (collectively, the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Company as of December 31, 2019 and 2018, and the consolidated results of its operations and its cash flows for each of the years then ended, in conformity with U.S. generally accepted accounting principles.

Changes in Accounting Principle

As discussed in Note 2 to the consolidated financial statements, effective January 1, 2019, the Company adopted Financial Accounting Standards Board, ASC 606, *Revenue From Contracts With Customers*, using the modified retrospective approach.

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

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

/s/ Haskell & White LLP
HASKELL & WHITE LLP

We have served as the Company's auditor since 2017.

Irvine, California
March 26, 2020

ONE STOP SYSTEMS, INC. (OSS)

CONSOLIDATED BALANCE SHEETS

	December 31, 2019	December 31, 2018
ASSETS		
Current assets		
Cash and cash equivalents	$ 5,185,321	$ 2,272,256
Accounts receivable, net	11,667,157	10,540,150
Inventories, net	7,369,356	6,823,930
Prepaid expenses and other current assets	453,938	666,330
	24,675,772	20,302,666
Property and equipment, net	3,568,564	1,759,086
Deposits and other	47,146	49,966
Deferred tax assets, net	3,019,823	2,505,632
Goodwill	7,120,510	7,914,211
Intangible assets, net	1,346,192	3,525,257
	$ 39,778,007	$ 36,056,818
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities		
Accounts payable	$ 4,115,977	$ 3,708,865
Accrued expenses and other liabilities	4,607,432	3,930,718
Borrowings on bank lines of credit (Note 8)	-	422,960
Current portion of notes payable, net of debt discount of $7,019 and $0, respectively (Note 8)	1,377,751	1,156,915
Current portion of related-party notes payable, net of debt discount of $23,060 and $0, respectively (Note 8)	561,441	-
Total current liabilities	10,662,601	9,219,458
Notes payable, net of current portion and debt discount of $2,047 and $0, respectively (Note 8)	149,301	265,038
Related-party notes payable, net of current portion and debt discount of $6,726 and $0, respectively (Note 8)	199,943	-
Total liabilities	11,011,845	9,484,496
Commitments and contingencies (Notes 10 and 11)		
Stockholders' equity		
Common stock, $.0001 par value; 50,000,000 shares authorized; 16,121,747 and 14,216,328 shares issued and outstanding, respectively	1,612	1,422
Additional paid-in capital	30,537,015	27,424,113
Noncontrolling interest	500	500
Accumulated other comprehensive (loss) income	(17,773)	1,142
Accumulated deficit	(1,755,192)	(854,855)
Total stockholders' equity	28,766,162	26,572,322
	$ 39,778,007	$ 36,056,818

See accompanying notes to consolidated financial statements

ONE STOP SYSTEMS, INC. (OSS)

CONSOLIDATED STATEMENTS OF OPERATIONS

	For the Year Ended December 31, 2019	For the Year Ended December 31, 2018
Revenue	$ 58,308,019	$ 37,027,382
Cost of revenue	38,905,756	25,692,658
Gross profit	19,402,263	11,334,724
Operating expenses:		
General and administrative	8,501,572	6,513,298
Impairment of goodwill	1,697,394	-
Marketing and selling	5,138,762	3,995,258
Research and development	4,843,554	4,001,757
Total operating expenses	20,181,282	14,510,313
Loss from operations	(779,019)	(3,175,589)
Other income (expense):		
Interest expense	(165,560)	(65,693)
Other income (expense), net	281,494	271,878
Total other income, net	115,934	206,185
Loss before income taxes	(663,085)	(2,969,404)
Provision (benefit) for income taxes	237,252	(1,396,784)
Net loss	$ (900,337)	$ (1,572,620)
Net loss attributable to noncontrolling interest	$ -	$ (436,342)
Net loss attributable to common stockholders	$ (900,337)	$ (1,136,278)
Net loss per share attributable to common stockholders:		
Basic	$ (0.06)	$ (0.09)
Diluted	$ (0.06)	$ (0.09)
Weighted average common shares outstanding:		
Basic	15,148,613	12,586,513
Diluted	15,148,613	12,586,513

See accompanying notes to consolidated financial statements

ONE STOP SYSTEMS, INC. (OSS)

CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS

	For the Year Ended December 31,	
	2019	**2018**
Net loss attributable to common stockholders	$ (900,337)	$ (1,136,278)
Other comprehensive (loss) income:		
Reclassification adjustment from unrealized to realized gain	(19,999)	-
Currency translation adjustment, net	(72,819)	1,142
Unrealized gain on forward contracts	53,904	-
Total other comprehensive (loss) income	(38,914)	1,142
Comprehensive loss	$ (939,251)	$ (1,135,136)

See accompanying notes to consolidated financial statements

ONE STOP SYSTEMS, INC. (OSS)
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
For The Year Ended December 31, 2019

	Series C Preferred Stock		Series B Preferred Stock		Series A Preferred Stock		Common Stock		Additional Paid-in-Capital	Noncontrolling Interest	Accumulated Other Comprehensive Income (loss)	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount					
Balance, January 1, 2019	-	$ -	-	$ -	-	$ -	14,216,328	$ 1,422	$ 27,424,113	$ 500	$ 1,142	$ (854,855)	$ 26,572,322
Stock-based compensation	-	-	-	-	-	-	-	-	649,469	-	-	-	649,469
Exercise of stock options, RSU's and Warrants	-	-	-	-	-	-	350,587	35	47,299	-	-	-	47,334
Relative fair value of warrants issued with notes payable and notes payable to related parties	-	-	-	-	-	-	-	-	60,158	-	-	-	60,158
Taxes paid on net issuance of employee stock options	-	-	-	-	-	-	-	-	(132,017)	-	-	-	(132,017)
Proceeds from issuance of stock, net of issuance costs of $212,566	-	-	-	-	-	-	1,554,832	155	2,487,993	-	-	-	2,488,148
Currency translation adjustment	-	-	-	-	-	-	-	-	-	-	(72,819)	-	(72,819)
Gain on forward contract	-	-	-	-	-	-	-	-	-	-	53,904	-	53,904
Net loss	-	-	-	-	-	-	-	-	-	-		(900,337)	(900,337)
Balance, December 31, 2019	-	$ -	-	$ -	-	$ -	16,121,747	$ 1,612	$ 30,537,015	$ 500	$ (17,773)	$ (1,755,192)	$ 28,766,162

See accompanying notes to consolidated financial statements

ONE STOP SYSTEMS, INC. (OSS)
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY - CONTINUED
For The Year Ended December 31, 2018

	Series C Preferred Stock		Series B Preferred Stock		Series A Preferred Stock		Common Stock		Additional		Accumulated Other		Total
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Paid-in-Capital	Noncontrolling Interest	Comprehensive Income (loss)	Accumulated Deficit	Stockholders' Equity
Balance, January 1, 2018	1,087,006	$ 1,604,101	1,450,000	$ 697,996	500,000	$ 114,430	5,514,917	$ 551	$ 3,484,428	$ 436,842	$ -	$ 281,423	$ 6,619,771
Conversion of preferred stock to common stock upon initial public offering	(1,087,006)	(1,604,101)	(1,450,000)	(697,996)	(500,000)	(114,430)	3,037,006	304	2,416,223	-	-	-	-
Stock-based compensation	-	-	-	-	-	-	-	-	527,335	-		-	527,335
Exercise of stock options	-	-	-	-	-	-	391,578	39	113,129	-	-	-	113,168
Taxes paid on net issuance of employee stock options	-	-	-	-	-	-	-	-	(341,574)	-	-	-	(341,574)
Relative fair value of warrants issued to Underwriters with IPO	-	-	-	-	-	-	-	-	669,408	-	-	-	669,408
Proceeds from issuance of stock, net of issuance costs of $3,367,760	-	-	-	-	-	-	3,900,000	390	16,131,850	-	-	-	16,132,240
Shares issued in merger with CDI	-	-	-	-	-	-	1,266,364	127	4,194,546	-	-	-	4,194,673
Noncontrolling interest in consolidated subsidiary (Note 1)	-	-	-	-	-	-	-	-	-	(436,342)	-	-	(436,342)
Shares issued in acquisition of Bressner Technology (Note 3)	-	-	-	-	-	-	106,463	11	228,768	-	-	-	228,779
Currency translation adjustment	-	-	-	-	-	-	-	-	-	-	1,142	-	1,142
Net loss	-	-	-	-	-	-	-	-	-	-	-	(1,136,278)	(1,136,278)
Balance, December 31, 2018	-	$ -	-	$ -	-	$ -	14,216,328	$ 1,422	$ 27,424,113	$ 500	$ 1,142	$ (854,855)	$ 26,572,322

See accompanying notes to consolidated financial statements

ONE STOP SYSTEMS, INC. (OSS)
CONSOLIDATED STATEMENTS OF CASH FLOWS

	For the Year Ended December 31, 2019	2018
Cash flows from operating activities:		
Net loss	$ (900,337)	$ (1,572,620)
Net loss attributable to noncontrolling interest	-	(436,342)
Net loss attributable to common stockholders	(900,337)	(1,136,278)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities:		
Net loss attributable to noncontrolling interest	-	(436,342)
Deferred benefit for income taxes	(112,740)	(1,489,330)
(Gain) loss on disposal of property and equipment	(1,785)	406,049
Provision for bad debt	702	(2,939)
Impairment of goodwill	1,697,394	-
Warranty reserves	14,348	15,088
Amortization of deferred gain	(28,555)	(134,640)
Depreciation and amortization	1,655,288	1,350,329
Inventory reserves	301,302	299,388
Amortization of debt discount	21,303	24,830
Stock-based compensation expense	649,469	527,335
Changes in operating assets and liabilities:		
Accounts receivable	(1,165,596)	(2,563,523)
Inventories	(1,008,980)	46,789
Prepaid expenses and other current assets	211,325	(275,720)
Accounts payable	424,567	(1,460,540)
Accrued expenses and other liabilities	617,163	938,718
Net cash provided by (used in) operating activities	2,374,868	(3,890,786)
Cash flows from investing activities:		
Cash acquired in acquisitions	-	700,865
Cash paid in acquisition of Concept Development Inc.	-	(646,759)
Cash paid in acquisition of Bressner Technology GmbH	-	(5,374,582)
Purchases of property and equipment, including capitalization of labor costs for test equipment and ERP	(2,386,227)	(623,166)
Proceeds from sales of property and equipment	1,050	34,450
Net cash used in investing activities	(2,385,177)	(5,909,192)
Cash flows from financing activities:		
Proceeds from stock options exercised	47,334	113,168
Payment on working capital loan	-	(370,096)
Payment of payroll taxes on net issuance of employee stock options	(132,017)	(341,574)
Stock issuance costs	(212,566)	(1,810,902)
Proceeds from issuance of common stock	2,700,714	19,500,000
Net repayments on bank lines of credit	(513,590)	(4,041,243)
Net borrowings (repayments) on related-party notes payable	791,171	(163,483)
Net borrowings (repayments) on notes payable	241,055	(985,692)
Net cash provided by financing activities	2,922,101	11,900,178
Net change in cash and cash equivalents	2,911,792	2,100,200
Effect of exchange rates on cash	1,273	(13,661)
Cash and cash equivalents, beginning of period	2,272,256	185,717
Cash and cash equivalents, end of period	$ 5,185,321	$ 2,272,256

See accompanying notes to consolidated financial statements

ONE STOP SYSTEMS, INC. (OSS)
CONSOLIDATED STATEMENTS OF CASH FLOWS - CONTINUED

	For the Year Ended December 31,	
	2019	2018
Supplemental disclosure of cash flow information:		
Cash paid during the period for interest	$ 129,547	$ 41,138
Cash paid during the period for income taxes	$ 8,780	$ 7,626
Supplemental disclosure of non-cash transactions:		
Forward foreign currency contracts	$ 53,904	$ -
Relative fair value of warrants issued in connection with notes and related-party notes payable	$ 60,158	$ -
Reclassification of inventories to property and equipment	$ 106,502	$ -
Merger of CDI through issuance of common stock (Note 3)	$ -	$ 4,194,673
Acquisition of Bressner Technology GmbH		$ 228,779
Relative fair value of warrants issued in connection initial public offering, respectively	$ -	$ 669,408
Reclassification of prepaid IPO expenses to additional paid in capital	$ -	$ 887,450
Disposal of obsolete inventory	$ -	$ 947,400
Change in labor and overhead applied to inventory	$ -	$ 957,694
Fixed assets received from SkyScale in dissolution	$ -	$ 160,000

See accompanying notes to consolidated financial statements

NOTE 1 – THE COMPANY AND BASIS OF PRESENTATION

Nature of Operations

One Stop Systems, Inc. ("we," "our," "OSS," or the "Company") was originally incorporated as a California corporation in 1999 after initially being formed as a California limited liability company in 1998. On December 14, 2017, the Company was reincorporated as a Delaware corporation in connection with its initial public offering. The Company designs, manufactures and markets industrial grade computer systems and components that are based on industry standard computer architectures. The Company markets its products to manufacturers of automated equipment used for media and entertainment, medical, industrial and military applications.

During the year ended December 31, 2015, the Company formed a new wholly-owned subsidiary in Germany ("OSS GmbH"). During July 2016, the Company acquired Mission Technologies Group, Inc. ("Magma") and its operations (Note 3).

In April 2017, the Company and a related entity formed a joint venture named SkyScale, LLC in the State of California ("SkyScale"). In accordance with the Contribution Agreement, each member contributed $750,000 and received a 50% interest in the joint venture. The purpose of SkyScale was to engage in the business of providing high performance computing capabilities as cloud services.

On December 31, 2018, as a result of changes in the competitive landscape and downward pressure on pricing from large competitors, the members to the SkyScale joint venture agreement agreed to dissolve SkyScale. As a result, it became necessary for OSS to write-off the outstanding balances of accounts and notes receivable and interest in the amount of $648,411, which write-off was offset by receipt of equipment valued at $160,000 and allocation of income from disposition of assets and liabilities of $71,502. These amounts have been included as an administrative expense in the accompanying consolidated statements of operations. Additional reserves for future expenses expected to be incurred in the process of closing SkyScale were recorded in the amount of $288,400 and are included in administrative expenses. As a result of the above, total charges related to the dissolution of SkyScale were $705,309 during the year ended December 31, 2018.

In May 2017, the Company entered into a Technology and Software License Agreement with Western Digital ("WDT") for its Ion flash storage software. The agreement provides the Company with the Ion source code and rights to develop and market derivative products. The Company intends to develop and sell Ion flash storage software with its high-density storage arrays, as well as service existing WDT software users (Note 3).

Also, in July 2017, the Company entered in to a Service Agreement with WDT to service its existing customer base that utilizes Ion flash storage software. The Company also purchased certain equipment from WDT and hired selected employees to assist in the servicing of these existing customers. Management has determined that the activities and assets acquired from WDT comprise a business as defined in ASC 805-10-55-4 through 55. Consideration paid by the Company to WDT pursuant to the arrangements described above was $67,000. In addition, the Company is required to pay prospective royalties to WDT of $2,500 or $5,000 for each sale of the Company's products that include licensed software. WDT is obligated to pay the Company for services rendered to support existing WDT software users the amount of $1,400,000 in defined declining quarterly amounts over a three year period. Management does not believe this business acquisition meets the significance definition provided in Regulation S-X, Rule 210.1-02(w).

On August 31, 2018, the Company acquired Concept Development Inc. (CDI) located in Irvine, California for cash of $646,759, and common stock of $4,194,673 (Note 3). CDI specializes in the design and manufacture of custom high-performance computing systems for airborne in-flight entertainment systems.

On October 31, 2018, the Company's wholly-owned German subsidiary, OSS GmbH, acquired 100% of the outstanding stock of Bressner Technology GmbH, a Germany limited liability company located near Munich, Germany, from its principal owners for cash consideration of €4,725,000 (US$5,374,582) and stock consideration of 106,463 newly-issued restricted shares of the Company's common stock.

On December 31, 2018, as a result of changes in the competitive landscape and downward pressure on pricing from large competitors, the members to the SkyScale joint venture agreement agreed to dissolve SkyScale. As a result, it became necessary for OSS to write-off the outstanding balances of accounts and notes receivable and interest in the amount of $648,411, which write-off was offset by receipt of equipment valued at $160,000 and allocation of income from disposition of assets and liabilities of $71,502. These amounts have been included as an administrative expense in the accompanying consolidated statements of operations. Additional reserves for future expenses to be incurred in the process of closing SkyScale were recorded in the amount of $288,400 and are included in administrative expenses. As a result of the above, total charges related to the dissolution of SkyScale were $705,309 during the year ended December 31, 2018.

Going Concern Considerations and Management's Plans

Given our recent operating losses, the Company's primary sources of liquidity have been provided by (i) the Company's February 2018 initial public offering (net proceeds were approximately $16,100,000), (ii) March 2019 notes payable from members of the Board of Directors and others of $1,500,000, and (iii) the June 2019 sale of 1,554,832 shares of the Company's common stock for net cash proceeds of $2,488,148.

As of December 31, 2019, the Company's cash and cash equivalents were approximately $5,200,000 and working capital approximated $14,000,000. Cash and cash equivalents held by Bressner totaled $745,000 (USD) at December 31, 2019, and Bressner's debt covenants do not permit the use of those funds by its parent company. During the year ended December 31, 2019, the Company experienced an operating loss of $779,000, but cash flows provided by operating activities approximated $2,400,000.

The Company's revenue growth, inclusive of two acquisitions made in 2018, has resulted in growth of the Company as a whole, but has been offset by increased spending in all areas of operating expenses: general and administrative, marketing and selling, and research and development. Further, in late 2019, a novel strain of coronavirus was first detected in Wuhan, China. Following the outbreak of this virus, governments throughout the world, including in the United States of America, have quarantined certain affected regions, restricted travel and imposed significant limitations on other economic activities. The Company's operations team is closely monitoring the potential impact to the Company's business, including its cash flows, supply chains, customers and employees. Though management has successfully managed through the current known impacts, if the situation further deteriorates or the outbreak results in further restriction on both supply and demand factors, our cash flows, financial position and operating results for fiscal year 2020 and beyond will be negatively impacted. Neither the length of time nor the magnitude of the negative impacts can be presently determined.

Management's plans with respect to the above is to continue its efforts to restructure the Company with the primary objectives of reducing costs, conserving cash, strengthening margins, and improving company-wide execution. Specific actions already implemented by management include the deferral of certain executive and Board compensation payments, a freeze on hiring and minimizing overtime, travel and entertainment, and contractor costs. In addition, management continues to review its expenses on a line item-by-line item basis for cost reduction opportunities, as well as opportunities to increase efficiencies through automation.

While management expects these actions to result in prospective cost reductions, management is also commited to securing debt and/or equity financing to ensure that liquidity will be sufficient to meet the Company's cash requirements through at least a period of the next twelve months. Management believes potential sources of liquidity include at least the following:

- In March 2019, the Company received funding commitments in the amount of $4,000,000 from members of the Board of Directors, of which $1,500,000 has been drawn through December 31, 2019. As of March 26, 2020, management expects that $750,000 of such commitments are currently available to the Company.

- In March 2020, the Company signed a term sheet with Ayrton Capital LLC for a $5.0 million non-interest bearing convertible note with a 10% original issue discount. The first tranche of $3.0 million is available upon closing with $2.0 million available seven months from the date of closing at the option of the Company. The note is repayable in twenty-two installments beginning three months after closing. While this transaction has not been completed as of March 26, 2020, management expects that the transaction will close prior to April 15, 2020.

- In May 2019, the Company filed a Form S-3 prospectus with the Securities and Exchange Commission which became effective on June 19, 2019, and allows the Company to offer up to $100,000,000 aggregate dollar amount of shares of its common stock or other financial instruments.

As a result of management's cost reduction plans, the Company's potential sources of liquidity and management's most recent cash flow forecasts, management believes that the Company has sufficient liquidity to satisfy its anticipated cash requirements for at least the next twelve months. However, there can be no assurance that management's cost reduction efforts will be effective, the forecasted cash flows will be achieved, or that external sources of financing, including the issuance of debt and/or equity securities, will be available at times and on terms acceptable to the Company, or at all.

Basis of Presentation

The accompanying financial statements have been prepared on an accrual basis of accounting in accordance with United States Generally Accepted Accounting Principles ("U.S. GAAP"), as set forth in the Financial Accounting Standards Board's ("FASB") Accounting Standards Codification ("ASC").

Principles of Consolidation

The accompanying consolidated financial statements include the accounts of OSS, which include the results from the Magma acquisition, Ion business combination, and acquisition of Concept Development Inc., since their respective dates of acquisition, its wholly-owned subsidiary, OSS GmbH, which includes the acquisition of Bressner Technology GmbH on October 31, 2018 and the accounts of the joint venture, SkyScale LLC (collectively referred to as the "Company"). Intercompany balances and transactions have been eliminated in consolidation.

On April 6, 2017, the Company and Jacoma Investments, LLC, an entity owned by our board member Jack Harrison, formed a joint venture, SkyScale, LLC ("SkyScale"), to engage in the business of providing high performance computing capabilities as cloud services. In accordance with the terms of the contribution agreement, Jacoma Investments, LLC agreed to contribute $750,000 in capital and the Company agreed to contribute $750,000 in the form of credits to purchase equipment, personnel or support services from the Company. Each party received a 50% membership interest in the joint venture. Management determined that SkyScale is a variable interest entity primarily because it is thinly capitalized and may require additional capital to finance its activities.

Management determined that the Company is the primary beneficiary of SkyScale based primarily on the related party nature of SkyScale's decision-makers and daily business operators. In May 2018, the Company loaned SkyScale $300,000 for operations at an interest rate of 12%, per annum. On August 30, 2018, an additional one-year working capital loan of $300,000 was authorized on similar terms of which SkyScale utilized $150,000.

On December 31, 2018, as a result of changes in the competitive landscape and downward pressure on pricing from large competitors, the members to the SkyScale joint venture agreement agreed to dissolve SkyScale. As a result, it became necessary for the Company to write-off the outstanding balances due from SkyScale of notes receivable and interest in the amount of $478,599. The Company also had unpaid invoices for services rendered to SkyScale in the amount of $169,812. These amounts have been charged to administrative expenses and are included in the accompanying consolidated financial statements as an operating expense. As partial consideration for unpaid balances, SkyScale transferred computer equipment to the Company at an estimated market value of $160,000. The Company also received allocated income from disposition of SkyScale assets and liabilities of $71,502. Additionally, reserves for future estimated expenses to be incurred in the process of closing SkyScale were recorded in the amount of $288,400. As a result of the above, total charges related to the dissolution of SkyScale were $705,309 during the year ended December 31, 2018. During 2019, expenses of $70,068 were incurred from the reserve and $208,332 was taken into other income in the accompanying consolidated statement of operations.

The assets and liabilities of SkyScale are as follows:

	December 31, 2019	December 31, 2018
Cash and cash equivalents	$ -	$ 47,663
Receivables	-	-
Other assets	-	-
Fixed assets	-	-
Total assets	$ -	$ 47,663
Accounts payable	-	$ 46,663
Accrued expenses	-	-
Notes payable	-	-
Total liabilities	-	46,663
Members' equity	-	1,000
Total liabilities and members' equity	$ -	$ 47,663

Operating results for SkyScale are as follows:

	For the Year Ended December 31,	
	2019	2018
Net revenue	$ -	$ 158,514
Cost of revenue	-	(675,058)
Gross margin	-	(516,544)
Operating expenses:		
General and administrative	-	358,725
Marketing and selling	-	132,004
Total operating expenses	-	490,729
Loss from operations	-	(1,007,273)
Other (expense) income	-	134,590
Net loss	$ -	$ (872,683)

The non-controlling interest attributable to SkyScale is shown as a component of equity on the consolidated balance sheets and the share of the loss attributable to the non-controlling interest is shown as a component of income (loss) in the accompanying consolidated statements of operations. Management determined that the dissolution of SkyScale did not represent a strategic shift that has a major effect on the Company’s operations and financial results. Accordingly, it has not been reported as discontinued operations.

NOTE 2 – SIGNIFICANT ACCOUNTING POLICIES

Use of Estimates

The preparation of consolidated financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses, and disclosures of contingent assets, liabilities, and expenses at the date of the consolidated financial statements during the reporting period.

Significant estimates made by management include, among others, the fair value of acquired net assets of CDI in August 2018 with reevaluation in April 2019, and Bressner Technology GmbH in October 2018, dissolution expenses for SkyScale, the allowance for doubtful accounts, fair value of stock options, recoverability of inventories and long-lived assets, and realizability of deferred tax assets. Actual results could differ from those estimates.

Concentration Risks

At times, deposits held with financial institutions may exceed the amount of insurance provided by the Federal Deposit Insurance Corporation (“FDIC”) and Securities Investor Protection Corporation (“SIPC”), of which both provide basic deposit coverage with limits up to $250,000 per owner. As of December 31, 2019, the Company had $3,514,529 in excess of the insurance limits. The Company has not experienced any such losses in these accounts. In Germany, the deposit insurance is €100,000 per bank, per customer. Bressner has funds on deposit in both Euro and U.S. dollar denominations of €508,316 (US$570,686), with banks in excess of the insurance limits.
In the years ended December 31, 2019 and December 31, 2018, approximately 41%, and 53% of net sales represent customers which are each greater than 10% of our consolidated annual revenue. This concentration is with two customers, disguise and Raytheon. As of December 31, 2019 and 2018 approximately 72% and 60%, respectively of net trade accounts receivables represent customer balances which are each greater than 10% of our consolidated trade accounts receivable balance. As a result of the recent worldwide economic impact attributable to the coronavirus, disguise has been experiencing a slowdown in its business as the entertainment and media markets have been required to scale back or cancel large group gatherings.

As a result, we have experienced delays in receipt of scheduled payments and requests for extended payment terms. As of March 26, 2020, the Company has approximately $5.8 million in outstanding receivables from disguise and management is working closely with this customer to ensure collection of all amounts owed. Management of disguise has asserted that it expects their primary markets to recover by the end of the second quarter of 2020, as areas of the world recover from the virus and business returns to normalcy.

The Company made purchases from certain suppliers for which each represented greater than 10% of the Company’s vendor purchases on an annual basis. Collectively these vendors represented approximately 11% and 37% of purchases for the years ended December 31, 2019, and 2018, respectively. This concentration is with one and three suppliers, respectively.

Cash and Cash Equivalents

Cash and cash equivalents consist of cash on deposit and money market accounts. The Company considers all highly liquid temporary cash investments with an initial maturity of three months or less when acquired to be cash equivalents. Management believes that the carrying amounts of cash equivalents approximate their fair value because of the short maturity period.

Accounts Receivable

Accounts receivable are presented at net realizable value. This value includes an appropriate allowance for estimated uncollectible accounts to reflect any loss anticipated on the trade accounts receivable and unbilled receivables. Unbilled receivables include cost and gross profit earned in excess of billings. The allowance for doubtful accounts is an estimate to cover the losses resulting from the inability of customers to make payments on their outstanding balances and unbilled receivables. In estimating the required allowance, management considers the overall quality and aging of the accounts receivable, specific customer circumstances, current economic trends, and historical experience with collections. At December 31, 2019 and 2018, the allowance for doubtful accounts is $14,000 and $13,403, respectively.

Revenues earned in excess of related billings are recorded as an asset on the consolidated balance sheet as unbilled receivables. Unbilled receivables as of December 31, 2019 and 2018 were $25,432 and $65,157, respectively.

Inventories

Inventories are valued at the lower of cost or net realizable value. The Company uses the average cost method for purposes of determining cost, which approximates the first-in, first-out method.

The Company establishes reserves on its inventories to write-down the carrying value of its estimated obsolete or excess inventories to estimated net realizable value based upon observations of historical usage and assumptions about future demand and market conditions. In addition, the Company considers changes in the market value of components in determining the net realizable value ofits inventory. Inventory reserves are not typically reversed until the specific inventories are sold or otherwise disposed.

Property and Equipment

Property and equipment, other than leasehold improvements, are recorded at cost and depreciated using the straight-line method over the estimated useful lives of the assets, generally from two to seven years. Leasehold improvements are recorded at cost and are amortized using the straight-line method over the shorter of the remaining lease term or the estimated useful life of the related asset. Tooling and test equipment includes capitalized labor costs associated with the development of the related tooling and test equipment. Costs incurred for maintenance and repairs are expensed as incurred, and expenditures for major replacements and improvements are capitalized. Upon retirement or sale, the cost and related accumulated depreciation and amortization of disposed assets are removed from the accounts and any resulting gain or loss is included in other expense, net.

Goodwill

Goodwill represents the excess of the purchase price paid over the fair value of the net assets acquired in business combinations. Goodwill is not amortized but is tested for impairment at least annually or when we deem that a triggering event has occurred. The Company reviews goodwill for impairment annually on December 31st. The Company completed its annual assessment for goodwill impairment and determined that goodwill is not impaired as of December 31, 2019 and no adjustment was required. For the year ended December 31, 2018, the Company recognized goodwill related to two business acquisitions as described in Note 3.

In April 2019, the Company performed an interim impairment test of goodwill, as a result of a short-fall in the actual overall financial performance of CDI as compared to plan, a recurring need for working capital, and a decrease in the Company's stock price. As a result of this interim evaluation, the Company recorded an impairment loss to goodwill of $1,697,394, which was charged to operating expenses in the current period.

Intangible Assets and Long-lived Assets

We evaluate our intangible and long-lived assets for impairment annually when events or circumstances arise that indicate our intangible and long-lived assets may be impaired. Indicators of impairment include, but are not limited to, a significant deterioration in overall economic conditions, a decline in our market capitalization, the loss of significant business, significant decreases in funding for our contracts, or other significant adverse changes in industry or market conditions. The Company completed its qualitative assessment for impairment in December 2019 and determined that there was no impairment as of December 31, 2019. There can be no assurance, however, that market conditions will not change or demand for the Company's products will continue, which could result in an impairment of intangible and long-lived assets in the future.

Fair Value Measurements

The Company uses a three-tier fair value hierarchy to classify and disclose all assets and liabilities measured at fair value on a recurring basis, as well as assets and liabilities measured at fair value on a non-recurring basis, in periods subsequent to their initial measurement. These tiers include:

- Level 1, defined as quoted market prices in active markets for identical assets or liabilities;
- Level 2, defined as inputs other than Level 1 that are observable, either directly or indirectly, such as quoted prices for similar assets or liabilities, quoted prices in markets that are not active, model-based valuation techniques for which all significant assumptions are observable in the market, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities; and
- Level 3, defined as unobservable inputs that are not corroborated by market data.

The carrying value of financial instruments including cashand cash equivalents accounts receivable and accounts payable and accrued expenses, lines of credit, and other liabilities approximate fair value due to the short-term nature of these instruments. Assets and liabilities assumed in the acquisition of the Ion software, Concept Development Inc., and Bressner Technology GmbH were recorded at fair value based upon the Company's market assumptions which approximated carrying value (except for acquired intangible assets – Note 3) due to the short-term nature of the instruments. The carrying amounts of the Company's notes payable and Bressner's existing lines of credit and notes payable approximate their fair values at the stated interest rates and are reflective of the prevailing market rates.

Revenue Recognition

On January 1, 2019, the Company adopted the new accounting standard update ASC 606, Revenue from Contracts with Customers, which superseded nearly all existing revenue recognition guidance under GAAP, to all contracts using the modified retrospective method. The comparative information has not been restated and continues to be reported under the accounting standards in effect for those periods.

The Company's performance obligations are satisfied over time as work is performed or at a point in time. The majority of the Company's revenue is recognized at a point in time when products ship and control is transferred to the customer. The Company determines revenue recognition through the following steps: (1) identification of the contract with a customer; (2) identification of the performance obligations in the contract; (3) determination of the transaction price; (4) allocation of the transaction price to the performance obligations in the contract; and (5) recognition of revenue when, or as, a performance obligation is satisfied.

The Company's contracts are executed through a combination of written agreements along with purchase orders with all customers including certain general terms and conditions. Generally, purchase orders entail products, quantities and prices, which define the performance obligations of each party and are approved and accepted by the Company. The Company's contracts with customers do not include extended payment terms. Payment terms vary by contract type and type of customer and generally range from 30 to 60 days from invoice. Additionally, taxes assessed by a governmental authority that are both imposed on and concurrent with a specific revenue-producing transaction, that are collected by the Company from a customer and deposited with the relevant government authority, are excluded from revenue.

The transaction price is determined based on the consideration to which the Company will be entitled in exchange for transferring goods or services to the customer adjusted for estimated variable consideration, if any. Variable consideration may include discounts, rights of return, refunds, and other similar obligations. The Company allocates the transaction price to each distinct product and service based on its relative standalone selling price. The standalone selling price for products primarily involves the cost to produce the deliverable plus the anticipated margin and for services is estimated based on the Company's approved list price.

In the normal course of business, the Company does not accept product returns unless the items are defective as manufactured. The Company establishes provisions for estimated returns and warranties. In addition, the Company does not typically provide customers with the right to a refund and does not transact for noncash consideration.

Customer agreements include one vendor managed inventory program. The Company recognizes revenue under this arrangement when all of the following criteria are met: (i) the goods have been identified separately as belonging to the customer; (ii) the goods are ready for physical shipment to the customer; (iii) the Company does not have the ability to direct the goods to another customer; and (iv) the arrangement was requested by the customer and that the customer has sufficiently explained a substantial business purpose for the arrangement. Management also considers whether the customer's custodial risks are insured and whether modifications to the Company's normal billing and credit terms were required.

The Company recorded revenue from product sales that are held in vendor managed inventory under these agreements of $10,075,756 and $9,960,469 for the years ended December 31, 2019 and 2018, respectively. As of December 31, 2019 and 2018, $459,893 and $1,662,293, respectively, of product sold through those dates were held by the Company in the vendor management program.

Revenues on certain fixed-price contracts where we provide engineering services, prototypes and completed products are recognized based upon percentage of completion or based upon milestones delivered that are provided during the period and compared to milestone goals to be provided over the entire contract. These services require that we perform significant, extensive and complex design, development, modification or implementation of our customers' systems. Performance will often extend over long periods of time, and our right to receive future payment depends on our future performance in accordance with the agreement.

The percentage-of-completion methodology involves recognizing probable and reasonably estimable revenue using the percentage of services completed, on a current cumulative cost to estimated total cost basis, using a reasonably consistent profit margin over the performance period. Due to the long-term nature of these projects, developing the estimates of costs often requires significant judgment. Factors that must be considered in estimating the progress of work completed and ultimate cost of the projects include, but are not limited to, the availability of labor and labor productivity, the nature and complexity of the work to be performed and the impact of delayed performance. If changes occur in delivery, productivity or other factors used in developing the estimates of costs or revenues, we revise our cost and revenue estimates, which may result in increases or decreases in revenues and costs, and such revisions are reflected in earnings in the period in which the revision becomes known.

During the years ended December 31, 2019 and 2018, revenue recognized on a fixed price contractual basis was $139,351 and $158,875, respectively.

The Company recognizes contract assets or unbilled receivables related to revenue recognized for services completed but not yet invoiced to the clients. Unbilled receivables are recorded as accounts receivable when the Company has an unconditional right to contract consideration. A contract liability is recognized as deferred revenue when the Company invoices clients in advance of performing the related services under the terms of a contract. Deferred revenue is recognized as revenue when the Company has satisfied the related performance obligation.

On certain contracts with several of the Company's significant customers, the Company receives payments in advance of manufacturing. Advanced payments are recorded as deferred revenue until the revenue recognition criteria described above has been met.

Related billings that are in excess of revenue earned are deferred and recorded as a liability on the consolidated balance sheet until the related services are provided. Deferred revenue was $24,718 and $133,995 as of December 31, 2019 and 2018, respectively. The Company recognizes revenues for non-refundable, upfront implementation fees on a straight-line basis over the period beginning with initiation of ongoing services through the end of the contract term.

Remaining performance obligations represent the amount of revenue from fixed-fee contracts. As of December 31, 2019, approximately $317,718 of revenue from fixed-fee contracts is expected to be recognized from these remaining performance obligations. We expect to fully recognize revenue on these remaining performance obligations over the next 24 months. We elected to utilize the practical expedient exemption to exclude from this disclosure the amount of revenue from contracts which are not fixed-fee and where we do not have the right to invoice until the services have been performed.

The Company's operating segment revenues disaggregated by primary geographic market, which is determined based on a customer's geographic location, for the years ended December 31, 2019 and 2018 is as follows:

	For the Year Ended December 31, 2019			For the Year Ended December 31, 2018		
Entity:	**Domestic**	**International**	**Total**	**Domestic**	**International**	**Total**
Customized computers and flash arrays	$ 19,436,784	$ 18,081,290	$ 37,518,074	$ 15,193,890	$ 17,322,215	$ 32,516,105
In-flight entertainment & connectivity	2,030,596	506,738	2,537,334	541,191	214,068	755,259
Value-added reseller with minimal customization	473,489	17,779,122	18,252,611	24,177	3,731,841	3,756,018
	$ 21,940,869	$ 36,367,150	$ 58,308,019	$ 15,759,258	$ 21,268,124	$ 37,027,382

Warranty Reserve

The Company offers product warranties that extend for one year from the date of sale. Such warranties are considered assurance-type warranties and therefore, they would not be deemed to be a separate performance obligation under ASC 606. Such warranties require the Company to repair or replace defective product returned to the Company during the warranty period at no cost to the customer. The Company records an estimate for warranty-related costs at the time of sale based on its historical and estimated future product return rates and expected repair or replacement costs (Note 7).

While such costs have historically been within management's expectations and the provisions established, unexpected changes in failure rates could have a material adverse impact on the Company, requiring additional warranty reserves and could adversely affect the Company's gross profit and gross margins.

The Company offers customers extended warranties beyond the standard one-year warranty on the product. The extended warranties are considered service-type warranties and would be considered as a separate performance obligation under ASC 606. The Company is the primary obligor and, revenue is recognized on a gross basis ratably over the term of the extended warranty. The customer can purchase extended warranties from one to five years, in the bronze, silver or gold categories. This entails hardware repair or replacement, shipping methods on how the warranties will be returned / delivered, response times and hours of operations to receive support. The amount of warranties sold for years ended December 31, 2019 and 2018 were $377,768 and $401,850, respectively.z

The revenue that was recognized for the warranties sold for the years ended December 31, 2019 and 2018, were $392,532 and $200,611, respectively. The Company does have recourse with some of its suppliers that offer more than a one-year guarantee on parts, but this is not standard. The few that offer greater than a year warranty, the Company may be able to cover the cost of the part from the manufacturer for the failed part. The amounts of these costs vary in a wide range, but are not material, due to the infrequency of failure. As of December 31, 2019 and 2018, deferred revenue totaled $394,571 and $409,334, respectively. The Company expects to recognize $394,571 of unearned revenue amounts from 2020 through 2024.

Shipping and Handling Costs

The Company's shipping and handling costs are included in cost of goods sold for all periods presented.

Foreign Currency

We operate primarily in the United States. Foreign sales of products and services are primarily denominated in U.S. dollars. We also conduct business outside the United States through our foreign subsidiary in Germany, where business is largely transacted in non-U.S. dollar currencies particularly the Euro, which is subject to fluctuations due to changes in foreign currency exchange rates. Accordingly, we are subject to exposure from changes in the exchange rates of local currencies. Foreign currency transaction gains and losses are recorded in other income (expense), net in the consolidated statements of operations.

OSS GmbH operates as an extension of OSS's domestic operations. The functional currency of OSS GmbH is the Euro. Transactions denominated in currencies other than the functional currency are remeasured to the functional currency at the average exchange rate in effect during the period. At the end of each reporting period, monetary assets and liabilities are remeasured using exchange rates in effect at the balance sheet date. Non-monetary assets and liabilities are remeasured at historical exchange rates. Consequently, changes in the exchange rates of the currencies may impact the translation of the foreign subsidiaries' statements of operations into U.S. dollars, which may in turn affect our consolidated statement of operations. The resulting foreign currency translation adjustments are recorded as a separate component of accumulated other comprehensive income in the consolidated balance sheet.

Derivative Financial Instruments

We employ derivatives to manage certain currency market risks through the use of foreign exchange forward contracts. We do not use derivatives for trading or speculative purposes. Our derivatives are designated as a hedge of a forecasted transaction or of the variability of cash flows to be received or paid related to a recognized asset or liability (cash flow hedge). We hedge a portion of the exchange risk involved in anticipation of highly probable foreign currency-denominated transactions. In anticipation of these transactions, we enter into foreign exchange contracts to provide currency at a fixed rate. As of December 31, 2019, Bressner had one foreign exchange contract outstanding. There were no foreign exchange contracts outstanding as of December 31, 2018.

Unrealized gains on derivatives designated as cash flow hedges are recorded at fair value as assets, and unrealized losses on derivatives designated as cash flow hedges are recorded at fair value as liabilities. For derivative instruments designated as cash flow hedges, the effective portion is reported as a component of accumulated OCI until reclassified into interest expense in the same period the hedged transaction affects earnings. The gain or loss on the ineffective portion is recognized as "Other income (expense) – net" in the consolidated statements of operations in each period.

Stock-Based Compensation

The Company accounts for employee and director share-based compensation in accordance with the provisions of ASC Topic 718 *"Compensation – Stock Compensation"*. Under ASC 718, share-based compensation cost is measured at the grant date, based on the calculated fair value of the award, and is recognized as an expense over the employee's requisite service period (generally the vesting period of the equity grant).

All transactions in which goods or services are the consideration received for the issuance of equity instruments to non-employees are accounted for based on the fair value of the consideration received or the fair value of the equity instrument issued, whichever is more reliably measurable. The measurement date used to determine the estimated fair value of the equity instrument issued is the earlier of the date on which the third-party performance is complete or the date on which it is probable that performance will occur.

Employee and director stock-based compensation expense recognized during the period is based on the value of the portion of stock-based payment awards that is ultimately expected to vest during the period. Given that stock-based compensation expense recognized in the accompanying consolidated statements of operations is based on awards ultimately expected to vest, it has been reduced for estimated forfeitures. The Company's estimated average forfeiture rates are based on historical forfeiture experience and estimated future forfeitures.

Compensation cost for stock awards, which include restricted stock units ("RSUs"), is measured at the fair value on the grant date and recognized as expense, net of estimated forfeitures, over the related service period. The fair value of stock awards is based on the quoted price of our common stock on the grant date.

The estimated fair value of common stock option awards is calculated using the Black-Scholes option pricing model. The Black-Scholes model requires subjective assumptions regarding future stock price volatility and expected time to exercise, along with assumptions about the risk-free interest rate and expected dividends, all of which affect the estimated fair values of the Company's common stock option awards. Given a lack of historical stock option exercises, the expected term of options granted is calculated as the average of the weighted vesting period and the contractual expiration date of the option. This calculation is based on a method permitted by the Securities and Exchange Commission in instances where the vesting and exercise terms of options granted meet certain conditions and where limited historical exercise data is available. The expected volatility is based on the historical volatility of the common stock of comparable public companies that operate in similar industries as the Company.

The risk-free rate selected to value any particular grant is based on the U.S. Treasury rate that corresponds to the expected term of the grant effective as of the date of the grant. The expected dividend assumption is based on the Company's history and management's expectation regarding dividend payouts. Compensation expense for common stock option awards with graded vesting schedules is recognized on a straight-line basis over the requisite service period for the last separately vesting portion of the award, provided that the accumulated cost recognized as of any date at least equals the value of the vested portion of the award.

If there are any modifications or cancellations of the underlying vested or unvested stock-based awards, the Company may be required to accelerate, increase or cancel any remaining unearned stock-based compensation expense, or record additional expense for vested stock-based awards. Future stock-based compensation expense and unearned stock- based compensation may increase to the extent that the Company grants additional common stock options or other stock-based awards.

Business Combinations

We utilize the acquisition method of accounting for business combinations and allocate the purchase price of an acquisition to the various tangible and intangible assets acquired and liabilities assumed based on their estimated fair values. We primarily establish fair value using the income approach based upon a discounted cash flow model. The income approach requires the use of many assumptions and estimates including future revenues and expenses, as well as discount factors and income tax rates. Other estimates include:

- Estimated step-ups or write-downs for fixed assets and inventory;
- Estimated fair values of intangible assets; and
- Estimated income tax assets and liabilities assumed from the target.

While we use our best estimates and assumptions as part of the purchase price allocation process to accurately value assets acquired and liabilities assumed at the business acquisition date, our estimates and assumptions are inherently uncertain and subject to refinement. As a result, during the purchase price allocation period, which is generally one year from the business acquisition date, we record adjustments to the assets acquired and liabilities assumed, with the corresponding offset to goodwill.

For changes in the valuation of intangible assets between preliminary and final purchase price allocation, the related amortization is adjusted in the period it occurs. Subsequent to the purchase price allocation period any adjustment to assets acquired or liabilities assumed is included in operating results in the period in which the adjustment is determined. Should we issue shares of our common stock in an acquisition, we will be required to estimate the fair value of the shares issued. See Note 3.

Debt Discounts

Debt discounts, which originate from the relative fair value of warrants issued in connection with notes payable and related-party notes payable, are recorded against the noted payable and related-party notes payable in the accompanying consolidated balance sheets.

Amortization of the debt discounts are calculated using the straight-line method over the term of the applicable notes which approximates the effective interest method and are recorded in interest expense in the accompanying consolidated statements of operations. Amortization of debt discounts of $21,303 and $24,830 was recognized as interest expense for the years ended December 31, 2019 and 2018, respectively.

Advertising Costs

Advertising costs are expensed as incurred and included in marketing and selling expense in the accompanying consolidated statements of operations. Advertising costs for the years ended December 31, 2019 and 2018 were $352,080 and $100,520, respectively.

Research and Development Expenses

Research and development expenditures are expensed in the period incurred. Research and development expenses primarily consist of salaries, benefits and stock-based compensation, as well as consulting expenses and allocated facilities and other overhead costs. Research and development activities include the development of new technologies, features and functionality in support of the Company's products and customer needs.

Income Taxes

The Company utilizes the asset and liability method of accounting for income taxes. Under this method, deferred tax assets and liabilities are determined based on the difference between the consolidated financial statement and tax bases of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to affect taxable income. Valuation allowances are established when necessary to reduce deferred tax assets to the amounts expected to be realized.

Under ASC Topic 740, the impact of an uncertain income tax position on the income tax return must be recognized at the largest amount that is more-likely-than-not to be sustained upon audit by the relevant taxing authority. An uncertain income tax position will not be recognized if it has less than a 50% likelihood of being sustained. Additionally, ASC Topic 740 provides requirements for derecognition, classification, interest and penalties, accounting in interim periods, disclosure and transition. The Company's policy is to recognize interest and/or penalties related to income tax matters in income tax expense.

On December 22, 2017, the U.S. government enacted comprehensive tax legislation commonly referred to as the Tax Cuts and Jobs Act (the "Tax Act"). The Tax Act reduces the corporate tax rate to 21%, effective January 1, 2018. Also, the Company has elected to treat the tax effect of Global Intangible Low Tax Income ("GILTI") as a current-period expense when occurred. The Company does not foresee material changes to its gross liability of uncertain tax positions within the next twelve months.

Interest Expense

Interest expense consists primarily of interest associated with the Company's issued debt including the amortization of debt discounts. The Company recognizes the amortization of debt discounts and the amortization of interest costs using a straight-line method which approximates the effective interest method.

Net (Loss) Income Per Share

Basic net (loss) income per share is calculated by dividing net (loss) income by the weighted-average common shares outstanding during the period. Diluted net (loss) income per share is calculated by dividing the net (loss) income by the weighted-average shares and dilutive potential common shares outstanding during the period. Dilutive potential shares consist of dilutive shares issuable and the exercise or vesting of outstanding stock options and warrants, respectively, computed using the treasury stock method. During a period where a net loss is incurred, dilutive potential shares are excluded from the computation of dilutive net loss per share, as inclusion is anti-dilutive.

On February 1, 2018, in connection with the Company's initial public offering, the Company's outstanding Series A, Series B, and Series C, Preferred Stock was automatically converted to common stock, par value $0.0001.

Recent Accounting Pronouncements

In February 2016, the FASB issued ASU No. 2016-02, *Leases* ("ASU 2016-02"). Under ASU 2016-02, lessees will be required to recognize the following for all leases (with the exception of short-term leases) at the commencement date: a lease liability, which is a lessee's obligation to make lease payments arising from a lease, measured on a discounted basis; and a right-of-use asset, which is an asset that represents the lessee's right to use, or control the use of, a specified asset for the lease term. ASU 2016-02 is effective for the Company for fiscal years beginning after December 15, 2020, including interim periods within those fiscal years. Early application is permitted. Lessees must apply a modified retrospective transition approach for leases existing at, or entered into after, the beginning of the earliest comparative period presented in the financial statements. The modified retrospective approach would not require any transition accounting for leases that expired before the earliest comparative period presented. Lessees may not apply a full retrospective transition approach. The Company is currently evaluating the impact of adopting ASU 2016-02 on its consolidated financial statements and disclosures. Based on our preliminary analysis, management expects the Company's assets and liabilities to increase by the present value of the lease payments disclosed in Note 11.

In January 2017, the FASB issued ASU No. 2017-01, *Business Combinations (Topic 805): Clarifying the Definition of a Business* ("ASU 2017-01"). The amendments in this update clarify the definition of a business with the objective of adding guidance to assist entities with evaluating whether transactions should be accounted for as acquisitions or disposals of assets or businesses. ASU 2017-01 is effective for the Company for the year ended December 31, 2019 and interim reporting periods within 2020. The effect of the adoption of this guidance did not significantly impact the Company's consolidated financial statements.

In September 2018, the FASB issued ASU No. 2018-07, *Stock-based Compensation: Improvements to Nonemployee Share-based Payment Accounting* which amends the existing accounting standards for share-based payments to nonemployees. This ASU aligns much of the guidance on measuring and classifying nonemployee awards with that of awards to employees. Under the new guidance, the measurement of nonemployee equity awards is fixed on the grant date. This ASU becomes effective for the year ending December 31, 2020 and early adoption is permitted but no earlier than an entity's adoption date of Topic 606. Entities will apply the ASU by recognizing a cumulative-effect adjustment to retained earnings as of the beginning of the annual period of adoption. We are currently evaluating the impact that ASU 2018-07 will have on our condensed consolidated financial statements.

In May 2014, the FASB issued Accounting Standards Update ("ASU") No. 2014-09, *Revenue from Contracts with Customers* ("ASU 2014-09"). ASU 2014-09 supersedes the revenue recognition requirements in FASB Topic 605, *Revenue Recognition*. ASU 2014-09 implements a five-step process for customer contract revenue recognition that focuses on transfer of control, as opposed to transfer of risk and rewards. This guidance provides a single, comprehensive accounting model for revenue arising from contracts with customers. This guidance supersedes most of the existing revenue recognition guidance, including industry-specific guidance. Under this model, revenue is recognized at an amount that a company expects to be entitled to upon transferring control of goods or services to a customer, as opposed to when risks and rewards transfer to a customer. The new guidance also requires additional disclosures about the nature, timing and uncertainty of revenue and cash flow arising from customer contracts, including significant judgments and changes in judgments. We adopted this standard beginning January 1, 2019 and used the modified retrospective method of adoption. Under the new guidance, based on the nature of our contracts, we continued to recognize revenue in a similar manner as with the former guidance. Accordingly, the adoption of this standard did not significantly impact our revenues, but did increase revenue related disclosures.

In January 2017, the FASB issued ASU No. 2017-04, *Intangibles - Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment* ("ASU 2017-04"). ASU 2017-04 simplifies the subsequent measurement of goodwill by eliminating Step 2 from the goodwill impairment testing. An entity will no longer determine goodwill impairment by calculating the implied fair value of goodwill by assigning the fair value of a reporting unit to all of its assets and liabilities as if that reporting unit had been acquired in a business combination. Instead, an entity should perform its annual, or interim, goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount and recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value. The loss recognized should not exceed the total amount of goodwill allocated to that reporting unit. An entity still has the option to perform the qualitative assessment for a reporting unit to determine if the quantitative impairment test is necessary. The Company adopted early ASU 2017-04 in 2018. The Company's early adoption of this guideline did not have a material effect on the Company's consolidated financial statements.

In August 2016, the FASB issued ASU No. 2016-15, *Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments* ("ASU 2016-15"), which is intended to reduce the existing diversity in practice in how certain cash receipts and cash payments are classified in the statement of cash flows. ASU 2016-15 is effective for fiscal years beginning after December 15, 2018, with early adoption permitted, provided that all of the amendments are adopted in the same period. The Company's adoption of this guideline did not have a material effect on the Company's consolidated financial statements.

NOTE 3 – ACQUISITIONS

Concept Development Inc.

On August 31, 2018, the Company acquired 100% of the outstanding common stock of Concept Development Inc. ("CDI") from CDI's former stockholder ("CDI Stockholder") pursuant to an Agreement and Plan of Merger and Reorganization (the "Merger Agreement"). CDI specializes in the design and manufacturing of custom high-performance computing systems for airborne in-flight entertainment systems. CDI is located in Southern California. The acquisition is expected to increase the Company's access to the in-flight entertainment market and gain technical expertise in the design and manufacturing of airborne equipment.

The Company paid cash of $646,759 and issued 1,266,364 shares of the Company's common stock to the CDI Stockholder for 100% of CDI outstanding common stock. The fair value assigned to the shares of common stock was $4,194,673, which was based upon the closing price of OSS's stock on August 31, 2018 of $3.63 less a discount of 8.75% for lack of marketability for a one year period.

This transaction was accounted for using the acquisition method pursuant to ASC Topic 805, *Business Combinations.* Accordingly, goodwill has been measured as the excess of the total consideration over the amounts assigned to the identifiable assets acquired and liabilities assumed.

The final allocation of the total consideration to the acquired net assets as of the acquisition date for CDI is as follows:

Cash	$	139,634
Accounts receivable		489,267
Prepaid expenses		45,683
Inventories		205,635
Property and equipment		45,026
Deposits and other		12,526
Customer lists and relationships		470,000
Trade name		90,000
Non-compete		15,000
Accounts payable		(91,997)
Accrued expenses		(99,711)
Deferred revenue		(95,610)
Deferred income taxes		(258,301)
Other accrued liabilities		(50,985)
Working capital loan		(370,096)
Total fair value excluding goodwill		546,071
Goodwill		4,295,361
Total consideration	$	4,841,432

The preliminary determination of fair value for the identifiable net assets acquired in the acquisition was initially determined by management after consideration of the results of a third-party appraisal. At the time of acquisition, management preliminarily assessed the value and recorded goodwill of $3,100,361 and other intangible assets of $1,770,000.

Subsequently in April 2019, and within the one year finalization period prescribed by ASC Topic 805, management finalized the purchase price allocation, including certain assumptions in the initial financial models used for the determination of intangible asset values. As a result, identified intangible assets were reduced from $1,770,000 to $575,000 with the difference of $1,195,000 being allocated to goodwill. The change in identified intangible assets is as follows:

		Preliminary Valuation		Revised Valuation		Change
Customer lists and relationships	$	1,470,000	$	470,000	$	(1,000,000)
Trade name		100,000		90,000		(10,000)
Non-compete		200,000		15,000		(185,000)
	$	1,770,000	$	575,000	$	(1,195,000)

If the revised values had been used since inception of the acquisition, the amortization expense would have been $177,778 less than what had been recognized through April 2019.

Additionally, as a result of a short-fall in the actual overall financial performance of CDI as compared to plan, a recurring need for working capital, and a decrease in the Company's stock price, the Company performed an interim test of impairment of goodwill as there was indication that the carrying value of the assets may not be recoverable. To evaluate whether goodwill is impaired, the Company compares the estimated fair value of CDI to CDI's carrying value, including goodwill. The Company determined that the carrying value of CDI exceeded its estimated fair value thereby requiring the measurement of the impairment loss. After consideration of the results of an additional third-party appraisal, it was determined by management that the goodwill associated with CDI was impaired by $1,697,394. As a result, the Company recognized a charge to operating expenses which is included in the accompanying consolidated statements of operations.

This business combination is considered a tax-free reorganization under Section 368(a) under the Internal Revenue Code. The Company incurred $245,028 in accounting and legal fees related to the acquisition of CDI.

Bressner Technology GmbH

On October 31, 2018, the Company's wholly-owned German subsidiary, OSS GmbH, acquired 100% of the outstanding stock of Bressner Technology GmbH, a Germany limited liability company located near Munich, Germany, from its principal owners for cash consideration of €4,725,000 (US$5,374,582) and stock consideration of 106,463 newly-issued restricted shares of the Company's common stock. The fair value assigned to the shares of common stock was $228,779, which was based upon the closing price of OSS's stock on October 31, 2018 of $2.47 less a discount of 13.0% for lack of marketability for a two year period.

This transaction was accounted for using the acquisition method pursuant to ASC Topic 805,*Business Combinations.* Accordingly, goodwill has been measured as the excess of the total consideration over the amounts assigned to the identifiable assets acquired and liabilities assumed.

The final allocation of the total consideration to the acquired net assets as of the acquisition date for Bressner Technology GmbH is as follows:

Cash	$	560,932
Accounts receivable		2,238,881
Inventory		3,721,685
Prepaid expenses and deposits		124,491
Fixed assets		346,637
Customer relationships		1,215,798
Trade name		329,515
Non-compete - Josef Bressner		231,797
Accounts payable and accrued expenses		(2,076,450)
Notes payable		(2,536,148)
Deferred tax liability		(43,499)
Total fair value excluding goodwill		4,113,639
Goodwill		1,489,722
Total allocated purchase price	$	5,603,361

The determination of fair value for the identifiable net assets acquired in the acquisition was determined by management and considered the results of a third-party appraisal of the fair value of equipment purchased. Management estimates that any residual value from the intangible assets listed above will not be significant. On the acquisition date, goodwill of $1,489,722 and other intangible assets of $1,777,110 were recorded. The business combination is considered a tax-free reorganization under Section 368(a) under the Internal Revenue Code.

The Company incurred $419,305 in accounting and legal fees related to the acquisition of Bressner. The amount attributable to the Company has been included in general and administrative expenses in the accompanying consolidated statements of operation for the year ended December 31, 2018.

Definite lived intangible assets related to acquisitions, after the revaluation of CDI intangible assets, are as follows as of December 31, 2019:

	Expected Life	Remaining Months	Gross Intangible Assets	Accumulated Amortization	Net Intangible Assets
Customer lists and relationships	36 to 60 months	22 to 44 months	$ 2,084,515	$ (1,109,681)	$ 974,834
Drawings and Technology	36 months	0 months	760,207	(760,207)	-
Trade name, Trademarks & other	24 to 36 months	8 to 22 months	447,274	(217,570)	229,704
Non-compete	36 months	22 months	246,797	(105,143)	141,654
			$ 3,538,793	$ (2,192,601)	$ 1,346,192

Definite lived intangible assets related to acquisitions are as follows as of December 31, 2018:

	Expected Life	Remaining Months	Gross Intangible Assets	Accumulated Amortization	Net Intangible Assets
Customer lists and relationships	36 to 60 months	7 to 56 months	$ 3,084,515	$ (492,269)	$ 2,592,246
Drawings and Technology	36 months	7 months	760,207	(622,949)	$ 137,258
Trade name, Trademarks & other	24 to 36 months	7 to 34 months	457,274	(58,218)	399,056
Non-compete	36 months	32 to 34 months	431,797	(35,100)	396,697
			$ 4,733,793	$ (1,208,536)	$ 3,525,257

The amortization expense of the definite lived intangible assets for the years remaining is as follows:

2020	2021	2022	2023	Total
$ 683,935	$ 556,872	$ 63,231	$ 42,154	$ 1,346,192

Amortization expense recognized during the year ended December 31, 2019 and 2018 was $984,065 and $630,258, respectively.

The amount of revenue and net loss of CDI included in the Company's consolidated statements of operations for the years ended December 31, 2019 was $2,537,334 and ($3,091,161), respectively and $755,259 and ($316,390) for the year ended December 31, 2018.

The amount of revenue and net income (loss) of Bressner included in the Company's consolidated statements of operations for the years ended December 31, 2019 was $18,252,610 and $91,812, respectively and $3,849,625 and ($153,614) for the year ended December 31, 2018.

The following unaudited consolidated pro forma information presents the results of revenue and operations for the years ended December 31, 2019 and 2018 as if these two acquisitions occurred on January 1, 2018.

	For the Year Ended December 31, 2019	2018
Revenue	$ 58,308,019	$ 53,352,821
Net loss	$ (900,337)	$ (466,675)
Acquisition-related pro forma net loss per share attributable to common stockholders		
Basic	$ (0.06)	$ (0.04)
Diluted	$ (0.06)	$ (0.04)

NOTE 4 – ACCOUNTS RECEIVABLE

Accounts receivable, net consists of the following at December 31,

		December 31, 2019		December 31, 2018
Accounts receivable	$	11,655,725	$	10,488,396
Unbilled receivables		25,432		65,157
		11,681,157		10,553,553
Less: allowance for doubtful accounts		(14,000)		(13,403)
	$	11,667,157	$	10,540,150

Unbilled receivables include amounts associated with percentage of completion and milestone billing accounting, which includes cost and gross profit earned in excess of billing, not currently billable due to contractual provisions. The provision for bad debt expense related to accounts receivable was $7,263 and $4,952 for the years ended December 31, 2019 and 2018, respectively.

NOTE 5 – INVENTORIES

Inventories, net consist of the following at December 31:

		December 31, 2019		December 31, 2018
Raw materials	$	2,478,882	$	2,248,520
Sub-assemblies		1,857,004		1,198,071
Work-in-process		493,276		311,072
Finished goods		3,087,529		3,466,419
		7,916,691		7,224,082
Less: reserves for obsolete and slow-moving inventories		(547,335)		(400,152)
	$	7,369,356	$	6,823,930

NOTE 6 – PROPERTY AND EQUIPMENT

Property and equipment, net consists of the following at December 31:

		December 31, 2019		December 31, 2018
Computers and computer equipment	$	633,546	$	609,921
Furniture and office equipment		340,801		211,759
Manufacturing equipment and engineering tools		2,501,020		2,211,080
Software implementation		1,709,125		-
Leasehold improvements		892,097		163,373
		6,076,589		3,196,133
Less: accumulated depreciation and amortization		(2,508,025)		(1,880,167)
		3,568,564		1,315,966
Construction in progress - facilities		-		197,619
Software implementation in progress - ERP		-		245,501
	$	3,568,564	$	1,759,086

During the years ended December 31, 2019 and 2018, the Company incurred $671,223 and $417,259 of depreciation and amortization expense related to property and equipment, respectively.

NOTE 7 – ACCRUED EXPENSES AND OTHER LIABILITIES

Accrued expenses and other liabilities consist of the following at December 31:

		December 31, 2019		December 31, 2018
Accrued compensation and related liabilities	$	1,621,177	$	1,183,653
Deferred revenue and customer deposits		1,260,126		1,135,470
Warranty reserve		424,011		416,313
Other accrued expenses		1,302,118		1,195,282
	$	4,607,432	$	3,930,718

NOTE 8 – DEBT

Bank Lines of Credit

Bressner Technology GmbH has three revolving lines of credit with German institutions totaling €3,600,000 (US$4,041,723). Borrowing under the lines of credit bear interest at variable rates of Euribor plus a stated rate. Current rates are between 3.75% and 7.99%. There were no balances outstanding as of December 31, 2019.

In 2018, Bressner Technology GmbH had six revolving lines of credit with German institutions totaling €3,320,000. Borrowing under those lines of credit bore interest at variable rates of Euribor plus a stated rate. Rates were between 3.75% and 7.99%. The lines of credit were guaranteed by the managing director through March 31, 2019. The totaling outstanding as of December 31, 2018 was €369,567 (US$422,960).

Notes Payable

In April 2019, the Company borrowed $350,000 from three individuals for a two year period at an interest rate of 9.5% which requires the Company to make monthly principal and interest payments of $16,100 per month. These loans are secured by the assets of the Company. In connection with these loans, the Company issued to the noteholders warrants to purchase shares of the Company's common stock equal to 10% of the original principal at a price per share equal to $2.15 per share. Accordingly, the Company issued to the noteholders warrants to purchase 16,276 shares of the Company's common stock at an exercise price of $2.15 per share. The relative fair value of each warrant was $0.90. The relative fair value of warrants was estimated using Black-Scholes with the following weighted-average assumptions: fair value of the Company's common stock at issuance of $2.15 per share; five year contractual term; 44.60% volatility; 0.0% dividend rate; and a risk-free interest rate of 2.307%. The total relative fair value of the warrants issued is $14,037.

Bressner Technology GmbH has four term loans outstanding with a total balance outstanding as of December 31, 2019 of €1,153,525 (US$1,295,064) as follows:

Bressner entered into a note payable in September 2017, in the amount of €400,000 (US$436,272) which bears interest at 2.125% and matured on January 31, 2020 and was paid in full on this date. Quarterly principal payments of €25,000 (US$28,068) are due in January, April, July and November. The balance outstanding as of December 31, 2019 is €25,000 (US$28,068). The balance outstanding as of December 31, 2018 was €300,000 (US$343,314).

Bressner entered into a note payable in April 2019, in the amount of €500,000 (US$561,350) which bears interest at 2.25% and matures on March 30, 2021 with monthly payments of principal and interest of €22,232 (US$24,960). The balance outstanding as of December 31, 2019 is €328,525 (US$368,835).

Bressner entered into a note payable in June 2019, in the amount of €500,000 (US$561,350) which bears interest at 1.70.% and matures on June 25, 2020 with a balloon payment of principal and interest of €508,679 (US$571,095).

Bressner entered into a note payable in September 2019, in the amount of €300,000 (US$336,810) which bears interest at 1.65.% and matures on March 24, 2020, with a balloon payment of principal and interest of €301,650 (US$338,663). This loan was subsequently refinanced and the term extended one year.

Related-Party Notes Payable

In April 2019, the Company borrowed $1,150,000 from three individuals who serve on the Company's board of directors for a two year period at an interest rate of 9.5% which requires the Company to make monthly principal and interest payments of $52,900 per month. These loans are secured by the assets of the Company. In connection with these loans, the Company issued to the noteholders warrants to purchase shares of the Company's common stock equal to 10% of the original principal at a price per share equal to $2.15 per share. Accordingly, the Company issued to the noteholders warrants to purchase 53,490 shares of the Company's common stock at an exercise price of $2.15 per share. The relative fair value of each warrant was $0.90. The relative fair value of warrants was estimated using Black-Scholes with the following weighted-average assumptions: fair value of the Company's common stock at issuance of $2.15 per share; five year contractual term; 42.60% volatility; 0.0% dividend rate; and a risk-free interest rate of 2.3067%. The relative fair value of warrants issued is $46,121.

Debt Discount

The relative fair value of warrants were recorded as debt discount, decreasing notes payable and related-party notes payable and increasing additional paid-in-capital on the accompanying consolidated balance sheets. The debt discounts are being amortized to interest expense over the term of the corresponding notes payable using the straight-line method which approximates the effective interest method.

For the years ended December 31, 2019 and 2018, total debt discount amortization was $21,303 and $24,830, respectively, and such amounts are included in interest expense in the accompanying consolidated statements of operations.

Total future payments under the notes payable and related notes payable described above are as follows:

Period Ending December 31,	Related Parties	Third Parties	Foreign	Total	Discount
2020	$ 584,501	$ 177,866	$ 1,206,904	$ 1,969,271	$ (30,079)
2021	206,669	63,188	88,160	358,017	(8,773)
Total minimum payments	791,170	241,054	1,295,064	2,327,288	(38,852)
Current portion of notes payable	(584,501)	(177,866)	(1,206,904)	(1,969,271)	30,079
Notes payable, net of current portion	$ 206,669	$ 63,188	$ 88,160	$ 358,017	$ (8,773)

NOTE 9 – STOCKHOLDERS' EQUITY

The Company's amended and restated certificate of incorporation filed on December 14, 2017, authorizes the Company to issue 10,000,000 shares of preferred stock and 50,000,000 shares of common stock. On February 1, 2018, in connection with the Company's initial public offering, each share of the Company's outstanding Series A, Series B, and Series C, Preferred Stock was automatically converted into a share of the Company's common stock, par value $0.0001 on a one-for-one basis.

Common Stock

The voting, dividend and liquidation rights of the holders of the common stock are subject to rights of preferred stockholders, if any, as designated by the Board of Directors. Common stockholders have voting rights at all meetings of stockholders and are entitled to one vote for each share held subject to certain limitations otherwise required by law. Dividends may be declared and paid on the common stock as and when determined by the Board of Directors subject to any preferential dividend or other rights of preferred stockholders. The Company does not anticipate declaring any dividends in the foreseeable future. Upon the dissolution or liquidation of the Company, common stockholders are entitled to receive all assets of the Company, subject to any preferential or other rights of preferred stockholders.

Initial Public Offering

On December 18, 2017, the Company announced the commencement of an underwritten public offering of its common stock, par value $0.0001 per share. The offering became effective on January 31, 2018 and trading began on February 1, 2018. On February 5, 2018, the Company closed the initial public offering selling an aggregate of 3,800,000 shares of common stock at a price to the public of $5.00 for total gross proceeds of $19,000,000, which resulted in net proceeds of $17,485,000, after deducting underwriting discounts and commissions of $1,330,000 and underwriter offering-related transaction costs of $185,000. Additionally, the Company incurred costs associated with the transaction for accounting, legal and other fees and costs of $1,148,352 and a warrant expense of $699,408 for warrants issued to the underwriter pursuant to the underwriter agreement. Such stock issuance costs have been deducted from the proceeds received from the underwriter and disclosed as net proceeds in the consolidated statement of stockholders' equity.

On February 9, 2018, the underwriters exercised their over-allotment option to purchase an additional 200,000 shares of common stock at the public offering price of $5.00 per share, of which 100,000 shares of newly issued common stock were purchased from the Company and 100,000 shares were sold by the Company's CEO's family trust. The Company received gross proceeds of $500,000, which resulted in net proceeds to the Company of $465,000, after deducting underwriting discounts and commissions of $35,000.

Warrants

In conjunction with the Company's initial public offering, on February 1, 2018, the Company issued warrants to the underwriter to purchase 380,000 shares of common stock at a price of $6.00 pursuant to the Underwriting and Warrant Agreements dated February 1, 2018.

The fair value of the warrants was $699,408. The fair value of warrants was estimated using Black-Scholes with the following weighted-average assumptions: fair value of the Company's common stock at issuance of $5.00 per share; five year contractual term; 42.7% volatility; 0% dividend rate; and a risk-free interest rate of 2.72%. The warrant expense was treated as a stock issuance cost and was deducted from the gross proceeds received in the offering in the current period. A corresponding increase in additional paid in capital was recognized in relation to this transaction.

Exercise of Stock Options

During the year ended December 31, 2019, the Company issued 350,587 shares of common stock for proceeds of $47,334 in cash related to the exercise of stock options. Of the total shares issued, 273,600 shares of common stock were issued as a cashless exercise of stock options.

During the year ended December 31, 2018, the Company issued 391,578 shares of common stock for proceeds of $113,168, in cash related to the exercise of stock options. Of the total shares issued, 290,879 shares of common stock were issued as a cashless exercise of stock options.

Preferred Stock

Preferred Stock may be issued from time to time in one or more series, each of these series to have such terms as stated or expressed in resolutions providing for the issue of such series adopted by the Board of Directors. Since February 1, 2018, there has been no outstanding preferred stock.

On December 14, 2017, the Company was reincorporated in the State of Delaware. Prior to that date the Company was authorized to issue 5,000,000 shares of preferred stock and 11,000,000 share of common stock. The authorized preferred stock had been further designated as follows: 500,000 as Series A Preferred Stock; 1,500,000 as Series B Preferred Stock; and 2,000,000 as Series C Preferred Stock.

The liquidation preferences of the preferred shares were as follows:

• Series C Preferred Stock	The liquidation preference is $1.50 per share, and the shares have liquidation preference over common stock, Series A Preferred Stock, and Series B Preferred Stock.
• Series B Preferred Stock	The liquidation preference is $0.50 per share, and the shares have liquidation preference over common stock and Series A Preferred Stock.
• Series A Preferred Stock	The liquidation preference is $0.25 per share, the shares have liquidation preference over common stock.

Series A Preferred Stock, Series B Preferred Stock, and Series C Preferred Stock ("Preferred Shares") were convertible at any time at the option of the holder into one share of common stock.

In addition, preferred shares were automatically convertible into shares of common stock upon the date specified by the holders of a majority of the then outstanding shares of such securities, or the closing of a public offering of common stock with gross proceeds of not less than $10,000,000 at an offering price of not less than $5.00 per share. Each of the Preferred Shares was non-redeemable, had no par value, was not eligible for dividends, unless declared, and the voting rights of the Preferred Shares was equivalent to the voting rights of common stock.

As a result of the Company's initial public offering exceeding the gross proceeds requirements and the requisite offering price, all of the previously outstanding preferred stock was converted to common stock on February 1, 2018.

Regarding unissued preferred stock, the Board of Directors is authorized to determine or alter any or all of the rights, preferences, privileges and restrictions granted to or imposed upon wholly unissued series of preferred stock, and to fix or alter the number of shares comprising any such series and the designation thereof, or any of them, and to provide for rights and terms of redemption or conversion of the shares of any such series.

Stock Options

The Company maintained a stock option plan that was established in 2000 ("2000 Plan"). In November 2008, the Company increased the maximum number of shares of the Company's common stock that were issuable under the 2000 Plan to 3,000,000 shares of the Company's common stock. The 2000 Plan has expired and no future grants may be awarded under the 2000 Plan.

In December 2011, the Company adopted a stock option plan ("2011 Plan") under which the Company may issue up to 1,500,000 shares of the Company's common stock and, as of December 31, 2019, the Company had 240,000 shares of common stock remaining unissued under the 2011 Plan. The 2011 Plan was terminated by the Board of Directors on October 10, 2017, and accordingly, no shares are available for issuance under the 2011 Plan. The 2011 Plan will continue to govern outstanding awards granted thereunder.

In December 2015, the Company adopted a stock option plan ("2015 Plan") under which the Company may issue up to 1,500,000 shares of the Company's common stock and, as of December 31, 2019, the Company had 790,000 shares of common stock remaining unissued under the 2015 Plan. The terms of the 2011 Plan and 2015 Plan provided for the grant of incentive options to employees and non-statutory options to employees, directors and consultants of the Company. The 2015 Plan was terminated by the Board of Directors on October 10, 2017, and accordingly, no shares are available for issuance under the 2015 Plan. The 2015 Plan will continue to govern outstanding awards granted thereunder.

The Board of Directors adopted the 2017 Equity Incentive Plan on October 10, 2017 (the "2017 Plan"). The 2017 Plan allows for the grant of a variety of equity vehicles to provide flexibility in implementing equity awards, including incentive stock options, non-qualified stock options, restricted stock grants, unrestricted stock grants and restricted stock units and stock bonuses and performance-based awards. On December 18, 2017, the Company stockholders approved the "2017 Plan" under which the Company may issue up to 1,500,000 shares of the Company's common stock.

The exercise price per share for options under the 2011 Plan, 2015 Plan and 2017 Plan is determined by the Company's Board of Directors, for incentive stock options the exercise price shall not be less than the fair market value of the Company's common stock on the date of grant, except that for incentive options granted to an owner/employee with a greater than 10% ownership interest in the Company, the exercise price shall not be less than 110% of the fair market value of the Company's common stock on the date of grant.

Options under the plans expire no more than ten years after the date of grant and/or within five years after the date of the grant for incentive options granted to an owner/employee with a greater than 10% ownership interest in the Company.

A summary of stock option activity under the plans during the years ended December 31, 2019 and 2018 are as follows:

	Stock Options Outstanding			
	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (in years)	Aggregate Intrinsic Value
Outstanding at January 1, 2018	2,379,444	$ 0.82	5.05	$ 2,569,047
Granted	295,000	$ 1.61		
Forfeited / Cancelled	(194,528)	$ 0.88		
Exercised	(461,169)	$ 0.85		
Outstanding at December 31, 2018	2,018,747	$ 1.13	4.08	$ 2,013,516
Granted	106,000	$ 2.14		
Forfeited / Cancelled	(62,000)	$ 2.04		
Exercised	(376,303)	$ 0.46		
Outstanding at December 31, 2019	1,686,444	$ 1.32	4.84	$ 1,416,279
Exercisable at December 31, 2019	1,501,085	$ 1.14	4.40	$ 1,411,839
Vested and expected to vest at December 31, 2019	1,680,883	$ 1.31	4.83	$ 1,416,146

The following table summarizes information about common stock options outstanding as of December 31, 2019:

		Stock Options Outstanding			Stock Options Exercisable		
Plan	Exercise Price Range	Number of Shares Outstanding	Weighted Average Remaining Contractual Life (in Years)	Weighted Average Exercise Price	Number of Shares Exercisable	Weighted Average Remaining Contractual Life (in Years)	Weighted Average Exercise Price
2000	$0.75	-	-	-	-	-	$ —
2011	$0.46-$0.84	876,383	2.92	$ 0.65	876,383	2.92	$ 0.65
2015	$1.08-$1.95	641,061	6.42	$ 1.68	577,621	6.31	$ 1.65
2017	$2.43-$4.09	169,000	8.77	$ 3.38	47,081	8.59	$ 3.84
		1,686,444			1,501,085		

The following table presents details of the assumptions used to calculate the weighted-average grant date fair value of common stock options granted by the Company:

	For the Year Ended December 31,	
	2019	2018
Expected term (in years)	4.6 - 5.9	5.4 - 5.9
Expected volatility	43.7 - 44.4 %	45.9 - 47.0%
Risk-free interest rate	2.30 - 2.49%	2.70 - 3.00%
Weighted average grant date fair value per share	$ 1.09	$ 1.61
Grant date fair value of options vested	$ 706,417	$ 536,666
Intrinsic value of options exercised	$ 559,237	$ 559,433

As of December 31, 2019, the amount of unearned stock-based compensation estimated to be expensed from 2019 through 2029 related to unvested common stock options is $181,751, net of estimated forfeitures. The weighted-average period over which the unearned stock-based compensation is expected to be recognized is 1.51 years.

If there are any modifications or cancellations of the underlying unvested awards, the Company may be required to accelerate, increase or cancel any remaining unearned stock-based compensation expense or calculate and record additional expense. Future stock-based compensation expense and unearned stock-based compensation will increase to the extent that the Company grants additional common stock options or other stock-based awards.

Restricted Stock Units

Restricted stock units may be granted at the discretion of the compensation committee of the Board of Directors under the 2017 Plan in connection with the hiring and retention of personnel and are subject to certain conditions. Restricted stock units generally vest quarterly over a period of three years and are typically forfeited if employment is terminated before the restricted stock unit vest. The compensation expense related to the restricted stock units is calculated as the fair value of the common stock on the grant date and is amortized to expense over the vesting period and is adjusted for estimated forfeitures.

The Company's restricted stock unitactivity for the year ended December 31, 2019 and 2018 is as follows:

	Restricted Stock Units	
	Number of Shares	Weighted Average Grant Date Fair Value
Unvested at January 1, 2018	-	$ -
Granted	225,000	$ 4.13
Vested	(44,165)	$ (4.14)
Cancelled	(7,500)	$ (4.17)
Unvested at December 31, 2018	173,335	$ 4.13
Granted	167,500	$ 2.43
Vested	(116,665)	$ (3.86)
Cancelled	(7,500)	$ (2.34)
Unvested at December 31, 2019	216,670	$ 3.02

As of December 31, 2019, there was $436,552 of unrecognized compensation cost related to unvested restricted stock units which is expected to be recognized over a weighted average period of 1.51 years.

Stock-based compensation expense for the years ended December 31, 2019 and 2018 was comprised of the following:

	For the Year Ended December 31,	
Stock-based compensation classified as:	2019	2018
General and administrative	$ 469,714	$ 432,734
Production	70,243	20,263
Marketing and selling	59,486	37,120
Research and development	50,026	37,218
	$ 649,469	$ 527,335

Warrants

In connection with the Company's initial public offering in 2018, the Company issued warrants to the underwriters to purchase 380,000 shares of common stock at an exercise price of $6.00 per share, as described above.

In connection with the issuance of notes payable and related notes payable in April 2019, the Company issued warrants to debt holders' share of common stock at an exercise price of $2.15 per share. See Note 8.

The following table summarizes the Company's warrant activity during the years ended December 31, 2019 and 2018:

	Number of Warrants	Weighted Average Exercise Price
Warrants outstanding – January 1, 2018	198,996	$ 1.11
Warrants granted	380,000	$ 6.00
Warrants exercised	-	$ -
Warrants outstanding – December 31, 2018	578,996	$ 4.32
Warrants granted	69,766	$ 2.15
Warrants exercised	(17,815)	$ 1.40
Warrants outstanding – December 31, 2019	630,947	$ 4.16

NOTE 10 – EMPLOYEE BENEFIT PLAN

The Company has a 401(k) retirement plan. Under the terms of the plan, eligible employees may defer up to 20% of their pre-tax earnings, subject to the Internal Revenue Service annual contribution limit. Additionally, the plan allows for discretionary matching contributions by the Company. In 2019 and 2018, the matching contributions were 100% of the employee's contribution up to a maximum of 5% of the employee's annual compensation. During the years ended December 31, 2019 and 2018, the Company contributed $376,878 and $323,828, respectively to the 401(k) Plan.

NOTE 11 – COMMITMENTS AND CONTINGENCIES

Legal

From time to time the Company is subject to various legal claims and proceedings arising in the ordinary course of business. In the opinion of management, after consultation with legal counsel, the ultimate disposition of any such matters as of December 31, 2019, will not have a materially adverse effect on the consolidated financial position or results of operations of the Company.

Guarantees and Indemnities

The Company has made certain indemnities, under which it may be required to make payments to an indemnified party, in relation to certain transactions. The Company indemnifies its directors, officers, employees and agents to the maximum extent permitted under the laws of the State of Delaware. In connection with its facility lease, the Company has indemnified its lessor for certain claims arising from the use of the facilities. Also, in connection with its Credit Agreement (Note 8), the Company has agreed to indemnify its lender and others related to the use of the proceeds and other matters. The duration of the indemnities varies, and in many cases is indefinite. These indemnities do not provide for any limitation of the maximum potential future payments the Company could be obligated to make. Historically, the Company has not been obligated to make any payments for these obligations and no liabilities have been recorded for these indemnities in the accompanying consolidated balance sheets.

Leases

The Company leases its offices, manufacturing, and warehouse facility in San Diego County under a non-cancelable operating lease. Our corporate headquarters are in a leased space comprising approximately 24,032 square feet in Escondido, California under a lease that was renewed in August 2018 and now expires in August 2024. We also lease a 3,208 square foot facility in Salt Lake City, Utah that houses our Ion software development team. CDI is the lessee of approximately 12,000 square feet located in Irvine, California with the lease expiring in June 2021. Bressner Technology, which was acquired in October 2018, leases space comprising 8,073 square feet on a month to month basis.

For the years ended December 31, 2019 and 2018, rent expense was $692,158 and $630,830, respectively.

Future annual minimum rental commitments under operating leases as of December 31, 2019, are as follows:

Year Ending December 31,		Amount payable
2020	$	713,471
2021		629,511
2022		548,686
2023		311,433
2024		211,734
Thereafter		-
Total minimum lease payments	$	2,414,835

NOTE 12 – RELATED PARTY TRANSACTIONS

In April 2019, certain members of the Company's Board of Directors executed definitive agreements to commit funds of up to $4,000,000 as a credit facility. The Company initially borrowed $1,150,000 from members of the Board of Directors and $350,000 from other shareholders for a two year period at an interest rate of 9.5% which requires the Company to make monthly principal and interest payment of $69,000 per month. In connection with these loans, the Company issued to these note holders warrants to purchase shares of the Company's common stock equal to 10% of the original principal as a price per share equal to $2.15 per share. Accordingly, the Company issued to these note holders warrants to purchase 69,766 share of the Company's common stock. The relative fair value of the warrants issued was $60,158.

The Company has engaged an advertising firm whose president is a member of the Board of Directors of the Company. Amounts paid to this company are included in marketing and selling expense in the accompanying consolidated statements of operations and for the years ended December 31, 2019 and 2018, totaled $40,006 and $34,495, respectively.

The Company has appointed certain stockholders to the Board of Directors. Director fees paid by the Company, including stock-based compensation, for the years ended December 31, 2019 and 2018 totaled $160,726 and $183,579, respectively, and are included in general and administrative expenses in the accompanying consolidated statements of operations.

The Company has engaged a related-party law firm (a principal of that firm owns shares in the Company) to provide legal services. Legal fees paid to this firm are included in general and administrative expenses in the accompanying consolidated statements of operations for the years ended December 31, 2019 and 2018 and totaled $37,800 and $208,178, respectively.

The Company has engaged an IT network support firm whose owner is an employee of the Company. Fees paid to this firm are included in general and administrative expense in the accompanying consolidated statements of operations for the years ended December 31, 2019 and 2018 totaled $2,214 and $9,841, respectively.

Interest expense on all related-party notes payable for the years ended December 31, 2019 and 2018 totaled $67,197 and $16,599, respectively.

Effective August 1, 2016, the Company entered into a management services agreement with a company owned by the former Chief Executive Officer of Magma. The agreement calls for payments of $180,000 per year for the first two years paid in monthly installments. In year three, the amount is reduced to $37,500 for the year paid in monthly installments. Additionally, the Company granted 30,000 options in conjunction with execution of this agreement. Payments for the year ended December 31, 2019 and 2018 were $21,875 and $120,625, respectively.

NOTE 13 – INCOME TAXES

For the years ended December 31, 2019 and 2018, pre-tax income (loss) was attributed to the following jurisdictions:

	2019	2018
Domestic operations	$ (947,350)	$ (3,227,347)
Foreign operations	284,265	257,943
	$ (663,085)	$ (2,969,404)

The amounts reflected in the table above do not include net losses attributable to Noncontrolling interest in SkyScale.

Set forth below is the provision (benefit) for income taxes for the years ended December 31:

	2019	2018
Current:		
Federal	$ -	$ (20,391)
State	19,676	1,202
International	439,662	109,998
	459,338	90,809
Deferred:		
Federal	(164,662)	(817,523)
State	(57,424)	(670,070)
International	-	-
	(222,086)	(1,487,593)
Total provision (benefit) for income taxes	$ 237,252	$ (1,396,784)

The reconciliation of the provision (benefit) for income taxes computed at federal statutory rates to the provision (benefit) for income taxes for the years ended December 31, are as follows:

	2019	2018
Provision at federal statutory rates (21% applied to earnings before income taxes)	$ (200,212)	$ (623,575)
State income taxes, net of federal benefit	38,764	(556,019)
Other permanent items	320,208	-
Research credits	(510,568)	(210,567)
Transaction costs	-	126,212
Stock based compensation	(48,499)	(472,064)
Amortization and impairment	550,454	-
Noncontrolling interest	-	115,320
Uncertain tax positions	54,452	(10,000)
Other	32,653	233,909
	$ 237,252	$ (1,396,784)

Deferred income taxes reflect the net tax effect of temporary differences between the carrying amount of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. Significant components of deferred taxes as of December 31, 2019 and 2018 were as follows:

	2019	2018
Deferred tax assets:		
Reserves	$ 21,677	$ 18,877
Accrued expenses	-	284,364
Deferred compensation	66,460	217,994
Stock compensation	191,855	
Deferred revenue	126,428	158,196
Inventories	182,189	158,967
Credits and loss carryforward	3,794,279	3,268,535
Total deferred tax assets before valuation allowance	4,382,888	4,106,933
Less: valuation allowance	(178,593)	(183,048)
Total deferred tax assets	4,204,295	3,923,885
Deferred tax liabilities:		
Property and equipment	(369,004)	(151,927)
Intangible assets	(527,447)	(1,009,293)
Other	(288,021)	(257,033)
Total deferred tax liabilities	(1,184,472)	(1,418,253)
Net deferred tax assets	$ 3,019,823	$ 2,505,632

The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those differences become deductible. Management considers the scheduled reversals of deferred tax liabilities, projected future taxable income and tax planning strategies in making this assessment. Management believes that it is more likely than not that the Company will realize the benefits of the net deferred tax assets as of December 31, 2019 and 2018.

The Company files income tax returns in the U.S. federal jurisdiction, California, Texas, Utah and Germany and has open tax statutes for U.S. federal taxes for the years ended December 31, 2016 through 2019. For California the open tax statutes are for years December 31, 2015 through 2019 and for Germany the open years include December 31, 2017 and 2018.

The Company has Pre-2018 Federal net operating loss ("NOL") carryforwards of approximately $1,450,000. The Company may use these NOL carryforwards to offset Federal taxable income in future years through 2037, when the last (Pre-2018) NOL carryforwards expire. The Company also has a Post-2018 Federal NOL carryforward as of December 31, 2019 and 2018, of $3,935,000 and $3,724,000, respectively. The Company may use these Post-2018 NOL carryforwards indefinitely to offset 80% of Federal taxable income in future years. In addition, the Company has state NOL carryforwards of $2,563,000. State NOLs will carry forward through at least 2038 and may be used to offset future state taxable income.

As of December 31, 2019 and 2018, the Company has $1,430,000 and $1,256,000 of Federal tax credit carryforwards which begin to expire in 2026 and state credit carryforwards of $1,290,000 and $1,101,000 which carryforward indefinitely.

As of December 31, 2019, unrecognized tax benefits associated with uncertain taxpositions was $317,236, and such amount is included in other accrued expenses in the accompanying consolidated balance sheets. If recognized, this would affect the Company's effective tax rate.

A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows:

Unrecognized tax benefits balance at December 31, 2017	$	203,466
Gross increases for tax positions of the current year		59,318
Unrecognized tax benefits balance at December 31, 2018		262,784
Gross increases for tax positions of the current year		54,452
Unrecognized tax benefits balance at December 31, 2019	$	317,236

The liability for uncertain tax positions is reviewed quarterly and adjusted as events occur that affect potential liabilities for additional taxes, such as lapsing of applicable statutes of limitations, proposed assessments by tax authorities, negotiations with taxing authorities, identification of new issues, and enactment of new legislation, regulations or promulgation of new case law. Management believes that adequate amounts of tax and related interest, if any, have been provided for any adjustments that may result from these examinations of uncertain tax positions. The Company does not expect the liability for uncertain tax positions to change significantly over the next year. The Company's practice is to recognize interest and/or penalties related to income tax matters in income tax expense.

NOTE 14 –NET LOSS PER SHARE

Basic and diluted net loss per share was calculated as follows for the years ended December 31, 2019 and 2018:

	For the Year Ended December 31,	
	2019	**2018**
Basic and diluted net loss per share attributable to common stockholders:		
Numerator:		
Net loss attributable to common stockholders	$ (900,337)	$ (1,136,278)
Denominator:		
Weighted average common shares outstanding - basic	15,148,613	12,586,513
Effect of dilutive securities	-	-
Weighted average common shares outstanding - diluted	15,148,613	12,586,513
Net loss per common share attributable to common stockholders:		
Basic	$ (0.06)	$ (0.09)
Diluted	$ (0.06)	$ (0.09)

NOTE 15 – SEGMENT AND GEOGRAPHIC INFORMATION

The Company operates in three reportable segments: the design and manufacture of high-performance customized computers and flash arrays, in-flight entertainment & connectivity and value-added reseller with minimal customization. The Company evaluates financial performance on a company-wide basis.

Segment detail for the years ended December 31, 2019 and 2018 is as follows:

	For the Year Ended December 31, 2019				For the Year Ended December 31, 2018			
	OSS	CDI	Bressner	Total	OSS	CDI	Bressner	Total
Revenues	$ 37,518,074	$ 2,537,334	$ 18,252,611	$ 58,308,019	$ 32,516,105	$ 755,259	$ 3,756,018	$ 37,027,382
Cost of revenues	(22,799,121)	(1,963,691)	(14,142,944)	(38,905,756)	(22,148,191)	(748,230)	(2,796,237)	(25,692,658)
Gross profit	14,718,953	573,643	4,109,667	19,402,263	10,367,914	7,029	959,781	11,334,724
Gross profit %	39.2%	22.6%	22.5%	33.3%	31.9%	0.9%	25.6%	30.6%
Total operating expenses	(13,062,251)	(3,329,176)	(3,789,855)	(20,181,282)	(13,455,931)	(324,012)	(730,370)	(14,510,313)
Income (loss) from operations	$ 1,656,702	$ (2,755,533)	$ 319,812	$ (779,019)	$ (3,088,017)	$ (316,983)	$ 229,411	$ (3,175,589)

Revenue from customers with non-U.S. billing addresses represented approximately 62% and 57% of the Company's revenue for the year ended December 31, 2019 and 2018, respectively.

As of December 31, 2019, substantially all the Company's long-lived assets were located in the United States of America, with the exception of assets of $248,247 located in Germany.

NOTE 16 – SUBSEQUENT EVENTS

On February 10, 2020, Messrs. Ison and Morrison, each received restricted stock unit (RSU's) grants of 15,000 of shares of our common stock. The RSU's vest over three years, with equal semi-annual installments over a period of three years, subject to continued employment with the Company on each vesting date.

On February 15, 2020, Steve Cooper was terminated from his officer positions with the Company and exercised 611,250 options or RSU's on a net exercise after tax basis which resulted in the issuance of 203,669 shares of common stock. Mr. Cooper remains on the board of directors. On March 6, 2020, Mr. Cooper executed a waiver and release of the Company as a condition to receiving certain severance benefits as provided in his employment agreement. In connection therewith, 3,750 shares of common stock underlying an option to purchase common stock accelerated and became fully vested and exercisable and 20,000 shares of common stock underlying restricted stock units accelerated and became fully vested and exercisable.

In March 2020, the Company signed a term sheet with a lender for a $5.0 million non-interest bearing convertible note with a 10% original issue discount. The first tranche of $3.0 million is available upon closing with $2.0 million available seven months from the date of closing at the option of the Company. The note is repayable in twenty-two installments beginning three month after closing.

The Company has evaluated subsequent events after the consolidated balance sheet date of December 31, 2019 through the date of filing. Based upon the Company's evaluation, management has determined that, other than as disclosed in the accompanying notes, no subsequent events have occurred that would require recognition in the accompanying consolidated financial statements or disclosure in the notes thereto.

Exhibit Index

Exhibit Number	Description
2.1(7)	Agreement and Plan of Merger and Reorganization, dated August 22, 2018, with Concept Development Inc.
2.2 (8)	Share Purchase Agreement, dated October 31, 2018, with Bressner Technology GmbH.
3.1(1)	Amended and Restated Certificate of Incorporation (currently in effect).
3.2(2)	Bylaws, as amended (currently in effect).
4.1(4)	From of Common Stock Certificate of One Stop Systems, Inc.
4.2(3)	Second Amended and Restated Investors' Rights Agreement, dated January 2007.
4.3(3)	Common Shareholder Piggyback Registration Rights Agreement, dated July 15, 2016.
4.4(5)	Form of Warrant issued to Roth Capital Partners, LLC in connection with One Stop Systems, Inc.'s initial public offering.
4.5(3)	Form of Common Stock Warrant issued to investors in connection with note financings.
10.1+(4)	Form of Indemnification Agreement between One Stop Systems, Inc. and each its directors and executive officers.
10.2+(3)	One Stop Systems, Inc. 2000 Stock Option Plan and related form agreements.
10.3+(3)	One Stop Systems, Inc. 2011 Stock Option Plan and related form agreements.
10.4+(3)	One Stop Systems, Inc. 2015 Stock Option Plan and related form agreements.
10.5+(3)	One Stop Systems, Inc. 2017 Stock Equity Incentive Plan and related form agreements.
10.6+(3)	Executive Employment Agreement between One Stop Systems, Inc. and Steve Cooper, dated October 1, 2017.
10.7+(3)	Executive Employment Agreement between One Stop Systems, Inc. and Jim Ison, dated October 1, 2017.
10.8(4)	Lease Agreement dated October 21, 2004, as amended.
10.9(3)	Contribution Agreement for SkyScale, LLC by and between Jacoma Investments, LLC and One Stop Systems, Inc., dated April 11, 2017.
10.10(4)	Technology Source Code License Agreement by and between Western Digital Technologies, Inc. and One Stop Systems, Inc., dated May 9, 2017.
10.11(4)	Services Agreement by and between Western Digital Technologies, Inc. and One Stop Systems, Inc., dated July 1, 2017.
10.12(4)	Original Equipment Manufacturing and Supply Agreement by and between disguise (formerly d3 Technologies) and One Stop Systems, Inc., dated October 1, 2015.
10.13(7)	Piggyback Registration Rights Agreement by and between One Stop Systems, Inc. and James M. Reardon, dated August 31, 2018.
10.14(9)	Form of Binding Commitment Letter

10.15(10)	Equity Distribution Agreement, dated June 26, 2019, by and between One Stop Systems, Inc. and Noble Life Science Partners, a division of Noble Capital Markets, Inc.
10.16(11)†	Domestic Strategic Sourcing Agreement, effect as of August 2, 2019, by and between One Stop Systems, Inc., and Raytheon Company.
10.17(12)	Form of Note and Warrant Purchase Agreement.
10.18(12)	Form of Secured Note.
10.19(12)	Form of Warrant.
10.20(12)	Form of Security Agreement.
10.21(12)†	Original Equipment Manufacturing and Supply Agreement, date as of July 1, 2019.
21.1	List of Subsidiaries.
23.1	Consent of Haskell & White LLP, independent registered public accounting firm
31.1	Certification of Principal Executive Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of Principal Financial Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1*	Certification of Principal Executive Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2*	Certification of Principal Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	XBRL Taxonomy Extension Label Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document

(1) Incorporated by reference to Amendment No.1 to the Registrant's Current Report on Form 8-K filed with the SEC on March 21, 2018.
(2) Incorporated by reference to the Registrant's Current Report on Form 8-K filed with the SEC on February 6, 2018.
(3) Incorporated by reference to the Registrant's Registration Statement on Form S-1 (Registration No. 333-222121) filed with the SEC on December 18, 2017.
(4) Incorporated by reference to Amendment No. 1 to the Registrant's Registration Statement on Form S-1 (Registration No. 333-222121) filed with the SEC on January 16, 2018.
(5) Incorporated by reference to the Registrant's Current Report on Form 8-K filed with the SEC on February 1, 2018.
(6) Incorporated by reference to the Registrant's Current Report on Form 8-K filed with the SEC on August 3, 2018.
(7) Incorporated by reference to the Registrant's Current Report on Form 8-K filed with the SEC on September 6, 2018.

(8) Incorporated by reference to the Registrant's Current Report on Form 8-K filed with the SEC on November 6, 2018.
(9) Incorporated by reference to the Registrant's Quarterly Report on Form 10-Q filed with the SEC on May 9, 2019.
(10) Incorporated by reference to the Registrant's Current Report on Form 8-K filed with the SEC on June 26, 2019.
(11) Incorporated by reference to the Registrant's Current Report on Form 8-K filed with the SEC on August 8, 2019.
(12) Incorporated by reference to the Registrant's Quarterly Report on Form 10-Q filed with the SEC on August 8, 2019.

+ Indicates management contract or compensatory plan.
† Portions of this exhibit have been redacted in compliance with Regulation S-K Item 601(b)(10).
* These certifications are being furnished solely to accompany this annual report pursuant to 18 U.S.C. Section 1350, and are not being filed for purposes of Section 18 of the Securities Exchange Act of 1934 and are not to be incorporated by reference into any filing of the Registrant, whether made before or after the date hereof, regardless of any general incorporation language in such filing.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, as amended, the Registrant has duly caused this Report to be signed on its behalf by the undersigned, thereunto duly authorized.

ONE STOP SYSTEMS, INC.

Date: March 26, 2020

By: /s/ David Raun
David Raun
Interim Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, this Report has been signed below by the following persons on behalf of the Registrant in the capacities and on the dates indicated.

Name	Title	Date
/s/ David Raun **David Raun**	Interim Chief Executive Officer (Principal Executive Officer)	March 26, 2020
/s/ John W. Morrison Jr. **John W. Morrison Jr.**	Chief Financial Officer (Principal Accounting and Financial Officer)	March 26, 2020
/s/ Kenneth Potashner **Kenneth Potashner**	Chairman	March 26, 2020
/s/ Kimberly Sentovich **Kimberly Sentovich**	Director	March 26, 2020
/s/ John Reardon **John Reardon**	Director	March 26, 2020
/s/ Jack Harrison **Jack Harrison**	Director	March 26, 2020
/s/ Steve Cooper **Steve Cooper**	Director	March 26, 2020

One Stop Systems, Inc.

Exhibit 21.1

Organizational Structure

- One Stop Systems Inc.
- Concept Development, LLC
- One Stop Systems, GmbH
- Bressner Technology GmbH

Bressner Technology GmbH
100% wholly owned German subsidiary

Concept Development, LLC
100% wholly owned subsidiary
One Stop Systems, GmbH
100% wholly owned
German subsidiary
One Stop Systems, Inc.
Parent Company

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the Registration Statement on Form S-8 (File No. 333-227671) and the Registration Statement on Form S-3 (File No. 333-231513) of One Stop Systems, Inc. (the “Company”) of our report dated March 26, 2020, relating to the Company’s consolidated financial statements included in the Company’s Annual Report on Form 10-K for the year ended December 31, 2019.

/s/ Haskell & White LLP
HASKELL & WHITE LLP

Irvine, California
March 26, 2020

Exhibit 31.1

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER PURSUANT TO RULES 13a-14(a) AND 15d-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934, AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, David Raun, certify that:

1. I have reviewed this annual report on Form 10-K of One Stop Systems, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) [paragraph omitted in accordance with Exchange Act Rule 13a-14(a)];

   (c) evaluated the effectiveness of the registrant’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant’s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant’s auditors and the audit committee of the registrant’s board of directors (or persons performing the equivalent functions):

   (a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 26, 2020

By: /s/ David Raun

David Raun
Interim Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER PURSUANT TO RULES 13a-14(a) AND 15d-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934, AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, John W. Morrison Jr., certify that:

1. I have reviewed this annual report on Form 10-K of One Stop Systems, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) [paragraph omitted in accordance with Exchange Act Rule 13a-14(a)];

   (c) evaluated the effectiveness of the registrant’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant’s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant’s auditors and the audit committee of the registrant’s board of directors (or persons performing the equivalent functions):

   (a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 26, 2020

By: /s/ John W. Morrison Jr.
John W. Morrison Jr.
Chief Financial Officer
(Principal Financial and Accounting Officer)

Exhibit 32.1

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

In connection with the Annual Report of One Stop Systems, Inc. (the "Company") on Form 10-K for the year ended December 31, 2019 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, David Raun, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

Date: March 26, 2020

By: /s/ David Raun
David Raun
Interim Chief Executive Officer
(Principal Executive Officer)

Exhibit 32.2

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

In connection with the Annual Report of One Stop Systems, Inc. (the "Company") on Form 10-K for the year ended December 31, 2019 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, John W. Morrison Jr., Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

Date: March 26, 2020

By: /s/ John W. Morrison Jr.
John W. Morrison Jr.
Chief Financial Officer
(Principal Accounting and Financial Officer)