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

FORM 20-F

- ☐ REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR (g) OF THE SECURITIES EXCHANGE ACT OF 1934
OR
☒ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2018
OR
☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from _____ to _____
OR
☐ SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
Date of event requiring this shell company report

Commission file number: 001-33668

SUPERCOM LTD.

(Exact name of Registrant as specified in its charter)

Israel

(Jurisdiction of incorporation or organization)

20 Lincoln Street

Tel Aviv 6713412, Israel

(Address of principal executive offices)

Arie Trabelsi, Chief Executive Officer

SuperCom Ltd.

20 Lincoln Street

Tel Aviv 6713412, Israel

+972-9-8890850 (phone); +972-9-8890820 (fax)

(Name, Telephone, E-mail and/or Facsimile number and Address of Company Contact Person)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Ordinary Shares, NIS 0.25 Par Value	SPCB	The NASDAQ Capital Market

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

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act: **None**

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report:

Ordinary Shares, par value NIS 0.25 per share: 16,126,237 (as of December 31, 2018)

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

Yes ☐ No ☒

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934.

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 and post such files).

Yes ☒ No ☐

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

Large accelerated filer ☐

Accelerated filer ☐

Non-accelerated filer ☒

Emerging growth company ☐

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, 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. ☐

[†] The term “new or revised financial accounting standard” refers to any update issued by the Financial Accounting Standards Board to its Accounting Standards Codification after April 5, 2012.

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

U.S. GAAP ☒

International Financial Reporting
Standards as issued by the
International Accounting
Standards Board ☐

Other ☐

If “Other” has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow:
Item 17 ☐ Item 18 ☐

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).
Yes ☐ No ☒

This annual report on Form 20-F is incorporated by reference into the registrant’s Registration Statements on Form S-8, File No. [333-175785](#) and [333-121231](#).

INTRODUCTION

Founded in 1988, we are a global provider of traditional and digital identity solutions, advanced IoT and connectivity solutions, and cyber security products and solutions, to governments and private and public organizations throughout the world.

We are comprised of three main Strategic Business Units(SBU) : e-Gov, IoT and Connectivity, and Cyber Security:

e-Gov

Through our proprietary e-Government platforms and innovative solutions for traditional and biometrics enrollment, personalization, issuance and border control services, we have helped governments and national agencies design and issue secured multi-identification, or Multi-ID, documents and robust digital identity solutions to their citizens , visitors and Lands.

We have focused on expanding our activities in the traditional identification, or ID, and electronic identification, or e-Gov, market, including the design, development and marketing of identification technologies and solutions to governments in Europe, Asia, America and Africa using our e-Government platforms. Our activities include: (i) utilizing paper secured by different levels of security patterns (UV, holograms, etc.); and (ii) electronic identification secured by biometric data, principally in connection with the issuance of national Multi-ID documents (IDs, passports, driver's licenses, vehicle permits, and visas, Secure Land Certified) border control applications and Land Information System(LIS) .

On December 26, 2013 we acquired the SmartID division of On Track Innovations Ltd., or OTI, including all contracts, software, other related technologies and intellectual property, or IP, assets. The SmartID division has a strong international presence, with a broad range of competitive and well-known e-Gov solutions and technology. The acquisition significantly expanded the breadth of our e-Gov capabilities globally, while providing us with outstanding market and technological experts, together with leading ID software platforms and technologies.

IoT and Connectivity

Our IoT products and solutions reliably identify, track and monitor people or objects in real time, enabling our customers to detect unauthorized movement of people, vehicles and other monitored objects. We provide all-in-one field-proven IoT suite, accompanied with services specifically tailored to meet the requirements of an IoT solutions. Our proprietary IoT suite of hybrid hardware, connectivity and software components are the foundation of these solutions and services. Our IoT division has primarily focused on growing the following markets: (i) public safety; (ii) healthcare and homecare; (iii) Smart Cities (iv) Smart Campus and (iv) transportation.

During 2006, we identified the growing electronic tracking and monitoring vertical markets for public safety, real time healthcare and homecare, and transportation management. We have developed the PureRF Hybrid suit of wrist devices, connectivity, and controlling software, from 2012 we have developed the next generation IoT suite of devices, connectivity and Monitoring software; the PureSecurity Hybrid Suite of wrist band, tags, beacons, PureCom, Pure Monitors, PureTrack and other components.

On January 1, 2016 we acquired Leaders in Community Alternatives, Inc., or LCA. LCA is a California based, private criminal justice organization, providing community-based services and electronic monitoring programs to government agencies in the U.S. for more than 25 years. LCA offers a broad range of competitive solutions for governmental institutions across the U.S. in addressing realignment strategies and plans.

Connectivity

In 2016, as part of our strategy to enhance and broaden our IoT connectivity products and solutions offerings for public safety, enterprises, hospitality and smart cities markets, on May 18, 2016, we acquired Alvarion Technologies Ltd., or Alvarion. Alvarion designs solutions for carrier wi-fi, enterprise connectivity, smart city, smart hospitality, connected campuses and connected events that are both complete and heterogeneous to ensure ease-of-use and optimize operational efficiency. Carriers, local governments and hospitality sectors worldwide deploy Alvarion's intelligent wi-fi networks to enhance productivity and performance, as well as its legacy backhaul services and products.

Secure Financial Solutions (SFS)

During 2014, we identified the secure financial services market as a very fast growing market where we believe that SuperCom has major advantages due to synergic technologies and shared customer base to our other divisions. Since 2014, we have developed and introduced secure financial services suite of products, the SuperPay™. We offer advanced secure mobile payments ranging from mobile wallet to mobile point of sale (POS) using a set of components and platforms to enable secure mobile payments and financial services.

On April 18, 2016, we acquired the PowaPOS business, a division of POWA Technologies Ltd., the developer of a fully-integrated mobile and tablet-based system integrating industry-leading retail and secure payment solutions into one simplified, attractive and innovative POS platform. PowaPOS has been deployed in countries all over the world, and has been integrated by cloud-based POS software providers, we believes this technology will be a highly value-added solution to our secure payment customers around the world.

Cyber Security

During 2015, we identified the cyber security market as a very fast growing market where we believe that SuperCom has major advantages due to synergic technologies and shared customer base to our e-Gov, IoT and connectivity SBUs. In 2015, we acquired Prevision Ltd., or Prevision, a company with a strong presence in the market and a broad range of competitive and well-known cyber security services. During the first quarter of 2016, we acquired Safend Ltd, or Safend, an international provider of cutting edge endpoint data protection guarding against corporate data loss and theft through content discovery and inspection, encryption methodologies, and comprehensive device and port control. Safend maps sensitive information and controls data flow through email, web, external devices and additional channels.¹

Both acquisitions significantly expanded the breadth of our cyber security capabilities globally, while providing us with outstanding market and technological experts and over 3,000 customers in the United States, Europe, and Asia, and more than three million software license seats deployed by multinational enterprises, government agencies and small to mid-size companies around the globe, together with leading data and cyber security platforms and technologies.

Statements made in this Annual Report on Form 20-F (this “Annual Report”) concerning the contents of any contract, agreement or other document are summaries of such contracts, agreements or documents and are not complete descriptions of all of their terms. If we filed any of these documents as an exhibit to this Annual Report or to any previous filing with the U.S. Securities and Exchange Commission, or the SEC, you may read the document itself for a complete recitation of its terms.

In this Annual Report, all references to “SuperCom,” the “Company,” “we,” “us” or “our” are to SuperCom Ltd., a company organized under the laws of the State of Israel, and its subsidiaries. On January 24, 2013 we changed our name back to SuperCom Ltd., our original name, from Vuance Ltd.

In this Annual Report, unless otherwise specified or unless the context otherwise requires, all references to “\$” or “dollars” are to U.S. dollars and all references to “NIS” are to New Israeli Shekels. Except as otherwise indicated, the financial statements of and information regarding SuperCom are presented in U.S. dollars in accordance with generally acceptable accounting principles in the United States (“US GAAP”). The representative rate exchange rate between the NIS and the dollar as published by the Bank of Israel and effective on December 31, 2018, was NIS 3.748 per \$1.00.

This Annual Report contains various “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, and the Private Securities Litigation Reform Act of 1995, as amended, with respect to our business, financial condition and results of operations. Such forward-looking statements reflect our current view with respect to future events and financial results. Statements which use the terms “anticipate,” “believe,” “expect,” “plan,” “intend,” “estimate” and similar expressions are intended to identify forward looking statements. We remind readers that forward-looking statements are merely predictions and therefore inherently subject to uncertainties and other factors and involve known and unknown risks that could cause the actual results, performance, levels of activity, or our achievements, or industry results, to be materially different from any future results, performance, levels of activity, or our achievements expressed or implied by such forward-looking statements. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date hereof. Except as required by applicable law, including the securities laws of the United States, we undertake no obligation to publicly release any update or revision to any forward looking statements to reflect new information, future events or circumstances, or otherwise after the date hereof. We have attempted to identify significant uncertainties and other factors affecting forward-looking statements in the section captioned “Risk Factors” that appears in this Annual Report in Item 3D “Key Information - Risk Factors.”

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PART I

ITEM 1. IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISERS

Not applicable.

ITEM 2. OFFER STATISTICS AND EXPECTED TIMETABLE

Not applicable.

ITEM 3. KEY INFORMATION

A. SELECTED FINANCIAL DATA

The following table presents selected consolidated financial data as of the dates and for each of the periods indicated. The selected consolidated financial data set forth below should be read in conjunction with and is qualified entirely by reference to “Item 5. Operating and Financial Review and Prospects” and our consolidated financial statements and notes thereto included elsewhere in this Annual Report.

The following summary consolidated financial data for and as of the five years ended December 31, 2018 are derived from our audited consolidated financial statements, which have been prepared in accordance with U.S. GAAP. Our audited consolidated financial statements for the three years ended December 31, 2018 and as of December 31, 2017 and 2018 appear elsewhere in this Annual Report. Our selected consolidated financial data as of December 31, 2014, 2015 and 2016 and for the years ended December 31, 2015 and 2016 have been derived from our audited consolidated financial statements not included in this Annual Report other than the change in the manner of how we present deferred income taxes as per ASU 2015-17 for which we have adjusted current and long-term deferred income tax classification.

Income Statement Data:

	Year Ended December 31,				
	2018	2017	2016	2015	2014
	<i>(U.S. dollars in thousands, except per share data)</i>				
Summary of Statement of Operations Data:					
Revenues	21,882	33,264	20,025	28,340	29,703
Cost of revenues	13,743	20,351	17,461	10,446	7,301
Gross profit	8,139	12,913	2,564	17,894	22,402
Operating expenses:					
Research and development	4,790	7,238	6,718	3,669	3,359
Selling and marketing	5,005	8,099	9,970	6,611	7,036
General and administrative	5,748	6,113	7,277	3,947	2,773
Other (income) expenses	2,271	(2,021)	713	2,174	1,225
Gain on bargain acquisitions	-	-	(10,515)	-	-
Total operating expenses	17,814	19,429	14,163	16,401	14,393
Operating income (loss)	(9,675)	(6,516)	(11,599)	1,493	8,009
Financial income (expenses), net	(335)	(538)	(303)	(277)	(133)
Income (loss) before income tax	(10,010)	(7,054)	(11,902)	1,216	7,876
Income tax (expense) benefit	5,730	393	(2,091)	(197)	(1,675)
Net income (loss)	(15,740)	(6,661)	(13,993)	1,019	6,201
Per Share Data:					
Basic earnings per share	(1.03)	(0.45)	(0.93)	0.07	0.46
Diluted earnings per share	(1.03)	(0.45)	(0.93)	0.07	0.45

	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
	(U.S. dollars in thousands, except per share data)				
Summary of Balance Sheet Data:					
Cash and cash equivalents	1,639	1,037	1,708	22,246	4,789
Total Current Assets	25,664	27,413	21,120	45,443	24,416
TOTAL ASSETS	44,349	54,198	53,473	65,942	42,874
Total Current Liabilities	13,543	17,960	12,771	10,238	12,666
Total Long-term Liabilities	11,256	3,531	1,978	1,272	1,902
SHAREHOLDERS' EQUITY	19,550	32,707	38,724	54,432	28,306

B. CAPITALIZATION AND INDEBTEDNESS

Not applicable.

C. REASONS FOR THE OFFER AND USE OF PROCEEDS

Not applicable.

D. RISK FACTORS

Investing in our ordinary shares involves a high degree of risk. You should carefully consider the risks described below, together with the financial and other information contained in this Annual Report, before you decide to invest in our ordinary shares. If any of the following risks actually occur, our business, financial condition and results of operations could be materially adversely affected. In that case, the trading price of our ordinary shares would likely decline and you might lose all or part of your investment.

Risks Related to Our Business

Although we expect that the acquisitions of the SmartID division of OTI, Prevision, LCA, Safend, Alvarion and PowaPOS will result in benefits to us, we may not realize those benefits due to unforeseen difficulties.

Although we are 4 years into the process of integrating the operations of the SmartID division of OTI, and over 22 months into the process of integrating the operations of Prevision, LCA, Safend, Alvarion and PowaPOS, realizing any of the anticipated benefits of these acquisitions, including anticipated cost savings and additional revenue opportunities, involves a number of challenges. The failure to meet these integration challenges could seriously harm our results of operations, and the market price of our ordinary shares may decline as a result.

Realizing the benefits of these acquisitions will depend in part on the integration of our intellectual property, products, operations, personnel and sales force and the completion of assignments of current and past contracts and rights. These integration activities are complex and time - consuming, and we may encounter unexpected difficulties or incur unexpected costs, including:

- our inability to achieve the operating synergies anticipated in the acquisition, which would prevent us from achieving the positive earnings gains expected as a result of the acquisition;
- diversion of management attention from ongoing business concerns to integration matters;
- difficulties in consolidating and rationalizing information technology and intellectual property platforms and administrative infrastructures;
- complexities associated with managing the combined businesses;
- difficulties in integrating personnel;
- possible termination of some contracts or agreements with customers of the acquired divisions and entities as a result of the acquisitions, which would result in major reduction in our anticipated combined business revenue;
- possible termination of some contracts or agreements with service providers and suppliers of the acquired divisions and entities as a result of the acquisitions, which could result in delays and increases in our cost of revenues; and
- Possible cash flow interruption or loss of revenue as a result of the change of ownership.

In addition, Safend, Alvarion, and PowaPOS were acquired on an “as is” basis from a bankruptcy administrator or trustee with limited representations, which limits our recourse against the sellers of the acquired businesses after closing, which in turn may expose us to unexpected material losses or expenses after the closing. Our diligence investigations with respect to the acquired businesses were very limited, which may also expose us to unexpected material losses or expenses after the closing. The relationship with most of the customers and suppliers of the acquired businesses have been severed or compromised, and there is no assurance that we will be able to recover such customers and suppliers. As a result, we may decide to discontinue the operation of one or more of the acquired businesses.

We may not fully realize the anticipated net reductions in costs and expenses and other benefits and synergies of these acquisitions to the extent, or in the timeframe, anticipated. In addition to the integration risks discussed above, our ability to realize these benefits and synergies could be adversely impacted by practical or legal constraints on our ability to combine operations.

If we are unable to manage our growth profitably, our business, financial results and stock price could suffer.

Our future financial results will depend in part on our ability to profitably manage our growth. Management will need to maintain existing customers and attract new customers, recruit, retain and effectively manage employees, as well as expand operations and integrate customer support and financial control systems. If integration - related expenses and capital expenditure requirements are greater than anticipated or if we are unable to manage our growth profitably after the acquisition, our financial results and the market price of our ordinary shares may decline.

Purchase price allocation in connection with our acquisition of OTI's SmartID division, Safend, Alvarion and Prevision requires estimates, which may be subject to change in the future. Future changes to these estimates could impact our future operating results.

The application of purchase price allocation requires that the total purchase price we paid for the SmartID division of OTI, Safend, Alvarion and Prevision be allocated to the fair value of assets acquired and liabilities assumed based on their fair values at the acquisition date. All amounts in excess of or below the fair value are recorded as goodwill or extraordinary profit, as applicable. The allocation process requires an analysis and valuation of acquired assets, including fixed assets, technologies, intellectual properties, deferred tax assets, customer contracts and relationships, trade names and liabilities assumed, including contractual commitments and legal contingencies. We identified and recorded the assets, including specifically identifiable intangible assets, and liabilities assumed in connection with the acquisitions of the SmartID division, Safend, Alvarion and Prevision at their respective estimated fair values as of the date of the acquisition. This process requires estimates by our management and by our expert independent consultant based upon the best available information at the time of the preparation of the financial statements. We have completed the purchase price allocation as reflected in this report. Any future changes to our estimates of the fair value of the assets and liabilities of OTI's SmartID division, Safend, Alvarion and Prevision, respectively, as of the date of the acquisition could impact our future operating results.

In the three years ended December 31, 2018, we depended on orders from large customers for a substantial portion of our revenues. The loss of all or any of these customers or a decrease in their orders could adversely impact our operating results.

In the year ended December 31, 2018, 24% of our consolidated net revenue is attributable to sales to four large customers.

In the years ended December 31, 2017 and 2016, 50% and 32%, respectively, of our consolidated net revenue was attributable to sales to four and six large customers, respectively. While we expect to be less dependent on these customers in 2019 and in the future because of our expectation to secure more contracts from new customers, a substantial reduction in sales to, or loss of, any of the four customers would adversely affect our business unless we were able to replace the revenue received from those customers, which replacement we may not be able to find.

Because competition in our industry is intense, our business, operating results and financial condition may be adversely affected.

The global markets for our IoT and connectivity, e-Gov, and Cyber Security solutions are highly fragmented and intensely competitive. They are characterized by rapidly changing technology, frequent new product introductions and rapidly changing customer requirements. We expect competition to increase as the industry grows and as IoT, e-Gov, and Cyber Security, are adopted by public and private sectors around the world, we may not be able to compete successfully against current or future competitors. We face competition from technologically sophisticated companies, many of which have substantially greater technical, financial, and marketing resources than we do. In some cases, we compete with entities that have pre-existing relationships with potential customers. As the markets in which our IoT, e-Gov, and Cyber Security, compete expand, we expect additional competitors to enter the market. We cannot ensure that we will be able to maintain the quality of our products relative to those of our competitors or continue to develop and market new products effectively. Continued competitive pressures could cause us to lose significant market share.

Some of our competitors and potential competitors have larger technical staffs, larger customer bases, more established distribution channels, greater brand recognition and greater financial, marketing and other resources than we do. Our competitors may be able to develop products and services that (i) are superior to our products and services, (ii) achieve greater customer acceptance or (iii) have significantly improved functionality as compared to our existing and future products and services. In addition, our competitors may be able to negotiate strategic relationships on more favorable terms than we are able to negotiate. Many of our competitors may also have well-established relationships with our existing and prospective customers. Increased competition may result in our experiencing reduced margins, loss of sales or decreased market share.

The average selling prices for our products and solutions may decline as a result of competitive pricing pressures, promotional programs and customers who negotiate price reductions in exchange for longer-term purchase commitments. The pricing of products and solutions depends on the specific features and functions of the products, purchase volumes and the level of sales and service support required. As we experience pricing pressure, the average selling prices and gross margins for our products and solutions may decrease over product lifecycles. These same competitive pressures may require us to write down the carrying value of any inventory on hand, which could adversely affect our operating results and earnings per share.

Furthermore, most contracts with governments or with state or public agencies or municipalities or large enterprises are awarded through a competitive bidding process, and some of the business that we expect to seek in the future will likely be subject to a competitive bidding process. Competitive bidding presents a number of risks, including:

- the frequent need to compete against companies or teams of companies with more financial and marketing resources and more experience than we have in bidding on and performing major contracts;
- the need to compete against companies or teams of companies that may be long-term, entrenched incumbents for a particular contract we are competing for and which have, as a result, greater domain expertise and established customer relations;
- the substantial cost and managerial time and effort necessary to prepare bids and proposals for contracts that may not be awarded to us;
- the need to accurately estimate the resources and cost structure that will be required to service any fixed-price contract that we are awarded; and
- the expense and delay that may arise if our competitors protest or challenge new contract awards made to us pursuant to competitive bidding or subsequent contract modifications, and the risk that any of these protests or challenges could result in the resubmission of bids on modified specifications, or in termination, reduction or modification of the awarded contract.

We may not be afforded the opportunity in the future to bid on contracts that are held by other companies and are scheduled to expire, if the governments, or the applicable state or local agency or municipality determines to extend the existing contract. If we are unable to win particular contracts that are awarded through the competitive bidding process, we may not be able to operate in the market for the products and services that are provided under those contracts for a number of years. If we are unable to win new contract awards or retain those contracts, if any, that we are awarded over any extended period, our business, prospects, financial condition and results of operations will be adversely affected.

Any acquisitions that we have completed, or may complete in the future, may not perform as planned and could disrupt our business and harm our financial condition and operations.

In an effort to effectively compete in the IoT and connectivity, cyber security, and e-Gov products and services business, we have sought to acquire complementary businesses in the past and we may continue to do so in the future. In the event of any future acquisitions, we could:

- issue additional securities that would dilute our current shareholders' percentage ownership;
- incur debt and assume liabilities; and
- incur large and immediate write-offs of intangible assets, accounts receivable or other assets.

These events could result in significant expenses and decreased revenue, which could adversely affect the market price of our ordinary shares. In addition, integrating product and service acquisitions and completing any future acquisitions involve numerous operational and financial risks. These risks include difficulty in assimilating acquired operations, diversion of management's attention, and the potential loss of key employees or customers of acquired operations. Furthermore, companies acquired by us may not generate financial results consistent with our management's plans at the time of acquisition.

Although we had profitable operations in four of the last seven years² ended December 31, 2018, if we do not generate sufficient cash from operations, we will be required to obtain additional financing or reduce our level of expenditure. If we are unable to obtain adequate financing, when we require it, our business, financial condition and results of operations could be adversely affected. Such financing may not be available in the future, or, if available, may not be on terms favorable to us.

Historically, we had profitable operations in four of the last seven years ended December 31, 2018 and have funded our business operations and capital expenditures primarily through equity and/or debt issuances (including convertible securities). To support our growing business, we must have sufficient capital to continue to make significant investments in our platform and product offerings. If we raise additional funds through the issuance of equity, equity-linked or debt securities, those securities may have rights, preferences or privileges senior to those of our ordinary shares, and our existing shareholders may experience dilution. Any debt financing secured by us in the future could involve restrictive covenants relating to our capital-raising activities and other financial and operational matters, which may make it more difficult for us to obtain additional capital and to pursue business opportunities. Any refinancing of our existing indebtedness could be at significantly higher interest rates, require additional restrictive financial and operational covenants, or require us to incur significant transaction fees, issue warrants or other equity securities, or issue convertible securities. These restrictions and covenants may restrict our ability to finance our operations and engage in, expand, or otherwise pursue our business activities and strategies. Our ability to comply with these covenants and restrictions may be affected by events beyond our control, and breaches of these covenants and restrictions could result in a default and an acceleration of our obligations under a debt agreement. If we raise additional funds through collaborations and licensing arrangements, we might be required to relinquish significant rights to our technologies or our solutions under development, or grant licenses on terms that are not favorable to us, which could lower the economic value of those programs to us.

We evaluate financing opportunities from time to time, and our ability to obtain financing will depend, among other things, on our development efforts, business plans and operating performance and the condition of the capital markets at the time we seek financing. We cannot be certain that additional financing will be available to us on favorable terms, or at all. If we are unable to obtain adequate financing or financing on terms satisfactory to us, when we require it, this would have the potential to decrease both our ability to attain profitability and our financial flexibility, our ability to continue to support our business growth and to respond to business challenges could be significantly limited, and our business, financial condition and results of operations could be adversely affected.

The market for our products is characterized by changing technology, requirements, standards and products, and we may be adversely affected if we do not respond promptly and effectively to these changes.

The market for our products is characterized by evolving technologies, changing industry standards, changing regulatory environments, frequent new product introductions and rapid changes in customer requirements. The introduction of products embodying new technologies and the emergence of new industry standards and practices can render existing products obsolete and unmarketable. Our future success will depend on our ability to enhance our existing products and to develop and introduce, on a timely and cost-effective basis, new products and product features that keep pace with technological developments and emerging industry standards and address the increasingly sophisticated needs of our customers. In the future:

- we may not be successful in developing and marketing new products or product features that respond to technological change or evolving industry standards;
- we may experience difficulties that could delay or prevent the successful development, introduction and marketing of these new products and features; or
- our new products and product features may not adequately meet the requirements of the marketplace and achieve market acceptance.

If we are unable to respond promptly and effectively to changing technologies and market requirements, we will be unable to compete effectively in the future.

There can be no assurance that we will successfully identify new product opportunities and develop and bring new products to market in a timely manner, or that the products and technologies developed by others will not render our products or technologies obsolete or noncompetitive. The failure of our new product development efforts could have a material adverse effect on our business, results of operations and future growth.

We have sought in the past and will seek in the future to enter into contracts with governments, as well as state and local governmental agencies and municipalities, which subjects us to certain risks.

Governmental contracts subject us to several other risks, including risks associated with public budgetary restrictions and uncertainties, actual contracts that are less than awarded contract amounts, and cancellation at any time at the option of the governmental agency. Governments may also be in a position to obtain greater rights with respect to our intellectual property than we would grant to other entities. In addition, governmental agencies have the power, based on financial difficulties or investigations of their contractors, to deem contractors unsuitable for new contract awards. Because we engage in the government contracting business, we are subject to audits, and may be subject to investigation, by governmental entities.

Any failure to comply with the terms of any governmental contracts could result in substantial civil and criminal fines and penalties, as well as suspension from future contracts for a significant period of time, any of which could adversely affect our business by requiring us to pay significant fines and penalties or prevent us from earning revenues from governmental contracts during the suspension period. Cancellation of any one of our major governmental contracts could have a material adverse effect on our financial condition.

Our dependence on third-party representatives, resellers and distributors could result in marketing and distribution delays, which would prevent us from generating sales revenues.

We market and sell some of our products and solutions using a network of representatives, resellers and distributors covering the Americas, Europe, Asia and Africa. We establish relationships with such persons through agreements that provide for the marketing and support of our systems and products. These agreements generally do not grant exclusivity to the representative, resellers or distributors, and some of them are not long-term contracts, do not have commitments for minimum sales, and could be terminated by the representative, reseller or distributor. We do not have agreements with all of our representatives, resellers and distributors. We are currently engaged in discussions with additional potential representatives, resellers or distributors. Such arrangements may never be finalized and, if finalized, such arrangements may not increase our revenues or profitability.

Our ability to terminate a representative, reseller or distributor who is not performing satisfactorily may be limited. Inadequate performance by a representative, reseller or distributor could adversely affect our ability to develop markets in the regions for which such person is responsible and could result in substantially greater expenditures by us in order to develop such markets. Our operating results are highly dependent upon: (i) our ability to maintain our existing representative, reseller and distributor arrangements; (ii) our ability to establish and maintain coverage of major geographic areas and establish access to customers and markets; and (iii) the ability of our representatives, resellers and distributors to successfully market our products. A failure to achieve these objectives could result in lower revenues.

If our technology and solutions cease to be adopted and used by government and public and private organizations, we may lose some of our existing customers and our operations will be negatively affected.

Our ability to grow depends significantly on whether governmental and public and private organizations adopt our technology and solutions as part of their new standards and whether we are able to leverage our expertise with government products into commercial products. If these organizations do not adopt our technology, we might not be able to penetrate some of the new markets we are targeting, or we might lose some of our existing customer base.

In order for us to achieve our growth objectives, our e-Gov, IoT and connectivity, Cyber Security, technology and solutions must be adapted to and adopted in a variety of areas, any or all of which may not adopt our technology. These areas include, among others:

- national ID and e-Government;
- counties and municipals;
- public safety;
- safe and smart cities
- educational campus;
- healthcare and homecare; and
- large enterprises

We cannot accurately predict the future growth rate, if any, or the ultimate size of the e-Gov, IoT, Cyber Security, markets. The expansion of the market for our products and services depends on a number of factors such as:

- the cost, performance and reliability of our products and services compared to the products and services of our competitors;
- customer perception of the benefits of our products and solutions;
- public perception of the intrusiveness of these solutions and the manner in which organizations use the information collected;
- public perception of the privacy protection for their personal information;
- customer satisfaction with our products and services; and
- marketing efforts and publicity for our products and services.

Even if our products and solutions gain wide market acceptance, our products and services may not adequately address market requirements and may not gain wide market acceptance. If our solutions or our products and services do not gain wide market acceptance, our business and our financial results will suffer.

If we are unable to develop and sustain our position as a provider of e-Gov, IoT and Connectivity, and Cyber Security, solutions and services and earn high margins from our technology, our business will not be as profitable as we hope, if at all.

The increasing sophistication of our e-Gov, IOT, Cyber Security, and Connectivity based technology places a premium on providing innovative software systems and services to customers, in addition to manufacturing and supplying products. While we have had some success positioning ourselves as a provider of such services and systems, we may not continue to be successful with this strategy and we may not be able to capture a significant share of the market for the sophisticated solutions and services that we believe are likely to produce attractive margins in the future. A significant portion of the value of our e-Gov, Cyber Security, and Connectivity technology lies in the development of software, firmware and applications that will permit the use of our products and technology in selected new markets. In contrast, the margins involved in manufacturing and selling IOT and Connectivity based technology can be relatively small and may not be sufficient to permit us to earn an attractive return on our development investments.

Unfavorable global economic conditions may adversely affect our customers, which may directly impact our business and results of operations.

Our operations and performance depend on our target customers, including those from the governmental sector, having adequate resources to purchase our products. The turmoil in the credit markets, the oil price declines and the global economic downturn that commenced in 2008 and intensified in Europe, Africa and Asia in subsequent years generally adversely impacted our target customers. Companies and governmental authorities have reduced or delayed and may continue to reduce or delay their purchasing activities in response to a lack of credit, economic uncertainty, budget deficits and concern about the general stability of markets. Recently, several European, Latin American, and African countries encountered severe economic difficulties which affected the entire Euro-zone, African and Latin American economy. The financial crisis, among other things, resulted in the downgrade of the credit worthiness of several countries in Europe, Latin America and Africa, which affected our customers' ability and budget to perform projects within these territories. If such economic and market conditions remain uncertain or weaken further, specifically changes that have negatively impacted and may continue to negatively impact the political or economic stability and environment of the countries from which we derive most of our consolidated net revenues, our business and future operations may be materially adversely affected.

Our efforts to expand our international operations are subject to a number of risks, any of which could adversely reduce our future international sales and increase our losses.

Most of our revenues to date are attributable to sales in jurisdictions other than the United States. For the years ended December 31, 2018, 2017 and 2016, approximately 52%, 70% and 51%, respectively, of our revenues were derived from sales to markets outside of the United States. Our inability to obtain or maintain federal or foreign regulatory approvals relating to the import or export of our products on a timely basis could adversely affect our ability to expand our international business. Additionally, our international operations could be subject to a number of risks, any of which could adversely affect our future international sales and operating results, including:

- increased collection risks;
- trade restrictions;
- export duties and tariffs;
- uncertain political, regulatory and economic developments;
- inability to protect our intellectual property rights;
- highly aggressive competitors;
- currency issues;
- difficulties in staffing, managing and supporting foreign operations;
- longer payment cycles; and
- difficulties in collecting accounts receivable.

Negative developments in any of these areas in one or more countries could result in a reduction in demand for our products, the cancellation or delay of orders already placed, difficulty in collecting receivables, and a higher cost of doing business, any of which could adversely affect our business, results of operations or financial condition.

In addition, in many countries the national security organizations require our employees to obtain clearance before such employees can work on a particular transaction. Failure to receive, or delays in the receipt of, relevant foreign qualifications could also have a material adverse effect on our ability to make sales or fulfill our orders on a timely basis. Additionally, as foreign government regulators have become increasingly stringent, we may be subject to more rigorous regulation by governmental authorities in the future. If we fail to adequately address any of these regulations, our business will be harmed.

We are exposed to risks in operating in foreign markets, which may make operating in those markets difficult and thereby force us to curtail our business operations.

In conducting our business in foreign countries, we are subject to political, economic, legal, operational and other risks that are inherent in operating in other countries. Risks inherent to operating in other countries range from difficulties in settling transactions in emerging markets to possible nationalization, expropriation, price controls and other restrictive governmental actions. We also face the risk that exchange controls or similar restrictions imposed by foreign governmental authorities may restrict our ability to convert local currency received or held by us in their countries into U.S. dollars or other currencies, or to take those dollars or other currencies out of those countries.

Due to the nature of our business, our financial and operating results could fluctuate.

Our financial and operating results have fluctuated in the past and could fluctuate in the future from quarter to quarter. As a result of our dependence in the e-Gov division on a limited number of customers and our increased reliance on our e-Gov, and IoT solutions and products, our revenue has experienced wide fluctuations. We expect that our revenue will continue to fluctuate in the future as we market and implement solutions through our IoT and e-Gov divisions. A portion of our sales is not recurring sales; therefore, quarterly and annual sales levels will likely fluctuate. Sales in any period may not be indicative of sales in future periods. In addition, our result may fluctuate from year to year for the following reasons:

- long customer sales cycles;
- reduced demand for our products and services;
- price reductions;
- new competitors, or the introduction of enhanced products or services from new or existing competitors;
- changes in the mix of products and services we or our customers and representatives sell;
- contract cancellations, delays or amendments by customers;
- the lack of government demand for our products and services or the lack of government funds appropriated to purchasing our products and services;
- unforeseen legal expenses, including litigation costs;
- expenses related to acquisitions;
- other non-recurring financial charges;
- the lack of availability, or increased cost, of key components and subassemblies; and
- the inability to successfully manufacture in volume, and reduce the price of, certain of our products;

In addition, the period between our initial contact with a potential customer and the purchase of our products and services is often long and subject to delays associated with the budgeting, approval and competitive evaluation processes that frequently accompany significant capital expenditures, particularly by governmental agencies. The typical sales cycle for our government customers has, to date, ranged from three to 24 months and the typical sales cycle for our commercial customers has ranged from one to 12 months. A lengthy sales cycle may have an impact on the timing of our revenue, which may cause our quarterly operating results to fall below investor expectations. We believe that a customer's decision to purchase our products and services is discretionary, involves a significant commitment of resources, and is influenced by customer budgetary cycles. To successfully sell our products and services, we generally must educate our potential customers regarding their use and benefits, which can require significant time and resources. This significant expenditure of time and resources may not result in actual sales of our products and services.

Our reliance on third party technologies and components for the development of some of our products may delay product launches, impair our ability to develop and deliver products and hurt our ability to compete in the market.

Most of our products integrate third-party technology that we license and components that we purchase or otherwise obtain the right to use, including operating systems, microchips, security and cryptography technology for card operating systems and dual interface technology. Our ability to purchase and license new technologies and components from third parties is and will continue to be critical to our ability to offer a complete line of products that meets customer needs and technological requirements. We may not be able to renew our existing licenses or to purchase components on favorable terms, if at all. If we lose the rights to a patented technology, we may need to stop selling or may need to redesign our products that incorporate that technology. We may also lose the potential competitive advantage such technology gave us. In addition, competitors could obtain licenses for technologies for which we are unable to obtain licenses, and third parties may develop or enable others to develop a similar solution to security issues, either of which could adversely affect our results of operations. Also, dependence on the patent protection of third parties may not afford us any control over the protection of the technologies upon which we rely. If the patent protection of any of these third parties were compromised, our ability to compete in the market could also be impaired.

Although we generally use standard components for our systems, some of the key components are available only from limited sources. Even where multiple sources are available, we typically obtain components from only one vendor to ensure high quality, prompt delivery and low cost. If one of our suppliers was unable to meet our supply demands and we could not quickly replace the source of supply, it could have a material adverse effect on our business, operating results and financial condition, for reasons including a delay of receipt of revenues and damage to our business reputation.

Delays in deliveries from our suppliers, defects in goods or components supplied by our vendors, or delays in projects that are performed by our subcontractors could cause our revenues and gross margins to decline.

We rely on a limited number of vendors and subcontractors for certain components of the products we are supplying and projects we perform. In some cases, we rely on a single source vendor or subcontractor. Any undetected flaws in components to be supplied by our vendors could lead to unanticipated costs to repair or replace these parts. If one of our suppliers was unable to meet our supply demands and we could not quickly replace the source of supply, it could cause a delay of receipt of revenues and damage our business reputation. We depend on subcontractors to adequately perform a substantial part of our projects. If a subcontractor fails to fulfill its obligations under a certain project, it could delay our receipt of revenues for such project and damage our business reputation, and therefore could have a material adverse effect on our business, operating results and financial condition.

We may have significant differences between forecasted demands and actual orders received, which may adversely affect our business.

The lead time for ordering parts and materials and building many of our products can be many months. As a result, we must order parts and materials and build our products based on forecasted demand. If demand for our products lags significantly behind our forecasts, we may produce more products than we can sell, which can result in cash flow problems and write-offs or write-downs of obsolete inventory. If demand for our products exceeds our forecasts, our business may be harmed as a result of delays to perform contracts.

Breaches of network or information technology security, natural disasters or terrorist attacks could have an adverse effect on our business.

Cyber-attacks or other breaches of network or information technology, or IT, security, natural disasters, terrorist acts or acts of war may cause equipment failures or disrupt our systems and operations. We may be subject to attempts to breach the security of our networks and IT infrastructure through cyber-attack, malware, computer viruses and other means of unauthorized access. While we maintain insurance coverage for some of these events, the potential liabilities associated with these events could exceed the insurance coverage we maintain. A failure to protect the privacy of customer and employee confidential data against breaches of network or IT security could result in damage to our reputation. To date, we have not been subject to cyber-attacks or other cyber incidents which, individually or in the aggregate, resulted in a material impact to our operations or financial condition.

For us to further penetrate the marketplace, the marketplace must be confident that we provide effective security protection for national and other secured identification documents and cards. Although we have not experienced any act of sabotage or unauthorized access by a third party to our software or technology to date, if an actual or perceived breach of security occurs in our internal systems or those of our customers, regardless of whether we caused the breach, it could adversely affect the market's perception of our products and services. This could cause us to lose customers, resellers, alliance partners or other business partners, thereby causing our revenues to decline. If we or our customers were to experience a breach of our internal systems, our business could be severely harmed by adversely affecting the market's perception of our products and services.

Third parties could obtain access to our proprietary information or could independently develop similar technologies.

Despite the precautions we take, third parties may copy or obtain and use our technologies, ideas, know-how and other proprietary information without authorization or may independently develop technologies similar or superior to our technologies. In addition, the confidentiality and non-competition agreements between us and most of our employees, representatives and clients may not provide meaningful protection of our proprietary technologies or other intellectual property in the event of unauthorized use or disclosure. If we are not able to successfully defend our industrial or intellectual property rights, we may lose rights to technologies that we need to develop our business, which may cause us to lose potential revenues, or we may be required to pay significant license fees for the use of such technologies. To date, we have relied primarily on a combination of trade secret and copyright laws, as well as nondisclosure and other contractual restrictions on copying, reverse engineering and distribution to protect our proprietary technology.

Our current patents portfolio and any patents that we may register in the future may provide only limited protection for our technology and may not be sufficient to provide competitive advantages to us. For example, competitors could be successful in challenging any issued patents or, alternatively, could develop similar or more advantageous technologies on their own or design around our patents. Any inability to protect intellectual property rights in our technology could enable third parties to compete more effectively with us.

In addition, the laws of certain foreign countries may not protect our intellectual property rights to the same extent as do the laws of Israel or the United States. Our means of protecting our intellectual property rights in Israel, the United States or any other country in which we operate may not be adequate to fully protect our intellectual property rights.

Third parties may assert that we are infringing their intellectual property rights, and IP litigation could require us to incur substantial costs even when our efforts are successful.

We may face IP litigation, which could be costly, harm our reputation, limit our ability to sell our products, force us to modify our products or obtain appropriate licenses, and divert the attention of management and technical personnel. Our products employ technology that may infringe on the proprietary rights of others, and, as a result, we could become liable for significant damages and suffer other harm to our business.

Other than the litigation described in Item 8A "Consolidated Statements and Other Financial Information - Legal Proceedings," we have not been subject to material IP litigation to date. We have received demand letters in the past alleging that products or processes of ours are in breach of patents, which we have denied, and after a respective lawsuit has been filed in respect of such claims, it has been resolved and dismissed with no effect on our business or any material cost to us.

Litigation may be necessary in the future to enforce any patents we have or may obtain and/or any other IP rights, to protect our trade secrets, to determine the validity and scope of the proprietary rights of others, or to defend against claims of infringement or invalidity, and we may not prevail in any such future litigation. Litigation, whether or not determined in our favor or settled, could be costly, could harm our reputation and could divert the efforts and attention of our management and technical personnel from normal business operations. In addition, adverse determinations in litigation could result in the loss of our proprietary rights, subject us to significant liabilities, require us to seek licenses from third parties, prevent us from licensing our technology or selling or manufacturing our products, or require us to expend significant resources to modify our products or attempt to develop non-infringing technology, any of which could seriously harm our business.

Our products may contain technology provided to us by third parties. Because we did not develop such technology ourselves, we may have little or no ability to determine in advance whether such technology infringes the IP rights of any other party. Our suppliers and licensors may not be required to indemnify us in the event that a claim of infringement is asserted against us, or they may be required to indemnify us only with respect to intellectual property infringement claims in certain jurisdictions, and/or only up to a maximum amount, above which we would be responsible for any further costs or damages. In addition, we have indemnification obligations to certain parties with respect to any infringement of third-party patents and intellectual property rights by our products. If litigation were to be filed against these parties in connection with our technology, we would be required to defend and indemnify such parties.

We rely on the services of certain executive officers and key personnel, the loss of whom could adversely affect our business.

Our future success depends largely on the efforts and abilities of our executive officers and senior management and other key employees, including technical and sales personnel. The loss of the services of any of these persons could adversely affect our business. We do not maintain any “key-person” life insurance with respect to any of our employees.

Our ability to remain competitive depends in part on attracting, hiring and retaining qualified technical personnel, and if we are not successful in such efforts, our business could be disrupted.

Our future success depends in part on the availability of qualified technical personnel, including personnel trained in software and hardware applications within specialized fields. As a result, we may not be able to successfully attract or retain skilled technical employees, which may impede our ability to develop, install, implement and otherwise service our software and hardware systems and to efficiently conduct our operations.

The information technology and network security industries are characterized by a high level of employee mobility and the market for technical personnel remains extremely competitive in certain regions, including Israel. This competition means that (i) there are fewer highly qualified employees available for hire, (ii) the costs of hiring and retaining such personnel are high, and (iii) highly qualified employees may not remain with us once hired. Furthermore, there may be pressure to provide technical employees with stock options and other equity interests in us, which may dilute our shareholders and increase our expenses.

The additions of new personnel and the departure of existing personnel, particularly in key positions, can be disruptive, might lead to additional departures of existing personnel and could have a material adverse effect on our business, operating results and financial condition.

Some of our products are subject to government regulation of radio frequency technology, which could cause a delay in introducing, or an inability to introduce, such products in the United States and other markets.

The rules and regulations of the United States Federal Communications Commission(FCC), or the European CE, limit the radio frequency used by and level of power emitting from electronic equipment. Our Connectivity and IoT products and equipment are required to comply with these FCC and/or CE rules, which may require certification, verification or registration of the equipment with the FCC and CE. Certification and verification of new equipment requires testing to ensure the equipment’s compliance with the FCC’s and/or CE’s rules. The equipment must be labeled according to the FCC’s and/or CE’s rules to show compliance with these rules. Testing, processing of the FCC’s and/or CE’s equipment certificate or FCC registration and labeling may increase development and production costs and could delay introduction of our verification scanning device and next generation radio frequency technology scanning equipment into the U.S. European markets. Selling, leasing or importing non-compliant equipment is considered a violation of FCC or CE rules and related law, and violators may be subject to an enforcement action by the related authorities. Any failure to comply with the applicable rules and regulations of the FCC and/or CE could have an adverse effect on our business, operating results and financial condition by increasing our compliance costs and/or limiting our sales in the United States and Europe.

Risks Related to Our Ordinary Shares

Volatility of the market price of our ordinary shares could adversely affect our shareholders and us.

The market price of our ordinary shares has been, and is likely to be, highly volatile and could be subject to wide fluctuations in response to numerous factors, including the following:

- actual or anticipated variations in our quarterly operating results or those of our competitors;
- announcements by us or our competitors of technological innovations or new and enhanced products;
- developments or disputes concerning proprietary rights;
- introduction and adoption of new industry standards;
- changes in financial estimates by securities analysts;
- market conditions or trends in our industry;
- changes in the market valuations of our competitors;
- announcements by us or our competitors of significant acquisitions;
- entry into strategic partnerships or joint ventures by us or our competitors;
- failing to meet in the financial projection or guidance
- political and economic conditions, such as a recession or interest rate or currency rate fluctuations or political events; and
- other events or factors in any of the countries in which we do business, including those resulting from war, incidents of terrorism, natural disasters or responses to such events.

In addition, the stock market in general, and the market for Israeli companies in particular, has been highly volatile. Many of these factors are beyond our control and may materially adversely affect the market price of our ordinary shares, regardless of our performance. In the past, following periods of market volatility, shareholders have often instituted securities class action litigation relating to the stock trading and price volatility of the company in question. If we were involved in any securities litigation, it could result in substantial cost to us to defend and divert resources and the attention of management from our business.

We have a shareholder that is able to exercise substantial influence over us and all matters submitted to our shareholders.

Sigma Wave Ltd., or Sigma, which is controlled by family members of Mrs. Tsviya Trabelsi, our Chairman of the Board, and by her husband, Mr. Arie Trabelsi, is the beneficial owner of approximately 28.2% of our outstanding ordinary shares as of December 2, 2019. Such ownership interest gives Sigma the ability to influence our corporate affairs and to control our Company, including our management, subject to approvals that may be required for related-party transactions pursuant to Israeli law. Sigma may have influence over the outcome of most matters submitted to our shareholders, including the election of our directors, and such influence could make us a less attractive acquisition or investment target. Because the interests of Sigma may differ from the interests of our other shareholders, actions taken by Sigma with respect to us may not be favorable to our other shareholders.

We do not expect to pay cash dividends.

We have never paid cash dividends on our ordinary shares and do not anticipate paying cash dividends in the near future. According to the Israeli Companies Law, dividends may only be paid out of profits legally available for distribution and provided that there is no reasonable concern that such payment will prevent us from satisfying our existing and foreseeable obligations as they become due. The payment of dividends will depend on earnings, financial condition, debt covenants in place, and other business and economic factors affecting us at such time as our board of directors may consider relevant. If we do not pay dividends, our ordinary shares may be less valuable because a return on your investment will only occur if our stock price appreciates.

We may fail to maintain effective internal control over financial reporting, which could result in material misstatements in our financial statements.

The Sarbanes-Oxley Act of 2002, or Sarbanes-Oxley, imposes certain duties on us and our executives and directors. Our efforts to comply with the requirements of Section 404 of Sarbanes-Oxley governing internal controls and procedures for financial reporting have resulted in increased general and administrative expense and a diversion of management time and attention, and we expect these efforts to require the continued commitment of significant resources. Section 404 of Sarbanes-Oxley requires management's annual review and evaluation of our internal control over financial reporting in connection with the filing of the Annual Report on Form 20-F for each fiscal year. We may identify material weaknesses or significant deficiencies in our internal control over financial reporting. Failure to maintain effective internal control over financial reporting could result in material misstatements in our financial statements. Any such failure could also adversely affect the results of our management's evaluations and annual auditor reports regarding the effectiveness of our internal control over financial reporting. Failure to maintain effective internal control over financial reporting could result in investigation or sanctions by regulatory authorities and could have a material adverse effect on our operating results, investor confidence in our reported financial information and the market price of our ordinary shares.

Risks Related to Our Location and Incorporation in Israel

Political, economic and military instability, war and/or acts of terror in Israel may disrupt our operations and negatively affect our business condition, harm our results of operations and adversely affect our share price.

We are incorporated under the laws of, and our principal executive offices and research and development facilities are located in, the State of Israel. As a result, political, economic and military conditions, war and/or acts of terror affecting Israel directly influence us. Any major hostilities involving Israel, a full or partial mobilization of the reserve forces of the Israeli army, the interruption or curtailment of trade between Israel and its present trading partners, or a significant downturn in the economic or financial condition of Israel could adversely affect our business, financial condition and results of operations.

Since its establishment in 1948, Israel has been involved in a number of armed conflicts with its Arab neighbors and a state of hostility, varying from time to time in intensity and degree, has continued into 2017. Also, since 2011, uprisings in several countries in the Middle East and neighboring regions have led to severe political instability in several neighboring states and to a decline in the regional security situation. Such instability may affect the local and global economy, could negatively affect business conditions and, therefore, could adversely affect our operations. In addition, Iran has threatened to attack Israel and is widely believed to be developing nuclear weapons. Iran is also believed to have a strong influence among extremist groups in areas that neighbor Israel, such as Hamas in Gaza and Hezbollah in Lebanon. Any armed conflicts, terrorist activities or political instability in the region could materially and adversely affect our business, financial condition and results of operations. In addition, the political and security situation in Israel may result in parties with whom we have agreements involving performance in Israel claiming that they are not obligated to comply with their undertakings under those agreements pursuant to force majeure provisions in such agreements. To date, these matters have not had any material effect on our business and results of operations; however, the regional security situation and worldwide perceptions of it are outside our control and there can be no assurance that these matters will not negatively affect us in the future.

Furthermore, we could be adversely affected by the interruption or reduction of trade between Israel and its trading partners. Some countries, companies and organizations continue to participate in a boycott of Israeli companies and others doing business with Israel or with Israeli companies. As a result, we are precluded from marketing our products to these countries, companies and organizations. Foreign government defense export policies towards Israel could also make it more difficult for us to obtain the export authorizations necessary for our activities. Also, over the past several years, there have been calls, in Europe and elsewhere, to reduce trade with Israel. Restrictive laws, policies or practices directed towards Israel or Israeli businesses may have an adverse impact on our operations, our financial results or the expansion of our business.

Our financial results may be adversely affected by inflation and currency fluctuations.

We report our financial results in dollars, while a portion of our expenses, primarily salaries, are paid in NIS. Therefore, our NIS related costs, as expressed in U.S. dollars, are influenced by the exchange rate between the U.S. dollar and the NIS. The appreciation of the NIS against the U.S. dollar will result in an increase in the U.S. dollar cost of our NIS expenses. We are also influenced by the timing of, and the extent to which, any increase in the rate of inflation in Israel over the rate of inflation in the United States is not offset by the devaluation of the NIS in relation to the dollar. Our dollar costs in Israel will increase if inflation in Israel exceeds the devaluation of the NIS against the dollar or if the timing of such devaluation lags behind inflation in Israel. In the past, the NIS exchange rate with the dollar and other foreign currencies had fluctuated, generally reflecting inflation rate differentials. We cannot predict any future trends in the rate of inflation in Israel or the rate of devaluation or appreciation of the NIS against the dollar. If the dollar cost of our operations in Israel increases, our dollar measured results of operations will be adversely affected.

Our operations could be disrupted as a result of the obligation of management or key personnel to perform military service in Israel.

Generally, all nonexempt male adult citizens and permanent residents of Israel under the age of 40, or older for reserves officers or citizens with certain occupations, as well as certain female adult citizens and permanent residents of Israel, are obligated to perform annual military reserve duty and are subject to being called for active duty at any time under emergency circumstances. While we have operated effectively under these requirements since our incorporation, we cannot predict the full impact of such conditions on us in the future, particularly if emergency circumstances occur. If many of our employees are called for active duty, our operations in Israel and our business, operating results and financial condition may be adversely affected.

We may not be able to enforce covenants not-to-compete under current Israeli law.

We have non-competition agreements with most of our employees, many of which are governed by Israeli law. These agreements generally prohibit our employees from competing with us or working for our competitors for a specified period following termination of their employment. However, Israeli courts are reluctant to enforce non-compete undertakings of former employees and tend, if at all, to enforce those provisions for relatively brief periods of time in restricted geographical areas and only when the employee has unique value specific to that employer's business and not just regarding the professional development of the employee. Any such inability to enforce non-compete covenants may cause us to lose any competitive advantage resulting from advantages provided to us by such confidential information.

We may become subject to claims for remuneration or royalties for assigned service invention rights by our employees, which could result in litigation and adversely affect our business.

A significant portion of our intellectual property has been developed by our Israeli employees in the course of their employment for us. Under the Israeli Patent Law, 5727-1967 (the “Israeli Patent Law”), inventions conceived by an employee during the term and as part of the scope of his or her employment with a company are regarded as “service inventions,” which belong to the employer, absent a specific agreement between the employee and employer giving the employee service invention rights. The Israeli Patent Law also provides that if there is no such agreement between an employer and an employee, the Israeli Compensation and Royalties Committee (the “C&R Committee”), a body constituted under the Israeli Patent Law, shall determine whether the employee is entitled to remuneration for his inventions. The C&R Committee (decisions of which have been upheld by the Israeli Supreme Court) has held that employees may be entitled to remuneration for their service inventions despite having specifically waived any such rights. Further, the C&R Committee has not yet set specific guidelines regarding the method for calculating this remuneration or the criteria or circumstances under which an employee’s waiver of his right to remuneration will be disregarded. We generally enter into intellectual property assignment agreements with our employees pursuant to which such employees assign to us all rights to any inventions created in the scope of their employment or engagement with us. Although our employees have agreed to assign to us service invention rights and have specifically waived their right to receive any special remuneration for such assignment beyond their regular salary and benefits, we may face claims demanding remuneration in consideration for assigned inventions. As a consequence of such claims, we could be required to pay additional remuneration or royalties to our current or former employees, or be forced to litigate such claims, which could negatively affect our business.

Your rights and responsibilities as a shareholder will be governed by Israeli law and differ in some respects from the rights and responsibilities of shareholders under U.S. law.

We are incorporated under Israeli law. The rights and responsibilities of holders of our ordinary shares are governed by our Memorandum of Association and Articles of Association and by Israeli law. These rights and responsibilities differ in some respects from the rights and responsibilities of shareholders in typical U.S. corporations. In particular, a shareholder of an Israeli company has a duty to act in good faith and customary manner in exercising his or her rights and fulfilling his or her obligations toward the company and other shareholders, and to refrain from misusing his power, including, among other things, when voting at the general meeting of shareholders on certain matters. Israeli law provides that these duties are applicable to shareholder votes on, among other things, amendments to a company’s articles of association, increases in a company’s authorized share capital and mergers and interested party transactions requiring shareholder approval. A shareholder also has a general duty to refrain from exploiting any other shareholder of his or her rights as a shareholder. In addition, a controlling shareholder of an Israeli company or a shareholder who knows that it possesses the power to determine the outcome of a shareholder vote or who, under our Articles of Association, has the power to appoint or prevent the appointment of a director or executive officer in the company, has a duty of fairness toward the company. Israeli law does not define the substance of this duty of fairness, but provides that remedies generally available upon a breach of contract will apply also in the event of a breach of the duty to act with fairness. Because Israeli corporate law has undergone extensive revision in recent years, there is little case law available to assist in understanding the implications of these provisions that govern shareholder behavior.

Provisions of Israeli law may delay, prevent or otherwise encumber a merger with or an acquisition of our company, which could prevent a change of control, even when the terms of such transaction are favorable to us and our shareholders.

Israeli corporate law regulates mergers, requires tender offers for acquisitions of shares above specified thresholds, requires special approvals for transactions involving directors, officers or significant shareholders and regulates other matters that may be relevant to these types of transactions. Furthermore, Israeli tax considerations may make potential transactions unappealing to us or to some of our shareholders whose country of residence does not have a tax treaty with Israel exempting such shareholders from Israeli tax. These provisions of Israeli law could delay, prevent or impede a merger with or an acquisition of our company, which could prevent a change of control, even when the terms of such transaction are favorable to us and our shareholders and therefore potentially depress the price of our shares.

Our shareholders may face difficulties in the enforcement of civil liabilities against us and our officers and directors or in asserting U.S. securities law claims in Israel.

Most of our officers and directors are residents of Israel or otherwise reside outside of the United States. SuperCom Ltd. is incorporated under Israeli law and its principal office and facilities are located in Israel. All or a substantial portion of the assets of such persons are or may be located outside of the United States. Therefore, service of process upon SuperCom Ltd., such directors and officers may be difficult to effect in the United States. It also may be difficult to enforce a U.S. judgment against SuperCom Ltd., such officers and directors as any judgment obtained in the United States against such parties may not be collectible in the United States. In addition, it may be difficult to assert U.S. securities law claims in original actions instituted in Israel. Israeli courts may refuse to hear a claim based on a violation of U.S. securities laws because Israel is not the most appropriate forum to bring such a claim. In addition, even if an Israeli court agrees to hear a claim, it may determine that Israeli law and not U.S. law is applicable to the claim. If U.S. law is found to be applicable, the content of applicable U.S. law must be proved as a fact, which can be a time-consuming and costly process. Certain matters of procedure will also be governed by Israeli law. There is little binding case law in Israel addressing these matters.

Being a foreign private issuer exempts us from certain Securities and Exchange Commission requirements.

As a foreign private issuer within the meaning of rules promulgated under the U.S. Securities and Exchange Act of 1934, as amended, or the Exchange Act, we are exempt from certain provisions applicable to U.S. public companies including:

- the rules under the Exchange Act requiring the filing with the Securities and Exchange Commission of quarterly reports on Form 10-Q and current reports on Form 8-K;
- the sections of the Exchange Act regulating the solicitation of proxies in connection with shareholder meetings;
- the provisions of Regulation FD aimed at preventing issuers from making selective disclosures of material information; and
- the sections of the Exchange Act requiring insiders to file public reports of their stock ownership and trading activities and establishing insider liability for profits realized from any “short-swing” trading transaction (i.e., a purchase and sale, or sale and purchase, of the issuer’s equity securities within less than six months).

Because of these exemptions, investors are not afforded the same protections or information generally available to investors holding shares in public companies organized in the United States.

ITEM 4. INFORMATION ON THE COMPANY

A. HISTORY AND DEVELOPMENT OF THE COMPANY

SuperCom Ltd. is a company organized under the laws of the State of Israel. Our registered office is located at 20 Lincoln street, Tel-Aviv, Israel, and our telephone number is +972-9-889-0880. Our agent in the United States is SuperCom, Inc., and is located at 200 Park Avenue South, New York, New York, telephone number +1 (212) 675-4606.

SuperCom Ltd. was incorporated in the State of Israel on July 4, 1988 pursuant to the provisions of the then-current Israeli Companies Ordinance. The legislative framework within which we now operate is the Israeli Companies Law, which became effective on February 1, 2000, and the Israeli Companies Ordinance (New Version) 1983, as amended (the “Companies Ordinance”).

From our incorporation in 1988 until 1999, we were a development-stage company primarily engaged in research and development, establishing relationships with suppliers and potential customers and recruiting personnel with a focus on the governmental market. In 2001, we implemented a reorganization plan, which we completed in 2002. As a result of the reorganization, we expanded our marketing and sales efforts to include the commercial market with a new line of advanced smart card and identification technologies products, while maintaining our governmental market business.

During 2002, we sold, in three separate transactions with third party purchasers, our entire equity interest in a U.S. subsidiary, InkSure Technologies, Inc., for which we received aggregate proceeds of approximately \$6.6 million. In December 2002, we discontinued the operations, disposed of all of the assets and terminated the employees of two U.S. subsidiaries, Genodus Inc. and Kromotek, Inc.

In 2006 we decided to sell most of our e-Gov Division in order to focus on opportunities in the U.S. for our IoT businesses as well as our Critical Situation Management System, or CSMS, business, which we sold in 2010.

On December 31, 2006, we sold the majority of the e-Gov Division activities and related intellectual property to OTI for 2,827,200 restricted ordinary shares of OTI, as of December 31, 2008, we sold all of the OTI shares that we received in the transaction.

On August 28, 2007, we purchased through our wholly-owned subsidiary, Vuanice, Inc., all of the issued and outstanding stock capital of Security Holding Corp., or SHC, from Homeland Security Capital Corporation and other minority shareholders for approximately \$4.34 million of our ordinary shares and direct expenses of approximately \$600,000 in our ordinary shares. A total of 258,218 ordinary shares were issued to the sellers. SHC was a Delaware corporation engaged in the manufacture and distribution of RFID-enabled solutions, access control and security management systems. During the fourth quarter of 2007, SHC and its subsidiaries were merged into our Vuanice, Inc. subsidiary.

In September 2007, we entered into a definitive agreement to acquire the credentialing division of Disaster Management Solutions Inc., or DMS, for approximately \$100,000 in cash and up to \$650,000 in royalties' payable upon sales of the advanced first responder credentialing system named "RAPTOR" during the first twelve months following the acquisition in August 2007. This acquisition complemented our former incident management solutions business and added the RAPTOR system to our former CSMS business, both of which were sold in 2010.

On March 25, 2009, we completed the acquisition of certain of the assets and certain of the liabilities of Intelli-Site, Inc. pursuant to an asset purchase agreement. We agreed to pay Intelli-Site \$262,000 payable in cash and in our shares (which were subject to a certain lock up mechanism) and included a contingent consideration of up to \$600,000 based upon certain conditions.

In January 2010, we completed the sale to OLTIS Security Systems International, LLC, or OSSI, of certain assets (including certain accounts receivable and inventory of a subsidiary) and certain liabilities (including certain accounts payable) related to our electronic access control market for \$146,822 in cash. In addition, OSSI paid off a loan that our subsidiary had taken from Bridge Bank, National Association.

In January 2010, we completed the sale of certain of the assets of Vuance, Inc and certain of its liabilities related to our Government Services Division, pursuant to an asset purchase agreement for \$250,000. In addition, the purchasers agreed to pay Vuance, Inc. an earn-out of up to \$1.5 million over the course of calendar years 2010 through 2013.

At the beginning of 2012, we decided to leverage our experience in the e-Gov market and increase our position in the market by: (i) proposing other new technologies and solutions to our existing e-Gov customers, (ii) securing other e-Gov projects and solutions by virtue of entering into joint ventures with partners with a global presence and complementary goals and products and (iii) retaining an outstanding group of market executives and experts, which allowed us to propose and implement what we believe to be competitive ID and e-Gov solutions to the global markets.

During 2012, we altered our strategy with respect to the IoT division to focus on solutions for three growing electronic monitoring vertical markets: (i) public safety, (ii) healthcare and homecare and (iii) transportation management. We have enhanced and developed a series of new products and solutions including the Pure Security Suite, Puretag, PureCom, Pure Monitor and PureTrack,

Between 2013 and through 2016, our product depth and global presence was expanded significantly with our acquisitions of the SmartID division of OTI in 2013, Prevision in 2015, and LCA, Safend, the PowaPOS business, and Alvarion in 2016, together with our extensive research and development of new product lines for the e-Gov, IoT, cyber security, and connectivity businesses.

On December 26, 2013, we acquired the SmartID division of OTI, including all contracts, software, other related technologies and IP assets. We paid OTI \$8.8 million (\$10 million less certain closing adjustments) at the closing and agreed to make contingent payments of up to \$12.5 million pursuant to an earn-out mechanism based on certain performance and other milestones. In April 2016, we had further negotiations with OTI, and entered into an agreement with OTI. Under this agreement, the remaining earn-out amount was reduced to a maximum of \$3.55 million, out of which an amount of \$2.05 million was paid at the beginning of May 2016.

On November 12, 2015, we acquired Prevision, an Israeli based cyber security company. We paid \$1.1 million at the closing and agreed to make contingent annual payments of approximately \$250,000 pursuant to an earn-out mechanism for the next four years. The contingent consideration is subject to service provided by the seller to the company during the earn-out period and therefore is not part of the business combination, as of January 15, 2018 the seller does not provide services to the Company.

On January 1, 2016 we acquired LCA, a U.S. based company, including all contracts, software, other related technologies and IP assets. We paid \$2.9 million at the closing and committed to certain contingent earn-out payments over the next three years that are structured as a single digit percentage of annual revenues in excess of stand-alone LCA management revenue projections, as of January 2018 the contingent earn-out is no longer exists.

On March 13, 2016, we acquired Safend, an Israeli based cyber security company. In consideration for this acquisition, we agreed to provide up to \$1.5 million in working capital to Safend to support its activity and growth through a structured debt and equity vehicle and to provide administrative, sales and marketing services and required capital. Safend is an international provider of cutting edge endpoint data protection guarding against corporate data loss and theft through content discovery and inspection, encryption methodologies, and comprehensive device and port control. Safend maps sensitive information and controls data flow through email, web, external devices and additional channels. Founded in 2003 and headquartered in Tel Aviv, Israel, Safend sold its products to over 3,000 customers in the United States, Europe, and Asia, and more than three million software license seats deployed by multinational enterprises, government agencies and small to mid-size companies around the globe.

On April 18, 2016, we acquired the PowaPOS business, a division of POWA Technologies Ltd., the developer of a fully-integrated mobile and tablet-based system integrating industry-leading retail and secure payment solutions into one simplified, attractive and innovative POS platform.

On May 18, 2016, we acquired Alvarion. Alvarion designs solutions for carrier wi-fi, enterprise connectivity, smart city, smart hospitality, connected campuses and connected events that are both complete and heterogeneous to ensure ease-of-use and optimize operational efficiency.

B. BUSINESS OVERVIEW

Founded in 1988, we are a global provider of traditional and digital identity solutions, advanced IoT and connectivity solutions, and cyber security products and solutions, to governments and private and public organizations throughout the world.

We are comprised of three main Strategic Business Units(SBU) : e-Gov, IoT and Connectivity (or “IoT”), and Cyber Security:

e-Gov

Through our proprietary e-Government platforms and innovative solutions for traditional and biometrics enrollment, personalization, issuance and border control services, we have helped governments and national agencies design and issue secured multi-identification, or Multi-ID, documents and robust digital identity solutions to their citizens, visitors and Lands

We have focused on expanding our activities in the traditional identification, or ID, and electronic identification, or e-Gov, market, including the design, development and marketing of identification technologies and solutions to governments in Europe, Asia, America and Africa using our e-Government platforms. Our activities include: (i) utilizing paper secured by different levels of security patterns (UV, holograms, etc.); and (ii) electronic identification secured by biometric data, principally in connection with the issuance of national Multi-ID documents (IDs, passports, driver’s licenses, vehicle permits, and visas, Secure Land Certified) border control applications and Land Information System(LIS) .

On December 26, 2013 we acquired the SmartID division of On Track Innovations Ltd., or OTI, including all contracts, software, other related technologies and intellectual property, or IP, assets. The SmartID division has a strong international presence, with a broad range of competitive and well-known e-Gov solutions and technology. The acquisition significantly expanded the breadth of our e-Gov capabilities globally, while providing us with outstanding market and technological experts, together with leading ID software platforms and technologies.

IoT and Connectivity

IoT

Our IoT products and solutions reliably identify, track and monitor people or objects in real time, enabling our customers to detect unauthorized movement of people, vehicles and other monitored objects. We provide all-in-one field-proven IoT suite, accompanied with services specifically tailored to meet the requirements of an IoT solutions. Our proprietary IoT suite of hybrid hardware, connectivity and software components are the foundation of these solutions and services. Our IOT division has primarily focused on growing the following markets: (i) public safety; (ii) healthcare and homecare; (iii) Smart Cities (iv) Smart Campus and (iv) transportation.

During 2006, we identified the growing electronic tracking and monitoring vertical markets for public safety, real time healthcare and homecare, and transportation management. We have developed the PureRF Hybrid suit of wrist devices, connectivity, and controlling software, from 2012 we have developed the next generation IoT suite of devices, connectivity and Monitoring software; the PureSecurity Hybrid Suite of wrist band, tags, beacons, PureCom, Pure Monitors, PureTrack and other components.

On January 1, 2016 we acquired Leaders in Community Alternatives, Inc., or LCA. LCA is a California based, private criminal justice organization, providing community-based services and electronic monitoring programs to government agencies in the U.S. for more than 25 years. LCA offers a broad range of competitive solutions for governmental institutions across the U.S. in addressing realignment strategies and plans.

Connectivity

In 2016, as part of our strategy to enhance and broaden our IoT connectivity products and solutions offerings for public safety, enterprises, hospitality and smart cities markets, on May 18, 2016, we acquired Alvarion Technologies Ltd., or Alvarion. Alvarion designs solutions for carrier wi-fi, enterprise connectivity, smart city, smart hospitality, connected campuses and connected events that are both complete and heterogeneous to ensure ease-of-use and optimize operational efficiency. Carriers, local governments and hospitality sectors worldwide deploy Alvarion’s intelligent wi-fi networks to enhance productivity and performance, as well as its legacy backhaul services and products.

Secure Financial Solutions (SFS)

During 2014, we identified the SFS market as a very fast-growing market where we believe that SuperCom has significant advantages due to synergic technologies and shared customer base to our other divisions. Since 2014, we have developed and introduced secure financial services suite of products, the SuperPay™. We offer advanced secure mobile payments ranging from mobile wallet to mobile point of sale (POS) using a set of components and platforms to enable secure mobile payments and financial services.

On April 18, 2016, we acquired the Powapos business, a division of POWA Technologies Ltd., the developer of a fully-integrated mobile and tablet-based system integrating industry-leading retail and secure payment solutions into one simplified, attractive and innovative POS platform. Powapos has been deployed in countries all over the world, and has been integrated by cloud-based POS software providers, we believe= this technology will be a highly value-added solution to our secure payment customers around the world.

Cyber Security

During 2015, we identified the cyber security market as a very fast growing market where we believe that SuperCom has major advantages due to synergistic technologies and shared customer base to our e-Gov, IoT and connectivity SBUs. In 2015, we acquired Prevision Ltd., or Prevision, a company with a strong presence in the market and a broad range of competitive and well-known cyber security services. During the first quarter of 2016, we acquired Safend Ltd, or Safend, an international provider of cutting edge endpoint data protection guarding against corporate data loss and theft through content discovery and inspection, encryption methodologies, and comprehensive device and port control. Safend maps sensitive information and controls data flow through email, web, external devices and additional channels.

Both acquisitions significantly expanded the breadth of our cyber security capabilities globally, while providing us with outstanding market and technological experts and over 3,000 customers in the United States, Europe, and Asia, and more than three million software license seats deployed by multinational enterprises, government agencies and small to mid-size companies around the globe, together with leading data and cyber security platforms and technologies.

Market Opportunity

We believe that our wide range of solutions offers us several opportunities across global markets and industries. The overall e-Gov market remains strong. Our addressable market includes both developing and developed countries. The acquisition of the SmartID division of OTI in late 2013 diversified our source of revenues and offered us access to new markets in Africa, Asia, and South America, all areas with great potential.

We plan to grow the e-Gov division organically, by adding new e-Gov government customers and by offering more services to existing customers. We believe that our platform is agile and scalable, meaning that once a customer is using one of our applications, it is easy to add additional applications and services, which can increase a client's return on their investment. In addition, and as a result of the integration of SuperCom and the SmartID division, we are now well-positioned to work on larger international tenders, we began actively bidding on larger international tenders in markets where we see significant opportunities.

The opportunities we see for our e-Gov division may have an impact on the number of opportunities for our IoT, and Cyber security divisions as well. We have begun to leverage our e-Gov existing customer base, and we believe that the expertise and robust innovative solutions in these two segments represent a significant opportunity for SuperCom.

We offer our new generation IoT and connectivity hybrid suite, which provides a full solution encompassing proprietary software and various secure connectivity technology, to customers in the United States and in Europe, South America and Africa, by exhibiting and demoing to potential customers in those regions. We launched our new generation Pure Security offender monitoring suite and began submitting it to tenders in the public safety market. These tenders range in value from tens of thousands to tens of millions of dollars.

In January 1, 2016, we acquired LCA, a California based, private criminal justice organization with over 25 years of experience running electronic monitoring programs for government customers in the U.S. It has significantly bolstered our competitive edge in competitive tenders allowing us to offer not only cutting edge technology, but also extensive industry experience. We have since then beat market competitors in competitive processes and have been awarded projects in various countries around the world including USA, Canada, Latvia, Czech Republic, Denmark, Bulgaria and other countries in Europe and Asia. Following our recent success and status in active tenders, we believe we are well positioned to win additional new projects in years to come.

In addition, there is always demand for better security systems and services. We believe that personnel and asset management are now leading security concerns in commercial and governmental enterprises, and that this should drive an increasing demand for secure, precise and cost-effective means to positively identify, locate, track, monitor, count and protect people and objects, including inventory and vehicles. Our IoT solutions provide an optimal solution to these problems as our solutions reliably identify and track the movement of people and objects in real time, enabling our customers to detect unauthorized movement of vehicles as well as trace packages, containers and the access to premises by control personnel and vehicles.

With respect to our Secure Financial Solutions, research indicates that 2.5 billion people globally are un-banked (meaning they have no bank account or credit card), but over 1 billion of those people have access to mobile phones, which represents our SFS applicable market. We presented our mobile money and mobile payment suite at several large payment conferences and the global market showed interest in our proprietary solution. In September, 2016, we launched a mobile wallet solution together with Verifone, a leading global technology and service provider in the point-of-sale market, and Nofshonit, one of the largest loyalty club providers and operators in Israel, for digital loyalty and pre-paid shopping programs. We believe that our ability to capture even a small portion of this fast growing market would represent a significant and long-term growth opportunity.

We identified the Cyber Security market as a fast growing market where SuperCom has major advantages due to synergic technologies and shared customer bases with our e-Gov, and IoT divisions. In 2015, we acquired Prevision Ltd., a company with a broad range of competitive and well-known Cyber Security services. During the first quarter of 2016, we acquired Safend Ltd, an international provider of cutting edge endpoint data protection guarding against corporate data loss and theft. We now have a platform of thousands of sophisticated enterprise customers which run our proprietary endpoint protection software and utilize our cyber security services. Through this platform we hope to more easily deploy additional innovations in cyber security, such as our proprietary Safe Mobile security software, to high quality enterprise customers.

Our Strategy

We are focused on our core competencies, which are comprised of our e-Gov platform and solutions, our IoT suite and connectivity solutions, our extensive Cyber Security products and solutions. Our growth strategy includes the following components:

- Develop strong strategic relationships with our business partners, including the systems integrators and representatives that introduce our products and solutions into their respective markets.
- Employ dedicated sales personnel to work closely with our business partners. Our sales personnel will customize and adapt solutions that can then be installed and supported by these business partners.
- Expand our IoT and Cyber Security activities globally, particularly in the Americas, Europe, and the Far East.
- Leverage our customer base, superior PureSecurity hybrid suite of IoT solutions, and Cyber Security capabilities to secure additional long-term contracts with governments and communities in the public safety markets.
- Leverage our reputation, talented personnel, and project management capabilities in the e-Gov market to secure additional projects and solutions in the growing e-Government market.
- Leverage our customer base, Connectivity solutions, and Cyber Security capabilities to secure additional long-term contracts with governments and communities in the Communication Infrastructure market.
- Develop strong strategic relationships with business partners that will introduce our solutions into the healthcare, homecare, Safe City and Smart Campus markets.
- Develop strong strategic relationships with business partners in the financial services industry, and un-banked and mobile payments markets.

- Identify and acquire synergistic contracts or businesses in order to reduce time to market, obtain complementary technologies and secure required references for international bids.
- Grow our business in emerging markets with perceived significant growth opportunities.

We currently target the following markets:

National e-Government Market. Additional national e-Government clients with our e-Gov and Cyber Security technologies and products.

Public Safety Market . Public safety, including law enforcement agencies, community, safety agencies and ministries of justice around the world, with our electronics monitoring, or EM, solutions, including electronic identification, monitoring and tracking solutions for house arrests, GPS tracking, inmate control, detainee monitoring, juvenile supervision and tracking of persons returned to communities.

Financial Services and Retail Markets. Cyber Security, Financial services and retail markets through our SFS suite, VeloPOS, and through our Cyber Security products and solution.

Airports and Ports. Airports and ports with our IoT, e-Gov, cyber security and connectivity products and solutions. Our IoT products can help common carriers monitor, track, locate and manage multiple baggage items simultaneously, thereby reducing the risk of lost baggage, increasing customer service and improving security. Our e-Gov solutions can offer airports and ports turnkey border control systems. Our border control system is based on passenger biometric identification applications, electronic passport identification, and both optical and electronic means to detect forged passports. The system, which is operable whether it is online or offline, enables border control officers to receive accurate identification based on a combination of two machine-readable biometric applications: fingerprints and facial recognition. We offer short implementation and quick integration with the existing border control system of the country and provide external interfaces to digital certificate authority for signature verification as well as interfaces to other agencies.

Enterprises and Industrial Companies. Enterprises and industrial companies with our cyber security, SPS, connectivity, and IoT products and solutions, which can be used by enterprises, shippers and warehouse operators to manage and track cartons, pallets, containers and individual items in order to facilitate movement, pick up orders, verify inventory and reduce delivery time. In addition, industrial companies can manage and track their mobile equipment and tools. We believe that our IoT suite can increase efficiency at every stage of asset, inventory and supply chain management by enabling long-range identification and location of products and removing the need for their human visual identification. Our products also work in conjunction with existing bar coding and warehouse systems to reduce the risk of loss, theft and slow speed of transfer.

Hospitals and Homecare. Hospitals and homecare with our cyber security, Connectivity, and IoT products and solutions. The healthcare sector has successfully utilized IoT technologies for the purposes of infant protection in maternity wards and resident safety in care homes similar to our asset and personnel location and identification system targeted at the secure facility and hazardous business sectors. Our IoT Suite can provide solutions for the healthcare sector for asset, staff, patient and medical record location and identification. We believe that as hospitals continue to upgrade their security measures, IoT and connectivity technology will be utilized in real-time location systems that are designed to immediately locate persons, equipment and objects within the hospital.

Municipals and Educations. Municipals and education institution with our Safe City, Smart City and Smart Campus products and solutions and cyber security, connectivity, and IoT products and solutions.

Government and Enterprise Cyber Security Markets. Homeland and enterprise cyber security markets with our Cyber Security products and services to governments and large enterprises.

Our Solutions and Products

e-Government (e-Gov) SBU Products and Solutions

We have been active in the national ID and e-Government industry for more than 25 years. We work with governments and public sectors, and we believe SuperCom e-Gov is an internationally recognized competitor in the design, development, integration and delivery of highly secured national ID and e-Government solutions.

We offer a complete end-to-end in-house solution for credentialing, identifying and verifying individuals by combining the capability to support biometric identification with the portability of smart cards. Most of our products are based on a common platform, which we refer to as MAGNA™, a complete end-to-end solution for such items as e-passports, national identity cards, voter identification cards and drivers' licenses. Our solution covers everything necessary for a government to offer a particular service to the public: business process engineering, solution design and integration, hardware and software implementation, operator and technician training. The solution covers all workflows, managerial and operational reports, and it interfaces directly with the government's business activity.

In addition, our e-Gov division offers a variety of related services, including: requirements extraction and system design, project management, project operation, training, operational processes optimization, assimilation, project financing (under BOT/PPP scheme), knowledge transfer, fee collection, maintenance and support and more.

We believe our e-Gov systems comply with regional and international standards and enhance usability by using smart card applications. Our systems' central servers include redundancy capabilities that provide disaster recovery or failover between sites. All solutions issue financial, accountability, transaction auditing and management information reports, which decrease the likelihood of tampering and fraud by individuals.

Our products combine the portability of smart cards with the capability to support advanced identification and authentication technology and manage significant amounts of information. Our MAGNA™ modular platform offers short implementation and quick integration with the existing border control system of a country and provides external interfaces to digital certificate authority for signature verification, as well as interfaces to other agencies. It offers a migration path to additional e-Government applications and to additional electronic ID documents, such as national IDs, voter IDs and drivers' licenses. Our platform can be customized to support a large number of applications, and it has been deployed in different e-passport/national ID contracts worldwide. It is also being developed for additional applications, such as medical services.

Our border control system is based on passenger biometric identification applications, electronic passport identification, and both optical and electronic means of detecting forged passports. The system, operable online or offline, enables border control officers to receive accurate identification based on a combination of two machine-readable biometric applications: fingerprints and facial recognition.

IoT and Connectivity SBU Products and Solutions

Our IoT division features a multiple connectivity base IoT hybrid suit accompanied by services specifically tailored to meet the requirements of the applicable industries, primarily: (i) public safety, (ii) healthcare and homecare, (iii) SafeCity, (iv) Smart Campus, (v) Connectivity networks and (iii) transportation. Our PureRF and PureSecurity suite assists organizations in efficiently utilizing time and resources. We believe it has a number of advantages for remote hands-off authentication, validation, identification, location and real-time monitoring of valuable personal resources and assets.

Equipped with complex IT and cyber security knowledge and experience, our senior personnel from the IoT industry and our suite of products and software can customize IoT and connectivity programs and solutions at all levels, from tags to readers to servers, and at all stages, from design to implementation and maintenance.

PureRF Suite. Our PureRF Suite provides a secure, precise and cost-effective means to positively identify, locate, track, monitor, count and protect people and objects, including inventory and vehicles. Our PureRF Suite is a complete location position, or LP, system solution based on active RFID tag technology that provides commercial customers and governmental agencies enhanced asset management capabilities. The basic components of our PureRF Suite include:

PureRF Tags. The PureRF solution relies on small, low-powered PureRF tags that are attached to objects or people. These weatherproof and shock-resistant tags are inexpensive and attach easily to key chains, uniform equipment, property, or vehicles to allow identification and tracking wherever it is needed. License-free radio bands are used to track RF signals and can be read on handheld devices. Transmitters can be programmed for periodic or event-driven transmissions. For high-security sites or situations, encrypted tag-to-reader communication prevents cloning or copying. An integrated anti-collision algorithm allows multiple tags to be simultaneously identified by a single reader, allowing employees to be matched to individual laptops or assets, shipping pallets to merchandise, assets to “authorized” locations and drivers to specific vehicles.

Hands-Free Long-Range RFID Asset Tags. These tags provide real-time asset loss prevention, inventory management, and personnel/asset tracking. They identify and track laptops, office machines, computer systems, tools, and telephones. They also identify employees and visitors in office buildings, hospitals, retail stores, warehouses, industrial facilities, mines and military installations.

Hands-Free Long-Range RFID Vehicle Tags. These tags provide long-range vehicle ID for parking and fleet management, access control, asset loss prevention at airports, gated communities, truck and bus terminals, employee parking lots, hospitals, industrial facilities, railroads, mines and military installations.

PureRF Readers. Our PureRF reader is used to receive status messages from PureRF tags. The PureRF reader is an intelligent, reliable and effective small long-range RFID reader with an integrated protocol converter. The protocol converter supports various standard interfaces such as 26 bit Wiegand format, serial RS-232, serial RS-485 or TCP/IP (Ethernet) protocols, which can be utilized in various solutions. Range-adjustable antennas can be discretely hidden to identify and track PureRF tag activity. PureRF readers can operate individually for small applications or in a network to cover wide areas. The units are small, reliable and effective and can be controlled by multiple communications media.

PureRF Activators. PureRF activators are used to improve the accuracy of locating assets compared to what is provided by the receiver ID. They are used primarily at entrances and exits. For this purpose, PureRF activators are deployed throughout the monitored space where improved tag location measurement is required. The PureRF activators continually transmit a short-range uniquely identifying LF signal. Tags can read this signal when they are close to the activator (up to about 24 feet). The activator ID that a tag reads is added to the message that the tag transmits to the receiver. An activator’s ID indicates the location of a PureRF tag.

PureRF Initializer. A PureRF initializer is a device that integrates an LF transmitter and an RF receiver into one device. This enables the PureRF initializer to perform bi-directional communication with the tags. The PureRF initializer is used to control a tag’s mode of operation (on/off) and to set or modify a tag’s operational parameters, such as transmission frequency (timing) and activated sensors.

House Arrest Monitoring System. Our house arrest monitoring system provides fully customizable surveillance programs to eliminate frustration and operational inefficiencies. Our house arrest system is based on our PureMonitor cloud-based software and includes the PureCom base station and the PureTag RF bracelet.

PureTag RF Bracelet. Our PureTag RF bracelet is a highly secure, hypoallergenic, lightweight and compact RF bracelet that operates across the complete spectrum of the PureSecurity Corrections Tracking Suite. Its features include: (i) an encrypted RF signal, (ii) easy installation, (iii) four years of battery life, (iv) a disposable strap, (v) proximity detection, (vi) motion tamper detection and (vii) a strap and case.

PureCom RF Base Station. The PureCom RF base station brings new features and functionality to new house arrest programs. Each PureCom RF base station supports up to 50 PureTag RF bracelets. Its features include (i) a smart LCD screen, (ii) fingerprint ID verification, (iii) two-way communications via text and voice, cell, landline, Wi-Fi, and Ethernet connections, (iv) streamlined field installation, (v) a 72-hour battery backup, (vi) dual SIM for broader coverage, (vii) onboard GPS tracking, and (viii) a rugged impact resistant shell.

GPS Offender Tracking System. Our GPS offender tracking system provides fully customizable surveillance programs to minimize frustration and operational inefficiencies. The GPS offender tracking system is based on our PureMonitor cloud-based software and includes the PureTrack smartphone device, the PureTag RF bracelet and an optional PureBeacon device.

PureTrack. Smartphone technology has made dramatic improvements in the way people work and talk. SuperCom channels a smartphone's capabilities into an unparalleled corrections supervision tool with the following features: (i) GPS, cell tower and Wi-Fi location tracking, (ii) RF tethering via Bluetooth, (iii) configurable GPS point frequency, (iv) GSM, CDMA and Wi-Fi communication support, (v) calendar management, (vi) persistent offender term notifications and reminders, (vii) smartphone voice, text, email, video communications, (viii) portable breath-alcohol integration and (ix) bio-identification, including face, fingerprint, and voice recognition.

PureBeacon. Our PureBeacon is a secure RF device designed to provide indoor surveillance of offenders when GPS is not suitable. In addition to preserving the PureTrack battery life, other features include (i) four years of battery life, (ii) encrypted RF protocol, (iii) Bluetooth support, (iv) proximity and case tamper detection, (v) an expansive range via a mesh network and (vi) a waterproof, dustproof and lightweight design.

PureMonitor Offender Electronic Monitoring Software. PureMonitor is our cloud-based software designed to deliver the information needed by officers. It enables quick navigation through e-interface to set schedules, generate reports, review tracking information and run efficiently and effectively. PureMonitor supports GPS monitoring, RF house arrest, alcohol monitoring, and biometric verification products. Officers can manage the complete platform of electronic monitoring tools through a single log-in. The PureMonitor platform leverages a consistent look, feel and functionality across the entire product line. It is designed to work with the agency's software suite, while integrated with existing case management, jail management and crime scene management systems. PureMonitor also contains a powerful suite of reports intended to allow complete and immediate visibility into any program. It supports static and mobile monitoring applications in and out of the office.

Inmate Monitoring System. We offer an inmate monitoring system that manages the authorized movement of inmates throughout a corrections facility. Validating the location of people and assets flowing through a corrections facility requires immense focus and dedicated resources, and inmate and officer safety depends on a system that ensures the right people are in the right place at the right time. We have developed a solution that comprehensively provides one system for all facility-based tracking concerns. Our inmate monitoring management solution is based on our cloud-based software and includes the DoorGuard tracking station, the PureTag RF bracelet and an optional Personnel Tag for staff members.

DoorGuard. DoorGuard is a tracking station that communicate the inmates' activities to the management system. A DoorGuard unit is installed at the entrance of each cell to monitor all entrances and exits. Units can also be placed in the corridors for additional tracking. The DoorGuard features include (i) accurate location tracking, (ii) Ethernet and Wi-Fi communications, (iii) advanced tamper detection, (iv) an encrypted RF signal, and (v) a waterproof and dustproof design.

Personnel Tag. The Personnel Tag is a highly secure RF tag worn by prison officers to obtain precise indoor location verification. It provides the following features: (i) panic button for immediate monitoring center alerts, (ii) advanced tamper detection, (iii) an encrypted RF signal, (iv) a four-year battery life and (v) a lightweight design.

Domestic Violence Victim Protection System. Our domestic violence victim protection system offers an additional line of defense for domestic violence victims, providing information regarding the location of the offender and the distance between the offender and the victim. Our solution incorporates the latest technology to develop a public safety solution that is easy to implement. Our domestic violence victim protection system is based on our PureMonitor cloud-based software and the PureTrack smartphone device, the PureTag RF bracelet and the PureProtect smartphone app.

PureProtect Smartphone App. Victims can download our PureProtect smartphone app to ensure that an offender is compliant with his or her restraining order. The PureProtect app identifies and alerts the victim of proximity violations without breaching the victim's privacy. Additionally, the app identifies offender movement and behavior patterns in order to prevent attacks. The PureProtect app supports both Android and iOS phones. It provides GPS, cell tower and RF proximity, indicates the direction of offender travel, includes GPS shielding and jamming detection, and is password protected. Alerts can be set up for a pre-defined distance so that an alert will be sent to local authorities if that distance is violated.

Secure Financial Services Products and Solutions

We offer a full suite of solutions, ranging from mobile wallet to mobile POS using a set of components and platforms to enable secure mobile payments and financial services. Our products and solutions include:

SuperPay™ Suite. SuperPay is a secure mobile payment hybrid suite that allows mobile users to securely make payments while supporting smartphones. SuperPay features a number of secure payment methods and utilizes biometric authentication features already integrated in advanced smartphones such as iPhone Touch ID, Samsung fingerprint scanner, or external biometric authentication.

PowaPOS. Our PowaPOS T25, using the advanced and simple to use PowaPOS SDK, is a fully integrated design incorporating retail peripherals into a compact and cost-effective footprint. Powered by a single power cord, the PowaPOS platform features a universal tablet mount, built in thermal printer, 2D barcode/QR code scanner, swiveling design with customer/clerk orientation sensor, and the PowaPOS Cash Drawer. The PowaPOS SDK works with iOS, Android and Windows POS software applications, as well as third party payment devices and many other retail peripherals.

Connectivity Products and Solutions

AVIDITY WBSac. The Avidity WBSac product series is a high-performance Wi-Fi indoor and outdoor access point series intended to enable mobile operators, business and enterprises to deliver high capacity and high quality Wi-Fi solutions.

- Multiple radios provide concurrent 802.11a/n/ac and 802.11b/g/n connections
- Up to 1300 Mbps combined data rate
- Dual concurrent MIMO, Dual-polarized antennas
- Self-configuring, plug-and-play deployment
- Smart MESH supported

BOLSTER WBSn. The Bolster WBSn is intended to enable mobile operators, governments and enterprises to deliver high-quality wi-fi solutions in metro and rural areas, with significantly fewer bases stations, and much lower costs. Carrier-grade IP-68 is designed to provide a high standard of reliability, quality of service, security and manageability.

- Gigabit outdoor Wi-Fi support up to 450 Mbps, (per band) 900 Mbps for both bands, and maximum aggregated capacity of up to one Gigabit per unit
- Built in Access Controller, for flexible service planning
- Self-configuring, plug-and-play deployment

BreezeULTRA™ P6000. The BreezeULTRA family intends to provide high capacity product in wireless broadband Point to Point communication license-exempt market. BreezeULTRA offers a bold combination of capacity, performance, organic growth and ease of use capabilities.

- Optimized for high capacity applications
- Available in the Licensed Exempt frequencies: 5.1-5.9 GHz
- High Performance - supporting up to 500 Mbps net throughput and distances of up to 50km / 32 miles (w/high-gain antenna)
- Dynamic up-link /down-link bandwidth allocation
- Optimized performance of voice, video and data using four priorities of service
- Optimized interference mitigation and NLOS performance
- Ease of ordering, installation and configuration

Arena controller. Arena controller is an essential element for constructing large scale carrier wi-fi networks for hotspot/hotzones and cellular offloading services

- Cost effective and scalable network architecture with centralized control plane and distributed data plane
- Supporting up to 5000 AP's and 50,000 users per controller
- Control and manage AP and backhaul radio, including statistic and reporting
- Automatic AP units detection, configuration and firmware distribution
- Secured control layer management

- Hotspots/Hotzones and cellular offloading services
- Providing a single peer to the A AA

BreezeNET® B. BreezeNet B is a comprehensive and highly-proficient portfolio of wireless point-to-point solutions that offers long range and high-capacity support for high bandwidth applications. It is intended to provide efficient, reliable and secure communications for voice and real-time applications including building-to building connectivity and backhaul services.

- High capacity, point-to-point, robust outdoor wireless solution
- Flexible rate capacity options: B10, B14, B28, B100 reaching up to 100 Mbps gross
- Long reach: over 60 km
- Optimized uplink/downlink configuration to support different business applications such as public safety and video surveillance
- Robust performance in Non-Line-of-Sight (NLOS) environments
- Simple deployment, management and maintenance

Cyber Security SBU Products and Solutions

Safend's Encryption Suite is an easy to use security application based on a single, lightweight agent, providing a comprehensive solution that protects the organization's sensitive data residing on servers, PCs, laptops and detachable devices.

Safend's Data Protection Suite includes:

Safend Encryptor, which ensures that users' data is secure against loss or theft, by encrypting any data stored on internal hard disks.

Safend Protector, which applies customized, highly-granular security policies over all physical and wireless ports and devices. The Protector also mandates the encryption of all data transferred to removable storage devices and CD/DVD media.

Safend Inspector, which provides an additional protection layer for data transferred over approved data transfer channels, such as a white-listed storage device, an approved WiFi connection, or a machine's LAN connection. It enforces an accurate, data-centric security policy on transferred data, without disrupting legitimate business processes or disturbing end user productivity.

Safend Discoverer, which allows security administrators to locate sensitive data stored on organizational endpoints. It helps identify gaps in data protection and compliance initiatives, and provides insight into which security policies should be implemented, using other components of the Safend Data Protection Suite.

SafeMobile, which provides high-end security framework designed to meet cyber threats on both the mobile client and on an organization's main server. The solution in development enables rapid deployment of any application on a smart device leaving the security challenges to the framework.

Research and Development

Our research and development efforts have enabled us to offer our customers a broader line of products and solutions, primarily in the areas of our e-Gov, IoT and Connectivity, and Cyber Security. We intend to continue to research and develop new technologies and products for the e-Gov, Cyber Security, Connectivity and IoT SBUs. There can be no assurance that we can achieve any or all of our research and development goals.

During the years ended December 31, 2018, 2017 and 2016, we have invested, \$4.8 million, \$7.2 million, and \$6.7 million, respectively, in research and development. We anticipate that we will continue to invest up to 15% of our revenue in broadening our Cyber Security, e-Gov, IoT and Connectivity solutions and platforms. To expedite our development efforts, we may continue to acquire technologies from other companies, where we believe that such acquisition may cost effectively expedite our time to market of new products and solution.

Sales and Marketing

We sell our systems and products worldwide through local representatives, subsidiaries and distribution channels that include direct sales and marketing through representatives. We currently have 14 employees that are directly engaged in the sale, distribution and support of our products through centralized marketing offices in distinct world regions, including our employees and service providers located in the United States, Israel, Zambia, Philippines, England and China who sell and support our products in their regions. We are also represented by several independent representatives, resellers and distributors.

We establish relationships with representatives, resellers and distributors through agreements that provide the marketing of our solutions and products. These agreements generally do not grant exclusivity to the representative, resellers or distributors, and some of them are not long-term contracts, do not have commitments for minimum sales, and could be terminated by the representative, reseller or distributor. We do not have agreements with all of our representatives, resellers and distributors.

Key Customer Contracts

On March 25, 2014, we entered into an agreement whereby we provide consulting services for the design, development, implementation, commissioning and maintenance of a government customer's new e-Government system. The agreement provides for a total contract sum of approximately \$24 million, payable upon the completion of certain milestones. Phase I of the agreement consists of the design and implementation of the new system for an aggregate contract price of approximately \$18 million. We received over 25% of this amount as advance payment for Phase I, and receive the remainder upon certain milestones during Phase I. Phase I is scheduled to last approximately 18 months. Under Phase II of this agreement, we will provide maintenance services for the five-year period following the system becoming operational in Phase I. The aggregate contract price for Phase II is \$6 million, which will be comprised of a 25% advance payment at the onset of Phase II, with the remaining 75% paid in quarterly installments. During 2016, we completed the Phase I milestones. Phase II commenced immediately after the Phase I was completed in mid-2016.

Principal Markets

The following table provides a breakdown of total revenue by geographic market for the three years ended December 31, 2018 (all amounts in thousands of dollars):

	2018	2017	2016
Africa	4,816	9,713	5,681
Europe	3,114	2,482	1,211
South and center America	1,279	8,778	1,803
United States	10,452	9,921	9,888
Israel	1,514	1,309	724
APAC	707	1,034	675
Other	-	27	43
Total	21,882	33,264	20,025

As part of the Company's decision to switch from one technology segment, e-government, into three separate technology segments or Strategic Business Units; e-Gov, IoT, and Cyber Security, the Company made four acquisitions in 2016 of companies with various technologies and customer bases which enhanced and strengthened the capabilities and value offerings of each of the three segments.

Following the acquisitions, in 2016 the Company went through an integration and restructuring process, and opted to report firstly by interim operation segments: Government, Connectivity and Cyber Security.

In 2017, as the Company progressed further in the restructuring process, it moved to report by the latest and current technology segments or Strategic Business Units. The following table provides a breakdown of total revenue by segment for the three years ended December 31, 2018 (all amounts in thousands of dollars):

	Year ended December 31,		
	2018	2017	2016
e-Gov	6,117	18,232	7,020
IoT	12,470	11,264	10,833
Cyber Security	3,295	3,768	2,172
Total	21,882	33,264	20,025

The following table provides a breakdown of total revenue by products and services for the three years ended December 31, 2018 (all amounts in thousands of dollars):

	Year ended December 31,		
	2018	2017	2016
	\$	\$	\$
Revenues			
Products	8,516	19,396	7,631
Services	13,366	13,868	12,394
Total revenues	<u>21,882</u>	<u>33,264</u>	<u>20,025</u>

Customer Service and Support

Customer service includes mainly maintenance and support services and plays a significant role in our sales and marketing efforts. Our ability to maintain customer satisfaction is critical to building our reputation and increasing growth in our existing markets, as well as penetrating new markets. In addition, both customer contact and the customer feedback we receive in our ongoing support services provide us with information on customer needs and contribute to our product development efforts. We generally provide maintenance and support services under separate customized agreements after the customer project is completed. We provide services through customer training, local third-party service organizations, our subsidiaries, or our personnel, including sending appropriate personnel from any of our offices in United States, Europe, Israel, Columbia and Zambia. We usually give our customers a twelve-month warranty for our products, and we offer additional extended warranty and maintenance programs. Costs incurred annually by us for product warranties have to date been insignificant; however, we expect that the warranty costs may increase going forward because our current e-Gov, IoT, and Cyber Security solutions are more complex than our previously offered solutions and additional new products may be deployed.

Manufacturing and Availability of Raw Materials

Our manufacturing operations consist primarily of materials planning and procurement, quality control of components, kit assembly and integration, final assembly, and testing of fully-configured systems. A significant portion of our manufacturing operations consists of the integration and testing of off-the-shelf components. Most of our products and systems, whether or not they are manufactured by us, are configured to customer orders and undergo several levels of testing prior to delivery, including testing with the most current version of software.

We manufacture a range of IoT and e-Gov products and systems. We outsource the manufacturing of: (i) printed circuit boards, or PCBs, to a number of different suppliers both in Israel and the Far East, (ii) enclosures to suppliers in Israel and the Far East and (iii) Teslin paper (a synthetic material used in making ID cards), laminates, inlays, modules, cards, from suppliers from the Far East, Europe, the United States and Israel. The electronic assembly of our products is done in Israel, Europe, and the United States. We sometimes commit to long-term relationships with such suppliers in exchange for receiving competitive pricing. All PCBs and enclosures are built to our engineering specifications. All PCBs are received in our manufacturing facilities in Israel and are tested, assembled, calibrated and put in appropriate enclosures by outsource manufacturers in Israel. Then they go through a validation and quality assurance process. Other components are off-the-shelf products, which we purchase from a number of different suppliers.

Many of the activities for our e-Gov, IoT, and Cyber Security segments, such as purchasing, logistics, integration, training, installation and testing, are done by our employees. In locations where we do not have a local representative, we assign certain tasks to local third parties and service providers that we supervise. We have subcontracting agreements with local IT companies who have dedicated and experienced personnel. Such subcontractors provide all local support, maintenance services and spare parts to customers in a specified area.

Competition

We assess our competitive position from our experience and market intelligence, including third party competitive research materials. We believe that Guidance (G4S), Attenti Monitoring, STOP(Securus), Omnilink (Sierra Wireless), Sentinel, BI (GeoGroup), Buddi, and Track Group are our potential competitors with respect to our IoT products and solutions. We believe that Face Technologies, Cogent (3M), Zetes Industries, Mühlbauer Group, Oberthur Technologies, Gemalto, Bundesdruckerei GmbH and Nadra are our potential competitors in the e-Gov products and solutions market. We believe that McAfee (Intel Security), Symantec, Sophos, and Trend Micro are the primary competitors for our Cyber Security division. Due to the developing nature of the markets for our e-Gov, IoT, and Cyber Security products and solutions and the ongoing changes in this market, the above-mentioned list may not constitute a full list of all of our competitors and additional companies may be considered our competitors.

Our management expects competition to intensify as the markets in which our products and solutions compete continue to develop. Some of our competitors may be more technologically sophisticated or have substantially greater technical, financial or marketing resources than we do, or may have more extensive pre-existing relationships with potential customers. Although our products and services combine technologies and features that provide customers with complete and comprehensive solutions, we cannot assure that other companies will not offer similar products in the future or develop products and services that are superior to our products and services, achieve greater customer acceptance or have significantly improved functionality as compared to our products and services. Increased competition may result in our experiencing reduced margins, loss of sales or a decrease in market share.

Intellectual Property

Our ability to compete is dependent on our ability to develop and maintain the proprietary aspects of our technology. We rely on a combination of patents, trademarks, copyrights, trade secrets and other intellectual property laws, as well as employee and third-party nondisclosure agreements, licensing and other contractual arrangements. However, these legal protections afford only limited protection for our proprietary technology and intellectual property.

In addition, the laws of certain foreign countries may not protect our intellectual property rights to the same extent as do the laws of Israel or the United States. Our method of protecting our intellectual property rights in Israel, the United States or any other country in which we operate may not be adequate to fully protect such rights.

Currently we own 52 issued patents in the United States and 74 issued patents in the rest of the world.

Trademarks

We rely on trade names, trademarks and service marks to protect our name brands. We hold registered trademarks in several countries including Israel, the United States and the United Kingdom. We rely on trade names, trademarks and service marks to protect our name brands. We have registered trademarks for PureRFid[®], SuperCom[®], Vuance[®], EduGate[®], and "Vuance Validate your World"[®] and have applied for trademarks for PureMonitor[™], PureCom[™], PureTag[™], PureTrack[™], AAID[™], SmartID[™], MAGNA[™] and PureArrest[™].

Licenses

We license technology and software, such as operating systems and database software, from third parties for incorporation into our systems and products, and we expect to continue to enter into these types of agreements for future products. Our licenses are either perpetual or for specific terms.

As part of the acquisition of the SmartID division, we also received an irrevocable, worldwide, non-exclusive, non-assignable and non-transferable license to use certain intellectual property from OTI in connection with our past, ongoing and future e-Gov projects.

Government Regulation

Generally, we are subject to the laws, regulations and standards of the countries in which we operate and/or sell our products, which vary substantially from country to country. The difficulty of complying with these laws, regulations and standards may be more or less difficult than complying with applicable U.S. or Israeli regulations and the requirements may differ. Please see the section titled "Risk Factors" for more information on the effects of governmental regulation on our business.

C. ORGANIZATIONAL STRUCTURE

The following reflects our active subsidiaries and affiliates as of December 2, 2019:

SuperCom Inc.

SuperCom Inc., incorporated in Delaware, is responsible for our sales, marketing and support in the United States, and wholly owns its subsidiary, LCA.

Leaders in Community Alternatives, Inc. ("LCA")

LCA, incorporated in California, was acquired by us on January 1, 2016, and provides electronic monitoring and community-based services under contracts with various government agencies.

SuperCom Slovakia A.S. ("SuperCom Slovakia")

SuperCom Slovakia, incorporated in Slovakia, was established to implement a national documentation project in the Republic of Slovakia. SuperCom Slovakia is 66% owned by us and 34% owned by EIB Group a.s., a privately held Czech company. While we have a 66% ownership interest in SuperCom Slovakia, our voting power in SuperCom Slovakia is 50%. The company has no activity.

Safend Ltd.

Safend Ltd., incorporated in Israel, was acquired on March 13, 2016, and is a global data security company with a broad range of competitive and well-known encryption and data protection solutions.

Prevision Ltd.

Prevision Ltd., incorporated in Israel, was acquired on November 12, 2015, and is an international provider of Cyber Security services and solutions.

Alvarion Technologies Ltd.

Alvarion Ltd., incorporated in Israel, was acquired on May 18, 2016, and is a global provider of wireless broadband products and wi-fi networks

D. PROPERTY, PLANTS AND EQUIPMENT

We do not own any real estate. We lease approximately 2,070 square meters of office and warehousing premise in Tel Aviv, Israel under a new three-year lease expiring on June 30, 2022. According to the agreement, the monthly fee (including management fees) is approximately \$56,000.

We lease approximately 200 square meters of office premise in New York for our U.S. subsidiary, SuperCom Inc. We lease approximately 1,200 square meters of office premise in California for our U.S. subsidiary, LCA Inc.

We do not lease any facilities for any other subsidiary or our branch.

Our total annual rental fees, for 2018, 2017 and 2016 were \$1,593,000, \$2,065,000, and \$2,062,000, respectively.

ITEM 4A. UNRESOLVED STAFF COMMENTS

None.

ITEM 5. OPERATING AND FINANCIAL REVIEW AND PROSPECTS

A. OPERATING RESULTS

The following discussion of our results of operations should be read together with our consolidated financial statements and the related notes, which appear elsewhere in this Annual Report. The following discussion contains forward-looking statements that reflect our current plans, estimates and beliefs and involve risks and uncertainties. Our actual results may differ materially from those discussed in the forward-looking statements. Factors that could cause or contribute to such differences include those discussed below and elsewhere in this Annual Report.

Overview

We are a global provider of traditional identification and e-Government solutions, IoT products and solutions, as well as Cyber Security products and services to governments and organizations throughout the world.

Our product depth and global presence was expanded significantly with our acquisition of the SmartID division of OTI in December 2013, as well as our acquisitions of Prevision, Safend, LCA, PowaPOS business, and Alvarion between November 2015 and May 2016. Initially, our operations grew significantly following the acquisition of the SmartID division and the 2016 acquisitions, especially our head count and research and development and sales and marketing expenses, as we did our best to respond to the new market and customer needs. Although in recent years, we have worked diligently through integration and restructuring processes to optimize our operational structure and costs.

We are headquartered in Israel and operate internationally with subsidiaries in the New York, California, and other geographies where we win and deploy new projects.

General

Our consolidated financial statements appearing in this annual report are prepared in U.S. dollars and in accordance with generally accepted accounting principles in the United States, or U.S. GAAP. Transactions and balances originally denominated in dollars are presented at their original amounts. Transactions and balances in other currencies are re-measured into dollars in accordance with the principles set forth in Financial Accounting Standards Board, or FASB, Accounting Standards Codification, or ASC, Topic 830, "Foreign Currency Translation." The majority of our sales are made outside Israel in dollars. In addition, substantial portions of our costs are incurred in dollars. Since the dollar is the primary currency of the economic environment in which we and certain of our subsidiaries operate, the dollar is our functional and reporting currency and, accordingly, monetary accounts maintained in currencies other than the dollar are re-measured using the foreign exchange rate at the balance sheet date. Operational accounts and non-monetary balance sheet accounts are measured and recorded at the exchange rate in effect at the date of the transaction. The financial statements of certain subsidiaries, whose functional currency is not the dollar, have been translated into dollars. All balance sheet accounts have been translated using the exchange rates in effect at the balance sheet date. Statement of operations amounts have been translated using the average exchange rate for the period. The resulting translation adjustments are reported as a component of shareholders' equity in accumulated other comprehensive income (loss).

Key Factors Affecting Our Business

Our operations and the operating metrics discussed below have been, and will likely continue to be, affected by certain key factors as well as certain historical events and actions. The key factors affecting our business and our results of operations include, among others, competition, government regulation, the build out of infrastructures, macro-economic and political risks, churn rate, impact of currency fluctuations and inflation, effective corporate tax rate, conditions in Israel and trade relations. For further discussion of the factors affecting our results of operations, see Item 3D “Risk Factors.”

Explanation of Key Income Statement Items, Significant Revenues and Expenses

General

2018 was a year of important developments for the Company, as we continued to optimize the operational structure of the Company including the 2016 acquired businesses and unlock cost synergies among the operating units. Investment in R&D continued to enhance our product offerings and competitive standing among our target markets. The optimized restructured corporation generated numerous new opportunities and project wins in our target markets, but required us to use resources in many cases that have yet to yield income to the group as part of multi-year government sale and project deployment life cycles. We believe that comparing between 2018, 2017 and 2016 cannot be done effectively without understanding the changes and the restructuring efforts invested.

Revenues

Some of our products and services are tailored to meet the specific needs of our customers. In order to satisfy these needs, the terms of each agreement, including the duration of the agreement and prices for our products and services, differ from agreement to agreement.

We generate a portion of our revenues from existing e-Gov, IoT, and Cyber Security long term services contracts, providing customers with raw materials, software upgrades, support, maintenance, training and installation. Revenues from the sale of such services are generally recognized following delivery of such services and upon achievement of milestones as approved by our customers.

During 2016 we acquired Alvarion and Safend, which grew our suite of products from which we generate revenues. Revenues from the sale of such products are generally recognized upon delivery.

Costs and Operating Expenses

For the year 2018 our costs were affected by the attention of management to continue the optimization of the businesses we acquired during the 2016 as was described in the General section above.

Our research and development expenses consist of salaries, subcontractor expenses, related depreciation costs and overhead allocated to research and development activities.

Our selling and marketing expenses consist primarily of salaries and related costs, commissions earned by sales and marketing personnel, trade show expenses, promotional expenses and overhead costs allocated to selling and marketing activities, as well as depreciation expenses and travel costs.

Our general and administrative expenses consist primarily of salaries and related costs, allocated overhead costs, office supplies and administrative costs, fees and expenses of our directors, information technology, depreciation, and professional service fees, including legal, insurance and audit fees.

Our operating results are significantly affected by, among other things, the timing of contract awards and the performance of agreements. As a result, our revenues and income may fluctuate substantially from quarter to quarter, and we believe that comparisons over longer periods of time may be more meaningful. The nature of certain of our expenses is mainly fixed or partially fixed and any fluctuation in revenues will generate a significant variation in gross profit and net income.

Operating Results

The following table sets forth selected our consolidated income statement data for each of the three years ended December 31, 2018, expressed as a percentage of total revenues.

	2018	2017	2016
Revenues	100%	100%	100.0%
Cost of revenues	62.8	61.2	87.2
Gross profit	37.2	38.8	12.8
Operating expenses:			
Research and development	21.9	21.8	33.5
Selling and marketing	22.9	24.3	49.8
General and administrative	26.3	18.4	36.3
Other expenses (income)	10.4	(6.1)	(48.9)
Total operating expenses	81.4	58.4	70.7
Operating income (loss)	(44.2)	(19.6)	(57.9)
Financial (expenses) income, net	(1.5)	(1.6)	(1.5)
Income (loss) before income tax	(45.7)	(21.2)	(59.4)
Income tax (expense) benefit	(26.2)	1.2	(10.4)
Net income (Loss)	(71.9)	(20.0)	(69.9)

Year Ended December 31, 2018 Compared with Year Ended December 31, 2017

Revenues

Our total revenues in 2018 were \$21,882,000 compared to \$33,264,000 in 2017, a decrease of 34.2%. The composition of revenues has changed during 2018 as follows: (i) the e-Gov segment revenue was \$6,117,000 in comparison to \$18,232,000 in 2017, a decrease of 66% which is mainly attributed to a large e-Gov contract deployment in 2017 and the lack of new one of comparable size in 2018, representing volatile project-based revenues which have been inherent in this segment, (ii) the IoT segment revenue was \$12,470,000 in comparison to \$11,264,000 in 2017, an increase of 10.7% which is attributed to new contract wins and implementations in Europe and USA, and an increase in our recurring revenue from existing customers; (iii) the Cyber Security segment revenue was \$3,295,000 in comparison to \$3,768,000 in 2017, a decrease of 12.6% which is mainly attributed to the accumulated effect on the liability to recognize deferred revenue in the amount of \$257,000 due to the adoption of the new GAAP revenue recognition policy ASC-606, and a decrease in our revenue from our consulting-based cyber offering.

Gross Profit

Our gross profit in 2018 was \$8,139,000 compared to \$12,913,000 in 2017, a decrease of 37%. The gross profit margin for 2018 was 37.2% compared to 38.8% in 2017. The decrease in our gross profit margin is mainly attributable to (i) a decrease in COGS as a result of cost optimization processes (ii) a change in the mix of revenues, (iii) an increase of revenue from steady states e-Gov contracts which contributes higher than average gross margin, (iv) an increase in recurring revenue from multi-year IoT contracts with higher than average margins in the USA and Europe, offset by (v) one time inventory write-off in the amount of \$1,527,000. (iv) decline in revenue of \$11,382,000.

Expenses

Our operating expenses decreased in 2018 to \$17,814,000 from \$19,429,000 in 2017, a decrease of 8.3%. If we exclude other income, the decrease is more apparent as our operating expenses excluding other income decreased in 2018 to \$15,543,000 from \$21,450,000 in 2017, a decrease of 27.5%. The decrease in operating expenses was primarily due to (i) a decrease of 33.8% in research and development expenses, (ii) a decrease of 6.0% in general and administrative expenses mainly related to the significant decrease in our administration headcount, (iii) a decrease of 38% in sales and marketing expenses mainly related to the significant decrease in our sales and marketing headcount derived from sales force and network optimization.

Our research and development expenses decreased to \$4,790,000 in 2018 from \$7,238,000 in 2017, a decrease of 33.8%. The decrease in our research and development expenses was primarily due to decreased needs in developing our e-Gov, IoT and Cyber Security products, after significant progress and competitive advantages were developed through R&D investment in recent years.

Our general and administrative expenses decreased to \$5,748,000 in 2018 from \$6,113,000 in 2017, a decrease of 6.0%. The decrease in general and administrative expenses was primarily due to the process of optimization of the operating expenses of the four subsidiaries we acquired in 2016.

Other expenses were \$2,271,000 in 2018, compared to other income of \$2,021,000 in 2017. Other expenses in 2018 represent mainly a provision of bad debt, related African government, amounted to \$2,406,000, other income in 2017 represent mainly of recovery from pre-acquisition receivable amounted \$1,384,000 and change in valuation of contingent consideration amounted \$593,000.

Financial (Expenses) Income, net

We had financial expenses, net of \$335,000 in 2018 compared to \$538,000 in 2017. Financial expenses consist primarily of bank fees related to guarantees issued to our customers and exchange rate effect. The decrease in financial expenses was also due to changes in the exchange rate of the NIS against the U.S. dollar in 2018 compare to 2017, offset by an interest fee on the loan from Fortress in the fourth quarter of 2018.

Income Tax

We recorded a tax expense of \$5,730,000 for the year ended December 31, 2018 compared to a tax benefit of \$393,000 in 2017, mainly due to reduction of tax assets valuation amounted to \$5,987,000.

Net Income

As a result of the factors described above, our net loss for the year ended December 31, 2018 was \$15,740,000 compared to a net loss of \$6,661,000 in 2017. The increase is mainly related to the (i) 33% decrease in our cost of revenue and (ii) a decrease of 8.3% in operating expenses offset by; (i) 34% decrease in revenue. (ii) one time inventory write off of \$1,527,000, (iii) bad debt provision of \$2,406,000 and (iv) onetime tax assets reduction of 5,987,000 for the year ended December 31, 2018.

Year Ended December 31, 2017 Compared with Year Ended December 31, 2016

Revenues

Our total revenues in 2017 were \$33,264,000 compared to \$20,025,000 in 2016, an increase of 66%. The composition of the revenues has changed during 2017 as follow; (i) the e-Gov unit revenue was \$18,232,000 in comparison to \$7,020,000 in 2016, an increase of 160% which is attributed to a large e-Gov contract, and an increase in our recurring revenue from existing customers, (ii) the IoT and Connectivity Unit revenue was \$11,264,000 in comparison to \$10,833,000 in 2016, an increase of 4% which is attributed to new contracts implementation in Europe and USA, and a moderate increase in our recurring revenue from existing customers; (iii) the Cyber Security Unit revenue was \$3,768,000 in comparison to \$2,172,000 in 2016, an increase of 73% which is attributed to new licenses orders from new customers in Europe and USA, and an increase in our recurring revenue from existing customers.

Gross Profit

Our gross profit in 2017 was \$12,913,000 compared to \$2,564,000 in 2016, an increase of 404%. The gross profit margin for 2017 was 38.8% compared to 12.8% in 2016. The increase in our gross margin is mainly attributable to (i) a change in the mix of revenues from subsidiaries acquired in 2016 as explained above, (ii) an increase of revenue from Cyber Security division with high gross margins, (iii) an increase of steady-state revenue from e-Gov contracts which contribute higher than average gross margins, (iv) completion of large e-Gov deployment contract with low gross margin, (iv) and an increase of revenue from IoT long term contracts with higher than average margins.

Expenses

Our operating expenses decreased in 2017 to \$19,429,000 from \$24,678,000 in 2016 (excluding gain from bargain acquisitions in the amount of \$10,515,000), a decrease of 21%. The decrease in operating expenses was primarily due to (i) an increase of 8% in research and development expenses, (ii) a decrease of 16% in general and administrative expenses mainly related to the significant decrease in our administration headcount, (iii) a decrease of 19% in sales and marketing expenses mainly related to the significant decrease in our sales and marketing headcount derived from sales force and network optimization. Operating expenses excluding gain from bargain acquisitions is a non-GAAP measure with the most comparable GAAP measure being operating expenses. The reconciling item between this non-GAAP measure and operating expenses is the gain from the bargain acquisition. We believe this non-GAAP measure helps the reader in understanding the performance of our operations for the current year given the non-recurring nature of the gain from bargain acquisitions.

Our research and development expenses increased to \$7,238,000 in 2017 from \$6,718,000 in 2016, an increase of 8%. The increase in our research and development expenses was primarily due to increased efforts in developing our connectivity, IoT, cyber security and e-Gov products and solutions.

Our general and administrative expenses decreased to \$6,113,000 in 2017 from \$7,277,000 in 2016, a decrease of 16%. The decrease in general and administrative expenses was primarily due to the process of optimization of the expenses of the four subsidiaries we acquired in 2016.

Other income was \$2,021,000 in 2017, compared to other expenses of \$713,000 in 2016. Other income in 2017 represent mainly of recovery from preacquisition receivable amounted \$1,384,000 and change in valuation of contingent consideration amounted \$593,000. Other expenses in 2016 represent mainly bad debt provision in that amounts. The bad debt provision we recorded is based on management's estimation with respect to the collectability of certain debt.

During 2016 we had bargain profit from the acquisitions of Safend and Alvarion in 2016 in the amount of \$10,515,000, such bargain profit was not recognized in 2017.

Financial (Expenses) Income, net

We had financial expenses, net of \$538,000 in 2017 compared to financial expenses, net of \$303,000 in 2016. Financial expenses consist primarily of bank fees related to guarantees issued to our customers and exchange rate expenses. The increase in financial expenses was due to changes in foreign currency rates, mainly due the major changes of 9.8% in the exchange rate of the NIS against the U.S. dollar in 2017.

Income Tax

We recorded a tax benefit of \$393,000 for the year ended December 31, 2017 compared to a tax expense of \$2,091,000 in 2016, mainly due to changes in valuation allowance.

Net Income

As a result of the factors described above, our net loss for the year ended December 31, 2017 was \$6,661,000 compared to a net loss of \$13,993,000 in 2016. This decrease is mainly related to the decrease in our cost of revenue and operating expenses and a large increase in revenue for the year ended December 31, 2017.

Seasonality

Our operating results are generally not characterized by a seasonal pattern.

Impact of Currency Fluctuation and of Inflation

We report our financial results in dollars and receive payments in dollars for most of our sales, while a portion of our expenses, primarily salaries, are paid in NIS. Therefore, the dollar cost of our operations in Israel is influenced by the extent to which any increase in the rate of inflation in Israel is not offset, or is offset on a lagging basis, by a devaluation of the NIS in relation to the dollar.

Monetary accounts maintained in currencies other than the U.S. dollar are re-measured into U.S. dollars at the exchange rate prevailing at the end of the reporting period in accordance with provisions of ASC 835-10. All transaction gains and losses from the re-measurement of monetary balance sheet items are reflected in the statements of operations as financial income or financial expenses as appropriate.

When the rate of inflation in Israel exceeds the rate of devaluation of the NIS against the dollar, the dollar cost of our operations in Israel increase. If the dollar cost of our operations in Israel increases, our dollar-measured results of operations will be adversely affected. Any increase in the value of the NIS in relation to the dollar also has the effect of increasing the dollar value of any NIS assets, unless such assets are linked to the dollar, and the dollar amounts of any unlinked NIS liabilities and expenses. We cannot assure you that we will not be materially and adversely affected in the future if inflation in Israel exceeds the devaluation of the NIS against the dollar or if the timing of the devaluation lags behind inflation in Israel.

Conversely, depreciation of the NIS in relation to the dollar has the effect of reducing the dollar amount of any of our expenses or liabilities that are payable in NIS, unless those expenses or payables are linked to the dollar. Depreciation of the NIS in relation to the dollar has the effect of reducing the dollar amount of any of our expenses or liabilities and also has the effect of decreasing the dollar value of any asset which consists of NIS or receivables payable in NIS, unless the receivables are linked to the dollar.

The following table presents information about the rate of inflation in Israel, the rate of devaluation or appreciation of the NIS against the dollar, and the rate of inflation in Israel adjusted for the devaluation:

Year ended December 31,	Israeli inflation rate %	NIS devaluation (appreciation) rate %	Israeli inflation adjusted for devaluation (appreciation) %
2016	(0.2)	(1.5)	1.3
2017	0.4	(9.8)	10.2
2018	0.8	8.1	(7.3)

Because exchange rates between the NIS and the dollar fluctuate continuously, exchange rate fluctuations, particularly larger periodic devaluations, may have an impact on our profitability and period-to-period comparisons of our results. We cannot assure you that in the future our results of operations may not be materially adversely affected by currency fluctuations. Historically, we have not used any hedging instruments, but in the future if we expect the fluctuation to have major effect on our operations, we may use such instruments.

Conditions in Israel

We are organized under the laws of, and our principal executive offices and research and development facilities are located in, the State of Israel. See Item 3D “Key Information – Risk Factors – Risks Relating to Operations in Israel” for a description of governmental, economic, fiscal, monetary or political policies or factors that have materially affected or could materially affect our operations. Please see the section entitled “Risk Factors” for additional information.

Trade Relations

Israel is a member of the United Nations, the International Monetary Fund, the International Bank for Reconstruction and Development and the International Finance Corporation. Israel is a member of the World Trade Organization and is a signatory to the General Agreement on Tariffs and Trade, which provides for reciprocal lowering of trade barriers among its members. Israel is also a member of the Organization for Economic Co-operation and Development, or the OECD, an international organization whose members are governments of mostly developed economies. The OECD’s main goal is to promote policies that will improve the economic and social well-being of people around the world. In addition, Israel has been granted preferences under the Generalized System of Preferences from the United States, Australia, Canada and Japan. These preferences allow Israel to export products covered by such programs either duty-free or at reduced tariffs.

Israel and the European Union Community concluded a Free Trade Agreement in July 1975, which confers certain advantages with respect to Israeli exports to most European countries and obligates Israel to lower its tariffs with respect to imports from these countries over a number of years. In 1985, Israel and the United States entered into an agreement to establish a Free Trade Area. The Free Trade Area has eliminated all tariff and specified non-tariff barriers on most trade between the two countries. On January 1, 1993, an agreement between Israel and the European Free Trade Association, known as EFTA, established a free-trade zone between Israel and the EFTA nations. In November 1995, Israel entered into a new agreement with the European Union, which includes redefinition of rules of origin and other improvements, including providing for Israel to become a member of the research and technology programs of the European Union. In recent years, Israel has established commercial and trade relations with a number of other nations, including China, India, Russia, Turkey and other nations in Eastern Europe and Asia.

Effective Corporate Tax Rate

The Israeli corporate tax rate was 26.5% in 2015, 25% in 2016, 24% in 2017, and 23% in 2018 and thereafter. For the years ended December 31, 2018 and 2017 we had losses, and therefore the effective tax rate was mostly affected by changes in deferred tax. Our effective tax rate as for the year ended December 31, 2018 was 16%.

Our taxes outside Israel are dependent on our operations in each jurisdiction as well as relevant laws and treaties. Under Israeli tax law, the results of our foreign consolidated subsidiaries cannot be consolidated for tax.

B. LIQUIDITY AND CAPITAL RESOURCES

As of December 31, 2018, our cash and cash equivalents totaled \$1,639,000, compared to \$1,037,000 as of December 31, 2017. As of December 31, 2018, our restricted bank deposits totaled \$1,162,000, related mainly to bid and performance guarantees and lease agreements.

As of December 31, 2018, the Company has accumulated deficit \$65,959,000, and net cash used in operating activities of \$6,416,000. In addition the Company has excess of current assets over current liabilities of \$12,121,000.

During 2017 and until end of December 2018, the Company underwent a merger optimization process to a more cost-efficient structure which operates through three new business segments, supported by common operating services. Following the optimization process, for the year 2018 the Company has reduced its operating expenses by \$1,615,000 or by \$5,907,000 if you exclude other income of \$2,021,000 in 2017 and other expenses of \$2,271,000 in 2018. The Company expects to reduce its expenses even further through reduction in its headcount and overhead costs, mainly throughout the year of 2019, including significant reduction of R&D expenses, given significant R&D investment in recent years helped launch successful core product suites and similar R&D investment levels are not currently needed.

The Company believes that based on the above mentioned significant cost savings and expected growing cash stream from the Company's current contracts with customers worldwide, it will generate positive cash flow from operating activities, and will be able to fund its operations for at least the next 12 months.

Furthermore, the available \$10 million secured credit facility from Fortress Investment Group provides the Company additional access to capital if needed.

Cash Flows

The following table summarizes our cash flows for the periods presented:

	Year ended December 31,		
	2018	2017	2016
	(in thousands)		
Net cash used in operating activities	(6,416)	(1,983)	(11,045)
Net cash used in investing activities	(1,519)	*(1,528)	*(6,875)
Net cash provided by (used in) financing activities	8,636	2,793	(4,830)
Net increase(decrease) in cash and cash equivalents	701	*(718)	*(22,702)
Cash, cash equivalents and restricted cash at beginning of period	2,100	*2,818	*25,520
Cash, cash equivalents and restricted cash at end of period	2,801	*2,100	*2,818

* Reclassified(see note 2(x)).

Net cash used in operating activities for the year ended December 31, 2018 was \$6,416,000, compared to net cash used by operating activities of \$1,983,000 during the year ended December 31, 2017, an increase of \$4,433,000. The increase was primarily due to a major decrease in trade payables as well as employees and related accruals in 2018 in comparison to an increase in similar items in 2017.

Net cash used in investing activities during the year ended December 31, 2018, was \$1,519,000 compared to \$1,528,000 during the year ended December 31, 2017.

Net cash provided by financing activities during the year ended December 31, 2018, was \$8,636,000, and consisted mainly of loans from Fortress and issuance of share equity, compared to \$2,793,000 during the year ended December 31, 2017, which consisted mainly of loans from related parties.

Discussion of Critical Accounting Policies

The preparation of financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. We evaluate our estimates and judgments on an ongoing basis.

We base our estimates and judgments on historical experience and on various other factors that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Under different assumptions or conditions, actual results may differ from these estimates.

Our discussion and analysis of our financial condition and results of operations is based on our consolidated financial statements, which have been prepared in accordance with U.S. GAAP. Our significant accounting principles are presented within Note 2 to our consolidated financial statements. While all the accounting policies impact the financial statements, certain policies may be viewed to be critical. These policies are those that are most important to the portrayal of our financial condition and results of operations. Actual results could differ from those estimates. Our management believes that the accounting policies which affect the more significant judgments and estimates used in the preparation of our consolidated financial statements and which are the most critical to fully understanding and evaluating our reported results include the following:

Revenue Recognition

The Company and its subsidiaries generate their revenues from the sale of products, licensing, maintenance, royalties and long term contracts (including training and installation).

Effective January 1, 2018, the Company adopted Financial Accounting Standards Board ("FASB") Topic 606, *Revenue from Contracts with Customers* ("ASC 606"). ASC 606 was applied using the modified retrospective method, therefore the cumulative effect of initially applying the revenue standard is recognized as an adjustment to opening retained earnings at January 1, 2018. Accordingly, comparative periods have not been adjusted and continue to be reported under FASB ASC Topic 605, *Revenue Recognition* ("ASC 605").

Upon adoption of ASC 606, the Company identified a change in the Company's revenue recognition policies related to combined license and maintenance sales, as noted within the Company's Safend contracts. Under ASC 605, revenue for these contracts was recognized over the life of the contract. In accordance with ASC 606, license revenue is recognized upon delivery while maintenance is recognized over the life of the contract. As a result of applying the new standard, the Company will recognize a cumulative effect adjustment to Retained Earnings as of January 1, 2018 in the amount of \$257,000.

Aside from its combined license and maintenance sales, no other changes were identified to the characteristics of the Company's other revenue recognition policies, other than the enhanced disclosure regarding revenue recognition, including disclosures of revenue streams, performance obligations, variable consideration and the related judgments and estimates necessary to apply the new standard.

We measure revenue based upon the consideration specified in the client arrangement, and revenue is recognized when the performance obligations in the client arrangement are satisfied. A performance obligation is a contractual promise to transfer a distinct service to the customer. The transaction price of a contract is allocated to each distinct performance obligation and recognized as revenue when or as, the customer receives the benefit of the performance obligation. Under ASC 606, revenue is recognized when a customer obtains control of promised services in an amount that reflects the consideration we expect to receive in exchange for those services. To achieve this core principal, the Company applies the following five steps:

1) *Identify the contract with a customer*

A contract with a customer exists when (i) the Company enters into an enforceable contract with a customer that defines each party's rights regarding the services to be transferred and identifies the payment terms related to these services, (ii) the contract has commercial substance and, (iii) the Company determines that collection of substantially all consideration for services that are transferred is probable based on the customer's intent and ability to pay the promised consideration. The Company applies judgment in determining the customer's ability and intention to pay, which is based on a variety of factors including the customer's historical payment experience or, in the case of a new customer, published credit and financial information pertaining to the customer.

2) *Identify the performance obligations in the contract*

Performance obligations promised in a contract are identified based on the services that will be transferred to the customer that are both capable of being distinct, whereby the customer can benefit from the service either on its own or together with other resources that are readily available from third parties or from the Company, and are distinct in the context of the contract, whereby the transfer of the services is separately identifiable from other promises in the contract. To the extent a contract includes multiple promised services, the Company must apply judgment to determine whether promised services are capable of being distinct in the context of the contract. If these criteria are not met the promised services are accounted for as a combined performance obligation.

3) *Determine the transaction price*

The transaction price is determined based on the consideration to which the Company will be entitled in exchange for transferring services to the customer.

We evaluate whether a significant financing component exists when we recognize revenue in advance of customer payments that occur over time. For example, some of our contracts include payment terms greater than one year from when we transfer control of goods and services to our customers and the

receipt of the final payment for those goods and services. If a significant financing component exists, we classify a portion of the transaction price as interest income, instead of recognizing all of the transaction price as revenue. We do not adjust the transaction price for the effects of financing if, at contract inception, the period between the transfer of control to a customer and final payment is expected to be one year or less.

4) *Allocate the transaction price to performance obligations in the contract*

If the contract contains a single performance obligation, the entire transaction price is allocated to the single performance obligation. However, if a series of distinct services that are substantially the same qualifies as a single performance obligation in a contract with variable consideration, the Company must determine if the variable consideration is attributable to the entire contract or to a specific part of the contract. Contracts that contain multiple performance obligations require an allocation of the transaction price based on management's judgement.

5) *Recognize revenue when or as the Company satisfies a performance obligation*

The Company satisfies performance obligations either over time or at a point in time. Revenue is recognized at the time the related performance obligation is satisfied by transferring a promised good or service to a customer.

Nature of goods and services

The following is a description of the Company's goods and services from which the Company generates revenue, as well as the nature, timing of satisfaction of performance obligations, and significant payment terms for each, as applicable:

Software Maintenance and Support Services Revenue

Software maintenance and support services contracts are sold in conjunction with the Company's software products for its e-Govt, IoT and Connectivity, and Cyber Security segments. The contract terms for software maintenance and support span one to five years in length and provide customers with the rights to unspecified software product updates if and when available, online and telephone access to technical support personnel.

The Company recognizes revenue from fixed-price service and maintenance contracts using the input method of accounting. Under the input method, revenue is recognized on the basis of an entity's efforts toward satisfying a performance obligation. We recognize revenue from maintenance and support services provided pursuant to the time elapsed under such contracts, as that is when our performance obligation to our customers under such arrangements is fulfilled.

Perpetual Software License Revenue

The Company generates revenue from the sales of perpetual software licenses for its Cyber Security and e-Gov segments, including sales for its Magna_DL, Magna_VL, Magna_Passport, and Magna_ID software products. The intellectual property rights for usage of these products are transferred to the customer at the time of purchase and the software does not require implementation services, ongoing maintenance and support, or other adaptations in order to maintain the license utility.

In arrangements where ongoing services are not essential to the functionality of the delivered software, the Company recognizes perpetual software license revenue when the license agreement has been approved and the software has been delivered. The Company can identify each party's rights, payment terms, and commercial substance of the content. Where applicable, we identify multiple performance obligations and record as revenue as the performance obligations are fulfilled based on the adjusted market assessment approach.

Annual Software License Revenue

The Company generates revenue from the sales of time-based software licenses for certain of its software products. The intellectual property rights for access to these products are transferred to the customer for contract terms of one year and the software requires ongoing maintenance, support, or other adaptations in order to maintain utility.

The Company recognizes revenue over time using the input method for its annual software licenses when ongoing services are determined to be essential to the functionality of the delivered software. The license along with the any customization services are transferred to our customers pursuant to the time elapsed under such contracts, as that is when our performance obligation to our customers under such arrangements is fulfilled.

System Design Revenue

System design revenue relate to services provided to governments and national agencies in the early stages of a new project including incumbent system data information extraction, customer interviewing and specification mapping, architecture and software design, secure credential design, project management and planning, data migration design, project operation planning, training, assimilation, and operational processes optimization for the Company's e-Gov and IoT solutions.

The Company recognizes revenue from its system design services using the input method of accounting. Under the input method, revenue is recognized on the basis of an entity's efforts or inputs toward satisfying a performance obligation. We recognize revenue from system design services provided pursuant to time-and-materials based contracts as the services are performed, as that is when our performance obligation to our customers under such arrangements is fulfilled. Where applicable, we identify multiple performance obligations and record revenue as the performance obligations are fulfilled based on the expected cost plus a margin approach.

Implementation and System Deployment Revenue

Implementation and system deployment revenue relate to services provided to governments and national agencies typically after the design stage is concluded including infrastructure setup and deployment, software and chip design development, software customizations, purchase, and deployment of hardware and necessary system components, system integration and implementation, process engineering, customer training, system quality assurance testing, load balancing and local environment optimizations, and operational system launch for the Company's e-Gov and IoT solutions.

The Company recognizes revenue from its implementation and system deployment services using the input method of accounting. Under the input method, revenue is recognized on the basis of an entity's efforts or inputs toward satisfying a performance obligation. We recognize revenue from implementation and system deployment services provided pursuant to time-and-materials based contracts as the services are performed, as that is when our performance obligation

to our customers under such arrangements is fulfilled. Where applicable, we identify multiple performance obligations and record revenue as the performance obligations are fulfilled based on the residual approach.

Procurement of Secure Document Consumables Revenue

The Company procures secure document consumables for its e-Gov government customers which are needed to issue secure documents after a project deployment is complete and a system is actively running and operational. These consumables are manufactured at secure printing facilities utilizing proprietary and customized designs, which the Company has developed during the project design stage, to provide multiple layers of security preventing falsification of documents. These consumables include base card stock, security laminates, holograms, passive RFID chip inlays, passport booklets, secure chip cards, and various other secure credentialing necessities.

The Company recognizes revenue on procurement of secure document consumables products when the customer has control of the product, which is determined to be at the point in time when the products are delivered. Where applicable, we identify multiple performance obligations and record revenue as the performance obligations are fulfilled based on their stated prices within the contract.

Wireless & RFID Products Revenue

The Company's wireless products include solutions for carrier Wi-Fi, enterprise connectivity, smart city, smart hospitality, connected campuses and connected events which enhance productivity and performance. The Company's RFID products include asset tags which provide real-time asset loss prevention, inventory management, and personnel/asset tracking and vehicle tags which provide long-range vehicle ID for parking and fleet management, access control, asset loss prevention at airports, gated communities, truck and bus terminals, employee parking lots, hospitals, industrial facilities, railroads, mines and military installations.

The Company recognizes revenue on wireless and RFID products when the customer has control of the equipment, which is determined to be at the point in time when the products are shipped. Where applicable, we identify multiple performance obligations and record revenue as the performance obligations are fulfilled based on their stated prices within the contract.

Electronic Monitoring Services Revenue

Electronic monitoring services represent fees the Company collects through the sale or rental of its PureSecurity Suite of products, which include the PureMonitor, PureTrack, PureTag, PureCom, PureBeacon, and SCRAM devices. These devices identify, track, and monitor people or objects in real time through the Company's GPS monitoring, home monitoring, and alcohol tracking solutions.

The Company recognizes revenue on the sale of electronic monitoring products when the customer has control of the equipment, which is determined to be at the point in time when the products are shipped. For devices which are rented and for electronic monitoring services provided, we recognize revenue pursuant to the time elapsed for such contracts, as that is when our performance obligation to our customers under such arrangements is fulfilled. Our customers typically pay for these services based on a net rate per day per individual or on a fixed monthly rate.

Treatment Services Revenue

Treatment services revenue is an extension of the Company's electronic monitoring services. We provide individuals who have completed or are near the end of their sentence with the resources necessary to productively transition back into society. Through our daily reporting centers, we provide criminal justice programs and reentry services to help reduce recidivism which include case management, substance abuse education, vocational training, parental support, employment readiness and job placement. These activities are considered to be a bundle of services which are a part of a series of distinct services recognized over time.

The Company recognizes revenue from its treatment services using the input method of accounting. Under the input method, revenue is recognized revenue on the basis of an entity's efforts or inputs toward satisfying a performance obligation. We recognize revenue from treatment services provided pursuant to time-and-materials based contracts as the services are performed, as that is when our performance obligation to our customers under such arrangements is fulfilled. Where applicable, we identify multiple performance obligations and record revenue as the performance obligations are fulfilled based on the using the expected cost plus a margin approach.

Professional Services Revenue

The Company offers professional services for the Company's Cyber Security software products, which includes an on-site / remote visit by a specialist technician to assist with installation, deployment and configuration.

The Company recognizes revenue from professional services upon completion of the service performed for the customer. As these services are completed during a single onsite visit, revenue is recognized at the point in time of such onsite visit.

Disaggregation of revenue

In the following table, revenue is disaggregated by major geographic region and timing of revenue recognition. The table also includes a reconciliation of the disaggregated revenue with the reportable segments:

	Year ended December 31, 2018			
	Cyber Security	IoT	e-Gov	Total
Major geographic areas				
Africa	\$ -	\$ 70	\$ 4,746	\$ 4,816
European countries	723	2,125	266	3,114
South America	-	174	1,105	1,279
United States	935	9,517	-	10,452
Israel	1,366	148	-	1,514
APAC	271	436	-	707
Total revenue	<u>\$ 3,295</u>	<u>\$ 12,470</u>	<u>\$ 6,117</u>	<u>\$ 21,882</u>

Timing of revenue recognition

Products and services transferred over time	\$ 1,084	\$ 11,102	\$ 3,999	\$ 16,185
Products transferred at a point in time	2,211	1,368	2,118	5,697
Total revenue	\$ 3,295	\$ 12,470	\$ 6,117	\$ 21,882

Transaction price allocated to the remaining performance obligations

Remaining performance obligations represent the transaction price of system deployment, service and maintenance contracts for which work has not been performed as of the period end date. As of December 31, 2018, the aggregate amount of the transaction price allocated to remaining performance obligations totals \$5.8 million. The Company expects approximately 68% of remaining performance obligations to be recognized into revenue within the next 12 months, with the remaining 32% recognized thereafter.

We apply the practical expedient in paragraph ASC 606-10-50-14 and do not disclose information about remaining performance obligations that have original expected durations of one-year or less. We apply the transition practical expedient in paragraph ASC 606-10-65-1(f)(3) and do not disclose the amount of the transaction price allocated to the remaining performance obligations and an explanation of when we expect to recognize that amount as revenue. Additionally, applying the practical expedient in paragraph ASC 340-40-25-4, the Company recognizes the incremental costs of obtaining contracts (i.e., commissions) as an expense when incurred if the amortization period of the assets that the Company otherwise would have recognized is one-year or less.

With respect to our e-Gov business, In some contracts we provide our customers with a license to issue IDs, passports and driver licenses and we are entitled to receive royalties upon the issuance of each form of document by our customers. Such royalties are recognized when the issuances are reported to us, usually on a monthly basis, for the year 2017 and 2018 we had no such contract.

Allowance for Doubtful Accounts

The allowance for doubtful accounts is determined with respect to specific amounts we have determined to be doubtful of collection. In determining the allowance for doubtful accounts, we consider, among other things, our past experience with such customers and the information available regarding such customers.

We perform ongoing credit evaluations of our customers' financial conditions and we require collateral as we deem necessary. An allowance for doubtful accounts is determined with respect to those accounts that we have determined to be doubtful of collection. If the financial conditions of our customers were to deteriorate, resulting in an impairment of their ability to make payments, additional allowances would be required. The allowance for doubtful accounts was \$4,747,000 and \$2,341,000 at December 31, 2018 and 2017, respectively.

Deferred Taxes

We account for income taxes, in accordance with the provisions of FASB ASC 740, "Income Taxes" under the liability method of accounting. Under the liability method, deferred taxes are determined based on the differences between the financial statement and tax basis of assets and liabilities at enacted tax rates in effect in the year in which the differences are expected to reverse. Valuation allowances are established, when necessary, to reduce deferred tax assets to amounts expected to be realized. Expectation about realization of deferred tax assets related to losses carried forward are subjective and require estimates of future income in the territories in which such losses have been generated. Changes in those estimations could lead to changes in the expected realization of the deferred tax assets and to an increase or decrease in valuation allowances.

Business Combinations

Business combinations are accounted for by applying the acquisition method. According to this method, the identifiable assets and liabilities of the acquired business are recognized and recorded at fair value on the acquisition date. The acquisition date is the date on which we obtain control over the acquiree.

The cost of the acquisition is the aggregate fair value of the assets transferred, liabilities incurred and equity interests issued, if any, by us on the date of acquisition. In addition, the consideration transferred includes the fair value of any contingent consideration. After the acquisition date, we recognize changes in fair value of the contingent consideration in the statement of operations. Contingent consideration is stated as a financial liability in the balance sheet.

We recognize goodwill at acquisition according to the fair value of the consideration transferred, including any amounts recognized in respect of rights that do not confer control in the acquiree as well as the fair value at the acquisition date of any pre-existing equity right in the acquiree, less the net amount of the identifiable assets acquired and the liabilities assumed. After initial recognition, goodwill is measured at cost less any accumulated impairment losses and is not systematically amortized. In case of excess of fair value of the assets acquired over the consideration paid a gain from bargain gain is recognized.

Costs associated with an acquisition that were incurred in the business combination, such as advisory, legal, valuation and other professional or consulting fees, other than those associated with an issue of debt or equity instruments connected to the business combination, are recognized as expenses in the period the services are received.

In December 2013, we completed a follow-on public offering of 3,450,000 of our ordinary shares and received net proceeds of \$12,043,000. We used \$8,800,000 of such proceeds to fund our acquisition of the SmartID division of OTI on December 26, 2013. We use the remaining proceeds for finance our operating activities, especially to accelerate the sales and marketing and research and development efforts.

During the three years ended December 31, 2018, 2017 and 2016, our capital expenditures totaled approximately \$1,456,000, \$1,468,000, and \$1,887,000 (not including our acquisition of the LCA, Safend, Alvarion, the PowaPOS assets), respectively.

We currently do not have significant capital spending or purchase commitments other than with respect to the contingent and earn-out payments associated with our acquisition of the SmartID division, and Alvarion Ltd.

C. RESEARCH AND DEVELOPMENT

Our research and development efforts have enabled us to offer our customers with a broader line of products and solutions for the e-Gov, IoT and Cyber Security segments. As of December 31, 2018, the number of employees in our research and development activities was 36. We spent \$5,963,000 (out of which \$1,173,000 were capitalized as cost of software to be sold), \$8,405,000 (out of which \$1,167,000 were capitalized as cost of software to be sold), and \$8,205,000 (out of which \$1,487,000 were capitalized as cost of software to be sold), in 2018, 2017 and 2016, respectively. These amounts were spent on the development or improvement of our technologies and products, primarily in the areas of IoT, e-Gov, and Cyber Security. We intend to continue to research and develop new technologies and products. There can be no assurance that we can achieve any or all of our research and development goals.

D. TREND INFORMATION

See discussion in Parts A and B of “Item 5. Operating and Financial Review and Prospects” for a description of the Trend information relevant to us.

E. OFF-BALANCE SHEET ARRANGEMENTS

We are not a party to any off-balance sheet arrangements. In addition, we have no unconsolidated special purpose financing or partnership entities that are likely to create material contingent obligations.

F. TABULAR DISCLOSURE OF CONTRACTUAL OBLIGATIONS

The following table summarizes our material contractual obligations and commitments as of December 31, 2018:

	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
Purchase obligations	34	34	-	-	-
Operating lease obligations	787	428	359	-	-
Total contractual cash obligations	\$ 821	462	359	-	-

Operating lease obligations represent commitments under lease agreement for our facility and the facilities of certain subsidiaries. Purchase obligations represent purchase orders to an account payable, purchase obligations and lease agreements for facilities. We are not a party to any capital leases.

ITEM 6. DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES

A. DIRECTORS AND SENIOR MANAGEMENT

Set forth below are the name, age, principal position and a biographical description of each of our directors as of December 2, 2019:

Name	Age	Position
Arie Trabelsi	61	Director& CEO
Menachem Mirski	63	Independent Director (1) (2)(3)
Avi Ayash	46	Independent Director (1)(2)(3)
Shoshana Cohen Shapira	61	Independent Director (1)(2)(3)

(1) “Independent Director

(2) Member of the Audit Committee

(3) Member of the Compensation Committee

Arie Trabelsi. Mr. Trabelsi joined us in November 2010 as President and Chief Executive Officer. He served as our Chief Executive Officer from November 1, 2010 until November 12, 2011 and from June 1, 2012 to date, and served as Chairman of our board of directors from December 12, 2011 to December 27, 2012. He has more than 29 years of experience in the global wireless, Internet and communications industries. Prior to joining SuperCom, he led Sigma Wave Ltd., a wireless, security, and internet focused company and our controlling shareholder, from November 1999. Mr. Trabelsi holds a BSc. degree in Electrical and Computer Engineering from Ben Gurion University and a MSc. degree in Computer Engineering from Drexel University, Philadelphia, Pennsylvania.

Menachem Mirski has served as a director of our company since July 25, 2010 and is the founder and a partner of Raz - El Ltd., a software and system development company located in Israel. He has more than 28 years of experience and expertise as a software developer and project manager for embedded real time systems, including RF-based systems. Mr. Mirski holds a Bachelor of Science in Computer and Electrical Engineering from Ben-Gurion University.

Shoshana Cohen Shapira, is an Advocate, Notary and Mediator with extensive experience in providing legal representation and consulting services to individuals and companies in various areas of law including taxes. She is the owner of a legal practice with office in Zichron Yaacov, Israel. Mrs. Cohen Shapira holds a LLM degree from the Hebrew University of Jerusalem.

We are managed by our board of directors. Pursuant to our Articles of Association, the number of directors may be determined from time to time by the board of directors, and unless otherwise determined, the number of directors comprising the board of directors will be between four and ten. Directors are elected for a one year term ending at the following annual general meeting of shareholders, except for our external directors, who are elected for three year terms in accordance with the Israeli Companies Law. However, if no directors are elected at an annual meeting, then the incumbents shall be deemed re-elected at the same meeting. The General Meeting may resolve that a director be elected for a period longer than the time ending at the next annual meeting but not longer than that ending at the third next annual meeting. The board of directors elects one of its members to serve as the Chairman.

Executive Officers and Key Employees

Our executive officers and certain key employees as of December 10, 2019 are:

Name	Age	Position
Arie Trabelsi*	62	President, Chief Executive Officer
Barak Trabelsi*	33	Vice President, IoT
Galit Gilo*	62	Vice President, Land and GIS
Ordan Trabelsi	34	President, SuperCom Inc. and LCA.
Gil Alfi*	47	Vice President Sales, Safend Ltd

* Executive officer

Barak Trabelsi. Mr. Trabelsi joined us in January 2013 as director of new products development. Previously and commencing in June 2011, he served as Senior Product Manager in Equinox Ltd. Prior to that, for four years, he served as VP of R&D of Sigma Wave, a wireless, security and internet focused company. Mr. Trabelsi has expertise in big data, cyber, mobile and internet networks technologies, and experience in product development and strategies. Mr. Trabelsi holds a BSc. degree in Computer and Business from the Tel Aviv University, and an M.B.A. degree from Tel Aviv University.

Galit Gilo. Mrs. Galit Gilo joined SuperCom Group in 2015 as GIS and Land director. Until joining us, Mrs. Galit Gilo served as the GM of Sivan Design Nigeria where she personally served as the GM. Prior to that, she served as IT director of KIKA Israel. Mrs. Galit Gilo brings over more than 26 years of experience in computer engineering in GIS, finance, municipalities areas. She is an expert in computer science. Mr. Galit Gilo holds Bsc. degree in Computer science from the Technion and Ma degree from the Tel-Aviv university.

Ordan Trabelsi. Mr. Trabelsi leads our business and operations in the Americas through his roles as President of SuperCom Inc. and Leaders in Community Alternatives, Inc. He has been with the company since May 2013 as the second US employee and grew the business in the USA to over \$10 million in annual revenues and profitability. He has also lead numerous successful financings for the Company, including two public offerings. Trabelsi has experience in strategic merger and acquisition, financing and product strategies as well as technology expertise in security, cyber, mobile and internet networks technologies. Mr. Trabelsi holds a BSc. degree in Software and Electrical Engineering from the Technion - Israel Institute of Technology, and an M.B.A. degree from the Columbia University Business School, New York, both with distinction.

Gil Alfi. Mr. Alfi joined SuperCom Group in 2016 as VP Sales and Technology of Safend. Until joining us, Mr. Alfi served as Regional Sales Director at Safend where he personally served as Regional Sales Director in different regions in Europe and regions in Africa Prior to that, he served as Director of product management of different telco and wireless companies. Mr. Alfi brings over more than 18 years of experience in different technology companies as technology lead in different R&D teams. Mr. Alfi holds B.Sc. degree in Computer Science & Mathematics and MSc degree in Computer Science from Bar-Ilan University

B. COMPENSATION

The following table sets forth all compensation we paid with respect to all of our directors and executive officers as a group for the year ended December 31, 2018.

	Salaries, fees, commissions and bonuses	Pension, retirement and similar benefits
All directors and executive officers as a group (10 persons)	\$ 955,300	\$ 79,500

The aggregate amount of compensation paid by us to our board members and executive officers as a group for the year ended December 31, 2018 was approximately \$955,300. This sum includes amounts paid for salary and social benefits. In addition, we have provided automobiles to certain of our executive officers at our expense. As of December 31, 2018, we had set aside approximately \$79,500 to provide pension, retirement or similar benefits for certain of our executive officers.

The monthly fee for a director (other than with respect to our Chairman of the Board) is \$1,500 and for external director a monthly fee of approximately \$1,143 plus approximately \$708 for every board or audit committee meeting attended.

As of December 31, 2018, our directors and executive officers as a group, then consisting of 9 persons, held options to purchase an aggregate of 96,000 ordinary shares, of which 33,000 were exercisable as of December 31, 2018, at an average exercise price of \$4.63 per share.

Summary compensation table

The below table presents the compensation, on an individual basis, of our five most highly compensated office holders during or with respect to the year ended December 31, 2018, as required by regulations promulgated under the Companies Law.

Name and Position	Salary ⁽¹⁾	Bonus and commissions	Equity-Based Compensation ⁽²⁾	Total
Igor Merling CTO, e-Gov	180,012	-	62,185	242,197
Ad Attias Vice President, Cyber	148,629		-	148,629
Barak Trabelsi GM & Vice President, IoT	148,553	14,000	-	162,553
Billy Gurevich Chief Commercial Counsel	153,195	-	-	153,195
Gil Alfi Vice President Sales, Safend Ltd	161,833	71,781	-	233,614

(1) Amounts reported in this column include salary, social benefits, including those mandated by applicable law.

(2) Amounts reported in this column represent the expense recorded in our audited consolidated financial statements for the year ended December 31, 2018 based on the grant date fair value in accordance with accounting guidance for stock-based compensation. See Note 12c to our audited consolidated financial statements for the year ended December 31, 2018.

C. BOARD PRACTICES

Corporate Governance Practices

Our board of directors considers good corporate governance to be central to our effective and efficient operations. The following table lists our directors, the positions they hold with us and the dates they were first elected or appointed:

Name	Position	Date Service Began	Date of Expiration of Current Term
Arie Trabelsi	Director	February 24, 2019	Next annual general meeting
Avi Ayash	Independent Director	December 8, 2011	December 8, 2019
Shoshana Cohen Shapira	Independent Director	February 24, 2019	February 23, 2022
Menachem Mirski	Independent Director	July 25, 2010	Next annual general meeting

Our Articles of Association provide that the number of directors may be determined from time to time by the board of directors, and unless otherwise determined, the number of directors comprising the board of directors will be between four and ten. Our board of directors is presently comprised of four members, two of whom were elected as external directors under the provisions of the Israeli Companies Law. Our Articles of Association provide that the majority of the directors appointed to the board of directors will be independent directors. Mrs. Shapira, Mr. Ayash and Mr. Mirski satisfy the applicable requirements for independence under our Articles of Association.

Alternate Directors

As permitted under the Companies Law, our Articles of Association provide that any director may, subject to the board of directors' approval, by written notice to us, appoint another person who is qualified to serve as a director to serve as an alternate director. Under the Companies Law, a person who is not qualified to be appointed as a director, a person who is already serving as a director or a person who is already serving as an alternate director may not be appointed as an alternate director. Nevertheless, a director may be appointed as an alternate director for a member of a committee of the board of directors so long as he or she is not already serving as a member of such committee. An external director may not appoint an alternate director unless such alternate director is eligible to be an external director and has either "financial and accounting expertise" or "professional expertise," depending on the qualifications of the external director he or she is replacing. See "— External Directors." Similarly, an independent director within the meaning of the Companies Law may not appoint an alternate director unless such alternate director is eligible to be an independent director within the meaning of the Companies Law. An alternate director may be appointed for one meeting or until notice is given of the cancellation of the appointment.

External Directors

The Companies Law requires Israeli companies with shares that have been offered to the public in or outside of Israel to appoint at least two external directors. The Companies Law provides that a person may not be appointed as an external director if the person, or the person's relative, partner, employer or an entity under that person's control, has or had during the two years preceding the date of appointment any affiliation with the company, or any entity controlling, controlled by or under common control with the company. The term "relative" means a spouse, sibling, parent, grandparent, child or child of spouse or spouse of any of the above as well as a sibling, brother, sister or parent of the foregoing relatives. In general, the term "affiliation" includes an employment relationship, a business or professional relationship maintained on a regular basis, control and service as an office holder. Furthermore, if the company does not have a controlling shareholder or a shareholder holding at least 25% of the voting rights, "affiliation" also includes a relationship, at the time of the appointment, with the chairman of the board, the chief executive officer, a substantial shareholder or the most senior financial officer of such company. Regulations promulgated under the Companies Law include certain additional relationships that would not be deemed an "affiliation" with a company for the purpose of service as an external director. In addition, no person may serve as an external director if the person's position or other activities create, or may create, a conflict of interest with the person's responsibilities as director or may otherwise interfere with the person's ability to serve as director. If, at the time an external director is appointed, all current members of the board of directors are of the same gender, then that external director must be of the other gender. A director of one company may not be appointed as an external director of another company, if a director of the other company is acting as an external director of the first company at such time.

At least one of the elected external directors must have “accounting and financial expertise” and any other external director must have “accounting and financial expertise” or “professional qualification,” as such terms are defined by regulations promulgated under the Companies Law. However, Israeli companies listed on certain stock exchanges outside Israel are not required to appoint an external director with “accounting and financial expertise” if a director with accounting and financial expertise who qualifies as an independent director for purposes of audit committee membership under the laws of the foreign country in which the stock exchange is located serves on its board of directors. All of the external directors of such a company must have “professional qualification.”

The external directors are elected by shareholders at a general meeting. The shareholders voting in favor of their election must include at least a simple majority of the shares voted by shareholders other than controlling shareholders or shareholders who have a personal interest in the election of the external director (unless such personal interest is not related to such person’s relationship with the controlling shareholder). This majority requirement will not be required if the total number of shares of such non-controlling shareholders and disinterested shareholders who vote against the election of the external director represent 2% or less of the voting rights in the company.

In general, under the Companies Law, external directors serve for a three-year term and may be reelected to two (2) additional three-year terms. However, Israeli companies listed on certain stock exchanges outside Israel may appoint an external director for additional terms of not more than three years subject to certain conditions. Such conditions include the determination by the audit committee and board of directors that, in view of the director’s professional expertise and special contribution to the company’s board of directors and its committees, the appointment of the external director for an additional term is in the best interest of the company. External directors can be removed from office only by the same special percentage of shareholders that can elect them, or by a court, and then only if the external directors cease to meet the statutory qualifications with respect to their appointment or if they violate their fiduciary duty to the company.

Pursuant to the Companies Law, the term of office of an external director may be extended by the shareholders following the initial three year term for two additional three years terms, at the nomination of either the board of directors or any shareholder(s) holding at least 1% of the voting rights in the company. If the board of directors proposed the nominee, the reelection must be approved by the shareholders in the same manner required to appoint external directors for an initial term, as described above. If such reelection is proposed by shareholders, such reelection requires the approval of the majority of the shareholders voting on the matter, excluding the votes of any controlling shareholder and other shareholders having a personal interest in the matter as a result of their relationship with the controlling shareholder(s), provided that the aggregate votes cast by shareholders who are not controlling shareholders and do not have a personal interest in the matter as a result of their relationship with the controlling shareholder(s) who voted in favor of the nominee constitute more than 2% of the voting rights in the company.

If the vacancy of an external directorship causes a company to have fewer than two external directors, the company’s board of directors is required under the Companies Law to call a special general meeting of the company’s shareholders as soon as possible to appoint such number of new external directors so that the company thereafter has two external directors.

Each committee of the board of directors that is authorized to exercise powers vested in the board of directors must include at least one external director and the audit committee and the financial statements review committee must include all the external directors. An external director is entitled to compensation as provided in regulations adopted under the Companies Law and is otherwise prohibited from receiving any other compensation, directly or indirectly, in connection with such service.

Audit Committee

Under the Companies Law, the board of directors of any public company must establish an audit committee. The chairman of the audit committee must be an external director. The audit committee must consist of at least three directors and must include all of the external directors, the majority of which must be independent directors. Such independent directors must meet all of the standards required of an external director and may not serve as a director for more than nine consecutive years (a cessation of service as a director for up to two years during any nine year period will not be deemed to interrupt the nine year period). Under the Companies Law, the audit committee and the compensation committee may not include: the chairman of the board of directors; any director employed by the company or providing services to the company on an ongoing basis; a controlling shareholder or any of the controlling shareholder’s relatives; and any director who rendered services to the controlling shareholder or an entity controlled by the controlling shareholder. Any person who is not permitted to be a member of the audit committee may not be present in the meetings of the audit committee unless the chairman of the audit committee determines that such person’s presence is necessary in order to present a specific matter. However, an employee who is not a controlling shareholder or relative of a controlling shareholder may participate in the audit committee’s discussions but not in any vote, and at the request of the audit committee, the secretary of the company and its legal counsel may be present during the meeting.

Under the Companies Law, an audit committee may not approve an action or a transaction with a controlling shareholder, or with an office holder, unless at the time of approval two external directors are serving as members of the audit committee and at least one of the external directors was present at the meeting at which an approval was granted.

The role of the audit committee, pursuant to the Companies Law, includes:

- Monitoring deficiencies in the management of the company, including in consultation with the independent auditors or the internal auditor, and advising the board of directors on how to correct such deficiencies. If the audit committee finds a material deficiency, it will hold at least one meeting regarding such material deficiency, with the presence of the internal auditor or the independent auditors but without the presence of the senior management of the company. However, a member of the company's senior management can participate in the meeting in order to present an issue which is under his or her responsibility.
- Determining, on the basis of detailed arguments, whether to classify certain engagements or transactions as material or extraordinary, as applicable, and therefore as requiring special approval under the Companies Law. The audit committee must make such determination according to principles and guidelines predetermined on an annual basis.
- Determining if transactions (excluding extraordinary transactions) with a controlling shareholder, or in which a controlling shareholder has a personal interest, are required to be rendered pursuant to a competitive procedure.
- Deciding whether to approve engagements or transactions that require the audit committee approval under the Companies Law.
- Determining the approval procedure of non-extraordinary transactions, following classification as such by the audit committee, including whether such specific non-extraordinary transactions require the approval of the audit committee.
- Examining and approving the annual and periodic working plans of the internal auditor.
- Overseeing the company's internal auditing and the performance of the internal auditor and confirming that the internal auditor has sufficient tools and resources at his disposal, taking into account, among other factors, the special requirements of the company and its size;
- Examining the scope of work of the independent auditor and its pay, and bringing such recommendations on these issue before the board.
- Determining the procedure for addressing complaints of employees regarding shortcomings in the management of the company and ensuring the protection of employees who have filed such complaints.
- Determining, with respect to transactions with the controlling shareholder or in which such controlling shareholder has a personal interest, whether such transactions are extraordinary or not, whether there is an obligation to conduct a competitive process under the supervision of the audit committee and whether, prior to entering into such transaction, the company should conduct any other process that the audit committee may deem fit, all taking into account the type of the company. The audit committee may set such qualifications up to one year in advance.
- Determining the manner of approval of transactions with the controlling shareholder or in which the controlling shareholder has a personal interest which (i) are not negligible transactions (pursuant to the committee's determination) and (ii) are not qualified by the committee as extraordinary transactions.

Under the Exchange Act and NASDAQ Stock Market listing requirements, we are required to maintain an audit committee consisting of at least three independent directors, each of whom is financially literate and one of whom has accounting or related financial management expertise. Our board of directors has affirmatively determined that each member of our audit committee qualifies as an "independent director" for purposes of serving on an audit committee under the Exchange Act and NASDAQ listing requirements. Our board of directors has determined that each of Mrs. Shapira and Mr. Ayash qualify as an "audit committee financial expert," as defined in Item 407(d) (5) of Regulation S-K. All members of our audit committee meet the requirements for financial literacy under the applicable rules and regulations of the SEC and NASDAQ Stock Market. Mrs. Shapira and Messrs. and Mirski are the members of our audit committee.

Compensation Committee

Effective December 2012, under an amendment to the Companies Law, effective as of December 12, 2012, each publicly traded company is required to establish a compensation committee, whose role is to: (i) recommend to the board of directors a compensation policy for office holders, (ii) make recommendations to the shareholders once every three years on the approval of the continued validity of the compensation policy; (iii) recommend updates to the compensation policy from time to time and examine its implementation; (iv) determine whether to approve the terms of the service and employment of office holders that require the committee's approval; and (v) exempt a related party transaction from the requirement for shareholders' approval. The compensation committee also has oversight authority over the actual terms of employment of directors and officers and may make recommendations to the board of directors and the shareholders (where applicable) with respect to deviation from the compensation policy that was adopted by the company. Under Israeli law, our compensation committee will consist of no fewer than three members, including all of our independent directors (who must constitute a majority of the members of the committee), with the remainder of the members of the compensation committee to be directors whose terms of service and employment were determined pursuant to the applicable regulations. The amendment imposes the same restrictions on the actions and membership in the compensation committee as are discussed above under "Audit Committee" with respect to, among other things, the requirement that an external director serve as the chairman of the committee and the list of persons who may not serve on the committee or participate in its meetings. We have established a compensation committee that is currently composed of Mrs. Shapira, Mr. Ayash and Mr. Mirski.

Management Employment Agreements

We maintain written employment agreements with substantially all of our key employees. These agreements provide, among other matters, for monthly salaries, our contributions to Managers' Insurance, an Education Fund and severance benefits. All of our agreements with our key employees are subject to termination by either party upon the delivery of notice of termination as provided therein. We maintain a service agreement with our chairperson of the board of directors. We do not have written agreements with any other director providing for benefits upon the termination of his or her service to us.

Approval of Certain Transactions

Fiduciary Duties of Office Holders

The Companies Law codifies the fiduciary duties that "office holders," including directors and executive officers, owe to a company. An "office holder" is defined in the Companies Law as a director, general manager, chief business manager, deputy general manager, vice general manager, other manager directly subordinate to the general manager or any other person assuming the responsibilities of any of the foregoing positions without regard to such person's title. An office holder's fiduciary duties consist of a duty of care and a fiduciary duty. The duty of care requires an office holder to act at a level of care that a reasonable office holder in the same position would employ under the same circumstances. This includes the duty to utilize reasonable means to obtain (i) information regarding the appropriateness of a given action brought for his approval or performed by him by virtue of his position and (ii) all other information of importance pertaining to the foregoing actions. The fiduciary duty includes (i) avoiding any conflict of interest between the office holder's position in the company and any other position he holds or his personal affairs, (ii) avoiding any competition with the company's business, (iii) avoiding exploiting any business opportunity of the company in order to receive personal gain for the office holder or others, and (iv) disclosing to the company any information or documents relating to the company's affairs that the office holder has received due to his position as an office holder.

Disclosure of Personal Interests of an Office Holder; Approval of Transactions with Office Holders

The Companies Law requires that an office holder promptly, and no later than the first board meeting at which such transaction is considered, disclose any personal interest that he or she may have and all related material information known to him or her and any documents in their position, in connection with any existing or proposed transaction by us. In addition, if the transaction is an extraordinary transaction, that is, a transaction other than in the ordinary course of business, other than on market terms, or likely to have a material impact on the company's profitability, assets or liabilities, the office holder must also disclose any personal interest held by the office holder's spouse, siblings, parents, grandparents, descendants, spouse's descendants and the spouses of any of the foregoing, or by any corporation in which the office holder or a relative is a 5% or greater shareholder, director or general manager or in which he or she has the right to appoint at least one director or the general manager.

Some transactions, actions and arrangements involving an office holder (or a third party in which an office holder has an interest) must be approved by the board of directors or as otherwise provided for in a company's articles of association, however, a transaction that is adverse to the company's interest may not be approved. In some cases, such a transaction must be approved by the audit committee and by the board of directors itself, and under certain circumstances shareholder approval may also be required. A director who has a personal interest in a transaction that is considered at a meeting of the board of directors or the audit committee may not be present during the board of directors or audit committee discussions and may not vote on the transaction, unless the transaction is not an extraordinary transaction or the majority of the members of the board or the audit committee have a personal interest, as the case may be. In the event the majority of the members of the board of directors or the audit committee have a personal interest, then the approval of the general meeting of shareholders is also required.

Approval of a Compensation Policy for Office Holders

The Companies Law and the regulations adopted thereunder require the compensation committee to adopt a policy for director and office holders. In adopting the compensation policy, the compensation committee must take into account factors such as the office holder's education, experience, past compensation arrangements with the company, and the proportional difference between the person cost of compensation and the average cost of compensation of the company's employees.

The compensation policy must be approved at least once every three years at the company's general meeting of shareholders, and is subject to the approval of a majority vote of the votes of the shareholders present and voting at a shareholders' meeting, provided that either: (i) such majority includes at least a majority of the votes of all shareholders who are not controlling shareholders and do not have a personal interest in the approval of the compensation policy, present and voting at such meeting (excluding abstentions); or (ii) the total number of ordinary shares of non-controlling shareholders and shareholders who do not have a personal interest in the approval of the compensation policy, voting against the resolution does not exceed 2% of the aggregate voting rights in the company.

The Board may approve the compensation policy even if such policy was not approved by the shareholders, provided that the compensation committee and the board of directors resolve, based on detailed consideration of the compensation policy that approval of the policy, is in the best interest of the company, despite the fact that it was not approved at the shareholders' meeting.

The compensation policy shall serve as the basis for decisions concerning the financial terms of employment or engagement of officer holders, including exculpation, insurance, indemnification or any monetary payment or obligation of payment in respect of employment or engagement. The compensation policy must relate to certain factors, including advancement of the company's objectives, the company's business and its long-term strategy, and creation of appropriate incentives for executives. It must also consider, among other things, the company's risk management, size and the nature of its operations. The compensation committee must also consider among others, the ratio between the cost of terms offered to the relevant director or office holder and the average and median cost of compensation of the other employees of the company, including those employed through manpower companies, the effect of disparities in salary upon work relationships in the company, the possibility of reducing variable compensation at the discretion of the board of directors; the possibility of setting a limit on the exercise value of non-cash variable compensation; and as to severance compensation (in excess of those promulgated by applicable labor law), the period of service of the director or office holder, the terms of his or her compensation during such service period, the company's performance during that period of service, the person's contribution towards the company's achievement of its goals and the maximization of its profits, and the circumstances under which the person is leaving the company.

The compensation policy must also include the link between variable compensation and long-term performance and measurable criteria, the relationship between variable and fixed compensation, and the upper limit for the value of variable compensation, the conditions under which a director or an office holder would be required to repay compensation paid to him or her if it was later shown that the data upon which such compensation was based was inaccurate and was required to be restated in the company's financial statements, the minimum holding or vesting period for variable, equity-based compensation whilst referring to appropriate a long-term perspective based incentives; and maximum limits for severance compensation.

Once a compensation policy is properly adopted, the Companies Law requires the compensation policy to be approved by the company's compensation committee, with subsequent approval of the board of directors. In addition, compensation of the directors and the chief executive officer is also subject to the approval of the shareholders at a general meeting. The approval of the compensation of the chief executive officer that complies with the compensation policy is subject to the same majority requirements as the approval of a transaction between a company and its controlling shareholder. Where the director is also a controlling shareholder, the requirements for approval of transactions with controlling shareholders apply. The terms of employment of the company's directors and executive officers must satisfy the requirements of the compensation policy in respect of matters relating to compensation. Any deviations from the compensation policy in respect of the compensation of the office holders require the approval of the compensation committee, the board of directors and the shareholders. If the deviation is with respect to the compensation of the chief executive officer then such approval must be made by the majority of the shareholders provided that such majority includes the majority of the votes of the non-controlling shareholder and other shareholders who have personal interest in the proposal (unless such personal interest is not related to the controlling shareholder) present and voting (excluding abstention). Such special majority is not required if the number of votes of the non-controlling shareholders and shareholder who do not have personal interest in the proposal as aforesaid is lower than 2% of the aggregate voting rights in the company.

External directors of the company are prohibited from receiving, directly or indirectly, any compensation from the company, other than for their services as external directors pursuant to the provisions and limitations set forth in regulations promulgated under the Companies Law, which compensation is determined prior to their appointment and may not be changed throughout the term of their service as External directors (except for certain exceptions set forth in such regulations).

Disclosure of Personal Interests of a Controlling Shareholder; Approval of Transactions with Controlling Shareholders

Pursuant to the Companies Law, the disclosure requirements regarding personal interests that apply to directors and executive officers also apply to a controlling shareholder of a public company. A controlling shareholder is a shareholder who has the ability to direct the activities of a company, but excludes a shareholder whose power derives solely from its position on the board of directors or any other position at the company. A person is presumed to be a “controlling shareholder” if it holds or controls, by itself or together with others, one half or more of any one of the “Means of Control” of the company. “Means of Control” is defined as any one of the following: (i) the right to vote at a general meeting of the company, or (ii) the right to appoint directors of the company or its chief executive officer. For the purpose of related party transactions, under the Companies Law, a controlling shareholder is also a shareholder who holds 25% or more of the voting rights if no other shareholder who holds more than 50% of the voting rights. For this purpose, the holdings of all shareholders who have a personal interest in the same transaction will be aggregated.

Certain shareholders also have a duty of fairness toward the company. These shareholders include any controlling shareholder, together with any shareholder who knows that it has the power to determine the outcome of a shareholder vote and any shareholder who has the power to appoint or to prevent the appointment of an officer holder of the company or exercise any other rights available to it under the company’s articles of association with respect to the company. The Companies Law does not define the substance of this duty of fairness, except to state that the remedies generally available upon a breach of contract will also apply in the event of a breach of the duty of fairness.

An extraordinary transaction between a public company and a controlling shareholder, or in which a controlling shareholder has a personal interest, including a private placement in which the controlling shareholder has a personal interest, and the terms of engagement of the company, directly or indirectly, with a controlling shareholder or a controlling shareholder’s relative (including through a corporation controlled by a controlling shareholder), regarding the company’s receipt of services from the controlling shareholder, and if such controlling shareholder is also an officer holder of the company, regarding his or her terms of employment, require the approval of a company’s audit committee (or compensation committee with respect to compensation arrangements), board of directors and shareholders, in that order. Such transaction must be elected by a majority vote of the Ordinary Shares present and voting at a shareholders’ meeting, provided that either: (i) such majority includes at least a majority of votes held by all shareholders who do not have a personal interest in such transaction, present and voting at such meeting (excluding abstentions); or (ii) the total number of votes of shareholders who do not have a personal interest in such transaction voting against the approval of the transaction, does not exceed 2% of the aggregate voting rights in the company.

Pursuant to the Companies Law, the audit committee of the company should determine in connection with such transaction if it requires rendering pursuant to a competitive procedure or pursuant to other proceedings. See “Audit Committee” above.

To the extent that any such transaction with a controlling shareholder or his relative is for a period extending beyond three years, shareholder approval is required once every three years, unless, in respect to certain transactions, the audit committee determines that the longer duration of the transaction is reasonable under the circumstances.

Pursuant to regulations promulgated pursuant to the Companies Law, a transaction with a controlling shareholder that would otherwise require approval of the shareholders is exempt from shareholders’ approval if each of the audit committee and the board of directors determine that the transaction meets certain criteria that are set out in specific regulations promulgated under the Companies Law. Under these regulations, a shareholder holding at least 1% of the issued share capital of the company may require, within 14 days of the publication of such determination, that despite such determination by the audit committee and the board of directors, such transaction will require shareholder approval under the same majority requirements that otherwise apply to such transactions.

The Companies Law provides that an acquisition of shares in a public company must be made by means of a tender offer if as a result of the acquisition the purchaser would become a 25% or greater shareholder of the company. This rule does not apply if there is already another 25% or greater shareholder of the company. Similarly, the Companies Law provides that an acquisition of shares in a public company must be made by means of a tender offer if as a result of the acquisition the purchaser would hold greater than a 45% interest in the company, unless there is another shareholder holding more than a 45% interest in the company. These requirements do not apply if, in general, (i) the acquisition was made in a private placement that received shareholder approval, (ii) was from a 25% or greater shareholder of the company which resulted in the acquirer becoming a 25% or greater shareholder of the company, if there is not already a 25% or greater shareholder of the company, or (iii) was from a shareholder holding a 45% interest in the company which resulted in the acquirer becoming a holder of a 45% interest in the company if there is not already a 45% or greater shareholder of the company.

If, as a result of an acquisition of shares, the acquirer will hold more than 90% of a public company’s outstanding shares or a class of shares, the acquisition must be made by means of a tender offer for all of the outstanding shares or a class of shares. If less than 5% of the outstanding shares are not tendered in the tender offer, all the shares that the acquirer offered to purchase will be transferred to the acquirer. If more than 5% of the outstanding shares are not tendered in the tender offer, then the acquirer may not acquire shares in the tender offer that will cause his shareholding to exceed 90% of the outstanding shares. The Companies Law provides for appraisal rights if any shareholder files a request in court within six months following the consummation of a full tender offer. However, in the event of a full tender offer, the offeror may determine that any shareholder who accepts the offer will not be entitled to appraisal rights. Such determination will be effective only if the offeror or the company has timely published all the information that is required to be published in connection with such full tender offer pursuant to all applicable laws.

Duties of Shareholders

Under the Companies Law, a shareholder has a duty to refrain from abusing his or her power in the company and to act in good faith and in a customary manner in exercising its rights and performing its obligations to the company and other shareholders, including, among other things, when voting at meetings of shareholders on the following matters:

- an amendment to the company's articles of association;
- an increase in the company's authorized share capital;
- a merger; and
- the approval of related party transactions and acts of office holders that require shareholder approval.

A shareholder also has a general duty to refrain from discriminating against other shareholders.

In addition, certain shareholders have a duty to act with fairness towards the company. These shareholders include any controlling shareholder, any shareholder who knows that his or her vote can determine the outcome of a shareholder vote, and any shareholder that, under a company's articles of association, has the power to appoint or prevent the appointment of an office holder. The Companies Law does not define the substance of this duty except to state that the remedies generally available upon a breach of contract will also apply in the event of a breach of the duty to act with fairness.

Exculpation, Insurance and Indemnification of Directors and Officers

Exculpation of Office Holders

Under the Companies Law, an Israeli company may not exculpate an office holder from liability for breach of his duty of loyalty, but may exculpate in advance an office holder from liability to the company, in whole or in part, for a breach of his duty of care, provided the articles of association of the company allow it to do so. Our Articles of Association allow us to exculpate our office holders from liability towards us for breach of duty of care to the maximum extent permitted by law.

Office Holder Insurance

Our Articles of Association provide that, subject to the provisions of the Companies Law, we may enter into a contract for the insurance of the liability of any of our office holders for any act done by him or her by virtue of being an office holder, in respect of any of the following:

- a breach of duty of care towards us or any other person;
- a breach of fiduciary obligations towards us, provided that the office holder acted in good faith and had reasonable grounds to assume that his or her act would not be to our detriment;
- a financial liability imposed on him or her in favor of another person; or
- any other event for which insurance of an office holder is or may be permitted.

Indemnification of Office Holders

Our Articles of Association provide that we may indemnify an office holder for the following cases of liability and expenses incurred by him or her as a result of an act done by him or her by virtue of being an office holder:

- financial liability imposed upon said office holder in favor of another person by virtue of a decision by a court of law, including a decision by way of settlement or a decision in arbitration which has been confirmed by a court of law;

- reasonable expenses of the proceedings, including lawyers' fees, expended by the office holder or imposed on him by the court for:
 - (1) proceedings issued against him by or on behalf of our company or by a third party;
 - (2) criminal proceedings in which the office holder was acquitted;
 - (3) criminal proceedings in which he was convicted in an offense, which did not require proof of criminal intent; or
 - (4) any other liability or expense for which the indemnification of an officer holder is not precluded by law.

We have obtained directors' and officers' liability insurance for the benefit of our office holders. In addition, we have granted indemnification letters to our office holders.

Limitations on Exculpation, Insurance and Indemnification

The Companies Law provides that a company may not exculpate or indemnify an office holder, or enter into an insurance contract, which would provide coverage for any monetary liability incurred as a result of any of the following:

- a breach by the office holder of his or her duty of loyalty towards the company unless, with respect to insurance coverage, the office holder acted in good faith and had a reasonable basis to believe that the act would not prejudice the company;
- a breach by the office holder of his or her duty of care if the breach was done intentionally or recklessly;
- any act or omission done with the intent to derive an illegal personal benefit; or
- any fine levied against the office holder.

Required Approvals

In addition, under the Companies Law, any exculpation of, indemnification of, or procurement of insurance coverage for, our office holders must be approved by our audit committee and our board of directors and, if the beneficiary is a director, an additional approval by our shareholders is required.

D. EMPLOYEES

As of December 31, 2018, 2017 and 2016, we had 165, 215 and 246 full-time employees, respectively (not including service providers). The following table describes our employees and the employees of our subsidiaries by department.

	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2016
Research, Development & Operations	128	161	173
Marketing and Sales	18	29	36
Administration	19	25	37
Total	165	215	246

Over the past three years, the number of our employees by geographic area was as follows:

	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2016
Israel & Europe	82	128	148
United States	83	87	98
Total	165	215	246

From time to time, we have engaged temporary employees to fill open positions. These temporary employees, however, historically have not comprised a material number of our employees.

Our Israeli employees are not part of a collective bargaining agreement and none of them are represented by labor unions. However, in Israel we are subject to certain labor statutes and national labor court precedent rulings, as well as to certain provisions of collective bargaining agreements between the Histadrut, which is the General Federation of Labor in Israel, and the Coordinating Bureau of Economic Organizations, including the Industrialists' Association. These provisions of collective bargaining agreements are applicable to our employees by virtue of expansion orders issued in accordance with relevant labor laws by the Israeli Ministry of Labor and Welfare and which apply such agreement provisions to our employees even though they are not directly part of a union that has signed a collective bargaining agreement.

The labor statutes and labor court rulings that apply to our employees principally concern the minimum wage laws, procedures for dismissing employees, determination of severance pay, leaves of absence (such as annual vacation or maternity leave), sick pay and other conditions for employment. The expansion orders which apply to our employees principally concern the requirement for mandatory pension schemes, transportation allowance, and annual recreation allowance, the lengths of the workday and workweek, and periodic automatic adjustment of wages relative to increases in the Consumer Price Index in Israel. We provide our employees with benefits and working conditions that comply with the required minimums. Israeli employees and employers are also required to pay pre-determined sums which include a contribution to national health insurance to the Israel National Insurance Institute, which provides a range of social security benefits.

Generally, all nonexempt adult male citizens and permanent residents of Israel, under the age of 40, or older for reserves officers or citizens with certain occupations, as well as certain female adult citizens and permanent residents of Israel, are obligated to perform annual military reserve duty and are subject to being called for active duty at any time under emergency circumstances. Some of our officers and employees are obligated to perform annual reserve duty. While we have operated effectively under these requirements since we began operations, no assessment can be made as to the full impact of such requirements on our workforce or business if conditions should change, and no prediction can be made as to the effect on us of any expansion of such obligations.

Most of our employees have entered into confidentiality agreements. We have also granted certain employees options to purchase shares of our ordinary shares under our option plan. We consider our relationship with our employees to be good and we have never experienced a general strike or work stoppage.

E. SHARE OWNERSHIP

Beneficial Ownership by Executive Officers and Directors

The following table sets forth certain information as of December 1, 2019 regarding the beneficial ownership of our ordinary shares by each of our directors and all of our executive officers and directors as a group.

Name	Number of Ordinary Shares Beneficially Owned (1)	Percentage of Outstanding Ordinary Shares (2)
Arie Trabelsi(3)	4,582,212	28.13%
Menachem Mirski	—	—
Shoshana Cohen Shapira	—	—
All executive officers and directors as a group (8 persons)	4,615,212	28.34%

- (1) Beneficial ownership is determined in accordance with the rules of the SEC and generally includes voting or investment power with respect to securities. Ordinary shares relating to options currently exercisable or exercisable within 60 days of the date of this table are deemed outstanding for computing the percentage of the person holding such securities but are not deemed outstanding for computing the percentage of any other person. Except as indicated by footnote, and subject to community property laws where applicable, the persons named in the table above have sole voting and investment power with respect to all shares shown as beneficially owned by them.
- (2) The percentages shown are based on 16,285,944 ordinary shares issued and outstanding as of November 08, 2019.
- (3) Sigma Wave Ltd. is controlled by Mrs. Tsviya Trabelsi, and by her husband, Mr. Arie Trabelsi. As such, Mr. Trabelsi may be deemed to beneficially own the 4,582,212 ordinary shares beneficially held by Sigma Wave Ltd. The address of Sigma Wave Ltd. is Tsufit 7, Caesarea, 38900, Israel.

Share Option Plans

In 2003, we adopted the SuperCom Ltd. 2003 Israeli Share Option Plan, a stock option plan under which we now issue stock options, or the Option Plan. The Option Plan is intended to provide incentives to our employees, officers, directors and/or consultants by providing them with the opportunity to purchase our ordinary shares. The Option Plan is subject to the provisions of the Companies Law, administered by the audit committee, and is designed: (i) to comply with Section 102 of the Israeli Tax Ordinance or any provision which may amend or replace it and the rules promulgated thereunder and to enable us and grantees thereunder to benefit from Section 102 of the Israeli Tax Ordinance and the Commissioner's Rules; and (ii) to enable us to grant options and issue shares outside the context of Section 102 of the Israeli Tax Ordinance. Options granted under the Option Plan will become exercisable ratably over a period of three to five years or immediately in certain circumstances, commencing with the date of grant. The options generally expire no later than 10 years from the date of grant. Any options that are forfeited or canceled before expiration become available for future grants. As of December 31, 2018, 291,156 options were exercisable and 854,656 options were outstanding.

As a result of an amendment to Section 102 of the Israeli Tax Ordinance as part of the 2003 Israeli tax reform, and pursuant to an election made by us thereunder, capital gains derived by optionees arising from the sale of shares issued pursuant to the exercise of options granted to them under Section 102 after January 1, 2003 will generally be subject to a flat capital gains tax rate of 25%. However, as a result of this election, we will no longer be allowed to claim as an expense for tax purposes the amounts credited to such employees as a benefit when the related capital gains tax is payable by them, as we had previously been entitled to do under Section 102.

On June 27, 2007, our Compensation Committee and the board of directors approved a new option plan under which we may grant stock options to our U.S. employees and our subsidiaries. Under this option plan, we may grant both qualified (for preferential tax treatment) and non-qualified stock options. On August 15, 2007, this option plan was approved by our shareholders at the general shareholders meeting.

In June 2013, the Option plan was extended for another period of 10 years, until December 31, 2023.

During 2017, we have not issued any options to purchase of our ordinary shares to our executive officers.

A summary of our stock option activity and related information is as follows:

	Year ended December 31,					
	2018		2017		2016	
	Number of options	Weighted average exercise price \$	Number of options	Weighted average exercise price \$	Number of options	Weighted average exercise price \$
Outstanding at Beginning of year	331,660	4.03	416,432	4.24	487,432	5.12
Granted	568,500	2.00	-	-	67,833	2.82
Exercised	-	-	(20,000)	0.64	(8,383)	1.53
Canceled and forfeited	(45,504)	6.84	(64,772)	6.42	(130,500)	6.96
Outstanding at end of year	854,656	2.53	331,660	4.03	416,432	4.24
Exercisable at end of year	291,156	3.44	236,277	3.67	186,253	4.14

We recognized compensation expenses related to our share-based employee compensation awards of \$256,000, \$631,000, and \$924,000 for the years ended December 31, 2018, 2017 and 2016, respectively.

The following table summarizes the allocation of the stock-based compensation expenses (all amounts in thousands of dollars):

	Year ended December 31,		
	2018	2017	2016
	\$	\$	\$
Cost of revenues	116	217	266
Research and development expenses	54	155	207
Selling and marketing expenses	52	183	292
General and administrative expenses	34	76	159
	256	631	924

The options outstanding and exercisable as of December 31, 2018, have the following ranges of exercise prices as follows:

Range of exercise price	Options outstanding				Options Exercisable			
	Number outstanding as of December 31, 2018	Weighted average contractual life (years)	Weighted average exercise price	Aggregate intrinsic value	Number outstanding as of December 31, 2018	Weighted average contractual life (years)	Weighted average exercise price	Aggregate intrinsic value
\$			\$	\$			\$	\$
0.00-2.00	661,008	8.34	1.77	84,940	105,508	1.78	0.54	84,940
3.00-5.00	151,648	5.34	4.15	-	148,648	5.42	4.17	-
7.00-10.00	42,000	6.75	8.75	-	37,000	6.75	8.75	-
18.75-22.00	-	-	-	-	-	-	-	-
	854,656	7.73	2.53	84,940	291,156	4.27	3.44	84,940

The total intrinsic value of options exercised during the years ended December 31, 2018, 2017 and 2016 was \$0, \$65,000, and \$16,000, respectively, based on our company's average stock price of \$2.54, \$3.27, and \$3.77 during the years ended on those dates respectively.

A summary of the status of options granted to employees that had vested as of December 31, 2018 is presented below:

	Options	Weighted-average grant-date fair value
Non-vested at January 1, 2018	95,383	\$ 6.84
Granted	568,500	\$ 1.87
Vested	(54,879)	\$ 3.93
Forfeited and canceled	(45,504)	\$ 6.84
Non-vested at December 31, 2018	563,500	\$ 1.90

As of December 31, 2018 and December 31, 2017, there was \$994,000 and \$277,000, respectively, of unrecognized compensation cost related to non-vested share-based compensation arrangements granted under the stock option plans.

ITEM 7. MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS

A. MAJOR SHAREHOLDERS

The following table lists the beneficial ownership of our securities as of November 8, 2019 by each person known by us to be the beneficial owner of 5% or more of the outstanding shares of any class of our securities. As of November 8, 2019, 16,285,944 of our ordinary shares were outstanding.

Name of Beneficial Owner	Number of Shares Beneficially Owned	Percentage of Shares Outstanding
Sigma Wave Ltd	4,582,812	28.13%
Ibex Investors LLC	1,989,068	12.21%

Beneficial ownership is determined in accordance with the rules of the SEC and generally includes voting or investment power with respect to securities. We believe that all persons named in the table have sole voting and sole investment power with respect to all shares beneficially owned by them. All figures include ordinary shares issuable upon the exercise of options and warrants exercisable within 60 days of December 1, 2019, and deemed to be outstanding and beneficially owned by the person holding those options or warrants for the purpose of computing the percentage ownership of that person, but are not deemed to be outstanding for the purpose of computing the percentage ownership of any other person.

Sigma Wave Ltd. is controlled by family members of Mrs. Tsviya Trabelsi, and by her husband, Mr. Arie Trabelsi. As such, Mr. Trabelsi may be deemed to beneficially own the 4,582,812 ordinary shares beneficially held by Sigma Wave Ltd. The address of Sigma Wave Ltd. is Tsufit 7, Caesarea, 38900, Israel.

Significant Changes in the Ownership of Major Shareholders

As of November 8, 2019, Ibex Investors beneficially owned 1,989,068 shares, or 12.21%, of our then outstanding ordinary shares
As of May 14, 2018, Ibex Investors beneficially owned 1,607,024 shares, or 10.74%, of our then outstanding ordinary shares
As of May 12, 2017, Ibex Investors beneficially owned 2,248,470 shares, or 15.08%, of our then outstanding ordinary shares

As of December 8, 2019, Heartland Advisors Inc. beneficially owned less than 5% of our then outstanding ordinary shares.
As of May 14, 2018, Heartland Advisors Inc. beneficially owned 1,193,152 shares, or 7.98%, of our then outstanding ordinary shares.
As of May 12, 2017, Heartland Advisors Inc. beneficially owned 1,492,900 shares, or 9.99%, of our then outstanding ordinary shares.

Voting Rights of Major Shareholders

Our major shareholders do not have different voting rights from the other holders of our ordinary shares.

Record Holders

Based on a review of the information provided to us by our U.S. transfer agent, as of November 8, 2019, there were approximately 27 record holders, of which 10 record holders holding approximately 74.5% of our ordinary shares had registered addresses in the United States. These numbers are not representative of the number of beneficial holders of our shares nor are they representative of where such beneficial holders reside, since many of these ordinary shares were held of record by brokers or other nominees (including one U.S. nominee company, CEDE & Co., which held approximately 73.1% of our outstanding ordinary shares as of such date).

B. RELATED PARTY TRANSACTIONS

It is our policy to enter into transactions with related parties on terms that, on the whole, are no less favorable than those that would be available from unaffiliated parties. Based on our experience in the business segments in which we operate and the terms of our transactions with unaffiliated third parties, we believe that all of the transactions described below met our policy standards at the time they occurred.

Mr. Trabelsi served as our Chief Executive Officer from November 1, 2010 until November 12, 2011 and from June 1, 2012 to date. At the May 9, 2013 general meeting of shareholders, shareholders approved the payment of management fees of \$10,600 per month to Mr. Trabelsi plus social benefits and an annual bonus of up to the greater of 2% of annual net profit or 0.5% of annual revenue. The annual bonus may not exceed the total amount of Mr. Trabelsi's annual salary.

As of December 31, 2018, we had accrued \$171,000 of expenses arising from consulting services provided by Mr. and Mrs. Trabelsi.

On April 29, 2012, our board of directors approved the recording of a floating charge on all of our assets in favor of Mrs. and Mr. Trabelsi, unlimited in amount, in order to secure personal guarantees granted by them in favor of our company to a bank and in order to secure short-term loans that are given by them from time to time to us. The short terms loans provided by Mrs. and Mr. Trabelsi during the years 2011 until 2018 ranged from NIS 10,000 up to NIS 9,336,000 and bore no interest. Currently, there are outstanding loans from Mrs. and Mr. Trabelsi in the amount \$165,000.

C. INTERESTS OF EXPERTS AND COUNSEL

Not applicable.

ITEM 8. FINANCIAL INFORMATION

A. CONSOLIDATED STATEMENTS AND OTHER FINANCIAL INFORMATION

See the consolidated financial statements, including the notes thereto, included in Item 18.

Legal Proceedings

We are party to legal proceedings in the normal course of our business. Other than as described below, there are no material pending legal proceedings to which we are a party or of which our property is subject. Although the outcome of claims and lawsuits against us cannot be accurately predicted, we do not believe that any of the claims and lawsuits described in this paragraph, individually or in the aggregate, will have a material adverse effect on our business, financial condition, results of operations or cash flows for any quarterly or annual period.

As part of the acquisition of the SmartID division of OTI, we assumed a dispute with Merwell Inc. (“Merwell”). Merwell has alleged that it has not received the full payment it is entitled to for its services in respect of a drivers’ license project. OTI alleged that Merwell breached its commitments under the service agreement and also acted in concert with third parties to damage OTI’s business activities. This matter is now subject to an arbitration proceeding.

Dividend Distribution Policy

We have never paid cash dividends to our shareholders. We intend to retain future earnings for use in our business and do not anticipate paying cash dividends on our ordinary shares in the foreseeable future. Any future dividend policy will be determined by our Board of Directors and will be based upon conditions then existing, including our results of operations, financial condition, current and anticipated cash needs, contractual restrictions and other conditions as the Board of Directors may deem relevant.

According to the Companies Law, a company may distribute dividends out of its profits (as such term is defined in the Companies Law), provided that there is no reasonable concern that payment of the dividend will prevent the company from satisfying all its current and foreseeable obligations, as they become due. Notwithstanding the foregoing, dividends may be paid with the approval of a court, at the company’s request, provided that there is no reasonable concern that payment of the dividend will prevent the company from satisfying its current and foreseeable obligations, as they become due. In the event cash dividends are declared, such dividends will be paid in NIS.

B. SIGNIFICANT CHANGES

Except as otherwise disclosed in this annual report, no significant change has occurred since December 31, 2018.

ITEM 9. THE OFFER AND LISTING

A. OFFER AND LISTING DETAILS

Our ordinary shares trade on the NASDAQ Capital Market under the ticker symbol “SPCB”. As of November 8, 2019, we had 16,285,944 ordinary shares issued and outstanding.

Annual Stock Information

The following table sets forth, for the periods indicated, the high and low closing prices of our ordinary shares on The NASDAQ Capital Market or the OTCQB Market, as applicable. All of the share price information provided below has been adjusted to give effect to a 1 share for 4.250002 shares reverse stock split effected on August 23, 2013.

Year	High	Low
2012	\$ 0.85	\$ 0.04
2013	\$ 5.65	\$ 0.30
2014	\$ 13.78	\$ 4.85
2015	\$ 13.84	\$ 4.46
2016	\$ 5.25	\$ 2.62
2017	\$ 4.36	\$ 2.17
2018	\$ 3.92	\$ 1.32

Quarterly Stock Information

The table below sets forth for the periods indicated the high and low closing prices of our ordinary shares as reported on NASDAQ and the OTCQB market.

	High	Low
2017		
First Quarter	\$ 3.88	\$ 2.50
Second Quarter	\$ 3.19	\$ 2.17
Third Quarter	\$ 3.56	\$ 2.66
Fourth Quarter	\$ 4.36	\$ 2.72
2018		
First Quarter	\$ 3.92	\$ 2.73
Second Quarter	\$ 2.88	\$ 1.55
Third Quarter	\$ 2.14	\$ 1.71
Fourth Quarter	\$ 1.81	\$ 1.31
2019		
First Quarter	\$ 1.75	\$ 1.38
Second Quarter	\$ 1.49	\$ 0.98
Third Quarter	\$ 1.24	\$ 0.59

Monthly Stock Information

The table below sets forth for the periods indicated the high and low closing prices of our ordinary shares as reported on NASDAQ market.

Month	High	Low
June 2019	\$ 1.24	\$ 1.05
July 2019	\$ 1.14	\$ 1.02
August 2019	\$ 1.10	\$ 0.95
September 2019	\$ 1.10	\$ 0.70
October 2019	\$ 0.80	\$ 0.59
Through December 2, 2019	\$ 0.72	\$ 0.65

B. PLAN OF DISTRIBUTION

Not applicable.

C. MARKETS

Our ordinary shares began trading on the NASDAQ Capital Market effective at the opening of trading on Tuesday, September 17, 2013 under the ticker symbol "SPCB".

Not applicable.

D. SELLING SHAREHOLDERS

Not applicable.

E. DILUTION

Not applicable.

F. EXPENSES OF THE ISSUE

Not applicable.

ITEM 10. ADDITIONAL INFORMATION

A. SHARE CAPITAL

Not applicable.

B. MEMORANDUM AND ARTICLES OF ASSOCIATION

Our Memorandum of Association and Articles of Association are attached hereto as noted in Item 19.

We are a public company organized in the State of Israel under the Israeli Companies Law. We are registered with the Registrar of Companies of the State of Israel as a publicly traded corporation and we have been assigned public company number 52-00-4407-4. Set forth below is a summary of certain provisions of our Memorandum of Association (the “Memorandum”), the Articles of Association (the “Articles”) and the Israeli Companies Law as it applies to the Company. This description does not purport to be complete and is qualified in its entirety by reference to the full text of the Memorandum and Articles and by Israeli law. The Memorandum and the Articles are filed as exhibits to this Annual Report.

OBJECTS OF THE COMPANY

Pursuant to Section 2 of the Memorandum, the principal object for which we were established is to engage in the development, manufacture, implementation and marketing of computerized systems in general and computerized systems for producing tags, computerized photograph databases for the purpose of identification and for issuing various certificates in particular; consultation in the above fields; development, manufacture, implementation and marketing of any product based on the knowledge and expertise of the parties; and the purchase, sale, import, export and implementation of any action required to realize the above objectives.

We are authorized to issue 28,000,000 ordinary shares par value NIS 0.25 per share, of which 16,285,944 ordinary shares were outstanding as of November 8, 2019.

DIRECTORS

Our Articles provide that the number of directors may be determined from time to time by the Board of Directors, and unless otherwise determined, the number of directors comprising the Board of Directors will be between four and ten. With the exception of our external directors, who are elected for three year terms in accordance with the Israeli Companies Law, our directors are elected for a one year term ending at the following annual general meeting of shareholders. However, if no directors are elected at an annual meeting, then the persons who served as directors immediately prior to the annual meeting shall be deemed reelected at the same meeting. The general meeting may resolve that a director be elected for a period not longer than the third next annual meeting. Directors may resign or in certain circumstances be removed by our general meeting prior to the expiration of his term.

The board may appoint additional directors (whether to fill a vacancy or create a new directorship) to serve until the next annual shareholders meeting. In case an office of a director has been vacated, the remaining directors may continue to act in every matter so long as the number of its members is not less than the quorum required at the time for meetings of the board. If the number of members of the board decreases below said quorum, the board will not be entitled to act except in case of emergency or for appointing additional directors in order to fill vacant positions on the board or to call a general meeting of the shareholders. The Board of Directors elects one of its members to serve as the Chairman.

The Board of Directors may meet and adjourn its meetings as it deems fit, provided, however, that the board must meet at least once in every three months period. A meeting of the board may be called at the request of each director. The quorum required for a meeting of the board is not less than 30% of the number of directors and in any event not less than two directors. Issues arising at any Board of Directors’ meeting are decided by a majority of votes cast at the meeting. In lieu of a board meeting a resolution may be adopted in writing if signed by all directors or to which all of the directors have agreed in writing or by telephone or facsimile, and a meeting may also be held through telephone conference or other communications means, provided however that all participants may hear each other simultaneously. A resolution in writing signed by all of the directors, shall be as valid and effective for all purposes as if passed at a meeting of the Board of Directors duly convened and held, and for the purpose of the foregoing “director” shall include, if duly appointed therefore, a substitute director.

FIDUCIARY DUTIES OF OFFICERS

The Israeli Companies Law codifies the fiduciary duties that “office holders,” including directors and executive officers, owe to a company. An office holder’s fiduciary duties consist of a duty of care and a duty of loyalty. The duty of loyalty includes avoiding any conflict of interest between the office holder’s position in the company and his personal affairs, avoiding any competition with the company, avoiding exploiting any business opportunity of the company in order to receive personal advantage for himself or others, and revealing to the company any information or documents relating to the company’s affairs which the office holder has received due to his position as an office holder.

APPROVAL OF CERTAIN TRANSACTIONS

Transactions with Office Holders; Extraordinary Transactions

Under the Israeli Companies Law, all arrangements as to compensation of office holders who are not directors or controlling parties require approval of the audit committee or a compensation committee to the extent that it complies with the statutory requirements which apply to the audit committee, and the Board of Directors. Arrangements regarding the terms of employment and compensation of directors require approval by the audit committee, the Board of Directors and the shareholders.

The Israeli Companies Law requires that an office holder of the company promptly disclose any personal interest that he or she may have and all related material information known to him or her, in connection with any existing or proposed transaction by the company. In addition, if the transaction is an extraordinary transaction as defined under Israeli law, the office holder must also disclose any personal interest held by the office holder's spouse, siblings, parents, grandparents, descendants, spouse's descendants, siblings and parents of the office holder's spouse, and the spouses of any of the foregoing. In addition, the office holder must also disclose any interest held by any corporation in which the office holder is a 5% or greater shareholder, director or general manager or in which he or she has the right to appoint at least one director or the general manager. An extraordinary transaction is defined as a transaction other than in the ordinary course of business, otherwise than on market terms, or that is likely to have a material impact on the company's profitability, assets or liabilities.

In the case of a transaction which is not an extraordinary transaction, after the office holder complies with the above disclosure requirement, only board approval is required unless the articles of association of the company provide otherwise. The transaction must not be adverse to the company's interest. Furthermore, if the transaction is an extraordinary transaction, then, in addition to any approval stipulated by the articles of association, it also must be approved by the company's audit committee and then by the Board of Directors, and, under certain circumstances, by a meeting of the shareholders of the company.

An individual who has a personal interest in a matter that is considered at a meeting of the Board of Directors or the audit committee may not be present at the deliberations or vote on this matter. However, with respect to an office holder, he/she may be present at the meeting discussions if the chairman determines that the office holder has to present the matter. If a majority of the directors has a personal interest in a transaction with us, such directors may be present at the deliberations and vote in this matter, and shareholder approval of the transaction is required.

Under the Israeli Companies Law and as long as our Articles are not amended to determine otherwise, certain resolutions, such as resolutions regarding liquidation, require approval of the holders of 75% of the shares represented at the meeting and voting thereon.

Approval of a Compensation Policy for Office Holders

In accordance with the Companies Law, a public company, such as our company, is required to adopt a compensation policy setting forth the principles to govern the terms of office and employment (including cash and equity-based compensation, exemption from liability, indemnification, D&O insurance and other benefits and payments related to the service and employment) of the Office Holders of the company. These amendments to the Companies Law also define the criteria to be considered or included in such compensation policy. The compensation policy needs to be approved no later than September 2013 by the board of directors, after consideration of the recommendations of the compensation committee and by the majority of the company's shareholders provided that either: (i) such majority includes a majority of the total votes of shareholders who are not controlling shareholders and do not have a Personal Interest in the approval of the compensation policy and who participate in the voting, in person, by proxy or by written ballot, at the meeting (abstentions not taken into account); or (ii) the total number of votes of shareholders mentioned in (i) above that are voted against the approval of the compensation policy do not represent more than 2% of the total voting rights in the company.

Under certain circumstances and subject to certain exceptions, the board of directors may approve the compensation policy even if not approved by the shareholders as described above, provided that the compensation committee and the board of directors determine, following an additional discussion and based on detailed reasons, that it is for the benefit of the company to adopt such compensation policy. We intend to comply with these new requirements of the Israeli Companies Law within the required time frame.

Commencing as of December 2012, any changes to compensation terms of Officers are to be approved in accordance with the principles set forth in such amendments to the Israeli Companies Law as if a compensation policy was already in force. In accordance with the Companies Law, as amended, the compensation policy must be re-approved every three years, in the manner described above. The board of directors is responsible for reviewing from time to time the compensation policy and determining whether or not there are any circumstances that require adjustments to the current compensation policy. (See also Item 6. Directors, Senior Management and Employees - Board Practices - Compensation Committee.)

Disclosure of Personal Interests of a Controlling Shareholder; Approval of Transactions with Controlling Shareholders

The Israeli Companies Law applies the same disclosure requirements to a controlling shareholder of a public company, which includes a shareholder that holds 25% or more of the voting rights if no other shareholder owns more than 50% of the voting rights in the company. Extraordinary transactions with a controlling shareholder or in which a controlling shareholder has a personal interest, and the terms of compensation of a controlling shareholder who is an office holder (including the provision of services to the company), require the approval of the audit committee or the compensation committee, as applicable, the Board of Directors and the shareholders of the company by simple majority, provided that either such majority vote must include at least one-half of the shareholders who have no personal interest in the transaction and are present at the meeting (without taking into account the votes of the abstaining shareholders), or that the total shareholdings of those who have no personal interest in the transaction who vote against the transaction represent no more than two percent of the voting rights in the company.

Agreements and extraordinary transactions with a term exceeding three years are subject to re-approval once every three years by the audit committee, board of directors and the shareholders of the company. Certain types of extraordinary transactions may be approved in advance for a period exceeding three years if the audit committee determines such approval reasonable under the circumstances.

Under the Companies Regulations (Relief from Related Party Transactions), 5760-2000, promulgated under the Israeli Companies Law, as amended, certain extraordinary transactions between a public company and its controlling shareholder(s) do not require shareholder approval. In addition, under such regulations, directors' compensation and employment arrangements in a public company do not require the approval of the shareholders if both the audit committee and the board of directors agree that such arrangements are solely for the benefit of the company. Also, employment and compensation arrangements for an office holder that is a controlling shareholder of a public company do not require shareholder approval if certain criteria are met. The foregoing exemptions from shareholder approval will not apply if one or more shareholders holding at least 1% of the issued and outstanding share capital of the company or of the company's voting rights, objects to the use of these exemptions provided that such objection is submitted to the company in writing not later than fourteen days from the date of the filing of a report regarding the adoption of such resolution by the company. If such objection is duly and timely submitted, then the transaction or compensation arrangement of the directors will require shareholders' approval as detailed above.

The Israeli Companies Law provides that an acquisition of shares in a public company must be made by means of a special tender offer if as a result of the acquisition the purchaser would control 25% or greater of the company's voting rights. This rule does not apply if there is already another such shareholder which controls 25% or greater of the company's voting rights. Similarly, the Israeli Companies Law provides that an acquisition of shares in a public company must be made by means of a special tender offer if as a result of the acquisition the purchaser would hold greater than a 45% voting rights in the company, unless there is another shareholder holding more than a 45% voting rights in the company. These requirements do not apply to: (i) the acquisition of shares in a private placement, provided that such private placement was approved by the general meeting of the company's shareholders as a private placement purporting to confer to the offeree the control of 25% or greater of the company's voting rights if there is no other holder of such a block of shares, or purporting to confer to the offeree 45% of the voting rights in the company if there is no other person holding forty-five percent of the voting rights in the company; (ii) was from a shareholder which controls 25% or greater of the company's voting rights which resulted in the acquirer becoming a shareholder of the company; or (iii) was from a shareholder holding a 45% of the voting in the company which resulted in the acquirer becoming a holder of a 45% of the voting rights in the company. A special tender offer will only be considered accepted if: (i) the number of shares tendered in the offer exceeds the number of shares whose holders objected to the offer (excluding the shares of controlling shareholders of the offeror and excluding the holders of a 25% or more block of the voting rights in the company); and (ii) at least 5% of the voting rights in the company are purchased in the tender offer.

If, as a result of an acquisition of shares, the acquirer will hold more than 90% of a public company's outstanding shares or a class of shares, the acquisition must be made by means of a tender offer for all of the outstanding shares or a class of shares. If less than 5% of the outstanding shares are not tendered in the tender offer, and more than half of the shareholders without a personal interest in accepting the offer tendered their shares, then all the shares that the acquirer offered to purchase will be transferred to the acquirer. The Israeli Companies Law provides for appraisal rights if any shareholder files a request in court within six months following the consummation of a full tender offer, but the acquirer will be entitled to stipulate that tendering shareholders forfeit their appraisal rights. If more than 5% of the outstanding shares are not tendered in the tender offer, then the acquirer may not acquire shares in the tender offer that will cause his shareholding to exceed 90% of the outstanding shares; provided, however, that if the dissenting shareholders constitute less than 2% of the issued and outstanding share capital of the company then the full tender will be accepted and all of the shares that the acquirer offered to purchase will be transferred to the acquirer by operation of law.

DUTIES OF SHAREHOLDERS

Under the Israeli Companies Law, a shareholder has a duty to act in good faith and in a customary way towards the company and other shareholders and to refrain from abusing his or her power in the company including, among other things, when voting in a general meeting of shareholders on the following matters:

- any amendment to the articles of association;
- an increase of the company's authorized share capital;
- a merger; or
- approval of interested party transactions which require shareholder approval.

Furthermore, the Israeli Companies Law requires that a shareholder refrain from acting in a discriminatory manner towards other shareholders.

The Israeli Companies Law does not describe the substance of the aforementioned duties of shareholders, but provides that laws applicable to a breach of contract, adjusted according to the circumstances shall apply to a breach of such duties. With respect to the obligation to refrain from acting discriminatorily, a shareholder that is discriminated against can petition the court to instruct the company to remove or prevent the discrimination, as well as provide instructions with respect to future actions.

In addition, the Israeli Companies Law dictates that any controlling shareholder, any shareholder who knows that it possesses power to determine the outcome of a shareholder vote and any shareholder who, pursuant to the provisions of a company's articles of association, has the power to appoint or prevent the appointment of an office holder in the company, is under a duty to act with fairness towards the company.

The Israeli Companies Law does not describe the substance of the aforementioned duty to act with fairness but provides that laws applicable to a breach of contract, adjusted according to the circumstances and taking into account the status within the company of such shareholder, shall apply to a breach of such duty.

EXEMPTION, INSURANCE AND INDEMNIFICATION OF DIRECTORS AND OFFICERS

Exemption of Office Holders

Under the Israeli Companies Law, an Israeli company may not exempt an office holder from liability for breach of his duty of loyalty, but may exempt in advance an office holder from liability to the company, in whole or in part, for a breach of his duty of care, provided the articles of association of the company allow it to do so. Our Articles allow us to exempt our office holders from liability towards us for breach of duty of care to the maximum extent permitted by law.

Office Holder Insurance

Our Articles provide that, subject to the provisions of the Israeli Companies Law, we may enter into a contract for the insurance of the liability of any of our office holders for any act done by him or her by virtue of being an office holder, in respect of any of the following:

- a breach of duty of care towards us or any other person,
- a breach of fiduciary obligations towards us, provided that the office holder acted in good faith and had reasonable grounds to assume that his or her act would not be to our detriment,
- a financial liability imposed on him or her in favor of another person, or
- any other event for which insurance of an office holder is or may be permitted.

Indemnification of Office Holders

Our Articles provide that we may indemnify an office holder for the following cases of liability and expenses incurred by him or her as a result of an act done by him or her by virtue of being an office holder:

- financial liability imposed upon said office holder in favor of another person by virtue of a decision by a court of law, including a decision by way of settlement or a decision in arbitration which has been confirmed by a court of law;
- reasonable expenses of the proceedings, including lawyers' fees, expended by the office holder or imposed on him by the court for:
 - (1) proceedings issued against him by or on behalf of the Company or by a third party;
 - (2) criminal proceedings in which the office holder was acquitted; or
 - (3) criminal proceedings in which he was convicted in an offense, which did not require proof of criminal intent; or
- any other liability or expense for which the indemnification of an officer holder is not precluded by law.

We have obtained directors and officers liability insurance for the benefit of our office holders. In addition, we have sometimes granted indemnification letters to our office holders.

Limitations on Exemption, Insurance and Indemnification

The Israeli Companies Law provides that a company may not exempt or indemnify an office holder, or enter into an insurance contract, which would provide coverage for any monetary liability incurred as a result of any of the following:

- a breach by the office holder of his or her duty of loyalty towards the company unless, with respect to insurance coverage, the office holder acted in good faith and had a reasonable basis to believe that the act would not prejudice the company;
- a breach by the office holder of his or her duty of care if the breach was done intentionally or recklessly;
- any act or omission done with the intent to derive an illegal personal benefit; or
- any fine levied against the office holder.

Required Approvals

In addition, under the Israeli Companies Law, any exemption of, indemnification of, or procurement of insurance coverage for, our office holders must be approved by our audit committee and our Board of Directors and, if the beneficiary is a director, an additional approval by our shareholders is required.

RIGHTS OF ORDINARY SHARES

Our ordinary shares confer upon our shareholders the right to receive notices of, and to attend, shareholder meetings, the right to one vote per ordinary share at all shareholders' meetings for all purposes, and to share equally, on a per share basis, in such dividends as may be declared by our Board of Directors; and upon liquidation or dissolution, the right to participate in the distribution of any surplus assets of the Company legally available for distribution to shareholders after payment of all debts and other liabilities of the Company. All ordinary shares rank pari passu in all respects with each other.

MEETINGS OF SHAREHOLDERS

An annual general meeting of our shareholders will be held at least once in every calendar year, not later than 15 months after the last annual general meeting at such time and at such place either within or without the State of Israel as may be determined by our Board of Directors.

Our Board of Directors may, whenever it deems fit, convene a special general meeting. Special general meetings may also be convened upon requisition in accordance with the Israeli Companies Law. Our Board is obligated to convene a special general meeting if it receives a written request from any of (a) two Directors or 25% of the total number of Directors; (b) one or more Shareholders, holding at least 5% of our outstanding share capital and at least 1% of the shareholders' voting power; or (c) one or more shareholders holding no less than 5% of the our outstanding voting shares.

MERGERS

A merger of the Company shall require resolution adopted by a simple majority vote cast at a general meeting, not taking into account abstentions provided, however, that if the transaction is an extraordinary transaction with a controlling shareholder or in which a controlling shareholder has an interest, then the approvals required will be the corporate approvals under the Israeli Companies Law for such extraordinary transaction.

C. MATERIAL CONTRACTS

While we have numerous contracts with customers, representatives, distributors and landlords, except as described in Item 4. Information on the Company – Business Overview – Key Customer Contracts and except for the Asset Purchase Agreement with OTI from August 2013, as outlined in “Item 5. Operating and Financial Review and Prospects,” we do not deem any such individual contract to be material contracts which are not in the ordinary course of our business

D. EXCHANGE CONTROLS

Israeli law and regulations do not impose any material foreign exchange restrictions on non-Israeli holders of our ordinary shares.

Non-residents of Israel who purchase our ordinary shares will be able to convert dividends, if any, thereon, and any amounts payable upon our dissolution, liquidation or winding up, as well as the proceeds of any sale in Israel of our ordinary shares to an Israeli resident, into freely reportable dollars, at the exchange rate prevailing at the time of conversion, provided that the Israeli income tax has been withheld (or paid) with respect to such amounts or an exemption has been obtained.

E. TAXATION

Taxation and Government Programs

The following description is not intended to constitute a complete analysis of all tax consequences relating to the acquisition, ownership and disposition of our ordinary shares. You should consult your own tax advisor concerning the tax consequences of your particular situation, as well as any tax consequences that may arise under the laws of any state, local, foreign or other taxing jurisdiction.

Israeli Tax Considerations and Government Programs

The following is a summary of the current material Israeli tax laws applicable to companies in Israel with special reference to its effect on us. This summary does not discuss all the acts of Israeli tax law that may be relevant to a particular investor in light of his or her personal investment circumstances or to some types of investors subject to special treatment under Israeli law. Some parts of this discussion are based on new tax legislation that has not been subject to judicial or administrative interpretation. Accordingly, we cannot assure you that the views expressed in the discussion will be accepted by the tax authorities in question. The discussion is not intended and should not be construed as legal or professional tax advice and does not cover all possible tax considerations.

POTENTIAL INVESTORS AND HOLDERS OF OUR SHARES ARE URGED TO CONSULT THEIR OWN TAX ADVISORS AS TO THE ISRAELI OR OTHER TAX CONSEQUENCES OF THE PURCHASE, OWNERSHIP AND DISPOSITION OF OUR ORDINARY SHARES, INCLUDING, IN PARTICULAR, THE EFFECT OF ANY FOREIGN, STATE OR LOCAL TAXES.

The following discussion describes the material Israeli tax consequences regarding ownership and disposition of our ordinary shares applicable to non-Israeli shareholders, including U.S. shareholders.

General Corporate Tax Structure

Israeli companies are generally subject corporate tax on their taxable income at the rate of 23.0% in 2019 (23.0% in 2018, 24% in 2017; 25% in 2016).

On August 5, 2013 the Israeli parliament (the Knesset) passed the Law for Changes in National Priorities (Legislative Amendments for Achieving Budget Objectives in the Years 2013 and 2014) - 2013, by which, inter alia, the corporate tax rate would be raised by 1.5% to a rate of 26.5% as from 2014. On January 4, 2016, the Knesset plenum approved a bill to amend the Income Tax Ordinance, including a reduction in corporate tax by 1.5% from 26.5% to 25%, as from January 1, 2016. In 2017 the Knesset approved additional reduction of 1% every year to 24% in 2017, 23% in 2018 onwards.

Taxation of Capital Gains Applicable to Israeli Shareholders and Non-Israeli Shareholders

General

Israeli law generally imposes a capital gains tax on the sale of any capital assets by residents of Israel, as defined for Israeli tax purposes, and on the sale of assets located in Israel, including shares in Israeli companies, by both residents and non-residents of Israel, unless a specific exemption is available or unless a tax treaty between Israel and the shareholder's country of residence provides otherwise. The law distinguishes between real gain and inflationary surplus. The inflationary surplus is a portion of the total capital gain which is equivalent to the increase of the relevant asset's purchase price which is attributable to the increase in the Israeli consumer price index or, in certain circumstances, a foreign currency exchange rate, between the date of purchase and the date of sale. The real gain is the excess of the total capital gain over the inflationary surplus.

The portion of the inflationary surplus accrued from the date of acquisition until January 1, 1994 is taxed at a rate of 10%, and thereafter until the date of sale is exempt from tax.

Israeli residents

Individuals

Pursuant to amendments to the Tax Ordinance, effective as of January 1, 2012, the capital gains tax rate applicable to individuals upon the sale of securities is such individual's marginal tax rate but not more than 25%, or 30% with respect to an individual who meets the definition of a 'Substantial Shareholder' on the date of the sale of the securities or at any time during the 12 months preceding such date. A 'Substantial Shareholder' is defined as a person who, either alone or together with any other person, holds, directly or indirectly, at least 10% of any of the means of control of a company (including, among other things, the right to receive profits of the company, voting rights, the right to receive the company's liquidation proceeds and the right to appoint a director). An additional tax at a rate of 3% on the capital gain tax rate may be imposed upon shareholders whose annual taxable income exceeds NIS 641,880 (in 2018) (hereinafter "Surcharge Tax").

Companies

The real capital gain on the sale of securities by a company will be taxed at the corporate tax rate applicable during the year of sale (24% in 2017, 23% in 2018 onwards).

Non-Israeli residents

In general, if ordinary shares are traded on a Recognized Exchange gains on the sale of ordinary shares held by non-Israeli tax resident investors will generally be exempt from Israeli capital gains tax so long as the shares were not held through a permanent establishment that the non-Israeli tax resident investor maintains in Israel. Notwithstanding the foregoing, dealers in securities in Israel are taxed at regular tax rates applicable to business income.

However, non-Israeli corporations will not be entitled to such exemption if Israeli residents (i) have a controlling interest of 25% or more in such non-Israeli corporation, or (ii) are the beneficiaries or are entitled to 25% or more of the revenues or profits of such non-Israeli corporation, whether directly or indirectly.

In addition, persons paying consideration for shares, including purchasers of shares, Israeli securities dealers effecting a transaction, or a financial institution through which securities being sold are held, are required, subject to any applicable exemptions and the demonstration by the selling shareholder of its non-Israeli residency and other requirements, to withhold tax upon the sale of publicly traded securities at a rate of 25% for individuals and at the corporate tax rate (24% in 2017) for corporations.

The Convention between the Government of the State of Israel and the Government of the United States of America with Respect to Taxes on Income (the "Treaty") is generally effective as of January 1, 1995. Under the Treaty, the maximum Israeli withholding tax on dividends paid to a holder of our ordinary shares who is a Treaty U.S. Resident (as defined below) is generally 25% or 30% for a shareholder that is considered a significant shareholder at any time during the 12-month period preceding such distribution.

The Treaty further provides that a 15% or a 12.5% Israeli dividend withholding tax will apply to dividends paid to a U.S. corporation owning 10% or more of an Israeli company's voting shares during, in general, the current and preceding tax year of the Israeli company. However, these provisions do not apply if the company has certain amounts of passive income.

Pursuant to the Treaty, the sale, exchange or disposition of our ordinary shares by a person who qualifies as a resident of the United States within the meaning of the Treaty and who is entitled to claim the benefits afforded to such residents under the Treaty (a "Treaty U.S. Resident") generally will not be subject to the Israeli capital gains tax unless such Treaty U.S. Resident holds, directly or indirectly, shares representing 10% or more of the voting power of the Company during any part of the 12-month period preceding such sale, exchange or disposition subject to certain conditions. A sale, exchange or disposition of our ordinary shares by a Treaty U.S. Resident who holds, directly or indirectly, shares representing 10% or more of the voting power of the Company at any time during such preceding 12-month period would not be exempt under the Treaty from such Israeli tax; however, under the Treaty, such Treaty U.S. Resident would be permitted to claim a credit for such taxes against U.S. federal income tax imposed on any gain from such sale, exchange or disposition, under the circumstances and subject to the limitations specified in the Treaty and U.S. domestic law. As mentioned above, gains on the sale of ordinary shares held by non-Israeli tax resident investors will generally be exempt from Israeli capital gains tax if the ordinary shares are traded on a Recognized Exchange. This exemption would generally apply notwithstanding the Treaty.

In some instances, where our shareholders may be liable to Israeli tax on the sale of their ordinary shares, the payment of the consideration may be subject to the withholding of Israeli tax at the source. However, under the Tax Treaty, such U.S. resident would be permitted to claim a credit for such taxes against the U.S. federal income tax imposed with respect to such sale, exchange or disposition, subject to the limitations in U.S. laws applicable to foreign tax credits. The Tax Treaty does not relate to U.S. state or local taxes.

Tax on Dividends

Non-residents of Israel are subject to income tax on income accrued or derived from sources in Israel. These sources of income include passive income such as dividends. On distributions of dividends other than bonus shares, or stock dividends, income tax is applicable at the rate of 25%, or 30% for a shareholder that is considered a significant shareholder at any time during the 12-month period preceding such distribution. A different rate may be provided in a treaty between Israel and the shareholder's country of residence. Under the Tax Treaty, the maximum tax on dividends paid to a holder of our ordinary shares who is a US resident is 25%; however if not more than 25% of our gross income consists of interest or dividends, then the maximum tax is 12.5% for a shareholder who is a US corporation holding at least 10% of our issued voting power during the part of the taxable year preceding the date of payment of the dividend and during the whole of the prior taxable year (and additional conditions under the Tax Treaty are met).

U.S. Federal Income Taxation

The following is a description of certain U.S. federal income tax consequences relating to the acquisition, ownership and disposition of our ordinary shares by a U.S. Holder as defined below. This description addresses only the U.S. federal income tax consequences to U.S. Holders that hold our ordinary shares as capital assets. This description is based on the Internal Revenue Code of 1986, as amended (the "Code"), existing, proposed and temporary Treasury regulations promulgated thereunder, judicial and administrative interpretations thereof, and the U.S.-Israel Tax Treaty, all as in effect on the date hereof and all of which are subject to change either prospectively or retroactively. There can be no assurances that the U.S. Internal Revenue Service, ("IRS"), will not take a different position concerning the tax consequences of the acquisition, ownership and disposition of our shares or that such a position would not be sustained. U.S. Holders should consult their own tax advisors concerning the U.S. federal, state, local and foreign tax consequences of purchasing, owning and disposing of our ordinary shares in their particular circumstances.

This description does not address all the tax consequences that may be relevant to a U.S. Holder subject to special tax rules, including without limitation:

- banks, financial institutions or insurance companies;
- real estate investment trusts, regulated investment companies or grantor trusts;
- dealers or traders in securities, commodities or currencies;
- tax-exempt entities or organizations, including an "individual retirement account" or "Roth IRA" as defined in Section 408 or 408A of the Code;
- certain former citizens or long-term residents of the United States;
- persons that received our shares as compensation for the performance of services;
- persons that will hold our shares as part of a "hedging," "integrated" or "conversion" transaction or as a position in a "straddle" for U.S. federal income tax purposes;
- partnerships or other pass-through, or holders that will hold our shares through such an entity;
- S corporations;
- holders whose functional currency is not the U.S. Dollar; or
- holders that actually or constructively own 10 percent or more of our voting shares.

Moreover, this description does not address the United States federal estate, gift or alternative minimum tax consequences, or any state, local or foreign tax consequences, of the acquisition, ownership and disposition of our ordinary shares.

For purposes of this summary, the term "U.S. Holder" means any beneficial owner of our ordinary shares who is:

- an individual and either a citizen or, for U.S. federal income tax purposes, a resident of the United States;
- a corporation (or other entity treated as a corporation for U.S. federal income tax purposes) created or organized in or under the laws of the United States or any political subdivision thereof;
- an estate whose income is subject to U.S. federal income tax regardless of its source; or
- a trust that (a) is subject to the primary supervision of a court within the United States and the control of one or more U.S. persons or (b) has a valid election in effect under applicable U.S. Treasury regulations to be treated as a U.S. person.

If a partnership (or an entity treated as a partnership for U.S. federal income tax purposes) holds our ordinary shares, the U.S. federal income tax treatment of a partner in such a partnership will generally depend upon the status of the partner and the activities of the partnership. Such partner or partnership should consult their tax advisor about the U.S. federal income tax consequences of holding and disposing of ordinary shares in its particular circumstance.

Taxation of Dividends

Subject to the discussion below under the heading "Passive Foreign Investment Companies," the gross amount of any distribution made to you with respect to our ordinary shares, including the amount of any Israeli taxes withheld therefrom, will constitute dividend income for U.S. federal income tax purposes, to the extent such dividend is paid out of our current and accumulated earnings and profits as determined under U.S. federal income tax principles. Distributions in excess of our current and accumulated earnings and profits will be treated as a non-taxable return of capital to the extent of your tax basis in the ordinary shares, and any amount in excess of your tax basis will generally be treated as capital gain from the sale of ordinary shares. See "Disposition of Ordinary Shares" below for a discussion of the taxation of capital gains. Because we are not a U.S. corporation, U.S. Holders that are corporations will not be entitled to claim a dividends-received deduction under Section 243 of the Code with respect to distributions they receive from us.

Dividends that we pay in NIS, including the amount of any Israeli taxes withheld therefrom, will be included in your income in a U.S. dollar amount calculated by reference to the exchange rate in effect on the day such dividends are received. A U.S. Holder who receives payment in NIS and converts NIS into U.S. dollars at an exchange rate other than the rate in effect on such day may have a foreign currency exchange gain or loss that would be treated as ordinary income or loss. U.S. Holders should consult their own tax advisors concerning the U.S. tax consequences of acquiring, holding and disposing of NIS.

Subject to complex limitations, any Israeli withholding tax imposed on such dividends will be a foreign income tax eligible for credit against a U.S. Holder's U.S. federal income tax liability. The limitations set out in the Code include computational rules under which foreign tax credits allowable with respect to specific classes of income cannot exceed the U.S. federal income taxes otherwise payable with respect to each such class of income. Dividends generally will be treated as foreign source passive category income for United States foreign tax credit purposes. Further, there are special rules for computing the foreign tax credit limitation of a U.S. Holder who receives dividends subject to a reduced tax rate.

In lieu of claiming a foreign tax credit, U.S. Holders may, at their election, deduct foreign taxes, including Israeli taxes, in computing their taxable income, subject to applicable limitations. An election to deduct foreign taxes instead of claiming foreign tax credits applies to all foreign taxes paid or accrued in the taxable year.

The rules relating to the determination of the foreign tax credit are complex, and you should consult with your personal tax advisors to determine whether and to what extent you would be entitled to this credit.

Subject to certain limitations, including the Medicare tax, discussed below, "qualified dividend income" received by a non-corporate U.S. Holder will be subject to tax at a preferential maximum tax rate of 20 percent. Distributions taxable as dividends paid on the ordinary shares should qualify for the preferential 20 percent rate provided that either: (i) we are entitled to benefits under the income tax treaty between the United States and Israel (the "Treaty") or (ii) the ordinary shares are readily tradable on an established securities market in the United States and certain other requirements are met. We believe that we are entitled to benefits under the Treaty and that the ordinary shares currently are readily tradable on an established securities market in the United States, and therefore any dividend distributions with respect to our ordinary shares should be "qualified dividends" eligible for the preferential tax rate. However, no assurance can be given that the ordinary shares will remain readily tradable. The preferential rate does not apply unless certain holding period requirements are satisfied. With respect to the ordinary shares, the U.S. Holder must have held such shares for at least 61 days during the 121-day period beginning 60 days before the ex-dividend date. The preferential rate also does not apply to dividends received from a passive foreign investment company or in respect of certain hedged positions or in certain other situations. The legislation enacting the preferential tax rate on qualified dividends contains special rules for computing the foreign tax credit limitation of a taxpayer who receives dividends subject to the preferential tax rate. U.S. Holders of ordinary shares should consult their own tax advisors regarding the effect of these rules in their particular circumstances.

Additional Tax on Investment Income

In addition to the income taxes described above, U.S. Holders that are individuals, estates or trusts and whose income exceeds certain thresholds, will be subject to a 3.8% Medicare contribution tax on net investment income, which includes dividends and capital gains.

Disposition of Ordinary Shares

If you sell or otherwise dispose of ordinary shares, you will recognize gain or loss for U.S. federal income tax purposes in an amount equal to the difference between the amount realized on the sale or other disposition and your adjusted tax basis in the ordinary shares. Subject to the discussion below under the heading "Passive Foreign Investment Companies," such gain or loss generally will be capital gain or loss and will be long-term capital gain or loss if you have held the ordinary shares for more than one year at the time of the sale or other disposition. Long-term capital gain realized by a non-corporate U.S. Holder is generally eligible for a preferential tax rate (currently at 20%). In general, any gain that you recognize on the sale or other disposition of ordinary shares will be U.S.-source for purposes of the foreign tax credit limitation; losses will generally be allocated against U.S. source income. Deduction of capital losses is subject to certain limitations under the Code.

In the case of a cash basis U.S. Holder who receives NIS in connection with the sale or disposition of ordinary shares, the amount realized will be based on the U.S. dollar value of the NIS received with respect to the ordinary shares as determined on the settlement date of such exchange. A U.S. Holder who receives payment in NIS and converts NIS into United States dollars at a conversion rate other than the rate in effect on the settlement date may have a foreign currency exchange gain or loss that would be treated as ordinary income or loss.

An accrual basis U.S. Holder may elect the same treatment required of cash basis taxpayers with respect to a sale or disposition of ordinary shares, provided that the election is applied consistently from year to year. Such election may not be changed without the consent of the IRS. In the event that an accrual basis U.S. Holder does not elect to be treated as a cash basis taxpayer (pursuant to the Treasury regulations applicable to foreign currency transactions), such U.S. Holder may have a foreign currency gain or loss for U.S. federal income tax purposes because of differences between the U.S. dollar value of the currency received on the trade date and on the settlement date. Any such currency gain or loss would be treated as ordinary income or loss and would be in addition to the gain or loss, if any, recognized by such U.S. Holder on the sale or disposition of such ordinary shares.

Passive Foreign Investment Companies

In general, a non U.S. corporation will be considered a passive foreign investment company ("PFIC"), if (i) 75% or more of its gross income consists of passive income, or (ii) 50% or more of the average value of its assets consists of assets that produce, or are held for the production of passive income. For purposes of the above calculation, a non U.S. corporation that directly or indirectly owns at least 25% by value of the shares of another corporation is treated as if it held its proportionate share of the assets of the other corporation and received directly its proportionate share of the income of the other corporation. Passive income generally includes dividends, interest, certain royalties, rents, annuities and the excess of gains over losses from the disposition of assets which produce passive income.

Based on our current and projected income, assets and activities, we believe that we are not currently a PFIC, nor do we expect to become a PFIC in the foreseeable future. However, because the determination of whether we are a PFIC is based upon the composition of our income and assets from time to time, there can be no assurances that we will not become a PFIC in this or any future taxable year.

If we were to be treated as a PFIC for any taxable year during which a U.S. Holder held ordinary shares, such U.S. Holder would be required to file IRS Form 8621 (Information Return by a Shareholder of a Passive Foreign Investment Company or Qualified Electing Fund). In addition, the favorable tax rates described above with respect to dividends paid to certain non-corporate U.S. Holders would not apply if we were a PFIC for the taxable year of distribution or the preceding taxable year.

If we were determined to be a PFIC for U.S. federal income tax purposes, highly complex rules would apply to U.S. Holders owning, directly or indirectly, ordinary shares. Accordingly, you are urged to consult your tax advisors regarding the application of such rules.

Backup Withholding and Information Reporting

Payments in respect of ordinary shares may be subject to information reporting to the U.S. Internal Revenue Service and to U.S. backup withholding tax at a rate of 28%. Backup withholding will not apply, however, if you (i) are a corporation or other exempt recipient, or (ii) furnish a correct taxpayer identification number and make any other required certification.

Backup withholding is not an additional tax. Amounts withheld under the backup withholding rules are properly credited against a U.S. Holder's U.S. tax liability, and a U.S. Holder may obtain a refund of any excess amounts withheld under the backup withholding rules by filing the appropriate tax return or other claim for refund with the IRS.

U.S. individuals that hold certain specified foreign financial assets, including stock in a foreign corporation, with values in excess of certain thresholds are required to file Form 8938 (Statement of Specified Foreign Financial Assets) with their US Federal income tax return. U.S. Holders are urged to consult their tax advisors regarding their information reporting obligations, if any, with respect to their ownership and disposition of our ordinary shares.

F. DIVIDENDS AND PAYING AGENTS

Not applicable.

G. STATEMENT BY EXPERTS

Not applicable.

H. DOCUMENTS ON DISPLAY

We are subject to certain of the reporting requirements of the Exchange Act, as applicable to "foreign private issuers" as defined in Rule 3b-4 under the Exchange Act. As a foreign private issuer, we are exempt from certain provisions of the Exchange Act. Accordingly, our proxy solicitations are not subject to the disclosure and procedural requirements of Regulation 14A under the Exchange Act, and transactions in our equity securities by our officers and directors are exempt from reporting and the "short-swing" profit recovery provisions contained in Section 16 of the Exchange Act. In addition, we are not required under the Exchange Act to file periodic reports and financial statements as frequently or as promptly as U.S. companies whose securities are registered under the Exchange Act. However, we file with the SEC an annual report on Form 20-F containing financial statements audited by an independent accounting firm. We also submit to the SEC reports on Form 6-K containing (among other things) press releases and unaudited financial information. We post our annual report on Form 20-F on our website www.supercom.com promptly following the filing of our annual report with the SEC. The information on our website is not incorporated by reference into this annual report.

This annual report and the exhibits thereto and any other document we file pursuant to the Exchange Act may be inspected without charge and copied at prescribed rates at the SEC public reference room at 100 F Street, N.E., Room 1580, Washington, D.C. 20549. You may obtain information on the operation of the SEC's public reference room in Washington, D.C. by calling the SEC at 1-800-SEC-0330. The Exchange Act file number for our SEC filings is 001-33668.

The SEC maintains a website at www.sec.gov that contains reports, proxy and information statements, and other information regarding registrants that make electronic filings with the SEC using its EDGAR (Electronic Data Gathering, Analysis, and Retrieval) system.

The documents concerning our company that are referred to in this Annual Report may also be inspected at our offices located at 20Lincoln Street, Tel Aviv, Israel.

I. SUBSIDIARY INFORMATION

Not applicable.

ITEM 11. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISKS

Exposure to Market Risks

We may be exposed to a variety of risks, including changes in interest rates affecting primarily interest received on short-term deposits and foreign currency fluctuations. In 2017 our principal market risk was our exposure to currency exchange fluctuations. We may limit our exposure to currency exchange rate risk by using various hedging techniques (which was not used in 2018), including forward and option contracts. However, we cannot eliminate the effects of currency fluctuations altogether. Exchange rate fluctuations resulting in a devaluation of the U.S. dollar compared to the NIS could have a material adverse impact on our operating results and share price.

Foreign Currency Exchange Risk

We may in the future carry out transactions involving foreign currency exchange derivative financial instruments. The transactions would be designed to hedge our exposure in NIS against the U.S. dollar.

We have operations in several countries in connection with the sale of our products. A substantial portion of our sales and expenditures are denominated in dollars. We have mitigated, and expect to continue to mitigate, a portion of our foreign currency exposure through salaries, marketing and support operations in which all costs are local currency based. As a result, our results of operations and cash flows can be affected by fluctuations in foreign currency exchange rates (primarily the NIS). A hypothetical 10% movement in foreign currency rates (primarily the NIS) against the dollar, with all other variables held constant on the expected sales, would result in a decrease or increase in expected 2018 net income of approximately \$2.0 million.

ITEM 12. DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES

Not Applicable

ITEM 13. DEFAULTS, DIVIDEND ARREARAGES AND DELINQUENCIES

None.

ITEM 14. MATERIAL MODIFICATIONS TO THE RIGHTS OF SECURITY HOLDERS AND USE OF PROCEEDS

None.

ITEM 15. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Our disclosure controls and procedures are designed to provide reasonable assurance that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate, to allow for timely decisions regarding required disclosure, and that such information is recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms.

Our management, under the supervision and with the participation of our Chief Executive Officer (CEO) and acting Chief Financial Officer (acting CFO), has evaluated the effectiveness of our disclosure controls and procedures as of December 31, 2018, pursuant to Rule 13a-15 under the Exchange Act. Based upon this evaluation, our CEO and acting CFO concluded that our disclosure controls and procedures were ineffective as of December 31, 2018 as a result of the material weakness identified in our internal control over financial reporting. This material weakness is discussed in our "Report of Management on Internal Control over Financial Reporting" below. Our management considers our internal control over financial reporting to be an integral part of our disclosure controls and procedures.

Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over our financial reporting. Our management assessed the effectiveness of our internal control over financial reporting as of December 31, 2018. In making our assessment, our management used the criteria established in Internal Control—Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). A material weakness, as defined by SEC rules, is a control deficiency, or combination of control deficiencies, such that there is a reasonable possibility that a material misstatement of the annual or interim financial statements will not be prevented or detected on a timely basis.

The material weaknesses identified during management's assessment were (i) a lack of sufficient internal accounting expertise to provide reasonable assurance that our financial statements and notes thereto are prepared in accordance with GAAP and (ii) a lack of sufficient resources in its accounting function resulting in a lack of segregation of duties and an insufficient level of monitoring and oversight, which restricted the Company's ability to gather, analyze, and properly review information in a timely manner."

Based on such assessment, management has concluded that, as of December 31, 2018, our internal control over financial reporting is ineffective.

Notwithstanding the identified material weakness, management believes that the consolidated financial statements included in this Annual Report fairly represent with all material respects the financial position, results of operations and cash flows as of and for all periods presented.

Changes in Internal Control over Financial Reporting

During the period covered by this annual report ended December 31, 2018, there were no changes in our internal control over financial reporting that have materially affected, or are reasonably likely to materially affect the Company's internal control over financial reporting.

ITEM 16. RESERVED

ITEM 16A. AUDIT COMMITTEE FINANCIAL EXPERT

Our Board of Directors has determined that Mr. Mirski and Mrs. Shapira, both members of our audit committee, are audit committee financial experts, as defined under the Exchange Act rules, and are independent in accordance with applicable Exchange Act rules. The relevant experience of each of them is summarized in Item 6A "Directors and Senior Management."

ITEM 16B. CODE OF ETHICS

We have adopted a code of ethics that applies to our chief executive officer and all senior financial officers of our company, including the chief financial officer, chief accounting officer or controller, or persons performing similar functions. Our code of ethics has been filed as an exhibit to this annual report. Written copies are available upon request. If we make any substantive amendment to the code of ethics or grant any waivers, including any implicit waiver, from a provision of the codes of ethics, we will disclose the nature of such amendment or waiver on our website: <http://www.supercom.com>

ITEM 16C. PRINCIPAL ACCOUNTANT FEES AND SERVICES

Independent Registered Public Accounting Firm Fees

The following table sets forth, for each of the years indicated, the fees billed by our principal independent registered public accounting firms, Rosenberg Rich Baker Berman P.A. for 2018 and Kesselman & Kesselman a member firm of PricewaterhouseCoopers International for 2017. All of such fees were pre-approved by our Audit Committee.

Services Rendered	Year Ended December 31,	
	2017	2018
Audit fees	\$ 180,000	\$ 185,000
Audit-related fees	\$ 10,000	\$ 5,000
Tax fees	\$ 5,000	\$ 0
Total	\$ 195,000	\$ 190,000

“Audit Fees” are the aggregate fees billed for the audit of our annual financial statements. This category also includes services that generally the independent registered public accounting firm provides, such as statutory audits including audits required by Israeli government institutes.

“Audit-related Fees” are the aggregate fees billed for services in respect of due diligence related to mergers and acquisitions, consents and assistance with and review of documents filed with the SEC.

“Tax Fees” are the aggregate fees billed for professional services rendered for tax compliance and tax advice, other than in connection with the audit. Tax compliance involves preparation of original and amended tax returns, tax planning and tax advice.

Pre-Approval Policies and Procedures

The audit committee has adopted policies and procedures relating to the approval of all audit and non-audit services that are to be performed by our independent auditors. These policies generally provide that we will not engage our independent auditors to render audit or non-audit services unless the service is specifically approved in advance by the Audit Committee or the engagement is entered into pursuant to the pre-approval procedure described below.

From time to time, the audit committee may pre-approve specified types of services that are expected to be provided to us by our independent auditors during the next 12 months. Any such pre-approval is detailed as to the particular service or type of services to be provided and is also generally subject to a maximum dollar amount.

ITEM 16D. EXEMPTIONS FROM THE LISTING STANDARDS FOR AUDIT COMMITTEES

Not applicable.

ITEM 16E. PURCHASES OF EQUITY SECURITIES BY THE ISSUER AND AFFILIATED PURCHASERS

Not applicable.

ITEM 16F. CHANGES IN REGISTRANT’S CERTIFYING ACCOUNTANT

(a) On September 16th, 2019 the board of directors and the Company approved the replacement of Kesselman & Kesselman, a member firm of PricewaterhouseCoopers International Limited, as the Company’s independent registered public accounting firm and simultaneously the engagement of Rosenberg Rich Baker Berman P.A., as its new independent registered public accounting firm as of and for the year ended December 31, 2018. The change of auditors was mutually decided upon after Kesselman & Kesselman had declined to stand for re-election. As described below, the change in independent registered public accounting firm is not the result of disagreement with Kesselman & Kesselman regarding the financial statements issued.

The Company’s annual report on Form 20-F for the fiscal year ended December 31, 2017, including the financial statements audited by Kesselman & Kesselman, was filed with the Securities and Exchange Commission on May 21, 2018 and, thus, Kesselman & Kesselman had concluded its required services to the Company for fiscal 2017, which is the only fiscal year that Kesselman & Kesselman provided services for.

Kesselman & Kesselman’s audit report on the financial statements for the year ended December 31, 2017 did not provide an adverse opinion or disclaimer of opinion to the Company’s financial statements, nor modify its opinion as to uncertainty, audit scope or accounting principles.

During the fiscal year ended December 31, 2017 and the subsequent interim period through September 16th, 2019, there were: (i) no disagreements within the meaning of Item 16F(a)(1)(iv) of Regulation S-K and the related instructions between the Company and Kesselman & Kesselman on any matters of accounting principles or practices, financial statement disclosure, or auditing scope or procedure which, if not resolved to Kesselman & Kesselman’s satisfaction, would have caused Kesselman & Kesselman to make reference thereto in their reports; and (ii) no “reportable events” within the meaning of Item 16F(a)(1)(v) of Regulation S-K except the internal control weakness of inadequate segregation of duties consistent with the Company’s control objectives within its period-end financial reporting process as described in Item 15 above.

During the fiscal years ended December 31, 2016 and 2017 and the subsequent interim period through September 16th, 2019 neither the Company nor anyone on its behalf has consulted with Rosenberg Rich Baker Berman P.A. regarding: (i) the application of accounting principles to a specific transaction, either completed or proposed, or the type of audit opinion that might be rendered on the Company's financial statements, and neither a written report nor oral advice was provided to the Company that Rosenberg Rich Baker Berman P.A. concluded was an important factor considered by the Company in reaching a decision as to any accounting, auditing, or financial reporting issue; (ii) any matter that was the subject of a disagreement within the meaning of Item 16F(a)(2)(iv) of Regulation S-K and the related instructions; or (iii) any reportable event within the meaning of Item 16F(a)(2)(v) of Regulation S-K.

The Company has provided Kesselman & Kesselman with a copy of the disclosures in this Form 20-F and has requested that Kesselman & Kesselman furnish the Company with a letter addressed to the Securities and Exchange Commission ("SEC"), stating whether it agrees with the statements made herein and if not, stating in what respects it does not agree. A copy of Kesselman & Kesselman's letter, dated December 2, 2019, is filed as Exhibit 16.1 to this Form 20-F.

ITEM 16G. CORPORATE GOVERNANCE

Under NASDAQ Stock Market Rule 5615(a)(3), foreign private issuers, such as our company, are permitted to follow certain home country corporate governance practices instead of certain provisions of the NASDAQ Stock Market Rules. A foreign private issuer that elects to follow a home country practice instead of any of such NASDAQ rules must submit to NASDAQ, in advance, a written statement from an independent counsel in such issuer's home country certifying that the issuer's practices are not prohibited by the home country's laws. We have provided NASDAQ with notices of non-compliance with respect to the following NASDAQ rules:

- The requirements regarding the directors' nominations process. Instead, we follow Israeli law and practice in accordance with which our directors are recommended by our board of directors for election by our shareholders. See Item 6C. "Directors, Senior Management and Employees - Board Practices - Election of Directors.
- The requirement to obtain shareholder approval for the establishment or amendment of certain equity based compensation plans, an issuance that will result in a change of control of the company, certain transactions other than a public offering involving issuances of a 20% or more interest in the company and certain acquisitions of the stock or assets of another company. Under Israeli law and practice, the approval of the board of directors is required for the establishment or amendment of equity based compensation plans and private placements. Under Israeli regulations, Israeli companies whose shares have been publicly offered only outside of Israel or are listed for trade only on an exchange outside of Israel, such as our company, are exempt from the Israeli law requirement to obtain shareholder approval for private placements of a 20% or more interest in the company. For the approvals and procedures required under Israeli law and practice for an issuance that will result in a change of control of the company and acquisitions of the stock or assets of another company, see Item 6.C. "Directors, Senior Management and Employee - Board Practices - Approval of Related Party Transactions Under Israeli Law-Disclosure of Personal Interests of a Controlling Shareholder; Approval of Transactions with Controlling Shareholders" and Item 10.B. "Additional Information — Memorandum and Articles of Association - Provisions Restricting Change in Control of Our Company."

ITEM 16H. MINE SAFETY DISCLOSURE

Not applicable.

PART III

ITEM 17. FINANCIAL STATEMENTS

Not applicable.

ITEM 18. FINANCIAL STATEMENTS

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Consolidated Statements of Operations	F-2
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Consolidated Statements of Cash Flows	F-4
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ITEM 19. EXHIBITS

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Exhibit	Description
1.1	Memorandum of Association of the Company (1)
1.2	Articles of Association of the Company (2)
2.1	Form of Stock Certificate representing ordinary shares (3)
4.1	The SuperCom Ltd. 2003 Israeli Share Option Plan (4)
4.2	The SuperCom Ltd. 2007 U.S. Stock Option Plan (5)
4.3	Agreement to Defer Bond Repayments between SuperCom Ltd. and Sigma Wave Ltd., dated March 30, 2011 (6)
4.4	Asset Purchase Agreement by and among On Track Innovations Ltd. and SuperCom Ltd., dated as of August 14, 2013 (7)
4.5	Form of Indemnification Letter (Statement of Exemption and Indemnification) (8)
4.6*†	Credit Agreement by and among SuperCom Inc., SuperCom Ltd., SuperCom IP LLC and DBFIP SCL LLC, dated as of September 6, 2018
8.1*	List of Subsidiaries
11.1	Code of Ethics (9)
12.1*	Certification of Chief Executive Officer and Chief Financial Officer pursuant to Rule 13a-14(a) under the Securities Exchange Act of 1934, as amended
13.1**	Certification of Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
15.1*	Consent of Brightman Almagor Zohar & Co., a member firm of Deloitte ToucheTomatsu
15.2*	Consent of Kesselman & Kesselman, A member firm of PricewaterhouseCoopers International Limited
16.1*	Letter from Kesselman & Kesselman, A member firm of PricewaterhouseCoopers International Limited related to Item 16F
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 Label Linkbase Document
101.PRE*	XBRL Taxonomy Extension Presentation Linkbase Document

* Filed herewith.

** Furnished herewith.

† Portions of this exhibit (indicated by asterisks) have been omitted pursuant to Regulation S-K, Item 601(b)(10). Such omitted information is not material and would likely cause competitive harm to the registrant if publicly disclosed.

- (1) Filed as Exhibit 1.1 to the Registrant's Registration Statement on Form F-1, registration number 333-189910, filed with the Securities and Exchange Commission on July 3, 2013, and incorporated herein by reference.
- (2) Filed as Exhibit 2 to the Registrant's Report on Form 6-K filed with the Securities and Exchange Commission on August 22, 2013, and incorporated herein by reference.
- (3) Filed as Exhibit 2.1 to the Registrant's Registration Statement on Form F-1, registration number 333-189810, filed with the Securities and Exchange Commission on July 3, 2013, and incorporated herein by reference.
- (4) Filed as Exhibit 4.2(a) to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2011, filed with the Securities and Exchange Commission on May 9, 2012, and incorporated herein by reference.
- (5) Filed as Exhibit 4.2(b) to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2011, filed with the Securities and Exchange Commission on May 9, 2012, and incorporated herein by reference.
- (6) Filed as Exhibit 4.10 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2010, filed with the Securities and Exchange Commission on June 13, 2011, and incorporated herein by reference.
- (7) Filed as Exhibit 10.7 to the Registrant's Registration Statement on Form F-1/A, registration number 333-189810, filed with the Securities and Exchange Commission on August 26, 2013, and incorporated herein by reference.
- (8) Filed as Exhibit 10.1 to the Registrant's Registration Statement on Form F-1, registration number 333-189810, filed with the Securities and Exchange Commission on July 3, 2013, and incorporated herein by reference.
- (9) Filed as Exhibit 11.1 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2007, filed with the Securities and Exchange Commission on June 30, 2008, and incorporated herein by reference.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and
Stockholders of SuperCom Ltd.

Opinion on the Financial Statements

We have audited the accompanying balance sheet of SuperCom Ltd. (the Company) as of December 31, 2018, and the related statements of operations, stockholders' equity, and cash flows for the year ended December 31, 2018 the related notes (collectively referred to as the financial statements). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2018, and the results of its operations and its cash flows for the year then ended, in conformity with accounting principles generally accepted in the United States of America.

The consolidated financial statements of the Company for the years ended December 31, 2017 and 2016, before the effects of the adjustments to retrospectively apply the change in accounting discussed in Note 2(x) to the financial statements, were audited by other auditors whose reports, dated May 21, 2018 and May 24, 2017, (June 7, 2018, as to Notes 2q, 2x, 6 and 14) expressed an unqualified opinion on those statements. We have also audited the adjustments to the 2017 and 2016 consolidated financial statements to retrospectively apply the change in accounting for ASU 2016-18 Statement of *Cash Flows*, in 2017 and 2016, as discussed in Note 2(x) to the financial statements. In our opinion, such retrospective adjustments are appropriate and have been properly applied. However, we were not engaged to audit, review, or apply any procedures to the 2017 and 2016 consolidated financial statements of the Company other than with respect to the retrospective adjustments, and accordingly, we do not express an opinion or any other form of assurance on the 2017 and 2016 consolidated financial statements taken as a whole.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's 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 audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the 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 audit, 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 audit included performing procedures to assess the risks of material misstatement of the 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 financial statements. Our audit also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audit provides a reasonable basis for our opinion.

/s/ Rosenberg Rich Baker Berman, P.A.
Rosenberg Rich Baker Berman, P.A.

We have served as the Company's auditor since 2019.

Somerset, New Jersey

December 3, 2019



Report of Independent Registered Public Accounting Firm

To the board of directors and shareholders of
SuperCom Ltd.

Opinion on the Financial Statements

We have audited the consolidated balance sheet of Supercom Ltd. and its subsidiaries (the "Company") as of December 31, 2017, and the related consolidated statements of operations, of changes in shareholders' equity and of cash flows for the year ended December 31, 2017, including the related notes (collectively referred to as the "consolidated financial statements") before the effects of the adjustments to retrospectively apply the change in accounting for restricted cash as described in Note 2(x). In our opinion, the consolidated financial statements, before the effects of the adjustments to retrospectively apply the change in accounting for restricted cash as described in Note 2(x), present fairly, in all material respects, the financial position of the Company as of December 31, 2017 and the results of its operations and its cash flows for the year ended December 31, 2017 in conformity with accounting principles generally accepted in the United States of America (the 2017 financial statements before the effects of the adjustments discussed in Note 2(x) are not presented herein).

We were not engaged to audit, review, or apply any procedures to the adjustments to retrospectively apply the change in accounting for restricted cash as described in Note 2(x) and accordingly, we do not express an opinion or any other form of assurance about whether such adjustments are appropriate and have been properly applied. Those adjustments were audited by other auditors.

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 before the effects of the adjustments described above, based on our audit. 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 audit of these consolidated financial statements, before the effects of the adjustments described above, in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud.

Our audit 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 audit 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 audit provides a reasonable basis for our opinion.

Tel-Aviv, Israel
May 21, 2018

/s/ Kesselman & Kesselman
Kesselman & Kesselman
Certified Public Accountants (Isr.)
A member of PricewaterhouseCoopers
International Limited

We served as the company's auditor from 2017 to 2018.



REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board and Shareholders of

SuperCom Ltd.

We have audited, before the effects of the adjustments to retrospectively apply the change in accounting for restricted cash discussed in Note 2x to the consolidated financial statements, the consolidated statements of income, comprehensive income, stockholders' equity, and cash flows of SuperCom Ltd. and subsidiaries (the "Company") for the year ended December 31, 2016 (the 2016 consolidated financial statements before the effects of the adjustments to retrospectively apply the change in accounting for restricted cash discussed in Note 2x, are not presented herein). These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

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

In our opinion, the 2016 consolidated financial statements, before the effects of the adjustments to retrospectively apply the change in accounting for restricted cash discussed in Note 2x to the consolidated financial statements, present fairly, in all material respects, the financial position of SuperCom Ltd. and subsidiaries at December 31, 2016, and the results of their operations and their cash flows for the year then ended, in conformity with accounting principles generally accepted in the United States of America.

As also discussed in Note 2x to the consolidated financial statements revenues and cost of revenue presented in the accompanying consolidated statements of operations, for the year ended December 31, 2016, have been separated to products and services in accordance with Rules 5-03(b)(1) and (2) of Regulation S-X.

We were not engaged to audit, review, or apply any procedures to the adjustments to retrospectively apply the change in accounting regarding the adoption of ASU 2016-18 Statement of Cash Flows (Topic 230): Restricted Cash (ASU 2016-18) discussed in Note 2x to the consolidated financial statements and, accordingly, we do not express an opinion or any other form of assurance about whether such retrospective adjustments are appropriate and have been properly applied. Those retrospective adjustments were audited by other auditors.

/S/ Brightman Almagor Zohar & Co.
Brightman Almagor Zohar & Co.
Certified Public Accountants
A Firm in the Deloitte Global Network
Tel Aviv, Israel
May 24, 2017, (June 7, 2018, as to Notes 2x, and 14)

SUPERCOM LTD.
CONSOLIDATED BALANCE SHEETS
(U.S. dollars in thousands, except share data)

	<i>As of December 31,</i>	
	2018	2017
CURRENT ASSETS		
Cash and cash equivalents	\$ 1,639	\$ 1,037
Restricted bank deposit	1,162	1,063
Trade accounts receivable, net of allowance for doubtful accounts of \$4,747 and \$2,341 as of December 31, 2018 and 2017, respectively (Note 15)	13,460	12,456
Other accounts receivable and prepaid expenses (Note 3)	951	2,698
Inventories, net (Note 4)	3,169	4,876
Patents held for sale	5,283	5,283
TOTAL CURRENT ASSETS	25,664	27,413
LONG-TERM ASSETS		
Severance pay funds (Note 2.m)	361	319
Deferred tax long term	385	4,505
Property and equipment, net (Note 6)	843	1,218
Other Intangible assets, net (Note 7)	10,070	11,910
Goodwill	7,026	7,026
Other non-current assets	-	1,807
TOTAL LONG-TERM ASSETS	18,685	26,785
TOTAL ASSETS	44,349	54,198
CURRENT LIABILITIES		
Short-term bank loans	-	738
Trade accounts payable	3,488	5,838
Employees and payroll accruals	2,773	4,910
Related parties (Note 13.c)	171	61
Accrued expenses and other liabilities (Note 8)	4,475	3,739
Deferred revenue	1,665	1,511
Short-term liability for future earn-out	971	1,163
TOTAL CURRENT LIABILITIES	13,543	17,960
LONG-TERM LIABILITIES		
Long-term loan	9,624	-
Related parties (Note 13.d)	165	2,082
Deferred tax liability	-	49
Deferred revenues	836	668
Long-term liability for future earn-out	46	147
Accrued severance pay	585	585
TOTAL LONG TERM LIABILITIES	11,256	3,531
TOTAL LIABILITIES	24,799	21,491
Commitments and contingent liabilities (Note 9)		
SHAREHOLDERS' EQUITY (Note 12)		
Ordinary shares, NIS 0.25 par value - authorized 28,000,000 shares, 16,126,237 shares issued and outstanding at December 31, 2018 and 14,958,339 shares issued and outstanding at December 31, 2017	1,110	1,026
Additional paid-in capital	84,399	82,157
Accumulated deficit	(65,959)	(50,476)
Total shareholders' equity	\$ 19,550	\$ 32,707
Total liabilities and shareholders' equity	44,349	54,198

The accompanying notes are an integral part of the consolidated financial statements.

(*) See note 2 regarding the adoption of ASU No. 2015-17, Income Taxes.

SUPERCOM LTD.
CONSOLIDATED STATEMENTS OF OPERATIONS
(U.S. dollars in thousands, except share and per share data)

	Year ended December 31,		
	2018	2017	2016
Revenues			
Products	8,516	19,396	7,631
Services	13,366	13,868	12,394
Total revenues	<u>21,882</u>	<u>33,264</u>	<u>(*)20,025</u>
Cost of revenues			
Cost of products	4,952	11,132	8,537
Cost of services	8,791	9,219	8,924
Total cost of revenues	<u>13,743</u>	<u>20,351</u>	<u>(*)17,461</u>
Gross profit	<u>8,139</u>	<u>12,913</u>	<u>2,564</u>
Operating expenses:			
Research and development	4,790	7,238	6,718
Sales and marketing	5,005	8,099	9,970
General and administrative	5,748	6,113	7,277
Other expense (income), net	2,271	(2,021)	713
Gain from bargain acquisition	-	-	(10,515)
Total operating expenses	<u>17,814</u>	<u>19,429</u>	<u>14,163</u>
Operating income (loss)	<u>(9,675)</u>	<u>(6,516)</u>	<u>(11,599)</u>
Financial expenses, net	<u>(335)</u>	<u>(538)</u>	<u>(303)</u>
Income (loss) before income taxes	<u>(10,010)</u>	<u>(7,054)</u>	<u>(11,902)</u>
Income tax benefit (expense)	<u>(5,730)</u>	<u>393</u>	<u>(2,091)</u>
Net income (loss)	<u>\$ (15,740)</u>	<u>\$ (6,661)</u>	<u>\$ (13,993)</u>
Net income (loss) per share:			
Basic and Diluted	<u>\$ (1.03)</u>	<u>\$ (0.45)</u>	<u>\$ (0.93)</u>
Shares used in calculation of net income per share:			
Basic and Diluted	<u>15,232,155</u>	<u>14,938,943</u>	<u>15,048,812</u>

The accompanying notes are an integral part of the consolidated financial statements.

(*) See note 2(x) Reclassifications

SUPERCOM LTD.
CONSOLIDATED STATEMENT OF CHANGES IN SHAREHOLDERS' EQUITY
(U.S. dollars in thousands, except share data)

	Ordinary Shares		Additional Paid-in Capital	Accumulated deficit	Total Shareholders' Equity
	Number of Shares	Share capital			
Balance as of January 1, 2016	15,493,615	1,053	83,201	(29,822)	54,432
Exercise of options and warrants	10,883	-	22	-	22
Treasury shares acquired	(566,159)	(29)	(2,632)	-	(2,661)
Stock based compensation	-	-	924	-	924
Net loss	-	-	-	(13,993)	(13,993)
Balance as of December 31, 2016	14,938,339	1,024	81,515	(43,815)	38,724
Exercise of options	20,000	2	11	-	13
Stock based compensation	-	-	631	-	631
Net loss	-	-	-	(6,661)	(6,661)
Balance as of December 31, 2017	14,958,339	1,026	82,157	(50,476)	32,707
Accumulated adjustment of adoption of ASC-606 ("Revenue From Contracts With Customers")				257	257
Balance as of January 1, 2018	14,958,339	1,026	82,157	(50,219)	32,964
Issuance of share capital, net of issuance cost	1,167,898	84	1,986	-	2,070
Stock based compensation	-	-	256	-	256
Net loss	-	-	-	(15,740)	(15,740)
Balance as of December 31, 2018	16,126,237	1,110	84,399	(65,959)	19,550

The accompanying notes are an integral part of the consolidated financial statements.

SUPERCOM LTD.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(U.S. dollars in thousands)

	Year ended December 31,		
	2018	2017	2016
CASH FLOWS - OPERATING ACTIVITIES			
Net loss	(15,740)	(6,661)	(13,993)
Adjustments to reconcile net income to net cash from operations:			
Depreciation and amortization	3,692	3,906	3,005
Stock-based compensation	256	631	924
Decrease (increase) in deferred tax	3,913	(389)	738
Capital gain on sale of property and equipment	-	(4)	-
Gain on bargain purchase	-	-	(10,515)
Decrease (increase) in trade receivables, net	(1,004)	(2,146)	5,797
Decrease (increase) in other accounts receivable and prepaid expenses	1,748	(2,005)	(1,000)
Decrease in inventories, net	1,707	616	372
Decrease in other assets, net	1,807	-	-
Increase (decrease) in trade payables	(2,069)	1,880	(79)
Increase(decrease) in employees and payroll accruals	(2,137)	1,962	323
Increase (decrease) in accrued severance pay	-	132	75
Decrease in advances from customer	-	-	-
Increase in accrued expenses and other liabilities, related parties and liability for earn-out	1,411	95	3,308
Net cash used in operating activities	(6,416)	(1,983)	(11,045)
CASH FLOWS - INVESTING ACTIVITIES			
Purchase of property and equipment	(283)	(301)	(400)
Purchase of Intangible assets	(21)	(27)	(39)
Proceeds from sale of property and equipment	-	4	-
Capitalization of software development costs	(1,173)	(1,167)	(1,487)
Capitalization of Precontract costs	-	-	(203)
Acquisitions of subsidiaries, net of cash acquired	-	-	(3,514)
Acquisition of group of assets (non-business)	-	-	(1,174)
Decrease (Increase) in severance pay fund	(42)	(37)	(58)
Restricted bank deposits, net	-	*-	*-
Net cash used in investing activities	(1,519)	*(1,528)	*(6,875)
CASH FLOWS - FINANCING ACTIVITIES			
Short-term bank loan, net	(738)	738	-
Related parties	(1,737)	2,082	-
Originator costs for long term Debt	(280)	-	-
Long-term Debt, Net	9,417	-	-
Treasury shares acquired	-	-	(2,661)
Capital Investment	2,070	-	-
Payment of liability for future earn-out in business combination	(96)	(40)	(2,191)
Proceeds from exercise of options and warrants, net	-	13	22
Net cash provided by (used in) financing activities	8,636	2,793	(4,830)
Increase (decrease) in cash, cash equivalents, and restricted cash	701	*(718)	*(22,702)
Cash, cash equivalents, and restricted cash - beginning of year	2,100	*2,818	*25,520
Cash, cash equivalents, and restricted cash - end of year	2,801	*2,100	*2,818

(*) See note 2(x) Reclassifications

The accompanying notes are an integral part of the consolidated financial statements.

SUPERCOM LTD. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
U.S. dollars in thousands (except per share data)

NOTE 1: GENERAL

- a. SuperCom Ltd. (the "Company") is an Israeli resident company organized in 1988 in Israel. On January 24, 2013 the Company changed its name back to SuperCom Ltd, its original name, from Vuance Ltd. On September 12, 2013, the Company's ordinary shares were approved for listing on the NASDAQ Capital Market and began trading under the ticker symbol "SPCB" on September 17, 2013. Previously, the Company's ordinary shares traded on the OTCQB® electronic quotation service.

The Company is a global provider of traditional and digital identity solutions, providing advanced safety, identification, tracking and security products to governments and organizations, both private and public, throughout the world. The Company provides cutting edge real-time positioning, tracking, monitoring and verification solutions enabled by its RFID & Mobile pure security advanced solutions suite of products and technologies, all connected to a web-based, secure, proprietary, interactive and user-friendly interface. The Company offers a wide range of solutions including, national ID registries, e-passports, biometric visas, automated fingerprint identification systems, digitized driver's licenses, and electronic voter registration and election management using the common platform ("MAGNA"). The Company sells its products through marketing offices in the U.S, Tanzania, Panama, Ecuador and Israel.

- b. *Business Combination*

On January 1, 2016, the Company acquired Leaders in Community Alternatives, Inc., or LCA, a U.S. based company, including all contracts, software, other related technologies and IP assets. The Company paid approximately \$2,900 at the closing and committed to certain contingent earn-out payments over the next three years that are structured as a single digit percentage of annual revenues in excess of standalone LCA management revenue projections. LCA is a California based, private criminal justice organization, providing community-based services and electronic monitoring programs to government agencies in the U.S. for more than 24 years. LCA offers a broad range of competitive solutions for governmental institutions across the U.S. in addressing realignment strategies and plans.

In addition to LCA, during the first half of 2016 the Company acquired Safend Ltd., Alvarion Technologies Ltd. and the assets and IP of PowaPOS. For additional information refer to Note 5.

As of December 31, 2018, the Company's principal activities were conducted mainly through SuperCom Ltd, Alvarion Ltd, Prevision Ltd, Safend Ltd, SuperCom Inc. and LCA Inc.

- c. *Concentration of risk that may have a significant impact on the Company:*

In the year ended December 31, 2018, the Company derived 24% of its revenues from three major customers.

In the year ended December 31, 2017, the Company derived 50% of its revenues from five major customers.

In the year ended December 31, 2016, the Company derived 32% of its revenues from four major customers.

See also Note 14d.

- d. *Liquidity Analysis*

The Company has experienced net losses and significant cash outflows from cash used in operating activities over the past 2 years. As of and for the year ended December 31, 2018, the Company had an accumulated deficit of \$65,959, and net cash used in operating activities of \$6,416, compared to \$1,983 for the year ended December 31, 2017.

Management has evaluated the significance of the conditions described above in relation to the Company's ability to meet its obligations and noted that as of December 31, 2018, the Company had cash, cash equivalent and restricted cash and positive working capital of \$2,801 and \$12,121, respectively. Further, during 2018 and 2019, the Company was undergoing a merger optimization process to be a more efficient structure to operate through three new business segments, supported by common operation services. During the optimization process, the Company has reduced its expenses through the reduction in its headcount and overhead costs, that resulted in a reduction of operating expenses by 30%, between the years 2017 and 2018. Additionally, the Company secured financing of \$20,000 during 2018, of which, \$10,000 remains available to the Company to draw during the 12 months following the balance sheet date as needed. To date, the Company has used the proceeds borrowed from the secured financing (i) to satisfy certain indebtedness; and (ii) for general corporate purposes and (iii) working capital needs for multiple new government customer contracts with significant positive cash flow.

As a result of above mentioned credit facility, management's plans, current cash flow position contracts with customers around the world, and current favorable trends in improving cash flow, the Company concluded that the initial conditions which raised concerns regarding the ability to fund its operation for the next 12 months have been alleviated

- e. *Senior Secured Credit Facility*

On September 6, 2018 and October 26, 2018, through a two-stage closing process, the Company entered into a Senior Secured Credit Facility with affiliates of Fortress Investment Group LLC ("Fortress") with an aggregate principal amount of up to \$20,000 (the "Credit Facility"). The Initial Term Loan which finalized on October 26, 2018 has an aggregate principal of \$10,000, and the Incremental Term Loan provides for up to an additional \$10,000 in principal through Incremental Draws of at least \$1,000 each. In 2019, a total of \$4,000 gross was drawn on the Incremental Term Loan, and some of the terms of the Credit Facility were amended to support the needs of the company. The Credit Facility is set to mature on September 6, 2021 and bears interest on the borrowed balance at a rate per annum equal to LIBOR plus an applicable margin (the "Interest Margin") dependent on the EBITDA Leverage Ratio which is calculated and reset on a quarterly basis (8.0% for an EBITDA Leverage Ratio greater than or equal to 2.50x; 7.0% for an EBITDA Leverage Ratio less than 2.50x). At the Company's election, interest is paid in cash or in-kind in the amount of 4% per annum of the Interest Margin. The balance of interest is payable in cash monthly in arrears. For amounts which remain un-borrowed, the Company incurs interest at a rate of 0.50% per annum ("Unused Fee"). From closing and until today, the Company only paid monthly interest payments. At some point between May 1st, 2020 and November 1st, 2020 the Company is planned to start making monthly amortization payments towards the principal balance, with an estimated up to 60% of the principal to be paid via a bullet payment at the maturity date.

The Credit Facility is subject to an original issue discount equal to 2.5% of any drawn amounts, and amounts repaid cannot be re-borrowed. At maturity, an end-of-term fee of 2.25% to 4.5% is owed by the Company for any amounts drawn. In connection with securing the Credit Facility, the Company incurred legal and due diligence fees, which are recorded together with the original issue discount and end-of-term fee, and amortized into interest expense over the life of the Credit Facility.

In connection with the Credit Facility, the Investor received 25,000 warrants initially and an additional 75,000 warrants for amendments (the "Credit Facility Warrants") and purchased 106,705 unregistered common shares at a share price of \$1.87 from Company at a total of \$200. The Credit Facility Warrants mature 7 years from the date of issuance, are were set to be issued at a strike price at a premium to the then current market price.

As of December 31, 2018, the outstanding principal, including accrued interest, of the Credit Facility was \$10,158. For the twelve months ended December 31, 2018, the Company had \$9 of interest expense pertaining to the un-borrowed principal balance, the Unused Fee, \$4 of which is accrued as of December 31, 2018.

SUPERCOM LTD. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Cont.)

U.S. dollars in thousands (except per share data)

NOTE 2: SIGNIFICANT ACCOUNTING POLICIES

The Company purchases certain services and products used by it to generate revenues in its projects and sales from several sole suppliers. Although there are only a limited number of manufacturers of those particular services and products, management believe that other suppliers could provide similar services and products on comparable terms without affecting operating results.

The consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States ("US GAAP").

a. Use of estimates:

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ from those estimates.

b. Financial statements in U.S. dollars:

Most of the revenues of the Company and its subsidiaries are received in U.S. dollars. In addition, a substantial portion of the costs of the Company and its subsidiaries are incurred in U.S. dollars. Therefore, management believes that the dollar is the currency of the primary economic environment in which the Company and its subsidiaries operate. Thus, the functional and reporting currency of the Company and its subsidiaries is the U.S. dollar.

Transactions and balances denominated in U.S. dollars are presented at their original amounts. Monetary accounts denominated in currencies other than the dollar are re-measured into dollars in accordance with ASC No. 830, "Foreign Currency Matters". All transaction gains and losses from the re-measurement of monetary balance sheet items are reflected in the statements of operations as financial income or financial expenses as appropriate.

c. Principles of consolidation:

The consolidated financial statements include the accounts of the Company and its subsidiaries. Intercompany transactions and balances were eliminated upon consolidation. Profits from intercompany sales, not yet realized outside the group, were also eliminated.

d. Cash and cash equivalents:

The Company considers unrestricted short-term highly liquid investments originally purchased with maturities of three months or less to be cash equivalents. The Company has not held any cash equivalents during 2018 and 2017.

e. Restricted Cash:

Restricted cash held in interest bearing saving accounts which are used as a security for the Company's Israeli facility leasehold bank guarantee, and as a security for ongoing terms of the contracts with existing customers and commercial tenders guarantees.

f. Allowance for doubtful accounts:

The allowance for doubtful accounts is determined with respect to specific amounts the Company has determined to be doubtful of collection. In determining the allowance for doubtful accounts, the Company considers, among other things, its past experience with such customers and the information available regarding such customers.

g. Inventories:

Inventories are stated at the lower of cost or net realizable value. Inventory write-offs are mainly provided to cover risks arising from slow-moving items or technological obsolescence. Cost is determined for all types of inventory using the moving average cost method.

SUPERCOM LTD. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Cont.)

U.S. dollars in thousands (except per share data)

NOTE 2: SIGNIFICANT ACCOUNTING POLICIES (cont.)

h. Property and equipment:

Property and equipment are stated at cost, net of accumulated depreciation.

Depreciation is computed using the straight-line method, over the estimated useful lives, at the following annual rates:

	years
Computers and peripheral equipment	3
Office furniture and equipment	5 - 17
Leasehold improvements	Over the shorter of the term of the lease or the life of the asset

i. Intangible assets:

Intangible assets that are not considered to have an indefinite useful life are amortized using units of production and the straight-line basis over their estimated useful lives, as noted below. Recoverability of these assets is measured by a comparison of the carrying amount of the asset to the undiscounted future cash flows expected to be generated by the assets. If the assets are considered to be impaired, the amount of any impairment is measured as the difference between the carrying value and the fair value of the impaired assets.

Intangible assets and their useful lives are as follows:

	Useful Life (in Years)
Customers relationships & Other	Between 4.5-13 (mainly 13)
IP & Technology	Between 4-15 (mainly 15)
Capitalized software development costs	Between 4-5

As of December 31, 2018, and 2017 no impairment losses were identified.

Acquisition-related intangible assets:

The Company accounts for its business combinations in accordance with ASC 805 "Business Combinations" and with ASC 350-20 "Goodwill and Other Intangible Assets" ("ASC 350-20"). ASC 805-10 specifies the accounting for business combinations and the criteria for recognizing and reporting intangible assets apart from goodwill.

Acquisition-related intangible assets result from the Company's acquisitions of businesses accounted for under the purchase method and consist of the value of identifiable intangible assets including developed software products, brand and patents, as well as goodwill. Goodwill is the amount by which the acquisition cost exceeds the fair values of identifiable acquired net assets on the date of purchase. Acquisition-related definite lived intangible assets are reported at cost, net of accumulated amortization.

SUPERCOM LTD. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Cont.)

U.S. dollars in thousands (except per share data)

NOTE 2: SIGNIFICANT ACCOUNTING POLICIES (cont.)

j. Goodwill:

The Company's goodwill reflects the excess of the consideration paid or transferred including the fair value of contingent consideration over the fair values of the identifiable net assets acquired. The goodwill impairment test is performed by evaluating an initial qualitative assessment of the likelihood of impairment. If this step indicates that the qualitative assessment does not result in a more likely than not indication of impairment, no further impairment testing is required. If it does result in a more likely than not indication of impairment, the impairment test is performed.

In step one of the impairment test, the Company compares the fair value of the reporting unit to the carrying value of the reporting unit. If the fair value of the reporting unit exceeds the carrying value of the net assets allocated to that unit, goodwill is not impaired, and no further testing is required. If the fair value is less than the carrying value of the reporting unit, then the second step of the impairment test is performed to measure the amount of the impairment.

In the second step, the reporting unit's fair value is allocated to all the assets and liabilities of the reporting unit, including any unrecognized intangible assets, in a hypothetical analysis that simulates the business combination principles to derive an implied goodwill value. If the implied fair value of the reporting unit's goodwill is less than its carrying value, the difference is recorded as impairment.

For the years ended December 31, 2018 and 2017 the Company performed an annual impairment analysis and no impairment losses have been identified.

k. Impairment of long-lived assets and intangible assets:

The Company's long-lived assets and certain identifiable intangible assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to the future undiscounted cash flows expected to be generated by the asset. If such asset is considered to be impaired, the impairment to be recognized is measured as the amount by which the carrying amount of the asset exceeds the fair value of the asset.

l. Long lived assets held for sale:

The company accounted for its long lived assets held for sale under ASC 360-10 ("Impairment or disposal of Long-lived Assets").

Under management decision, the patents acquired under Alvarion Ltd. and Safend Ltd. acquisitions during 2016, were not intended for internal use by the Company, and thus accounted for as Long lived assets held for sale. During 2017 and 2018, following management decision, the Company elected to enter into engagements with several brokers for the purpose of marketing and sale of those patents. Realization costs of the patents are immaterial.

For the years ended December 31, 2018 and 2017 the Company did not identify any triggers for impairment.

SUPERCOM LTD. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Cont.)

U.S. dollars in thousands (except per share data)

NOTE 2: SIGNIFICANT ACCOUNTING POLICIES (cont.)

m. Accrued severance pay and severance pay fund:

The liabilities of the Company for severance pay of its Israeli employees are calculated pursuant to Israel's Severance Pay Law. Employees are entitled to one month's salary for each year of employment, or portion thereof. The Company's liability for all its employees is presented under "accrued severance pay". The Company deposits on a monthly basis to severance pay funds and insurance policies. The value of these policies is presented as an asset on the Company's balance sheet.

The deposited funds include accrued income up to the balance sheet date. The deposited funds may be withdrawn only upon the fulfillment of the Company's obligation pursuant to Israel's Severance Pay Law or labor agreements.

Severance expenses for the years ended December 31, 2018, 2017 and 2016 amounted to \$754, \$860 and \$876, respectively.

n. Revenue recognition:

The Company and its subsidiaries generate their revenues from the sale of products, licensing, maintenance, royalties and long term contracts (including training and installation).

Effective January 1, 2018, the Company adopted Financial Accounting Standards Board ("FASB") Topic 606, *Revenue from Contracts with Customers* ("ASC 606"). ASC 606 was applied using the modified retrospective method, therefore the cumulative effect of initially applying the revenue standard is recognized as an adjustment to opening retained earnings at January 1, 2018. Accordingly, comparative periods have not been adjusted and continue to be reported under FASB ASC Topic 605, *Revenue Recognition* ("ASC 605").

Upon adoption of ASC 606, the Company identified a change in the Company's revenue recognition policies related to combined license and maintenance sales, as noted within the Company's Safend contracts. Under ASC 605, revenue for these contracts was recognized over the life of the contract. In accordance with ASC 606, license revenue is recognized upon delivery while maintenance is recognized over the life of the contract. As a result of applying the new standard, the Company will recognize a cumulative effect adjustment to Retained Earnings as of January 1, 2018 in the amount of \$257.

Aside from its combined license and maintenance sales, no other changes were identified to the characteristics of the Company's other revenue recognition policies, other than the enhanced disclosure regarding revenue recognition, including disclosures of revenue streams, performance obligations, variable consideration and the related judgments and estimates necessary to apply the new standard.

We measure revenue based upon the consideration specified in the client arrangement, and revenue is recognized when the performance obligations in the client arrangement are satisfied. A performance obligation is a promise in a contract to transfer a distinct service to the customer. The transaction price of a contract is allocated to each distinct performance obligation and recognized as revenue when or as, the customer receives the benefit of the performance obligation. Under ASC 606, revenue is recognized when a customer obtains control of promised services in an amount that reflects the consideration we expect to receive in exchange for those services. To achieve this core principal, the Company applies the following five steps:

1) *Identify the contract with a customer*

A contract with a customer exists when (i) the Company enters into an enforceable contract with a customer that defines each party's rights regarding the services to be transferred and identifies the payment terms related to these services, (ii) the contract has commercial substance and, (iii) the Company determines that collection of substantially all consideration for services that are transferred is probable based on the customer's intent and ability to pay the promised consideration. The Company applies judgment in determining the customer's ability and intention to pay, which is based on a variety of factors including the customer's historical payment experience or, in the case of a new customer, published credit and financial information pertaining to the customer.

2) *Identify the performance obligations in the contract*

Performance obligations promised in a contract are identified based on the services that will be transferred to the customer that are both capable of being distinct, whereby the customer can benefit from the service either on its own or together with other resources that are readily available from third parties or from the Company, and are distinct in the context of the contract, whereby the transfer of the services is separately identifiable from other promises in the contract. To the extent a contract includes multiple promised services, the Company must apply judgment to determine whether promised services are capable of being distinct in the context of the contract. If these criteria are not met the promised services are accounted for as a combined performance obligation.

3) *Determine the transaction price*

The transaction price is determined based on the consideration to which the Company will be entitled in exchange for transferring services to the customer.

We evaluate whether a significant financing component exists when we recognize revenue in advance of customer payments that occur over time. For example, some of our contracts include payment terms greater than one year from when we transfer control of goods and services to our customers and the receipt of the final payment for those goods and services. If a significant financing component exists, we classify a portion of the transaction price as interest income, instead of recognizing all of the transaction price as revenue. We do not adjust the transaction price for the effects of financing if, at contract inception, the period between the transfer of control to a customer and final payment is expected to be one year or less.

4) *Allocate the transaction price to performance obligations in the contract*

If the contract contains a single performance obligation, the entire transaction price is allocated to the single performance obligation. However, if a series of distinct services that are substantially the same qualifies as a single performance obligation in a contract with variable consideration, the Company must determine if the variable consideration is attributable to the entire contract or to a specific part of the contract. Contracts that contain multiple performance obligations require an allocation of the transaction price based on management's judgement.

SUPERCOM LTD. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Cont.)
U.S. dollars in thousands (except per share data)

NOTE 2: SIGNIFICANT ACCOUNTING POLICIES (cont.)

5) *Recognize revenue when or as the Company satisfies a performance obligation*

The Company satisfies performance obligations either over time or at a point in time. Revenue is recognized at the time the related performance obligation is satisfied by transferring a promised good or service to a customer.

Nature of goods and services

The following is a description of the Company's goods and services from which the Company generates revenue, as well as the nature, timing of satisfaction of performance obligations, and significant payment terms for each, as applicable:

Software Maintenance and Support Services Revenue

Software maintenance and support services contracts are sold in conjunction with the Company's software products for its e-Govt, IoT and Connectivity, and Cyber Security revenue streams. The contract terms for software maintenance and support span one to five years in length and provide customers with the rights to unspecified software product updates if and when available, online and telephone access to technical support personnel.

The Company recognizes revenue from fixed-price service and maintenance contracts using the input method of accounting. Under the input method, revenue is recognized on the basis of an entity's efforts toward satisfying a performance obligation. We recognize revenue from maintenance and support services provided pursuant to the time elapsed under such contracts, as that is when our performance obligation to our customers under such arrangements is fulfilled.

Perpetual Software License Revenue

The Company generates revenue from the sales of perpetual software licenses for its Cyber Security and e-Gov segments, including sales for its Magna_DL, Magna_VL, Magna_Passport, and Magna_ID software products. The intellectual property rights for usage of these products are transferred to the customer at the time of purchase and the software does not require implementation services, ongoing maintenance and support, or other adaptations in order to maintain utility.

In arrangements where ongoing services are not essential to the functionality of the delivered software, the Company recognizes perpetual software license revenue when the license agreement has been approved and the software has been delivered. The Company can identify each party's rights, payment terms, and commercial substance of the content. Where applicable, we identify multiple performance obligations and record as revenue as the performance obligations are fulfilled based on the adjusted market assessment approach.

SUPERCOM LTD. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Cont.)
U.S. dollars in thousands (except per share data)

NOTE 2: SIGNIFICANT ACCOUNTING POLICIES (cont.)

Annual Software License Revenue

The Company generates revenue from the sales of time-based software licenses for certain of its software products. The intellectual property rights for access to these products are transferred to the customer for contract terms of one year and the software requires ongoing maintenance, support, or other adaptations in order to maintain utility.

The Company recognizes revenue over time using the input method for its annual software licenses when ongoing services are determined to be essential to the functionality of the delivered software. The license along with the any customization services are transferred to our customers pursuant to the time elapsed under such contracts, as that is when our performance obligation to our customers under such arrangements is fulfilled.

System Design Revenue

System design revenue relate to services provided to governments and national agencies in the early stages of a new project including incumbent system data information extraction, customer interviewing and specification mapping, architecture and software design, secure credential design, project management and planning, data migration design, project operation planning, training, assimilation, and operational processes optimization for the Company's e-Gov and IoT solutions.

The Company recognizes revenue from its system design services using the input method of accounting. Under the input method, revenue is recognized on the basis of an entity's efforts or inputs toward satisfying a performance obligation. We recognize revenue from system design services provided pursuant to time-and-materials based contracts as the services are performed, as that is when our performance obligation to our customers under such arrangements is fulfilled. Where applicable, we identify multiple performance obligations and record as revenue as the performance obligations are fulfilled based on the using the expected cost plus a margin approach.

Implementation and System Deployment Revenue

Implementation and system deployment revenue relate to services provided to governments and national agencies typically after the design stage is concluded including infrastructure setup and deployment, software and chip design development, software customizations, purchase, and deployment of hardware and necessary system components, system integration and implementation, process engineering, customer training, system quality assurance testing, load balancing and local environment optimizations, and operational system launch for the Company's e-Gov and IoT solutions.

The Company recognizes revenue from its implementation and system deployment revenue using the input method of accounting. Under the input method, revenue is recognized on the basis of an entity's efforts or inputs toward satisfying a performance obligation. We recognize revenue from implementation and system deployment services provided pursuant to time-and-materials based contracts as the services are performed, as that is when our performance obligation to our customers under such arrangements is fulfilled. Where applicable, we identify multiple performance obligations and record as revenue as the performance obligations are fulfilled based on the using the residual approach.

Procurement of Secure Document Consumables Revenue

The Company procures secure document consumables for its e-Gov government customers which are needed to issue secure documents after a project deployment is complete and a system is actively running and operational. These consumables are manufactured generally at secure printing facilities utilizing proprietary and customized designs, which the Company has developed during the project design stage, to provide multiple layers of security preventing falsification of documents. These consumables include base card stock, security laminates, holograms, passive RFID chip inlays, passport booklets, secure chip cards, and various other secure credentialing necessities.

The Company recognizes revenue on procurement of secure document consumables products when the customer has control of the product, which is determined to be at the point in time when the products are delivered. Where applicable, we identify multiple performance obligations and record as revenue as the performance obligations are fulfilled based on their stated prices within the contract.

SUPERCOM LTD. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Cont.)
U.S. dollars in thousands (except per share data)

NOTE 2: SIGNIFICANT ACCOUNTING POLICIES (cont.)

Wireless & RFID Products Revenue

The Company's wireless products include solutions for carrier wi-fi, enterprise connectivity, smart city, smart hospitality, connected campuses and connected events which enhance productivity and performance. The Company's RFID products include asset tags which provide real-time asset loss prevention, inventory management, and personnel/asset tracking and vehicle tags which provide long-range vehicle ID for parking and fleet management, access control, asset loss prevention at airports, gated communities, truck and bus terminals, employee parking lots, hospitals, industrial facilities, railroads, mines and military installations.

The Company recognizes revenue on wireless and RFID products when the customer has control of the equipment, which is determined to be at the point in time when the products are shipped. Where applicable, we identify multiple performance obligations and record as revenue as the performance obligations are fulfilled based on their stated prices within the contract.

Electronic Monitoring Services Revenue

Electronic monitoring services represent fees the Company collects through the sale or rental of its PureSecurity Suite of products, which include the PureMonitor, PureTrack, PureTag, PureCom, PureBeacon, and SCRAM devices. These devices identify, track, and monitor people or objects in real time through the Company's GPS monitoring, home monitoring, and alcohol tracking solutions.

The Company recognizes revenue on the sale of electronic monitoring products when the customer has control of the equipment, which is determined to be at the point in time when the products are shipped. For devices which are rented and for electronic monitoring services provided, we recognize revenue pursuant to the time elapsed for such contracts, as that is when our performance obligation to our customers under such arrangements is fulfilled. Our customers typically pay for these services based on a net rate per day per individual or on a fixed monthly rate.

Treatment Services Revenue

Treatment services revenue is an extension of the Company's electronic monitoring services. We provide individuals who have completed or are near the end of their sentence with the resources necessary to productively transition back into society. Through our daily reporting centers, we provide criminal justice programs and reentry services to help reduce recidivism which include case management, substance abuse education, vocational training, parental support, employment readiness and job placement. These activities are considered to be a bundle of services which are a part of a series of distinct services recognized over time.

The Company recognizes revenue from its treatment services using the input method of accounting. Under the input method, revenue is recognized revenue on the basis of an entity's efforts or inputs toward satisfying a performance obligation. We recognize revenue from implementation and system deployment services provided pursuant to time-and-materials based contracts as the services are performed, as that is when our performance obligation to our customers under such arrangements is fulfilled. Where applicable, we identify multiple performance obligations and record as revenue as the performance obligations are fulfilled based on the using the expected cost plus a margin approach.

Professional Services Revenue

The Company offers professional services for the Company's Cyber Security software products, which includes an on-site / remote visit by a specialist technician to assist with installation, deployment and configuration.

The Company recognizes revenue from professional services upon completion of the service performed for the customer. As these services are completed during a single onsite visit, revenue is recognized at a point in time of such onsite visit.

SUPERCOM LTD. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Cont.)

U.S. dollars in thousands (except per share data)

NOTE 2: SIGNIFICANT ACCOUNTING POLICIES (cont.)

Disaggregation of revenue

In the following table, revenue is disaggregated by major geographic region and timing of revenue recognition. The table also includes a reconciliation of the disaggregated revenue with the reportable segments:

	Year ended December 31, 2018			
	Cyber Security	IoT	e-Gov	Total
Major geographic areas				
Africa	\$ -	\$ 70	\$ 4,746	\$ 4,816
European countries	723	2,125	266	3,114
South America	-	174	1,105	1,279
United States	935	9,517	-	10,452
Israel	1,366	148	-	1,514
APAC	271	436	-	707
Total revenue	<u>\$ 3,295</u>	<u>\$ 12,470</u>	<u>\$ 6,117</u>	<u>\$ 21,882</u>
Timing of revenue recognition				
Products and services transferred over time	\$ 1,084	\$ 11,102	\$ 3,999	\$ 16,185
Products transferred at a point in time	2,211	1,368	2,118	5,697
Total revenue	<u>\$ 3,295</u>	<u>\$ 12,470</u>	<u>\$ 6,117</u>	<u>\$ 21,882</u>

Transaction price allocated to the remaining performance obligations

Remaining performance obligations represent the transaction price of system deployment, service and maintenance contracts for which work has not been performed as of the period end date. As of December 31, 2018, the aggregate amount of the transaction price allocated to remaining performance totals \$5.8 million. The Company expects approximately 68% of remaining performance obligations to be recognized into revenue within the next 12 months, with the remaining 32% recognized thereafter.

We apply the practical expedient in paragraph ASC 606-10-50-14 and do not disclose information about remaining performance obligations that have original expected durations of one-year or less. We apply the transition practical expedient in paragraph ASC 606-10-65-1(f)(3) and do not disclose the amount of the transaction price allocated to the remaining performance obligations and an explanation of when we expect to recognize that amount as revenue. Additionally, applying the practical expedient in paragraph ASC 340-40-25-4, the Company recognizes the incremental costs of obtaining contracts (i.e., commissions) as an expense when incurred if the amortization period of the assets that the Company otherwise would have recognized is one-year or less.

SUPERCOM LTD. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Cont.)

U.S. dollars in thousands (except per share data)

NOTE 2: SIGNIFICANT ACCOUNTING POLICIES (cont.)

o. Research and development costs and software development costs:

Research and development costs are expensed as incurred. Software development costs eligible for capitalization are accounted for in accordance with 985-20 Software — Costs of Software to be Sold, Leased or Marketed. Capitalization of software development costs for products to be sold to third parties begins upon the establishment of technological feasibility and ceases when the product is available for general release. Amortization is calculated and provided over the estimated economic life of the software, using the greater of (i) straight-line method or if applicable (ii) the ratio that current gross revenues for a product bear to the total of current and anticipated future gross revenues for that product. Amortization commences when developed software is available for general release to clients.

The estimated useful life of capitalized software development costs is between 4 to 5 years.

p. Income taxes:

The Company and its subsidiaries account for income taxes in accordance with ASC Topic 740, "Income Taxes". This Statement prescribes the use of the liability method whereby deferred tax asset and liability account balances are determined based on differences between the financial reporting and tax bases of assets and liabilities and are measured using the enacted tax rates and laws, that will be in effect when the differences are expected to reverse. The Company and its subsidiaries provide a valuation allowance, if necessary, to reduce deferred tax assets to their estimated realizable value.

The Company accounts for uncertain tax positions in accordance with ASC Topic 740-10, which prescribes detailed guidance for the financial statement recognition, measurement and disclosure of uncertain tax positions recognized in an enterprise's financial statements. According to ASC Topic 740-10, tax positions must meet a more-likely-than-not recognition and measurement threshold. The Company's accounting policy is to classify interest and penalties relating to uncertain tax positions under income taxes, however the Company did not recognize such items in its fiscal 2018, 2017, and 2016 financial statements.

ASU No. 2015-17, Income Taxes (Topic 740): Balance Sheet Classification of Deferred Taxes, requires a reporting entity to classify all deferred tax assets and liabilities as noncurrent in a classified balance sheet. As of December 31, 2017, the Company adopted in a retrospective method the new Income Tax guidelines, stating all deferred tax assets and liabilities need be presented as non-current in the balance sheet.

q. Concentrations of credit risk:

Financial instruments that potentially subject the Company to concentrations of credit risk consist principally of cash and cash equivalents, restricted cash deposits and trade receivables. The Company's trade receivables are derived from sales to customers located primarily in Eastern Europe, Africa, the United States and South America. The Company performs ongoing credit evaluations of its customers' financial condition. The allowance for doubtful accounts is determined with respect to specific debts that the Company has determined to be doubtful of collection.

Cash and cash equivalents and restricted cash deposits are deposited with major banks in Israel and the United States. Management believes that such financial institutions are financially sound and, accordingly, minimal credit risk exists with respect to these financial instruments. The Company has no significant off-balance-sheet concentration of credit risk.

SUPERCOM LTD. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Cont.)

U.S. dollars in thousands (except per share data)

NOTE 2: SIGNIFICANT ACCOUNTING POLICIES (cont.)

r. Basic and diluted earnings per share:

Basic earnings per share are computed based on the weighted average number of ordinary shares outstanding during each year. Diluted earnings per share are computed based on the weighted average number of ordinary shares outstanding during each year, plus the dilutive potential of stock options and warrants outstanding during the year using the treasury stock method.

The numbers of potential shares from the conversion of options and warrants that have been excluded from the calculation were 854,656, 351,056, and 333,526 for the years ended December 31, 2018, 2017 and 2016, respectively.

s. Fair value of financial instruments:

The Company applies ASC 820, "Fair Value Measurements and Disclosures" ("ASC 820"), pursuant to which fair value is defined as the price that would be received to sell an asset or paid to transfer a liability (i.e., the "exit price") in an orderly transaction between market participants at the measurement date.

In determining fair value, the Company uses various valuation approaches. ASC 820 establishes a hierarchy for inputs used in measuring fair value that maximizes the use of observable inputs and minimizes the use of unobservable inputs by requiring that the most observable inputs be used when available. Observable inputs are inputs that market participants would use in pricing the asset or liability developed based on market data obtained from sources independent of the Company.

Unobservable inputs are inputs that reflect the Company's assumptions about the assumptions market participants would use in pricing the asset or liability developed based on the best information available in the circumstances.

The hierarchy is broken down into three levels based on the inputs as follows:

Level 1 - Quoted prices (unadjusted) in active markets for identical assets or liabilities that the Company can access at the measurement date.

Level 2 - Valuations based on one or more quoted prices in markets that are not active or for which all significant inputs are observable, either directly or indirectly.

Level 3 - Valuations based on inputs that are unobservable and significant to the overall fair value measurement.

The fair value hierarchy also requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value.

The carrying amounts of cash and cash equivalents, restricted cash, short-term bank deposits, other accounts receivable, trade payable, and other accounts payable and accrued expenses approximate their fair values due to the short-term maturities of such instruments.

The Company measures its earn-out liability at fair value (see also Note 11).

t. Accounting for stock-based compensation:

Stock-based compensation, including grants of stock options, is recognized in the consolidated statement of operations over the requisite service period as an operating expense, based on the fair value of the award on the date of grant. The fair value of stock-based compensation is estimated using an option-pricing model.

The Company elected to recognize compensation costs for awards conditioned only on continued service that have a graded vesting schedule using the straight-line method and to value the awards based on the single-option award approach.

The Company accounts for forfeitures as they occur.

u. Treasury Shares:

Treasury shares are recorded at cost and presented as a reduction of shareholders' equity.

SUPERCOM LTD. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Cont.)

U.S. dollars in thousands (except per share data)

NOTE 2: SIGNIFICANT ACCOUNTING POLICIES (cont.)

v. Recent accounting pronouncements

In May 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2014-09, Revenue from Contracts with Customers ("the Standard"). The Standard provides companies with a single model for recognizing revenue arising from contracts with customers and supersedes current revenue recognition guidance, including industry-specific revenue guidance. The core principle of the model is to recognize revenue when control of the goods or services transfers to the customer. The new disclosure requirements will provide information about the nature, amount, timing and uncertainty of revenue and cash flows from revenue contracts with customers. The Standard is effective for annual and interim reporting periods beginning after December 15, 2017. Entities have the option of using either a full retrospective or modified retrospective approach for adopting this Standard. Under the modified approach, which the Company has elected, the Company has recognized the cumulative effect of initially applying the guidance with an adjustment to the opening balance of retained earnings in the 2018.

For its software license transactions - the Company had recognized revenue for the software license performance obligation upon delivery of the license to the customer, rather than ratably over the service period.

For the Company's long term contracts, which have been accounted for under the Percentage of Completion Method in 2017, the Company had evaluated the contract criteria pursuant to ASC-606 guidelines and determined to continue to account for under Percent of Completion.

For those contracts for which it was determined that the performance obligation creates an asset with no alternative use and the Company has the right for payment to the work completed to date, revenue was recognized over time, in a manner similar to previous accounting. However, contracts which have been determined otherwise, revenue from those contracts would have been recognized at a point in time during the year and for some contracts the revenue had been deferred

In August 2016, the FASB issued ASU 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. In November 2016, the FASB issued ASU 2016-18, Statement of Cash Flows, Restricted Cash (Topic 230) (ASU 2016-18), which requires the inclusion of restricted cash with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows. ASU 2016-15 and ASU 2016-18, have been adopted by the Company during the first quarter of 2018, using a retrospective transition method to each period presented. The adoption ASU 2016-18 was retrospectively applied to the Company's consolidation cash flow statements for all period presented.

Lease

In February 2016, the FASB established Topic 842, *Leases*, by issuing Accounting Standards Update (ASU) No. 2016-02, which requires lessees to recognize leases on-balance sheet and disclose key information about leasing arrangements. Topic 842 was subsequently amended by ASU No. 2018-01, *Land Easement Practical Expedient for Transition to Topic 842*; ASU No. 2018-10, *Codification Improvements to Topic 842, Leases*; and ASU No. 2018-11, *Targeted Improvements*. The new standard establishes a right-of-use model (ROU) that requires a lessee to recognize a ROU asset and lease liability on the balance sheet for all leases with a term longer than 12 months. Leases will be classified as finance or operating, with classification affecting the pattern and classification of expense recognition in the income statement.

The new standard is effective for us on January 1, 2019, with early adoption permitted. A modified retrospective transition approach is required (which means prospectively with a cumulative adjustment to retained earnings for previous years effect), applying the new standard to all leases existing at the date of initial application. An entity may choose to use either (1) its effective date or (2) the beginning of the earliest comparative period presented in the financial statements as its date of initial application. If an entity chooses the second option, the transition requirements for existing leases also apply to leases entered into between the date of initial application and the effective date. The entity must also recast its comparative period financial statements and provide the disclosures required by the new standard for the comparative periods. We expect to adopt the new standard on January 1, 2019 and use the effective date as our date of initial application. Consequently, financial information will not be updated and the disclosures required under the new standard will not be provided for dates and periods before January 1, 2019.

The new standard provides a number of optional practical expedients in transition. We expect to elect the 'package of practical expedients', which permits us not to reassess under the new standard our prior conclusions about lease identification, lease classification and initial direct costs. We expect to elect all of the new standard's available transition practical expedients.

SUPERCOM LTD. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Cont.)

U.S. dollars in thousands (except per share data)

NOTE 2: SIGNIFICANT ACCOUNTING POLICIES (cont.)

We expect that this standard will have a material effect on our financial statements. While we continue to assess all of the effects of adoption, we currently believe the most significant effects relate to (1) the recognition of new ROU assets and lease liabilities on our balance sheet for our office operating leases; (2) providing significant new disclosures about our leasing activities.

On adoption, we currently expect to recognize additional operating liabilities, in the range of approximately \$300 to \$400, with corresponding ROU assets of the same amount based on the present value of the remaining minimum rental payments under current leasing standards for our existing operating leases.

The new standard also provides practical expedients for a company's ongoing accounting. We currently expect to elect the short-term lease recognition exemption for some of our office leases and our vehicle leases. This means, for those leases that qualify, we will not recognize ROU assets or lease liabilities. This includes not recognizing ROU assets or lease liabilities for existing short-term leases of those assets in transition.

In January 2016, the FASB issued ASU 2016-13, "Financial Instruments – Credit Losses on Financial Instruments", which requires that expected credit losses relating to financial assets measured on an amortized cost basis and available for sale debt securities be recorded through an allowance for credit losses. ASU 2016-13 limits the amount of credit losses to be recognized for available for sale debt securities to the amount by which carrying value exceeds fair value and also requires the reversal of previously recognized credit losses if fair value increases. The new standard will be effective for interim and annual periods beginning after January 1, 2020, and early adoption is permitted.

The Company is currently evaluating whether to early adopt this standard and the potential effect on its consolidated financial statements.

In January 2017, the FASB issued ASU No. 2017-04, Simplifying the Test for Goodwill Impairment. Under the new standard, goodwill impairment would be measured as the amount by which a reporting unit's carrying value exceeds its fair value, not to exceed the carrying value of goodwill. This ASU eliminates existing guidance that requires an entity to determine goodwill impairment by calculating the implied fair value of goodwill by hypothetically 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.

The guidance is effective for fiscal years beginning after December 15, 2019 with early adoption permitted. The Company is currently evaluating the effect that the standard will have on its consolidated financial statements and related disclosures.

In May 2017, the FASB issued ASU 2017-09, Compensation - Stock Compensation (Topic 718): Scope of Modification Accounting. The ASU amends the scope of modification accounting for share-based payment arrangements, and provides guidance on the types of changes to the terms or conditions of share-based payment awards to which an entity would be required to apply modification accounting. The new guidance allows companies to make certain changes to awards without accounting for them as modifications. It does not change the accounting for modifications. The Company adopted ASU 2017-09 during the first quarter of 2018. There was no impact of the adoption of this standard on the Company's financial statements. During the years ended December 31, 2018, 2017 and 2016, the Company recognized stock-based compensation expenses related to employee stock options in the amounts of \$256, \$631, and \$924, respectively

x. Reclassifications

In November 2016, the FASB issued Accounting Standards Update No. 2016-18, Statement of Cash Flows (Topic 230): Restricted Cash (ASU 2016-18), which requires companies to include amounts generally described as restricted cash and restricted cash equivalents in cash and cash equivalents when reconciling beginning-of-period and end-of-period total amounts shown on the statement of cash flows.

Certain reclassifications, in accordance with the adoption of ASU 2016-15 and ASU 2016-18, have been made to the prior years' financial statements to conform to the current year presentation. These reclassifications had no net effect on previously reported results of operations.

In addition other certain reclassifications had been made to the 2016 financial statement, including the separation of revenues and cost of revenue to products and services in accordance with Rules 5-03(b)(1) and (2) of Regulation S-X, have been made to the prior year financial statements to conform to the current presentation. These reclassifications had no net effect on previously reported results of operations.

SUPERCOM LTD. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Cont.)

U.S. dollars in thousands (except per share data)

NOTE 3: OTHER ACCOUNTS RECEIVABLE AND PREPAID EXPENSES

	December 31,	
	2018	2017
	\$	\$
Prepaid expenses	357	141
Advances to suppliers	187	211
Government institutions	97	118
Recovery of pre-acquisition receivable	-	1,384
Other	310	844
	<u>951</u>	<u>2,698</u>

NOTE 4: INVENTORIES, NET

	December 31,	
	2018	2017
	\$	\$
Raw materials, parts and supplies	1,105	1,707
Finished products	2,064	3,169
	<u>3,169</u>	<u>4,876</u>

As of December 31, 2018 and 2017, inventory is presented net of write offs for slow inventory in the amount of approximately \$1,527 and \$232, respectively.

SUPERCOM LTD. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Cont.)
U.S. dollars in thousands (except per share data)

NOTE 5: ACQUISITIONS

Purchase of Leaders in Community Alternatives Inc.

In January 2016 the Company acquired 100% of the shares of Leaders in Community Alternatives (LCA), a company providing electronic monitoring and community-based services. The acquisition amounted to approximately \$2,900 not including contingent consideration subject to an earn out mechanism which has a fair value of zero, derived from LCA's revenues in the years 2016, 2017 and 2018. The acquisition was accounted for as business combination.

Details of the consideration paid, the assets acquired and liabilities assumed at the acquisition date, are as follows:

Total consideration	\$ 2,918
Acquired assets and liabilities	
Capital acquired	435
Customer relations	424
Deferred tax liability	(170)
Goodwill	2,229

Intangible assets' depreciated cost amounted to \$2,489 and \$2,537 as of December 31, 2018 and 2017, respectively. Amortization cost amounted to \$48, 56 and \$61 in 2018, 2017 and 2016, respectively.

Purchase of Safend Ltd.

In March 2016 the Company acquired 100% of Safend Ltd, a company providing encryption and data protection solutions. As a consideration for the acquisition the Company will provide Safend Ltd. up to \$1,500 of working capital to support its business operations. The acquisition was accounted for as business combination. As a result of the acquisition the Company recorded a gain from bargain purchase in the amount of approximately \$3,700. The gain is attributed to the fact that we acquire Safend for no consideration due to Safend former parent was filed for bankruptcy.

Details of the consideration paid, the assets acquired and liabilities assumed at the acquisition date, are as follows:

Total consideration	\$ 0
Acquired assets and liabilities	
Capital acquired	(145)
Customer relations	1,912
IP	346
Patents	1,508
Deferred tax asset	606
Deferred tax liability	(565)
Gain from bargain purchase	3,662

Intangible assets' depreciated cost amounted to \$2,054 and \$2,528 as of December 31, 2018 and 2017, respectively. Amortization cost amounted to \$474, and \$618 and \$619 in 2018, 2017 and 2016, respectively.

SUPERCOM LTD. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Cont.)
U.S. dollars in thousands (except per share data)

NOTE 5: ACQUISITIONS (cont.)

Purchase of PowaPOS' assets and IP

On April 18, 2016, the Company acquired IP, Inventory and Receivable of PowaPOS, a division of POWA Technologies Ltd. PowaPOS provides a fully-integrated mobile and tablet-based system innovative POS platform. The asset's acquisition's consideration amounted to approximately \$1,174. The assets acquired, at the acquisition date are IP in the amount \$493, inventory in the amount of \$543 and receivables in the amount of \$138. Depreciated cost for the IP amounted to \$159 as at December 31, 2018, the inventory was fully reserved as at December 31, 2018.

Purchase of Alvarion Technologies Ltd.

On May 18, 2016, the Company acquired Alvarion Technologies Ltd. ("Alvarion"). In consideration for this acquisition, the Company will pay up to \$1,000 in cash and an additional earn-out of up to \$1,000 during the next two years following the acquisition, mainly based on sales from the Alvarion division (see also Note 11). As a result of the acquisition the Company recorded a gain from bargain purchase in the amount of \$6,853. The gain is attributed to the fact that we acquired Alvarion from a trustee after it went bankrupt.

Details of the consideration paid, the assets acquired and liabilities assumed at the acquisition date, are as follows:

Total consideration	\$ 1,425
Acquired assets	2,705
Technology	739
Brand	290
Patents	3,775
Deferred tax asset	1,026
Deferred tax liability	(257)
Gain from bargain purchase	6,853

Depreciated cost amounted to \$4,215 and \$4,440 as at December 31, 2018 and 2017. Amortization cost amounted to \$225, \$225 and \$140 in 2018, 2017 and 2016, respectively.

SUPERCOM LTD. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Cont.)

U.S. dollars in thousands (except per share data)

NOTE 6: PROPERTY AND EQUIPMENT, NET

	December 31,	
	2018	2017
	\$	\$
Cost:		
Computers and peripheral equipment	2,732	2,629
Office furniture and equipment	819	774
Trade Equipment	42	35
Leasehold improvements	196	427
Equipment in lease	711	711
Vehicle	-	-
	<u>4,500</u>	<u>4,576</u>
Accumulated depreciation:		
Computers and peripheral equipment	2,593	2,385
Office furniture and equipment	656	627
Trade Equipment	25	2
Leasehold improvements	20	139
Equipment in lease	363	205
Vehicle	-	-
	<u>3,657</u>	<u>3,358</u>
Depreciated cost	<u>843</u>	<u>1,218</u>

Depreciation expenses for the years ended December 31, 2018, 2017 and 2016, were \$651, \$721, and \$1,748, respectively.

SUPERCOM LTD. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Cont.)

U.S. dollars in thousands (except per share data)

NOTE 7: OTHER INTANGIBLE ASSETS, NET

Other intangible assets consisted of the following:

	December 31, 2018			December 31, 2017		
	Carrying Amount	Accumulated Amortization	Net Book Value	Carrying Amount	Accumulated Amortization	Net Book Value
Customers relationships & Other	8,734	6,117	2,617	8,734	4,987	3,747
IP & Technology	7,019	2,754	4,265	7,019	2,079	4,940
Capitalized software development costs	5,939	2,751	3,188	4,738	1,515	3,223
	<u>21,692</u>	<u>11,622</u>	<u>10,070</u>	<u>20,491</u>	<u>8,581</u>	<u>11,910</u>

Amortization expenses amounted to \$3,041, \$3,184 and \$2,517 for the years ended December 31, 2018, 2017 and 2016 respectively.

NOTE 8: ACCRUED EXPENSES AND OTHER LIABILITIES

	December 31	
	2018	2017
	\$	\$
Liabilities related with the Smart ID acquisition (see note 9 c1)	805	805
Accrued marketing expenses	223	647
Professional services	553	598
Facilities	305	351
Legal contingent liability	60	17
Legal service providers	709	207
Other accrued expenses	1,820	1,114
	<u>4,475</u>	<u>3,739</u>

SUPERCOM LTD. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Cont.)
U.S. dollars in thousands (except per share data)

NOTE 9: COMMITMENTS AND CONTINGENT LIABILITIES

a. Lease commitments:

The Company's facilities and those of certain subsidiaries are rented under several operating lease agreements for periods ending between 2019 and 2022.

Future minimum lease commitments under non-cancelable operating leases for the years ended December 31, are as follows:

2019	\$ 428
2020	180
2021	179
	<u>\$ 787</u>

Rent expenses amounted to \$1,593, \$2,065 and \$2,062 for the years ended December 31, 2018, 2017 and 2016, respectively.

b. Guarantees, indemnity and liens:

1. The Company and its subsidiaries issued bank guaranties in the total amount of approximately \$819 as a part of the ongoing terms of the contracts with existing customers and for tenders.
2. The Company has bank guarantees of up to NIS 1,024 (\$273 as of December 31, 2018) to the owners of its offices leases in Herzliya.
3. Under the Fortress Agreement, the Company recorded a fix floating charge on all of the Company's assets in favor of the Fortress, limited in amount, in order to secure long-term loan granted by them in favor of the Company.

SUPERCOM LTD. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Cont.)
U.S. dollars in thousands (except per share data)

NOTE 9: COMMITMENTS AND CONTINGENT LIABILITIES (cont.)

c. Litigation:

- (1) As part of the acquisition of the SmartID division of OTI, the Company assumed a dispute with Merwell Inc. ("Merwell"). Merwell has alleged that it has not received the full payment it is entitled to for its services in respect of a drivers' license project. OTI alleged that Merwell breached its commitments under the service agreement and also acted in concert with third parties to damage OTI's business activities. This matter is now subject to an arbitration proceeding. An appropriate provision is included in the financial statements.

NOTE 10: INCOME TAX

a. Changes in Israeli corporate tax rates:

The regular corporate tax rate in Israel in 2018 is 23% (2017: 24% 2016: 25%)

On August 5, 2013 the Israeli parliament (the Knesset) passed the Law for Changes in National Priorities (Legislative Amendments for Achieving Budget Objectives in the Years 2013 and 2014) - 2013, by which, inter alia, the corporate tax rate would be raised by 1.5% to a rate of 26.5% as from 2014. On January 4, 2016, the Knesset plenum approved a bill to amend the Income Tax Ordinance, including a reduction in corporate tax by 1.5% from 26.5% to 25%, as from January 1, 2016.

Under an amendment enacted in December 2016 to the Israel Income Tax Ordinance of 5721-1961, or the Tax Ordinance, the corporate tax rate will decrease to 23% for 2018 and thereafter. Israeli companies are generally subject to capital gains tax at the corporate tax rate

b. Non-Israeli subsidiaries are taxed according to the tax laws of the countries in which they are located.

c. Deferred income taxes:

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

SUPERCOM LTD. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Cont.)
U.S. dollars in thousands (except per share data)

NOTE 10: INCOME TAX (cont.)

	December 31,	
	2018	2017
	\$	\$
Operating loss carry forwards	15,426	16,322
Reserves and allowances	1,467	1,899
Net deferred tax assets before valuation allowance	16,893	18,221
Valuation allowance	(16,508)	(13,765)
Net deferred tax assets	385	4,456
Deferred income taxes consist of the following:		
Domestic	12,662	11,931
Valuation allowance	(12,251)	(7,426)
Net deferred tax assets	411	4,505
Foreign	4,231	6,290
Valuation allowance	(4,257)	(6,339)
	(26)	(49)

As of December 31, 2018, the Company and its subsidiaries, have provided a valuation allowance of \$16,508 in respect of deferred tax assets resulting from tax loss carryforwards and other temporary differences. Other tax loss carryforwards and temporary differences in the amount of \$385 were not provided with valuation allowance as the Company's management currently believes that these tax assets are more likely than not to be recovered.

d. Carryforward tax losses:

As of December 31, 2018, SuperCom Ltd and its subsidiaries in Israel have accumulated losses for tax purposes of approximately \$33,177, and \$15,603 respectively, which may be carried forward and offset against taxable income in the future for an indefinite period. SuperCom Ltd. also has a capital loss of approximately \$15,326, which may be carried forward and offset against capital gains for an indefinite period. Loss carryforwards in Israel are measured in NIS.

As of December 31, 2018, SuperCom's subsidiaries in the United States have estimated total available carryforward tax losses of approximately \$15,791 which expires in the years 2028 to 2037. Utilization of the U.S. net operating losses may be subject to substantial annual limitation due to the "change in ownership" provisions of the Internal Revenue Code of 1986 and similar state provisions. The annual limitation may result in the expiration of net operating losses before utilization.

SuperCom Ltd has assessments which are considered as final until the tax year ended December 31, 2012.

SuperCom's subsidiaries in the United States and Israel have not received final assessments since their incorporation.

SUPERCOM LTD. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Cont.)
 U.S. dollars in thousands (except per share data)

NOTE 10: INCOME TAX (cont.)

- e. Income (loss) before income tax consists of the following:

	Year ended December 31,		
	2018	2017	2016
	\$	\$	\$
Domestic	(9,556)	(6,215)	(9,634)
Foreign	(454)	(839)	(2,268)
	<u>(10,010)</u>	<u>(7,054)</u>	<u>(11,902)</u>

Substantially, all tax (expenses) benefits are as a result of changes in deferred taxes.

- f. Reconciliation of the theoretical tax benefit to the actual tax benefit:

A reconciliation of theoretical tax expense, assuming all income is taxed at the statutory rate applicable to the income of companies in Israel, and the actual tax expense (benefit), is as follows:

	Year ended December 31,		
	2018	2017	2016
	\$	\$	\$
Income (loss) before income tax, as reported in the consolidated statements of operations	<u>(10,010)</u>	<u>(7,054)</u>	<u>(11,902)</u>
Statutory tax rate in Israel	<u>23%</u>	<u>24%</u>	<u>25%</u>
Theoretical tax expense (benefit)	(2,302)	(1,693)	(2,976)
Current year carryforward losses and other differences for which a valuation allowance was recorded	1,195	-	-
Changes in valuation allowance	2,717	3,295	5,257
Gain from bargain purchase and non-recoverable withholding taxes	-	-	(1,516)
Changes in foreign currency exchange rate and other differences	139	(1870)	255
Changes in tax rate	2,091	414	828
Non-deductible expenses and other differences	<u>1,890</u>	<u>(539)</u>	<u>243</u>
Actual income tax expense (benefit)	<u>5,730</u>	<u>(393)</u>	<u>2,091</u>

SUPERCOM LTD. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Cont.)
U.S. dollars in thousands (except per share data)

NOTE 11: FAIR VALUE MEASUREMENTS

In accordance with ASC 820 "Fair Value Measurements and Disclosures", the Company measures its earn-out liability at fair value. Earn-out liability is classified within Level 3 as the valuation inputs are based on inputs that are unobservable.

The measurement of earn-out liability is based on of the revenues derived from two businesses acquired: Alvarion and OTI, over a period of two and seven years following the acquisition dates, respectively. During the year ended December 31, 2018, the Company had an adjustment through the statement of operations of \$247 mainly as a result of the updated revenue forecast for the OTI acquisition.

The Company's financial assets and liabilities measured at fair value on a recurring basis, consisted of the following types of instruments as of the following dates:

Description	December 31, 2018			
	Fair Value	Level 1	Level 2	Level 3
Earn-out liability *	451	-	-	451
Total financial liability	\$ 451	-	-	\$ 451

Description	December 31, 2017			
	Fair Value	Level 1	Level 2	Level 3
Earn-out liability *	698	-	-	698
Total financial liability	\$ 698	-	-	\$ 698

(*) Excluding liability in the amount of \$566 and \$612 for the year ended December 31, 2018 and 2017, respectively, to former CEO of Prevision related to the acquisition agreement, which is not measured at fair value.

NOTE 12: SHARE CAPITAL

- a. The Company's ordinary shares are quoted under the symbol "SPCB" on the NASDAQ Capital Market in the United States.

In June 2015, 2,415,000 ordinary shares (including the full exercise of an over-allotment option) were issued in an underwritten public offering, for aggregate gross proceeds of \$28,980 (net proceeds of \$27,126).

In December 2015, as part of the Company's stock repurchase plan, the Company repurchased 774,936 shares, at an average cost of \$4.80 per share. The repurchased shares were retired in March 2016.

During 2016, as part of the Company's stock repurchase plan, the Company repurchased additional 566,159 shares, at an average cost of \$4.74 per share. 1,250,546 shares were retired in March 2016.

- b. Shareholders' rights:

The ordinary shares confer upon the holders the right to receive notice to participate and vote in the general meetings of the Company, and the right to receive dividends, if declared.

- c. Stock options:

1. In 2003, the Company adopted a stock option plan under which the Company issues stock options (the "Option Plan"). The Option Plan is intended to provide incentives to the Company's employees, officers, directors and/or consultants by providing them with the opportunity to purchase ordinary shares of the Company. Subject to the provisions of the Israeli Companies Law, the Option Plan is administered by the Compensation Committee, and is designed: (i) to comply with Section 102 of the Israeli Tax Ordinance or any provision which may amend or replace it and the rules promulgated thereunder and to enable the Company and grantees thereunder to benefit from Section 102 of the Israeli Tax Ordinance and the Commissioner's Rules; and (ii) to enable the Company to grant options and issue shares outside the context of Section 102 of the Israeli Tax Ordinance. Options granted under the Option Plan will become exercisable ratably over a period of three to five years or immediately in certain circumstances, commencing with the date of grant. The options generally expire no later than 10 years from the date of grant. Any options which are forfeited or canceled before expiration become available for future grants.

SUPERCOM LTD. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Cont.)
U.S. dollars in thousands (except per share data)

NOTE 12: SHARE CAPITAL (Cont.)

As a result of an amendment to Section 102 of the Israeli Tax Ordinance as part of the 2003 Israeli tax reform, and pursuant to an election made by the Company thereunder, capital gains derived by grantees arising from the sale of shares issued pursuant to the exercise of options granted to them under Section 102 after January 1, 2003, will generally be subject to a flat capital gains tax rate of 25%. However, as a result of this election, the Company will no longer be allowed to claim as an expense for tax purposes the amounts credited to such employees as a benefit when the related capital gains tax is payable by them, as the Company had previously been entitled to do under Section 102.

On June 27, 2007, the Compensation Committee and board of directors of the Company approved a new option plan under which the Company may grant stock options to the U.S. employees of the Company and its subsidiaries. Under this new option plan, the Company may grant both qualified (for preferential tax treatment) and non-qualified stock options. On August 15, 2007, the new option plan was approved by the shareholders of the Company at the general shareholders meeting.

In June 2013, the Option plan was extended for another period of ten years, until December, 31, 2023.

During the year 2015, the Company issued option to purchase up to 500,530 shares to several employees of the Company. The options (fair value of which was estimated at \$3,974) have a weighted average exercise price of \$5.80, and of such options, 41,882 were exercised and 81,000 were cancelled by the end of 2015.

During the year 2016, the Company issued option to purchase up to 67,883 shares to several employees of the Company. The options (fair value of which was estimated at \$208) have a weighted average exercise price of \$2.82, and of such options, 2,500 were exercised and 8,000 were cancelled by the end of 2016.

During the year 2017, the Company did not grant any option to purchase shares.

During the year 2018, the Company issued options to purchase up to 568,500 shares to several employees of the Company. The options (fair value of which was estimated at \$1061) have a weighted average exercise price of \$2.00, and of such options, 0 were exercised and 13,000 were cancelled by the end of 2018.

2. A summary of the Company's stock option activity and related information is as follows:

	Year ended December 31					
	2018		2017		2016	
	Number of options	Weighted average exercise price \$	Number of options	Weighted average exercise price \$	Number of options	Weighted average exercise price \$
Outstanding at Beginning of year	331,660	4.03	416,432	4.24	487,432	5.12
Granted	568,500	2.00	-	-	67,833	2.82
Exercised	-	-	(20,000)	0.64	(8,383)	1.53
Canceled and forfeited	(45,504)	6.84	(64,772)	6.42	(130,500)	6.96
Outstanding at end of year	854,656	2.53	331,660	4.03	416,432	4.24
Exercisable at end of year	291,156	3.44	236,277	3.67	186,253	4.14

SUPERCOM LTD. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Cont.)
U.S. dollars in thousands (except per share data)

NOTE 12: SHARE CAPITAL (Cont.)

The weighted average fair value of options granted during the year ended December 31, 2018 and 2016 was \$1.87 and \$6.2 per option, respectively.

The fair value of these options was estimated on the date of grant using the Black & Scholes option pricing model. The following weighted average assumptions were used for the 2016 grants: risk-free rate of 1.61%, dividend yield of 0%, expected volatility factor of 219.29% and expected term of 3.25 years. The following weighted average assumptions were used for the 2018 grants: risk-free rate of 2.89% and 3.04%, dividend yield of 0%, expected volatility factor of 238% and 240% and expected term of 6.25 years.

The expected volatility was based on the historical volatility of the Company's stock. The expected term was based on the historical experience and based on Management estimate.

Compensation expenses recognized by the Company related to its stock-based employee compensation awards were \$256, \$631, and \$924 for the years ended December 31, 2018, 2017 and 2016, respectively.

The following table summarizes the allocation of the stock-based compensation and warrants charge

	Year ended December 31,		
	2018	2017	2016
	\$	\$	\$
Cost of revenues	116	217	266
Research and development expenses	54	155	207
Selling and marketing expenses	52	183	292
General and administrative expenses	34	76	159
	<u>256</u>	<u>631</u>	<u>924</u>

The options outstanding and exercisable as of December 31, 2018, have been separated into ranges of exercise prices as follows:

Range of exercise price	Options outstanding				Options Exercisable			
	Number outstanding as of December 31, 2018	Weighted average remaining contractual life (years)	Weighted average exercise price	Aggregate intrinsic value	Number outstanding as of December 31, 2018	Weighted average remaining contractual life (years)	Weighted average exercise price	Aggregate intrinsic value
\$			\$	\$			\$	\$
0.00-2.00	661,008	8.34	1.77	84,940	105,508	1.78	0.54	84,940
3.00-5.00	151,648	5.34	4.15	-	148,648	5.42	4.17	-
7.00-10.00	42,000	6.75	8.75	-	37,000	6.75	8.75	-
	<u>854,656</u>	<u>7.73</u>	<u>2.53</u>	<u>84,940</u>	<u>291,156</u>	<u>4.27</u>	<u>3.44</u>	<u>84,940</u>

The total intrinsic value of options exercised for the years ended December 31, 2018, 2017 and 2016 was \$0, \$65, and \$16, respectively, based on the Company's average stock price of \$2.54, \$3.27, and \$3.77, during the years ended on those dates, respectively.

SUPERCOM LTD. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Cont.)
U.S. dollars in thousands (except per share data)

NOTE 12: SHARE CAPITAL (Cont.)

A summary of the status of the Company's non-vested options granted to employees as of December 31, 2018 and changes during the year ended December 31, 2018 is presented below:

	Options	Weighted— average grant-date fair value
Non-vested as of December 31, 2017	95,383	6.84
Granted	568,500	1.87
Vested	(54,879)	3.93
Forfeited and canceled	(45,504)	6.84
Non-vested as of December 31, 2018	<u>563,500</u>	<u>1.90</u>

As of December 31, 2018, there was \$994 of unrecognized compensation cost related to non-vested stock-based compensation arrangements granted under the stock option plans, to be recognized over a weighted average period of approximately 3.88 years.

d. Private placements and warrants:

A summary of the Company's warrants activity to investors, to settle obligation to service providers, and related information is as follows:

	Year ended December 31,					
	2018		2017		2016	
	Number of warrants	Weighted average exercise price \$	Number of warrants	Weighted average exercise price \$	Number of warrants	Weighted average exercise price \$
Outstanding at beginning of year	-	-	-	-	4,000	20.00
Granted	-	-	-	-	-	-
Exercised	-	-	-	-	-	-
Canceled and forfeited	-	-	-	-	(4,000)	20.00
Outstanding at end of year	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Exercisable at end of year	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>

e. Dividends:

No dividends were declared in the reported periods. In the event that cash dividends are declared in the future, such dividends will be paid in NIS. The Company does not intend to distribute cash dividends in the foreseeable future.

SUPERCOM LTD. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Cont.)
U.S. dollars in thousands (except per share data)

NOTE 13: RELATED PARTY TRANSACTIONS

- a. On July 25, 2010, the board of directors of the Company elected Mrs. Tsviya Trabelsi to serve as Chairman. Mrs. Trabelsi is an officer at Sigma Wave Ltd., which is the controlling shareholder of the Company and is also the wife of the Company's chief executive officer. On May 12, 2011, the special general meeting approved a service agreement with Mrs. Trabelsi whereby she will receive a monthly fee equal to 60% of the Company's chief executive officer's monthly cost. In addition to the above consideration, the Company will bear all reasonable costs and expenses incurred by the Chairman in connection with her services and provide her with an automobile. On December 12, 2011, Mrs. Tsviya Trabelsi resigned effective immediately and the board of directors of the Company approved the appointment of Mr. Arie Trabelsi as its new Chairman, effective December 12, 2011. On December 27, 2012, the company's shareholders at a general meeting of shareholders approved the reappointment of Mrs. Trabelsi as Chairman. On May 9, 2013, the general meeting of shareholders of the Company approved the same management services compensation for Mrs. Trabelsi as those approved in May 2011.
- b. Mr. Trabelsi has served as the chief executive officer of the Company since June 1, 2012. Mr. Trabelsi is the sole director of Sigma Wave, which is the controlling shareholder of the Company. On May 9, 2013, the general meeting of shareholders of the Company approved the payment of management fees to Mr. Trabelsi of \$10.6 per month plus social benefits and an annual bonus of the greater of 2% of the Company's annual net profit or 0.5% of annual revenues, but in no event greater than Mr. Trabelsi's annual salary.
- c. As of December 31, 2018 and 2017, the Company accrued \$110 and \$61, respectively as expenses arising from related party management services.
- d. On April 29, 2012, the board of directors approved the recording of a floating charge on all of the Company's assets in favor of the chairman of the board and the CEO, unlimited in amount, in order to secure personal guarantees granted by them in favor of the Company to a bank and in order to secure loans that are given by them from time to time to the Company. As of December 31, 2018, total loans were \$165. These loans bear no interest and are not attached to any price index.

NOTE 14: SEGMENTS, MAJOR CUSTOMERS AND GEOGRAPHIC INFORMATION

- a. Summary information about segments:

ASC 280, Segment Reporting, establishes standards for reporting information about operating segments. Operating segments are defined as components of an enterprise about which separate financial information is available that is evaluated regularly by the chief operating decision maker in deciding how to allocate resources and in assessing performance. The Company's chief operating decision maker is its Chief Executive Officer.

As part of the Company decision to switch from one technology segment, the e-government, into 3 separate technologies segments or Strategic business units; e-Gov, IoT, and Cyber Security, the Company acquired during 2016, 4 different companies with various technologies and customers base which enrich and strengthen the capacities and offering of each of the 3 segments:

e-Gov: Through the Company proprietary e-Government platforms and innovative solutions for traditional and biometrics enrollment, personalization, issuance and border control services, the Company has helped governments and national agencies design and issue secured multi-identification, or Multi-ID, documents and robust digital identity solutions to their citizens, visitors and Lands.

IoT: The Company's IoT products and solutions reliably identify, track and monitor people or objects in real time, enabling the customers to detect unauthorized movement of people, vehicles and other monitored objects. The Company provides all-in-one field-proven IoT suite, accompanied with services specifically tailored to meet the requirements of an IoT solutions. The Company's proprietary IoT suite of hybrid hardware, connectivity and software components are the foundation of these solutions and services.

SUPERCOM LTD. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Cont.)
U.S. dollars in thousands (except per share data)

NOTE 14: SEGMENTS, MAJOR CUSTOMERS AND GEOGRAPHIC INFORMATION (Cont.)

Cyber Security: The Company operates in the fields of cutting edge endpoint data protection guarding against corporate data loss and theft through content discovery and inspection, encryption methodologies, and comprehensive device and port control and cyber security services.

During 2016, the Company went through a restructuring and merger process, and decided to report the following transitional operation segments: Government, Connectivity and Cyber Security.

In 2017, the Company completed its merger optimization process and now reports the following segments:

(a) Cyber security, (b) IoT and (c) e-Gov.

As a result, all prior period information has been recast to reflect the new segment composition.

Year ended December 31, 2018				
	Cyber Security	IoT	e-Gov	Total
Revenues	3,295	12,470	6,117	21,882
Operating Income (loss)	(1,064)	(4,560)	(4,051)	(9,675)
Goodwill	1,075	2,229	3,722	7,026
Total Property and Equipment, net	38	481	324	843

Year ended December 31, 2017				
	Cyber Security	IoT	e-Gov	Total
Revenues	3,768	11,264	18,232	33,264
Operating Loss	(734)	(2,911)	(2,871)	(6,516)
Goodwill	1,075	2,229	3,722	7,026
Total Property and Equipment, net	110	623	485	1,218

Year ended December 31, 2016				
	Cyber Security	IoT	e-Gov	Total
Revenues	2,172	10,833	7,020	20,025
Operating Income (loss)	(590)	597	(11,606)	(11,599)
Goodwill	1,075	2,229	3,722	7,026
Total Property and Equipment, net	127	727	784	1,638

SUPERCOM LTD. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Cont.)
U.S. dollars in thousands (except per share data)

NOTE 14: SEGMENTS, MAJOR CUSTOMERS AND GEOGRAPHIC INFORMATION (Cont.)

Following is a reconciliation of the operating income (loss) of the reportable segments to the data included in the statements of operations:

	Year ended December 31,		
	2018	2017	2016
Operating income (loss)			
Total operating income (loss) of reportable segments	(9,675)	(6,516)	(11,599)
Financial expenses, net	(335)	(538)	(303)
Income (loss) before income taxes	<u>(10,010)</u>	<u>(7,054)</u>	<u>(11,902)</u>

b. Summary information about geographic areas:

The following is a summary of revenues from external customers of the continued operations within geographic areas and data regarding property and equipment, net:

	Year ended December 31,					
	2018		2017		2016	
	Total Revenues \$	Property and Equipment, net \$	Total revenues \$	Property and Equipment, net \$	Total revenues \$	Property and Equipment, net \$
Africa	4,816	-	9,713	-	5,681	-
European countries	3,114	-	2,482	-	1,211	-
South America	1,279	-	8,778	-	1,803	-
United States	10,452	169	9,921	107	9,888	122
Israel	1,514	674	1,309	1,111	724	1,516
APAC	707	-	1,034	-	675	-
Other	-	-	27	-	43	-
	<u>21,882</u>	<u>843</u>	<u>33,264</u>	<u>1,218</u>	<u>20,025</u>	<u>1,638</u>

- Revenues were attributed to countries based on the customer's location.
- Property and equipment were classified based on geographic areas in which such property and equipment items are held.

c. Summary of revenues from external customers based on products and services:

	Year ended December 31,		
	2018 \$	2017 \$	2016 \$
Raw materials and equipment	5,260	6,296	3,353
Electronic monitoring	5,930	5,535	4,437
Treatment programs	3,040	3,906	4,530
Maintenance, royalties and project management	7,652	17,527	7,705
	<u>21,882</u>	<u>33,264</u>	<u>20,025</u>

d. Major customer data as a percentage of total sales:

	Year ended December 31,		
	2018	2017	2016
Customer A	6%	4%	6%
Customer B	12%	11%	5%
Customer C	-	10%	13%
Customer D	6%	4%	8%
Customer E	<u>-</u>	<u>21%</u>	<u>-</u>

SUPERCOM LTD. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Cont.)

U.S. dollars in thousands (except per share data)

NOTE 15: OTHER EXPENSE (INCOME), NET

	Year ended December 31,		
	2018	2017	2016
	\$	\$	\$
Doubtful debt provision	2,406	327	438
Change in liability for future earn-out	(247)	(593)	-
Recovery of pre-acquisition receivable	-	(1,384)	-
Other	112	(371)	275
Total other expense (income), net	2,271	(2,021)	713

Bad debt

The following is a summary of the accounts receivables allowance for doubtful accounts for the years ended December 31:

	Year ended December 31,		
	2018	2017	2016
	\$	\$	\$
Balance at beginning of period	2,341	2,014	1,576
Provision during the period	2,406	327	1,238
Doubtful account classified as bad debt	-	-	-
Reversal of allowance for doubtful account	-	-	(800)
Balance at end of period	4,747	2,341	2,014

NOTE 16: FINANCIAL (EXPENSES) INCOME, NET

	2018	2017	2016
	\$	\$	\$
Financial expenses:			
Interest, bank charges and fees	(844)	(211)	(219)
Exchange differences, net	-	(327)	-
Unwind of discount earn out liability			(118)
Total financial expenses	(844)	(538)	(337)
Financial income:			
Exchange differences, net	509	-	34
Total financial income	509	-	34
Total financial expenses, net	(335)	(538)	(303)

NOTE 17: Subsequent Events

During 2019, a total of \$4,000 gross was drawn on the Fortress Credit Facility. Furthermore, subsequent to year end the company was not in compliance with certain covenants within the agreement. The company has subsequently received a waiver of these breaches and in addition entered into an third amendment to the agreement to support the changing needs of the Company as described in Note 1e.

SIGNATURES

The registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this annual report on its behalf.

SUPERCOM LTD.

By: /s/ Arie Trabelsi
Name: Arie Trabelsi
Title: Chief Executive Officer and acting Chief Financial Officer

Dated: December 3, 2019

Exhibit 4.6

EXECUTION VERSION

CREDIT AGREEMENT

by and among

SUPERCOM INC.,
as Borrower,

SUPERCOM LTD.,
as Parent,

SUPERCOM IP LLC,
as SPE Guarantor,

and

DBFIP SCL LLC,
as Lender

September 6, 2018

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CREDIT AGREEMENT

THIS CREDIT AGREEMENT (as amended, restated, amended and restated, supplemented or otherwise modified from time to time, this “**Agreement**”) entered into as of September 6, 2018, among **DBFIP SCL LLC**, a Delaware limited liability company (“**Lender**”), **SUPERCOM INC.**, a Delaware corporation (“**Borrower**”), SuperCom Ltd., an Israeli company (“**Parent**”) and **SUPERCOM IP LLC**, a Nevada limited liability company (“**SPE Guarantor**”).

WITNESSETH

WHEREAS, (i) on the Closing Date, Borrower has requested that Lender extend credit in the form of the Initial Term Loan (as defined herein) in an aggregate principal amount of \$10,000,000 and (ii) on each Increased Amount Date (as defined herein), Borrower may request that Lender extend credit in the form of an Incremental Term Loan (as defined herein) in an aggregate additional principal amount of up to \$10,000,000, in each case upon the terms and conditions set forth in this Agreement.

NOW THEREFORE, in consideration of the premises and mutual agreements and subject to the terms and conditions set forth herein, and intending to be legally bound hereby, the parties agree as follows:

ARTICLE I. DEFINITIONS AND ACCOUNTING TERMS

SECTION 1.01.

Defined Terms. As used in this Agreement, the following terms shall have the meanings set forth below:

“**II-A Funded Know-How**” means Intellectual Property that was developed with the support of, or from grants, incentives (including tax incentives) or subsidies from, the Israeli National Authority for Technological Innovation (formerly known as the Office of the Chief Scientist of the Israeli Ministry of the Economy) or any successor Governmental Authority.

“**Affiliate**” means, as applied to any Person (the “**Specified Person**”), any other Person directly or indirectly controlling, controlled by, or under common control with, the Specified Person. For the purposes of this definition, “control” (including, with correlative meanings, the terms “controlling”, “controlled by” and “under common control with”), as applied to any Person, means the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of the Specified Person, whether through the ownership of voting securities or by contract or otherwise.

“**Alvarion Patents**” means those Patents set forth on Schedule 1.1(a).

“**Alvarion Patent Dispositions**” means any Transfer by Borrower of any Alvarion Patent so long as: (a) the consideration received by Borrower in respect of the Alvarion Patent(s) being transferred is no less than 50% of the value attributed to such Alvarion Patent(s) in the Alvarion Valuation; and (b) 80% of the consideration received by the Borrower in respect of such Alvarion Patent(s) is paid in cash by the buyer.

“**Alvarion Valuation**” means that certain third-party valuation of the Alvarion Patents in form and substance acceptable to the Lender and attached hereto as Exhibit M.

“**Agreement**” is defined in the preamble.

“**Applicable Margin**” means (a) with respect to Term Loans that are LIBO Rate Loans, (i) from the Closing Date until (A) the date of delivery of the Compliance Certificate and the financial statements for the period ending December 31, 2018 or (ii) the date of the first Adjustment Event (as defined below), a percentage, per annum, equal to 8.00%; and (B) thereafter, a percentage, per annum, determined by reference to the EBITDA Leverage Ratio in effect from time to time as set forth below:

EBITDA Leverage Ratio	Applicable Margin
Greater than or equal to 2.50:1.00	8.00%
Less than 2.50:1.00	7.00%

and (b) with respect to Term Loans that are Base Rate Loans, an amount equal to (a) the Applicable Margin for LIBO Rate Loans as set forth in clause (a)(i) or (b)(i) above, as applicable, minus (b) 1.00% per annum. With respect to changes in the Applicable Margin resulting from the delivery of the applicable financial statements, no change in the Applicable Margin shall be effective until three Business Days after the date on which Lender shall have received the applicable financial statements and a Compliance Certificate calculating the EBITDA Leverage Ratio pursuant to Section 7.03(b). With respect to changes in the Applicable Margin arising from changes in the EBITDA Leverage Ratio due to the Borrower’s payment of the Term Loans or additional borrowings hereunder (including prior to the initial delivery of financial statements pursuant to Section 7.02(b) after the Closing Date), any such change shall be effective one Business Day following the effective date of any applicable Term Loan Request with respect to any borrowing and/or delivery of any Compliance Certificate in connection with any payment of the Term Loans, and such Term Loan Request or Compliance Certificate, as applicable, shall include a calculation of the EBITDA Leverage Ratio at such time (each, an “Adjustment Event”). At any time Borrower has not submitted to Lender the applicable information as and when required under Section 7.03(b) or the Term Loan Request or the Compliance Certificate, as applicable, the Applicable Margin shall be determined as if the Leverage Ratio were greater than or equal to 2.50:1.00. Without limitation of any other provision of this Agreement or any other remedy available to Lender contained in any Compliance Certificate delivered pursuant to Section 7.03(b) or the calculation of the EBITDA Leverage Ratio as set forth in the Funding Notice or Compliance Certificate, as applicable, delivered in connection with an Adjustment Event shall be incorrect in any manner and Borrower or any other Loan Party shall deliver to Lender corrected financial statements or other corrected information in a Funding Notice or Compliance Certificate (or otherwise), Lender may recalculate the Applicable Margin based upon such corrected financial statements or such other corrected information, and, upon written notice thereof to Borrower, the Term Loans shall bear interest based upon such recalculated Applicable Margin retroactively from the date of delivery of the erroneous financial statements or other erroneous information in question.

“**Applicable Prepayment Premium**” means as of any date of determination an amount equal to (A) during the period from and after the Closing Date up to and including the date that is the first anniversary of the Closing Date, 4.0% times the principal balance of the Obligations prepaid on such date, (B) during the period from and after the date that is the first day after the first anniversary of the Closing Date up to and including the date that is the second anniversary of the Closing Date, 2.5% times the amount of the principal balance of the Obligations prepaid on such date, and (C) during the period from and after the date that is the first day after the second anniversary of the Closing Date until the date that is the day immediately preceding the Maturity Date, 1.5% times the amount of the principal balance of the Obligations prepaid on such date.

“**Asset Disposition**” means any Transfer of the type described in Section 8.01(b)(iv) or (vii) or any other Transfer not permitted hereunder.

“**Assigned Patent Rights**” means all of the following, whether now owned or hereafter acquired or arising:

- (a) all Assigned Patents;
- (b) all patents and patent applications: (i) to which any of the Assigned Patents directly or indirectly claims priority; or (ii) for which any of the Assigned Patents directly or indirectly forms a basis for priority;
- (c) all reissues, reexaminations, extensions, renewals, continuations, continuations in part, continuing prosecution applications, requests for continuing examinations, and divisionals of any item in any of the foregoing categories (a) and (b);
- (d) all foreign patents, patent applications, and counterparts relating to any item in any of the foregoing categories (a) through (c), including certificates of invention, utility models, industrial design protection, design patent protection, and other governmental grants or issuances;
- (e) all items in any of the foregoing in categories (b) through (d), whether or not expressly listed on Schedule 6.17 and whether or not claims in any of the foregoing have been rejected, withdrawn, cancelled, or the like;
- (f) inventions, invention disclosures, and discoveries described in any of the Assigned Patents or any item in the foregoing categories (b) through (e) that: (i) are included in any claim in the Assigned Patents or any item in the foregoing categories (b) through (e); (ii) are subject matter capable of being reduced to a patent claim in a reissue or reexamination proceeding brought on any of the Assigned Patents or any item in the foregoing categories (b) through (e); or (iii) could have been included as a claim in any of the Assigned Patents or any item in the foregoing categories (b) through (e);
- (g) all rights to apply in any or all countries of the world for Patents or other governmental grants or issuances of any type related to any item in any of the foregoing categories (a) through (f), including under the Paris Convention for the Protection of Industrial Property, the International Patent Cooperation Treaty, or any other convention, treaty, agreement, or understanding;
- (h) all Assigned Trade Secrets;
- (i) all causes of action (whether known or unknown or whether currently pending, filed, or otherwise) and other enforcement rights under, or on account of, any of the Assigned Patents or Assigned Trade Secrets or any item in any of the foregoing categories (b) through (g), including all causes of action and other enforcement rights for (i) damages; (ii) injunctive relief, and (iii) any other remedies of any kind for past, current, and future infringement, misappropriation or other violation; and
- (j) all rights to collect income, royalties, damages and other payments due or payable under or with respect to any of the Assigned Patents or Assigned Trade Secrets or any item in any of the foregoing categories (b) through (h).

“Assigned Patents” means all Patents (a) issued to, or for which applications are pending in the name of, Parent or any Subsidiary, and assigned to SPE Guarantor in accordance with the Patent Assignment Agreement, including the Patents listed on Schedule 6.17 or (b) that are hereafter acquired by, or filed in the name of, Parent, Borrower or any Material Subsidiary, including Patents that are the subject of Section 7.18, but in each case excluding the Alvarion Patents.

“Assigned Trade Secrets” means all Trade Secrets (a) owned by Parent or any Subsidiary and assigned to Borrower in accordance with the Patent Assignment Agreement or (b) that are hereafter acquired by Parent or any Material Subsidiary that are the subject of Section 7.18.

“Audited Financial Statements” is defined in Section 7.02(a).

“Base Rate” means for any day (a) the Applicable Margin plus (b) the greatest of (i) the Federal Funds Effective Rate, (ii) the Prime Rate, (iii) the sum of LIBO Rate in effect immediately prior to the LIBO Rate becoming unavailable plus 1.00% and (iv) 2.00%.

“Base Rate Loan” means a Term Loan at any time which it bears interest at or by reference to the Base Rate in accordance with the term hereof.

“Borrower” is defined in the preamble.

“Business Combination” means the merger, combination or consolidation of Parent or any of its Subsidiaries with or into any Person or the sale of all or substantially all of the assets, stock or other evidence of beneficial ownership of Parent.

“Business Day” is any day that is not a Saturday, Sunday or a day on which commercial banks are authorized to close under the Laws of the State of New York.

“Capital Lease” means, as applied to any Person, any lease of any property (whether real, personal or mixed) by that Person, as lessee that, in conformity with GAAP, is or should be accounted for as a capital lease on the balance sheet of that Person.

“Cash Equivalents” means (a) marketable direct obligations issued or unconditionally guaranteed by the United States or any agency or any State thereof having maturities of not more than one (1) year from the date of acquisition; (b) commercial paper maturing no more than one (1) year after its creation and having the highest rating from either Standard & Poor’s Ratings Group or Moody’s Investors Service, Inc.; (c) certificates of deposit maturing no more than one (1) year after issue; and (d) money market funds at least ninety-five percent (95.0%) of the assets of which constitute Cash Equivalents of the kinds described in clauses (a) through (c) of this definition.

“CB&T Loan” means that certain commercial loan account, number 140-07101-0722340-3001, in the name of Leader in Community Alternatives Incorporated and owing to California Bank and Trust.

“CFC” means any Person that is a “controlled foreign corporation” within the meaning of Section 957 of the Code.

“Change of Control” means the occurrence of any of (a) Sigma Wave Ltd. shall cease to beneficially own and control at least 5% on a fully diluted basis of the economic and voting Equity Interests of Parent, (b) any Person or “group” (within the meaning of Rules 13d-3 and 13d-5 under the Exchange Act) other than Sigma Wave Ltd. (i) shall have acquired beneficial ownership of 20% or more on a fully diluted basis of the voting and/or economic interest in the Equity Interests of Parent or (ii) shall have obtained the power (whether or not exercised) to elect a majority of the members of the board of directors (or similar governing body) of Parent, (c) Sigma Wave Ltd. shall cease to hold a number of the board seats representing at least 25% of the total number of board members of the board of directors of the Parent, (d) Parent shall cease to beneficially own and control 100% on a fully diluted basis of the economic and voting interest in the Equity Interests of Borrower, (d) the Parent sells or transfers all or any substantial portion of its assets to another Person (other than a Subsidiary who assumes the Obligations), (e) Borrower ceases to own at least 99.8% of the Equity Interests of SPE Guarantor, (f) the majority of the occupied seats on the board of directors (or similar governing body) of Parent cease to be occupied by Persons who either (i) were members of the board of directors of Parent on the Closing Date, or (ii) were nominated for election by the board of directors of Parent, a majority of whom were directors on the Closing Date or whose election or nomination for election was previously approved by a majority of such directors or (g) the occurrence of any event, transaction or circumstance, the result of which is that the role of Chief Executive Officer of the Parent and the Borrower is held by any person other than Ordan Trabelsi or Arie Trabelsi, unless an interim or permanent successor reasonably acceptable to Lender is immediately appointed.

“Closing Date” means September 6, 2018.

“Code” means the Internal Revenue Code of 1986, as amended from time to time.

“Collateral” means (a) all of the Collateral as defined on Schedule 1.1(b); (b) all products, proceeds, rents and profits of the foregoing; (c) all of each Loan Party’s books and records related to any of the foregoing; and (d) all of the foregoing, whether now owned or existing or hereafter acquired or arising or in which any Loan Party now has or hereafter acquires any rights.

“Common Stock” means the common stock, \$0.00 par value per share, of the Parent as constituted on the date hereof and any capital stock into which such common stock shall be exchanged or any capital stock resulting from any reclassification of such common stock.

“Compliance Certificate” means a certificate in the form attached hereto as Exhibit A.

“Conduct of Business Provisions” is defined in Section 3.01(a)(vi).

“Consolidated Adjusted EBITDA” means, for any period, an amount determined for Parent and its Subsidiaries on a consolidated basis equal to (i) the sum, without duplication, of the amounts for such period of (a) Consolidated Net Income, plus (b) Consolidated Interest Expense paid in cash, plus (c) provisions for taxes based on income, plus (d) total depreciation expense, plus (e) total amortization expense, plus (f) other non-cash items reducing Consolidated Net Income (excluding any such non-cash item to the extent that it represents an accrual or reserve for potential cash items in any future period or amortization of a prepaid cash item that was paid in a prior period) plus (g) transaction and transition costs and expenses in connection with Permitted Acquisitions in an amount not to exceed \$250,000 in any trailing twelve month period, minus (ii) the sum, without duplication of the amounts for such period of (a) other non-cash items increasing Consolidated Net Income for such period (excluding any such non-cash item to the extent it represents the reversal of an accrual or reserve for potential cash item in any prior period), plus (b) interest income.

“Consolidated Capital Expenditures” means, for any period, the aggregate of all expenditures of Parent and its Subsidiaries during such period determined on a consolidated basis that, in accordance with GAAP, are or should be included in “purchase of property and equipment or which should otherwise be capitalized” or similar items reflected in the consolidated statement of cash flows of Parent and its Subsidiaries.

“**Consolidated Cash Interest Expense**” means, for any period, Consolidated Interest Expense for such period based upon GAAP, excluding any paid-in-kind interest, amortization of deferred financing costs, and any realized or unrealized gains or losses attributable to Hedging Contracts.

“**Consolidated Current Assets**” means, as at any date of determination, the total assets of Parent and its Subsidiaries on a consolidated basis that may properly be classified as current assets in conformity with GAAP, excluding cash and Cash Equivalents.

“**Consolidated Current Liabilities**” means, as at any date of determination, the total liabilities of Parent and its Subsidiaries on a consolidated basis that may properly be classified as current liabilities in conformity with GAAP, excluding the current portion of long term debt.

“**Consolidated Excess Cash Flow**” means, for any period, an amount (if positive) determined for Parent and its Subsidiaries on a consolidated basis equal to: (a) the sum, without duplication, of the amounts for such period of (i) Consolidated Adjusted EBITDA, plus (ii) interest income, plus (iii) other non-ordinary course income (excluding any gains or losses attributable to Asset Dispositions), plus (iv) the Consolidated Working Capital Adjustment, minus (b) the sum, without duplication, of the amounts for such period of (i) voluntary and scheduled repayments of Consolidated Total Debt (excluding repayments of revolving loans except to the extent the related revolving commitments are permanently reduced in connection with such repayments), plus (ii) Consolidated Capital Expenditures (net of any proceeds of (x) Net Cash Proceeds of Asset Dispositions to the extent reinvested in accordance with Section 2.01(e)(i)(2), (y) Net Cash Proceeds of insurance or condemnation awards to the extent reinvested in accordance with Section 2.01(e)(i)(2), and (z) any proceeds of related financings with respect to such expenditures), plus (iii) Consolidated Cash Interest Expense, plus (iv) provisions for current taxes based on income of Parent and its Subsidiaries and payable in cash with respect to such period.

“**Consolidated Interest Expense**” means, for any period, total interest expense (including that portion attributable to Capital Leases in accordance with GAAP and capitalized interest) of Parent and its Subsidiaries on a consolidated basis with respect to all outstanding Consolidated Total Debt, including all commissions, discounts and other fees and charges owed with respect to letters of credit and net costs under Hedging Contracts, but excluding, however, any amounts referred to in Section 2.01(g) payable on or before the Closing Date.

“**Consolidated Net Income**” means, for any period, (a) the net income (or loss) of Parent and its Subsidiaries on a consolidated basis for such period taken as a single accounting period determined in conformity with GAAP, minus (b) the sum of (i) the income (or loss) of any Person (other than a Subsidiary of Parent) in which any other Person (other than Parent or any of its Subsidiaries) has a joint interest, plus (ii) the income (or loss) of any Person accrued prior to the date it becomes a Subsidiary of Parent or is merged into or consolidated with Parent or any of its Subsidiaries or that Person’s assets are acquired by Parent or any of its Subsidiaries, plus (iii) the income of any Subsidiary of Parent to the extent that the declaration or payment of dividends or similar distributions by that Subsidiary of that income is not at the time permitted by operation of the terms of its charter or any agreement, instrument, judgment, decree, order, statute, rule or governmental regulation applicable to that Subsidiary, plus (iv) any gains or losses attributable to Asset Dispositions or returned surplus assets of any Pension Plan, plus (v) to the extent not included in clauses (i) through (iv) above, any net extraordinary gains or net extraordinary losses.

“**Consolidated Revenue**” means, for any Fiscal Quarter an amount equal to the gross revenue of Company and its Subsidiaries on a consolidated basis for the Fiscal Quarter then ending net of the sum of (i) any discounts, credits or offsets offered to any customer plus (ii) accounts receivable written-off as a bad debt expense in the Company reported quarterly financial statements.

“Consolidated Total Assets” means, as at any date of determination, the total assets of Parent and its Subsidiaries on a consolidated basis calculated in accordance with GAAP.

“Consolidated Total Debt” means, as at any date of determination, the aggregate stated balance sheet amount of all Indebtedness of Parent and its Subsidiaries determined on a consolidated basis in accordance with GAAP.

“Consolidated Working Capital” means, as at any date of determination, the excess or deficiency of Consolidated Current Assets over Consolidated Current Liabilities.

“Consolidated Working Capital Adjustment” means, for any period of determination on a consolidated basis, the amount (which may be a negative number) by which Consolidated Working Capital as of the beginning of such period exceeds (or is less than) Consolidated Working Capital as of the end of such period.

“Contractual Obligation” means, as to any Person, any provision of any security issued by such Person or of any agreement, instrument or other undertaking to which such Person is a party or by which it or any of its property is bound.

“control” means “control” as achieved under Section 9-104 of the UCC.

“Copyrights” means all of the following: (a) all copyright rights in any work subject to the copyright laws of the United States or any other country, whether as author, assignee, transferee or otherwise (including all copyrights in software), (b) all registrations and applications for registration of copyright in the United States or any other country, including registrations, renewals and pending applications for registration, (c) all income, royalties, damages and other payments now or hereafter due or payable under and with respect thereto, including payments under all licenses entered into in connection therewith and damages and payments for past or future infringements or other violations, and (d) the right to sue for past, present and future infringement or other violation thereof.

“Debtor Relief Law” means (i) the Bankruptcy Code of the United States, and (ii) all other liquidation, conservatorship, bankruptcy, assignment for the benefit of creditors, moratorium, rearrangement, receivership, insolvency, reorganization, rehabilitation or similar debtor relief Laws of the United States, the State of Israel or other applicable jurisdictions from time to time in effect and affecting the rights of creditors generally (including under the Israeli Insolvency and Rehabilitation Law, 2018).

“Debt Service” means, for any period, the sum of (i) Consolidated Interest Expense of Parent and its Subsidiaries paid in cash plus (ii) scheduled payments of principal on Consolidated Total Debt, in each case, during such period.

“Debt Service Coverage Ratio” means the ratio, as of the last day of (a) the first fiscal quarter of Parent and its Subsidiaries ending after the Closing Date, of (i) the sum of (x) Consolidated Adjusted EBITDA for such fiscal quarter plus (y) Unrestricted Cash-on-Hand as of the last day of such fiscal quarter to (ii) Debt Service for such fiscal quarter, (b) the second fiscal quarter of Parent and its Subsidiaries ending after the Closing Date, of (i) the sum of (x) Consolidated Adjusted EBITDA for the two-fiscal quarter period ending on such date plus (y) Unrestricted Cash-on-Hand as of the last day of such two-fiscal quarter period to (ii) Debt Service for such two-fiscal quarter period, (c) the third fiscal quarter of Parent and its Subsidiaries ending after the Closing Date, of (i) the sum of (x) Consolidated Adjusted EBITDA for the three-fiscal quarter period ending on such date plus (y) Unrestricted Cash-on-Hand as of the last day of such three-fiscal quarter period to (ii) Debt Service for such three-fiscal quarter period and (d) any other fiscal quarter of Parent and its Subsidiaries, of (a) the sum of (x) Consolidated Adjusted EBITDA for the four-fiscal quarter period ending on such date plus (y) Unrestricted Cash-on-Hand as of the last day of such four-fiscal quarter period to (b) Debt Service for such four-fiscal quarter period.

“**Default**” means any event or condition that constitutes an Event of Default or that, with the giving of any notice, the passage of time, the making of a determination or any combination of the foregoing, would be an Event of Default.

“**Default Rate**” means an interest rate which is 4% per annum in excess of the interest rate otherwise payable hereunder for LIBO Rate Loans.

“**Delayed Draw Structuring Fee**” is defined in Section 2.01(g)(ii).

“**Delayed Draw Term Loan**” as defined in Section 2.01(a)(ii).

“**Delayed Draw Term Loan Funding Date**” means the date upon which all of the conditions set forth in Section 3.02 have been satisfied or waived in writing by the Lender.

“**Delayed Draw Term Loan Note**” means a promissory note made by Borrower in favor of Lender evidencing a Delayed Draw Term Loan in form and substance reasonably acceptable to Lender.

“**Delayed Draw Term Loan Request**” means a written request for a Delayed Draw Term Loan substantially in the form of Exhibit L.

“**Deposit Account**” means a “deposit account” as defined in the UCC.

“**Designated Jurisdiction**” is defined in Section 6.22.

“**Disqualified Equity Interests**” means Equity Interests that by their terms (or by the terms of any security into which they are convertible or for which they are exchangeable) (a) require the payment of any cash dividends, (b) mature or are mandatorily redeemable or subject to mandatory repurchase or redemption or repurchase at the option of the holders thereof, in whole or in part and whether upon the occurrence of any event, pursuant to a sinking fund obligation, on a fixed date or otherwise, prior to the date that is 365 days after the Maturity Date at such time of then outstanding Term Loans or (c) are convertible or exchangeable, automatically or at the option of any holder thereof, into any Indebtedness other than Permitted Indebtedness; provided that if such Equity Interests are issued pursuant to a plan for the benefit of employees of Parent or any Subsidiary or by any such plan to such employees, such Equity Interests shall not constitute Disqualified Equity Interests solely because they may be required to be repurchased by such entity in order to satisfy applicable statutory or regulatory obligations or as a result of such employee’s termination, death or disability.

“**Dollars**,” “**dollars**” or use of the sign means only lawful money of the United States and not any other currency, regardless of whether that currency uses the “\$” sign to denote its currency or may be readily converted into lawful money of the United States.

“**EBITDA Leverage Ratio**” means the ratio as of the last day of (a) the first fiscal quarter ending after the Closing Date of (i) the aggregate outstanding principal amount of the Term Loans as of such day, to (ii) Consolidated Adjusted EBITDA for the three-fiscal quarter period ending on such date multiplied by 4/3 and (b) for each fiscal quarter thereafter of (i) the aggregate outstanding principal amount of the Term Loans as of such day, to (ii) Consolidated Adjusted EBITDA for the four-fiscal quarter period ending on such date.

“Early Termination Liability Proceeds” means the aggregate cash proceeds received by Parent or any of its Subsidiaries in connection with the termination by a customer of such Person of any contract to which such customer is a party prior to the scheduled expiration or termination date of such contract, whether in the form of an early termination fee, penalty, make-whole payment or otherwise, net of the reasonable direct, out-of-pocket, costs, expenses and fees relating to such termination.

“End of Term Fee Event” has the meaning set forth in Section 2.01(f)(i).

“End of Term Fee” means (a) in the event that the Obligations are paid in full on or prior to the date that is the two-year anniversary of the Closing Date, an end of term fee equal to [●]% of the sum of (i) the aggregate initial drawn principal amount of the Initial Term Loan plus (ii) the aggregate initial drawn principal amount of the Delayed Draw Term Loan plus (iii) the aggregate initial drawn principal amount of any Incremental Term Loans and (b) thereafter, an end of term fee equal to [●]% of the sum of (i) the aggregate initial drawn principal amount of the Initial Term Loan, plus (ii) the aggregate initial drawn principal amount of the Delayed Draw Term Loan plus (iii) the aggregate drawn principal amount of any Incremental Term Loans.

“Environmental Laws” means any and all current or future Laws, or any other requirements of Governmental Authorities relating to (a) environmental matters, or (b) occupational safety and health, industrial hygiene, land use or the protection of human, plant or animal health or welfare, in any manner applicable to Parent or any of its Subsidiaries or any facility owned, leased or operated by Parent or any of its Subsidiaries.

“Environmental Liability” means any liability, contingent or otherwise (including any liability for damages, costs of environmental remediation, fines, penalties or indemnities), of the Borrower, any other Loan Party or any of their respective Subsidiaries directly or indirectly resulting from or based upon (a) violation of any Environmental Law; (b) the generation, use, handling, transportation, storage, treatment or disposal of any Hazardous Materials; (c) exposure to any Hazardous Materials; (d) the release or threatened release of any Hazardous Materials into the environment; or (e) any contract, agreement or other consensual arrangement pursuant to which liability is assumed or imposed with respect to any of the foregoing.

“Equity Interests” means, with respect to any Person, all of the shares of capital stock of (or other ownership or profit interests in) such Person, all of the warrants, options or other rights for the purchase or acquisition from such Person of shares of capital stock of (or other ownership or profit interests in) such Person, all of the securities convertible into or exchangeable for shares of capital stock of (or other ownership or profit interests in) such Person or warrants, rights or options for the purchase or acquisition from such Person of such securities convertible into or exchangeable for shares of capital stock (or such other interests), and all of the other ownership or profit interests in such Person (including partnership, member or trust interests therein), whether voting or nonvoting, and whether or not such shares, warrants, options, rights or other interests are outstanding on any date of determination.

“ERISA” means the Employee Retirement Income Security Act of 1974, and its regulations.

“ERISA Affiliate” means any trade or business (whether or not incorporated) under common control with the Parent or the Borrower within the meaning of Section 414(b) or (c) of the Code (and Sections 414(m) and (o) of the Code for purposes of provisions relating to Section 412 of the Code).

“ERISA Event” means (a) a Reportable Event with respect to a Pension Plan; (b) a withdrawal by Parent, the Borrower or any ERISA Affiliate from a Pension Plan subject to Section 4063 of ERISA during a plan year in which it was a substantial employer (as defined in Section 4001(a)(2) of ERISA) or a cessation of operations that is treated as such a withdrawal under Section 4062(e) of ERISA; (c) a complete or partial withdrawal by Parent, the Borrower or any ERISA Affiliate from a Multiemployer Plan or notification that a Multiemployer Plan is in reorganization; (d) the filing of a notice of intent to terminate, the treatment of a Plan amendment as a termination under Section 4041 or 4041A of ERISA, or the commencement of proceedings by the PBGC to terminate a Pension Plan or Multiemployer Plan; (e) an event or condition which constitutes grounds under Section 4042 of ERISA for the termination of, or the appointment of a trustee to administer, any Pension Plan or Multiemployer Plan; or (f) the imposition of any liability under Title W of ERISA, other than for PBGC premiums due but not delinquent under Section 4007 of ERISA, upon Parent, the Borrower or any ERISA Affiliate.

“Event of Default” is defined in Section 9.01.

“Exchange Act” is the Securities Exchange Act of 1934, as amended.

“Excluded Taxes” means any of the following Taxes imposed on or with respect to Lender or required to be withheld or deducted from a payment to Lender, (a) Taxes imposed on or measured by net income (however denominated), franchise Taxes, and branch profits Taxes, in each case, (i) imposed as a result of Lender being organized under the laws of, or having its principal office located in, the jurisdiction imposing such Tax (or any political subdivision thereof), or (ii) that are Other Connection Taxes; (b) U.S. federal withholding Taxes imposed on amounts payable to or for the account of Lender (including any successor to Lender or to the rights of Lender under this Agreement) as a result of Lender designating a new lending office or assigning its interests or rights under this Agreement, except, in each case, to the extent Lender was entitled, as the time of designation or assignment became effective, to receive additional amounts under Section 2.03; (c) Taxes attributable to Lender’s failure to comply with Section 2.03(e); and (d) any U.S. federal withholding Taxes imposed under the Foreign Account Tax Compliance Act (**“FACTA”**) as a result of Lender not being in compliance with FACTA or Lender failing to provide Borrower with all forms reasonably requested by Borrower establishing an exemption from U.S. federal withholding Taxes imposed under FACTA. Notwithstanding the above, in no event shall any Taxes imposed on any payments made by the Israeli Loan Parties under the Loan Documents be ‘Excluded Taxes’ for the purposes of this definition.

“Executive Order” is defined in Section 6.22.

“Export Control Regulations” means the Export Administration Act, the Arms Export Control Act, the Export Administration Regulations and the International Traffic in Arms Regulations, the Israeli Import and Export Order (Control of Dual-Use Goods, Services and Technology), 2006, the Israeli Defense Export Control Law, 2007, each as amended from time to time, and any similar law or regulation applicable to the operations or activities of Parent or any Subsidiary in any jurisdiction.

“FACTA” is defined in the definition of “Excluded Taxes”.

“FCPA” shall mean the Foreign Corrupt Practices Act of 1977 (as amended from time to time).

“Federal Funds Effective Rate” means for any day, the rate per annum (expressed, as a decimal, rounded upwards, if necessary, to the next higher 1/100 of 1%) equal to the weighted average of the rates on overnight Federal funds transactions with members of the Federal Reserve System arranged by Federal funds brokers on such day, as published by the Federal Reserve Bank of New York on the Business Day next succeeding such day; provided, (i) if such day is not a Business Day, the Federal Funds Rate for such day shall be such rate on such transactions on the next preceding Business Day as so published on the next succeeding Business Day, and (ii) if no such rate is so published on such next succeeding Business Day, the Federal Funds Rate for such day shall be the average rate charged to JPMorgan Chase Bank, N.A. or any other financial institution selected by Lender on such day on such transactions as determined by Lender.

“**GAAP**” means United States generally accepted accounting principles applied on a consistent basis.

“**Governmental Authority**” means any nation or government, any state or other political subdivision thereof, any agency, authority, instrumentality, regulatory body, court, central bank or other entity exercising executive, legislative, judicial, taxing, regulatory or administrative functions of or pertaining to government, any securities exchange and any self-regulatory organization.

“**Guarantor**” means any Person that executes and delivers a Guaranty, or becomes a party to a Guaranty by joinder or otherwise.

“**Guaranty**” means a Guaranty and Suretyship Agreement by Parent and the other Guarantors substantially in the form attached hereto as Exhibit B individually or collectively, as the case may be.

“**Hazardous Materials**” means all flammable explosives, radioactive materials, hazardous or toxic substances, wastes or other pollutants, including petroleum or petroleum distillates, asbestos or asbestos-containing materials, polychlorinated biphenyls, radon gas, infectious or medical wastes and all other substances or wastes of any nature regulated pursuant to any Environmental Law.

“**Hedging Contract**” means any rate or currency swap, cap or collar agreement or any other agreement designed to hedge risk with respect to interest rate or currency fluctuations, whether or not pursuant to any master agreement.

“**Historical Financial Statements**” means, as of the Closing Date, (a) the audited financial statements of Parent and its Subsidiaries, for the fiscal years ended December 31, 2017, consisting of balance sheets and the related consolidated statements of income, stockholders' equity and cash flows for such fiscal year, and (b) for the interim period from January 1, 2018, to the Closing Date, internally prepared, unaudited financial statements of Parent and its Subsidiaries, consisting of a balance sheet and the related consolidated statements of income, stockholders' equity and cash flows for each quarterly period completed prior to 45 days before the Closing Date and for each monthly period completed prior to 45 days prior to the Closing Date, in the case of clauses (a) and (b), certified by the chief financial officer of Parent (solely in his or her capacity as an officer and not individually) and that they fairly present, in all material respects, the financial condition of Parent and its Subsidiaries as at the dates indicated and the results of their operations and their cash flows for the periods indicated, subject, if applicable, to changes resulting from audit and normal year-end adjustments.

“**Increased Amount Date**” is defined in Section 2.05(a).

“**Incremental Structuring Fee**” is defined in Section 2.01(g)(iii).

“**Incremental Term Loan Request**” is defined in Section 2.05(a).

“**Incremental Term Loans**” is defined in Section 2.05(a).

“Indebtedness” means, as applied to any Person, (a) all indebtedness for borrowed money, (b) that portion of obligations with respect to Capital Leases which is properly classified as a liability on a balance sheet in conformity with GAAP, (c) notes payable and drafts accepted representing extensions of credit whether or not representing obligations for borrowed money, (d) any obligation owed for all or any part of the deferred purchase price of property or services (other than trade accounts payable arising in the ordinary course of business for which payment is due and is made within 90 days or less), (e) all indebtedness secured by any Lien on any property or asset owned or held by that Person regardless of whether the indebtedness secured has been assumed by that Person or is nonrecourse to the credit of that Person, (f) obligations in respect of letters of credit, (g) obligations under Hedging Contracts (the amount of which shall be determined by reference to the termination cost on the date of determination), (h) Disqualified Equity Interests and (i) guarantees of, or similar obligations with respect to, any of the foregoing of any other Person.

“Indemnified Taxes” means (a) Taxes, other than Excluded Taxes, imposed on or with respect to any payment made by or on account of any obligation of a Loan Party under any Loan Document and (b) to the extent not otherwise described in clause (a), Other Taxes.

“Indemnitee” is defined in Section 13.02(b).

“Initial Structuring Fee” is defined in Section 2.01(g)(i).

“Initial Term Loan” as defined in Section 2.01(a)(i).

“Initial Term Loan Request” means a written request for the Initial Term Loan substantially in the form of Exhibit K.

“Initial Term Loan Note” means a promissory note made by Borrower in favor of Lender evidencing an Initial Term Loan in form and substance reasonably acceptable to Lender.

“Insolvency Proceeding” means any proceeding under any Debtor Relief Law.

“Intellectual Property” means all Copyrights, Patents, Trademarks and Trade Secrets.

“Interest Period” means any period commencing on the 1st day of a calendar month and ending on the 1st day of the following month; provided that the first Interest Period shall be from the Closing Date to October 1, 2018.

“Inventory” is all “inventory” as defined in the UCC in effect on the date hereof with such additions to such term as may hereafter be made, and includes without limitation all merchandise, raw materials, parts, supplies, packing and shipping materials, work in process and finished products, including without limitation such inventory as is temporarily out of a Loan Party’s custody or possession or in transit and including any returned goods and any documents of title representing any of the above.

“Investment” means any beneficial ownership interest in any Person (including Equity Interests and other securities), and any loan, advance or capital contribution to any Person.

“IRS” means the United States Internal Revenue Service.

“Israeli IP Fixed Charge” means, collectively, (i) the fixed charge over Israeli intellectual property dated as of the Delayed Draw Term Loan Funding Date made by Parent in favor of Lender, in form and substance satisfactory to the Lender, (ii) the fixed charge over Israeli intellectual property dated as of the Delayed Draw Term Loan Funding Date made by Safend Ltd. in favor of Lender, in form and substance satisfactory to the Lender and (iii) the fixed charge over Israeli intellectual property dated as of the Delayed Draw Term Loan Funding Date made by Alvarion Technologies Ltd. in favor of Lender, in form and substance satisfactory to the Lender.

“Israeli Floating Charge” means each Israeli security agreement/debenture, dated as of the Delayed Draw Term Loan Funding Date, in relation to a floating charge over all assets of the Parent and each Israeli Subsidiary dated as of the date hereof granted by Parent and each Israeli Subsidiary in favor of the Lender, in form and substance satisfactory to the Lender.

“Israeli Security Documents” means, collectively, each Israeli IP Fixed Charge, each Israeli Floating Charge and each Israeli Share Charge.

“Israeli Share Charge” means each Israeli-law share charge, dated as of the Delayed Draw Term Loan Funding Date, made by Parent in favor of Lender in respect of its equity interests in each Israeli Subsidiary, in form and substance satisfactory to the Lender.

“Israeli Subsidiary” means each Subsidiary of Parent formed under the laws of the State of Israel.

“Israeli Anti-Terror Laws” means the Israeli Prohibition on Money Laundering Law, the Israel Trading with the Enemy Ordinance 1939, the Defense (Emergency) Regulations, 1945, the Combating Criminal Organizations Law, 2003, the Israel Combating Terrorism Law 2016, and the Law for the Prevention of Distribution and Financing of Weapons of Mass Destruction, 2018.

“Knowledge” means, with respect to any Person, the actual knowledge of executive officers (as defined in Rule 405 under the Securities Act) of such Person, after due inquiry.

“Laws” means, collectively, all international, foreign, Federal, state and local statutes, treaties, rules, guidelines, regulations, ordinances, codes and administrative or judicial precedents or authorities, including the interpretation or administration thereof by any Governmental Authority charged with the enforcement, interpretation or administration thereof, and all applicable administrative orders, directed duties, requests, licenses, authorizations and permits of, and agreements with, any Governmental Authority, in each case whether or not having the force of law.

“Lender” is defined in the preamble, and includes any assignee and/or successor of DBFIP SCL LLC.

“Lender Expenses” means all reasonable fees and costs and expenses (including attorneys’ fees and audit fees and expenses) incurred by Lender for preparing, amending, negotiating, administering, defending and enforcing the Loan Documents (including those incurred in connection with appeals, workouts, restructuring or Insolvency Proceedings) or otherwise incurred by Lender in its capacity as such.

“Liabilities” is defined in [Section 13.19](#).

“LIBO Rate” means for an Interest Period, the greater of (a) (i) the LIBOR Index Rate for such Interest Period, if such rate is available, and (ii) if the LIBOR Index Rate cannot be determined, the arithmetic average of the rates of interest per annum (rounded upwards, if necessary, to the nearest 1/100 of 1%) at which deposits in Dollars in immediately available funds are offered to the Lender at 11:00 a.m. (London, England time) two (2) Business Days before the beginning of such Interest Period by three (3) or more major banks in the interbank Eurodollar market selected by the Lender for delivery on the first day of and for a period equal to such Interest Period and in an amount equal or comparable to the principal amount of the Term Loans and (b) 1.00%.

“**LIBO Rate Loan**” means a Term Loan at any time which bears interest at or by reference to the LIBO Rate in accordance with the term hereof.

“**LIBOR Index Rate**” means, for any Interest Period, the offered rate per annum (rounded upwards, if necessary, to the next higher one hundred-thousandth of a percentage point) for deposits in U.S. Dollars for a period equal to such Interest Period, which appears in the ICE Benchmark Administration (or any successor service or entity that has been authorized by the U.K. Financial Conduct Authority to administer the LIBOR Index Rate) for deposits in US dollars (as set forth by any service selected by the Lender that has been nominated by the ICE Benchmark Administration as an authorized vendor for the purpose of displaying such rates) as of 11:00 a.m. (London, England time) on the day two (2) Business Days before the commencement of such Interest Period.

“**Licenses**” shall mean all licenses and any other agreement granting any right (or under which any Person agrees to refrain from exercising any right, including any covenant not to sue) with respect to any Intellectual Property (whether a Person is the grantor or grantee thereunder).

“**Lien**” means any lien, mortgage, deed of trust, pledge, security interest, charge or encumbrance of any kind (including any conditional sale or other title retention agreement, any lease in the nature thereof, and any agreement to give any security interest).

“**Loan Documents**” means this Agreement, the Notes, the Warrant, the Perfection Certificate, each Guaranty, the Security Documents, the Patent Assignment Agreement, each Compliance Certificate, the Patent License Agreement (Fortress), the Patent License Agreement (Loan Parties) and any other present or future agreement by a Loan Party for the benefit of Lender in connection with this Agreement, all as amended, restated, or otherwise modified.

“**Loan Parties**” means, collectively, Borrower, Parent and each Guarantor.

“**Management Loans**” has the meaning set forth in Section 7.09.

“**Material Adverse Effect**” means (a) a material adverse change in, or a material adverse effect upon, the operations, business, properties, prospects or condition (financial or otherwise) of the Parent and its Subsidiaries taken as a whole; (b) a material impairment of the ability of any Loan Party to perform its obligations under the Loan Document to which it is a party; (c) a material impairment in the perfection or priority of Lender’s Lien in the Collateral; or (d) a material adverse effect upon the legality, validity, binding effect or enforceability against any Loan Party of any Loan Document to which it is a party (as represented in, and subject to the qualifications contained in, Section 6.04).

“**Material Adverse Loan Impact**” means, on any date of determination with respect to the occurrence of any event, after giving effect to the financial impact of such event, the ratio of (a) the aggregate outstanding principal amount of the Term Loans as of such day to (b) the sum of (i) Consolidated Adjusted EBITDA for the four-fiscal quarter period most recently ended for which the Compliance Certificate has been delivered to the Lender pursuant to Section 7.03(b), plus (ii) the amount of Unrestricted Cash-On-Hand as of such day minus (iii) the amount of actual or projected (as reasonably determined in good faith by the Lender) damages (including penalties and interest with respect thereto) owing by the Parent or its Subsidiaries as a result of the occurrence of such event, would be greater than 3.50:1.00.

“**Material Asset Value Impact**” means, with respect to the occurrence of any event, a reduction as a result of such event in the fair market value of Consolidated Total Assets (determined in each case by the Lender in good faith), by an amount equal to more than 5% of Asset Value. For purposes of this definition only, “Asset Value” shall mean the lesser of: (i) the book value of the Consolidated Total Assets, or (ii) the fair market value of Consolidated Total Assets (determined in each case by the Lender in good faith).

“**Material Intellectual Property**” means all (a) Assigned Patents, and (b) other Intellectual Property owned or exclusively licensed by Borrower, Parent or any Material Subsidiary of Parent that is material to the business of Parent or any Material Subsidiary.

“**Material Subsidiary**” means (i) each Subsidiary of the Borrower and (ii) each other Subsidiary of the Parent that, as of the last day of the fiscal quarter of Parent most recently ended, had net revenues or total assets for such quarter in excess of 5.00% of the consolidated net revenues or total assets, as applicable, of Parent and its Subsidiaries for such quarter.

“**Maturity Date**” means September 6, 2022.

“**Monetization**” is defined in the SPE Operating Agreement.

“**Monetization Net Revenue Share**” is defined in the SPE Operating Agreement

“**Monthly Amortization Payment**” means a payment of principal of the Term Loans in an amount equal to (i) the then-outstanding principal amount of the Term Loans (including any PIK Interest) divided by (ii) the difference of (1) 36 minus (2) the number of months occurring after September 6, 2019 for which a Monthly Amortization Payment has been made. The Monthly Amortization Payment shall be calculated by the Borrower, and provided to the Lender for review and revision in its reasonable discretion, initially prior to the first such payment and recalculated following any prepayment of the Term Loans.

“**Multiemployer Plan**” means any employee benefit plan of the type described in Section 4001(a)(3) of ERISA, to which Parent, the Borrower or any ERISA Affiliate makes or is obligated to make contributions, or during the preceding five plan years, has made or been obligated to make contributions.

“**Net Cash Proceeds**” means:

(a) with respect to any Asset Disposition or any insurance or condemnation award, the aggregate cash proceeds (including cash proceeds received pursuant to policies of insurance or condemnation awards or by way of deferred payment of principal pursuant to a note, installment receivable or otherwise, but only as and when received) received by Parent, Borrower or any Material Subsidiary pursuant to any such Asset Disposition or insurance proceeds or condemnation award net of (i) the reasonable direct, out-of-pocket, costs, expenses and fees relating to such Asset Disposition (including sales commissions and legal, accounting, brokers, finders and investment banking fees), (ii) taxes paid or reasonably estimated by the Borrower to be payable as a result thereof, (iii) amounts required to be applied to the repayment of any Indebtedness secured by a Lien on the asset subject to any such Asset Disposition (other than the Term Loans) or required to be paid to parties having superior rights to the proceeds of any such Asset Disposition to the extent such superior rights are permitted hereunder and (iv) any amounts which are subject to attainment of milestones or indemnification claims following the closing of such Asset Disposition, including such amounts which are placed in escrow and amounts which are subject to repayment or risk of forfeiture, until, in each case, such amounts are released from escrow or any such restrictions, repayment or risk of forfeiture; and

(b) with respect to any issuance of Indebtedness (other than Permitted Indebtedness), the aggregate cash proceeds received by Parent or any of its Subsidiaries pursuant to such issuance, net of the reasonable direct, out-of-pocket costs of such issuance (including up-front, underwriters’ and placement fees and any related tax, legal and accounting fees).

“Non-Assigned Patents” means all Patents set forth on Schedule 1.1(f).

“Non-Assigned Trade Secrets” means all Trade Secrets owned by Parent or any Subsidiary that are not Assigned Trade Secrets.

“Note” means an Initial Term Loan Note, a Delayed Draw Term Loan Note, or an Incremental Term Loan Note, as the context may require.

“Obligations” means all Indebtedness and other obligations (including expense reimbursement and indemnification) of each Loan Party under the Loan Documents (other than the Warrant) whether for principal, interest, fees, expenses, prepayment premiums, any Applicable Prepayment Premium, the End of Term Fee, the Structuring Fees, the Patent Monetization Obligations, whether direct or indirect, absolute or contingent, due or to become due, now existing or hereafter arising, including all interest that accrues (a) in an Event of Default or (b) after the commencement of any Insolvency Proceeding, whether or not allowed or allowable in such Insolvency Proceeding.

“OFAC” is defined in Section 6.22.

“Organization Documents” means, (a) with respect to any corporation, the certificate or articles of incorporation and the bylaws; (b) with respect to any limited liability company, the certificate or articles of formation, association or organization and operating agreement; and (c) with respect to any partnership, joint venture, trust or other form of business entity, the partnership, joint venture or other applicable agreement of formation or organization and any agreement, instrument, filing or notice with respect thereto filed in connection with its formation or organization with the applicable Governmental Authority in the jurisdiction of its formation, association or organization and, if applicable, any certificate or articles of formation or organization of such entity.

“Other Connection Taxes” means Taxes imposed as a result of a present or former connection between Lender and the jurisdiction imposing such Tax (other than connections arising from Lender having executed, delivered, become a party to, performed its obligations under, received payments under, received or perfected a security interest under, engaged in any other transaction pursuant to or enforced any rights under any Loan Document, or sold or assigned an interest in a Term Loan or Loan Document).

“Other Taxes” means all present or future stamp, court or documentary, intangible, recording, filing or similar Taxes that arise from any payment made under, from the execution, delivery, performance, enforcement or registration of, from the receipt or perfection of a security interest under, or otherwise with respect to, any Loan Document.

“Parent” is defined in the Preamble.

“Participant Register” is defined in Section 13.11.

“Patent Assignment Agreement” means the agreement providing for the assignment of the Assigned Patent Rights by the Loan Parties (other than Borrower) in favor of Borrower in the form attached hereto as Exhibit C.

“**Patent License Agreement (Fortress)**” means an exclusive license agreement by and between the Lender, as licensee, and the Loan Parties (other than Borrower), as licensors, in the form attached hereto as Exhibit D.

“**Patent License Agreement (Loan Parties)**” means a non-exclusive license agreement by and between the Loan Parties (other than Borrower), as licensees, and Borrower, as licensor, in the form attached hereto as Exhibit E.

“**Patent Monetization Obligations**” has the meaning set forth in the SPE Operating Agreement.

“**Patent Rights**” means all of the following, whether now owned or hereafter acquired or arising:

- (a) All Assigned Patent Rights;
- (b) all Non-Assigned Patents;
- (c) all patents and patent applications: (i) to which any of the Non-Assigned Patents directly or indirectly claims priority; or (ii) for which any of the Non-Assigned Patents directly or indirectly forms a basis for priority;
- (d) all reissues, reexaminations, extensions, renewals, continuations, continuations in part, continuing prosecution applications, requests for continuing examinations, and divisionals of any item in any of the foregoing categories (a) and (b);
- (e) all foreign patents, patent applications, and counterparts relating to any item in any of the foregoing categories (a) through (c), including certificates of invention, utility models, industrial design protection, design patent protection, and other governmental grants or issuances;
- (f) all items in any of the foregoing in categories (b) through (d), whether or not expressly listed on Schedule 6.17 and whether or not claims in any of the foregoing have been rejected, withdrawn, cancelled, or the like;
- (g) inventions, invention disclosures, and discoveries described in any of the Non-Assigned Patents or any item in the foregoing categories (b) through (e) that: (i) are included in any claim in the Non-Assigned Patents or any item in the foregoing categories (b) through (e); (ii) are subject matter capable of being reduced to a patent claim in a reissue or reexamination proceeding brought on any of the Non-Assigned Patents or any item in the foregoing categories (b) through (e); or (iii) could have been included as a claim in any of the Non-Assigned Patents or any item in the foregoing categories (b) through (e);
- (h) all rights to apply in any or all countries of the world for Patents or other governmental grants or issuances of any type related to any item in any of the foregoing categories (a) through (f), including under the Paris Convention for the Protection of Industrial Property, the International Patent Cooperation Treaty, or any other convention, treaty, agreement, or understanding;
- (i) all Non-Assigned Trade Secrets;
- (j) all causes of action (whether known or unknown or whether currently pending, filed, or otherwise) and other enforcement rights under, or on account of, any of the Non-Assigned Patents or Non-Assigned Trade Secrets or any item in any of the foregoing categories (b) through (g), including all causes of action and other enforcement rights for (i) damages; (ii) injunctive relief, and (iii) any other remedies of any kind for past, current, and future infringement, misappropriation or other violation; and

(k) all rights to collect income, royalties, damages and other payments due or payable under or with respect to any of the Non-Assigned Patents or Non-Assigned Trade Secrets or any item in any of the foregoing categories (b) through (j).

“**Patents**” means all of the following: (a) all letters patent of the United States or the equivalent thereof in any other country, and all applications for letters patent of the United States or the equivalent thereof in any other country, including certificates of invention, utility models, industrial design protection, design patent protection, and other governmental grants or issuances, and the right to make application for any of the foregoing, (b) all reissues, reexaminations, extensions, renewals continuations, continuations in part and divisionals thereof, (c) the inventions disclosed or claimed therein, including the right to make, use or sell the inventions disclosed or claimed therein, (d) all income, royalties, damages and payments now or hereafter due or payable under and with respect thereto, including payments under all licenses entered into in connection therewith and damages and other payments for past or future infringements or other violations, and (e) the right to sue for past, present and future infringement or other violation thereof.

“**Patriot Act**” shall mean the USA PATRIOT Act, Pub. L. 107-56 (signed into law October 26, 2001), as amended by the USA PATRIOT Improvement and Reauthorization Act, Pub. L. 109-177 (signed into law March 9, 2006) (as amended from time to time).

“**PBGC**” means the Pension Benefit Guaranty Corporation.

“**Pension Plan**” means any “employee pension benefit plan” (as such term is defined in Section 3(2) of ERISA), other than a Multiemployer Plan, that is subject to Title W of ERISA and is sponsored or maintained by Parent, the Borrower or any ERISA Affiliate or to which Parent, the Borrower or any ERISA Affiliate contributes or has an obligation to contribute, or in the case of a multiple employer or other plan described in Section 4064(a) of ERISA, has made contributions at any time during the immediately preceding five plan years.

“**Perfection Certificate**” means the perfection certificate in the form attached hereto as Exhibit F.

“**Permitted Acquisition**” means any acquisition permitted by clause (xi) of the definition of “Permitted Investments”.

“**Permitted Indebtedness**” means:

- (i) the Obligations;
- (ii) Indebtedness existing on the Closing Date set forth on Schedule 1.1(c);
- (iii) Subordinated Debt in a principal amount, when combined with the principal amount of the Indebtedness set forth in clauses (vi), (viii) and (ix) of this definition, not to exceed \$1,000,000 at any one time outstanding;
- (iv) Indebtedness incurred as a result of endorsing negotiable instruments received in the ordinary course of business;

- (v) Indebtedness of the Parent to any Loan Party (other than SPE Guarantor) and Indebtedness of the Parent to the Borrower arising pursuant to the intercompany loan made on the Closing Date with a portion of the proceeds of the Term Loans;
- (vi) Indebtedness of any Person that is acquired or merged with or into or consolidated with the Parent or any of its Material Subsidiaries other than the SPE Guarantor (and not created in anticipation or contemplation thereof) and existing on the date of such acquisition, merger or consolidation, provided that the principal amount of such Indebtedness, when combined with principal amount of the Indebtedness set forth in clauses (iii), (viii) and (ix) of this definition, shall not exceed in the aggregate \$1,000,000 at any time outstanding;
- (vii) Indebtedness owing to sureties arising from bid, performance or surety bonds or letters of credit supporting such bid, performance or surety obligations issued on behalf of the Borrower as support for, among other things, contracts with customers;
- (viii) Indebtedness of Parent and any of its Material Subsidiaries (other than the SPE Guarantor) in an aggregate principal amount, when combined with principal amount of the Indebtedness set forth in clauses (iii), (vi) and (ix) of this definition, shall not exceed in the aggregate \$1,000,000 at any time outstanding;
- (ix) purchase money Indebtedness and Indebtedness in respect of Capital Leases in an aggregate principal amount, when combined with principal amount of the Indebtedness set forth in clauses (iii), (vi) and (viii) of this definition, not to exceed in the aggregate \$1,000,000 at any time outstanding;
- (x) extensions, refinancings, modifications, amendments and restatements of any items of Permitted Indebtedness (i) through (ix) above, provided that the principal amount thereof is not increased or the terms thereof are not modified to impose more burdensome terms upon the Parent or its Material Subsidiary, as the case may be; and
- (xi) until the Delayed Draw Term Loan Funding Date, unsecured Indebtedness consisting of the Management Loans in an amount not to exceed \$4,200,000.

“Permitted Investments” means:

- (i) Investments (including Investments in Subsidiaries) existing on the Closing Date set forth on Schedule 1.1(d);
- (ii) Investments consisting of Cash Equivalents;
- (iii) Investments consisting of the endorsement of negotiable instruments for deposit or collection or similar transactions in the ordinary course of business for Parent or its Material Subsidiaries (other than the SPE Guarantor);
- (iv) Investments consisting of deposit accounts in which Lender (with respect to the Loan Parties only) has a perfected security interest and over which Lender has “control”;

(v) Investments (1) in the form of common equity by Parent in Borrower, (2) by Parent in Guarantors; and (3) by Guarantors (other than the SPE Guarantor) in other Guarantors;

(vi) Investments of Parent or any of its Material Subsidiaries (other than the SPE Guarantor) consisting of (1) employee loans and advances in the ordinary course of business not to exceed \$100,000 in the aggregate in any fiscal year and (2) cashless loans to employees, officers or directors relating to the purchase of equity securities of Parent pursuant to employee stock purchase plans or agreements approved by Parent's Board of Directors;

(vii) Investments (including debt obligations) received by Parent or any of its Material Subsidiaries (other than the SPE Guarantor) in connection with the bankruptcy or reorganization of customers or suppliers or in settlement of delinquent obligations of, and other disputes with, customers or suppliers arising in the ordinary course of business;

(viii) Investments consisting of notes receivable of, or prepaid royalties and other credit extensions, to customers and suppliers who are not Affiliates, in the ordinary course of business; provided, that this paragraph (viii) shall not apply to Investments of any Loan Party in any Subsidiary;

(ix) Investments by Parent or any of its Material Subsidiaries (other than the SPE Guarantor) in non-Loan Parties in an amount not to exceed \$50,000 during any fiscal year; so long as no Event of Default has occurred and is continuing or would result therefrom;

(x) Investments accepted in connection with or resulting from dispositions of assets permitted under this Agreement; and

(xi) acquisitions by Parent or any of its Material Subsidiaries (other than the SPE Guarantor) of a substantial portion of the assets, business or Equity Interests of another Person where (v) the total consideration including cash and the value of any non-cash consideration for such transaction does not exceed the sum of (1) 35% of the original principal amount of the Term Loans then borrowed plus (2) the amount of Unrestricted Cash-on-Hand minus (3) aggregate outstanding principal amount of the Term Loans, (w) no Event of Default has occurred and is continuing or would exist immediately after giving effect to any such transaction, (x) in the case of a merger, a Material Subsidiary of Parent (other than Borrower) is the surviving legal entity, (y) the entity acquiring the assets in such acquisition is a Loan Party or the entity being acquired in such acquisition becomes a Loan Party in accordance with Section 7.12, and (z) the Loan Parties are in pro forma compliance with the financial covenants set forth in Section 7.17.

“Permitted Liens” means:

(i) Liens granted to the Lender to secure the Obligations;

(ii) Liens existing on the Closing Date set forth on Schedule 1.1(e);

(iii) Liens for taxes, fees, assessments or other government charges or levies, either (a) not due and payable or (b) being contested in good faith and for which Parent maintains adequate reserves on its books, provided that no notice of any such Lien has been filed or recorded under the Code;

(iv) purchase money Liens (a) on equipment acquired or held by Parent or its Material Subsidiaries (other than the SPE Guarantor) incurred for financing the acquisition of the equipment, or (b) existing on equipment when acquired, if the Lien is confined to the property and improvements and the proceeds of the equipment, in each case, securing Indebtedness permitted under clause (ix) of the definition of Permitted Indebtedness;

(v) Liens incurred by Parent or any of its Material Subsidiaries (other than the SPE Guarantor) of carriers, warehousemen, suppliers, or other Persons that are possessory in nature arising in the ordinary course of business so long as such Liens attach only to Inventory, securing liabilities in the aggregate amount not to exceed \$25,000 and which are not delinquent or remain payable without penalty or which are being contested in good faith and by appropriate proceedings which proceedings have the effect of preventing the forfeiture or sale of the property subject thereto;

(vi) Liens incurred by Parent or any of its Material Subsidiaries (other than the SPE Guarantor) to secure payment of workers' compensation, employment insurance, old-age pensions, social security and other like obligations incurred in the ordinary course of business;

(vii) Liens incurred in the extension, renewal or refinancing of the indebtedness secured by Liens described in (i) through (vi), but any extension, renewal or replacement Lien must be limited to the property encumbered by the existing Lien and the principal amount of the indebtedness may not increase;

(viii) leases or subleases of real property granted by Parent or any of its Material Subsidiaries (other than the SPE Guarantor) in the ordinary course of the Parent's business (or, if referring to another Person, in the ordinary course of such Person's business), and leases, subleases, non-exclusive licenses or sublicenses of personal property (other than intellectual property) granted in the ordinary course of the Parent's business (or, if referring to another Person, in the ordinary course of such Person's business);

(ix) the Patent License Agreement (Fortress) and Patent License Agreement (Loan Parties);

(x) Liens arising from attachments or judgments, orders, or decrees in circumstances not constituting an Event of Default under Section 9.01(i);

(xi) Liens in favor of other financial institutions arising in connection with deposit and/or securities accounts held at such institutions;

(xii) deposits by Parent or any of its Material Subsidiaries (other than the SPE Guarantor) to secure the performance of bids, tenders, trade contracts (other than for borrowed money), leases, government contracts, statutory obligations, surety, stay, customs and appeal bonds, performance and return of money bonds and other obligations of a like nature incurred in the ordinary course of business;

(xiii) easements, rights-of-way, restrictions (including zoning restrictions), covenants, licenses, encroachments, protrusions and other similar charges or encumbrances or minor title deficiencies incurred by Parent or any of its Material Subsidiaries (other than the SPE Guarantor) in the ordinary course of business that, in the aggregate, are not substantial in amount and that do not in any case materially detract from the value of the property subject thereto or materially interfere with the ordinary course of business;

(xiv) any interest or title of a lessor under any (1) operating lease entered into by Parent or any of its Material Subsidiaries in the ordinary course of its business and covering only the assets so leased, or (2) real property lease pertaining to the lessor's interest in or title to any fixtures under such lease terms;

(xv) deposits made in the ordinary course of business to secure liability for premiums to insurance carriers;

(xvi) Liens incurred by Parent or any of its Material Subsidiaries (other than the SPE Guarantor) in favor of customs and revenue authorities arising as a matter of law to secure payment of custom duties in connection with the importation of goods;

(xvii) Liens incurred by Parent or any of its Material Subsidiaries (other than the SPE Guarantor) arising out of conditional sale, title retention, consignment or similar arrangements for the sale of goods entered into in the ordinary course of business;

(xviii) the filing of UCC financing statements against by Parent or any of its Material Subsidiaries (other than the SPE Guarantor) solely as a precautionary measure in connection with operating leases or consignment of goods; and

(xix) Liens incurred by Parent or any of its Material Subsidiaries (other than the SPE Guarantor) not otherwise permitted hereunder securing obligations other than borrowed money so long as neither (a) the aggregate outstanding principal amount of the obligations secured thereby nor (b) the aggregate fair market value (determined as of the date such Lien is incurred) of the assets subject thereto exceeds \$100,000 at any one time.

“Person” means any individual, sole proprietorship, partnership, limited liability company, joint venture, company, trust, unincorporated organization, association, corporation, institution, public benefit corporation, firm, joint stock company, estate, entity or government agency.

“PIK Interest” means interest paid in kind on the Term Loans.

“Plan” means any “employee benefit plan” (as such term is defined in Section 3(3) of ERISA) established by Parent, the Borrower or, with respect to any such plan that is subject to Section 412 of the Code or Title W of ERISA, any ERISA Affiliate.

“Premium Event” is defined in Section 2.01(f)(ii).

“Prime Rate” means the rate last quoted by The Wall Street Journal as the “Prime Rate” in the United States or, if The Wall Street Journal ceases to quote such rate, the highest per annum interest rate published by the Federal Reserve Board in Federal Reserve Statistical Release 11.15 (519) (Selected Interest Rates) as the “bank prime loan” rate or, if such rate is no longer quoted therein, any similar rate quoted therein (as reasonably determined by the Lender) or any similar release by the Federal Reserve Board (as reasonably determined by the Lender).

“Prohibition on Money Laundering Law” means the Israeli Prohibition on Money Laundering Law 5760-2000 and the regulations, rules, circulars and guidelines promulgated or published thereunder.

“Register” is defined in Section 13.10.

“Related Parties” means, with respect to any Person, such Person’s Affiliates and the partners, directors, officers, employees, agents, trustees, administrators, managers, advisors, representatives investors and potential investors of such Person and of such Person’s Affiliates.

“Reportable Event” means any of the events set forth in Section 4043(c) of ERISA, other than events for which the 30 day notice period has been waived.

“Responsible Officer” means any of the Chief Executive Officer, President and Chief Financial Officer of Parent, Borrower or, as applicable, a Guarantor.

“Revenue Leverage Ratio” means the ratio as of the last day of any fiscal quarter of (a) the aggregate outstanding principal amount of the Term Loans as of such day, to (b) Consolidated Revenue for the four-fiscal quarter period ending on such date.

“Sanctions” is defined in Section 6.22.

“SEC” means the Securities and Exchange Commission, any successor thereto, and any analogous Governmental Authority.

“Securities Account” means a “securities account” as defined in the UCC.

“Securities Act” is the Securities Exchange Act of 1933, as amended.

“Securities Entitlement” means a “securities entitlement” as defined in the UCC.

“Securitization” is defined in Section 13.19.

“Securitization Parties” is defined in Section 13.19.

“Security Agreement” means the Security Agreement dated as of the date hereof by and among the Lender and the Loan Parties, in the form attached hereto as Exhibit I.

“Security Documents” means the Security Agreement, each Israeli Security Document, and all other security documents hereafter delivered by the Loan Parties to the Lender granting a Lien on their respective assets to secure any of the Obligations or to secure any guarantee of any such Obligations.

“Solvent” means, with respect to any Person on any date of determination, that on such date (a) the fair value of the property of such Person is greater than the total amount of liabilities, including contingent liabilities, of such Person, (b) the present fair salable value of the assets of such Person is not less than the amount that will be required to pay the probable liability of such Person on its debts as they become absolute and matured, (c) such Person does not intend to, and does not believe that it will, incur debts or liabilities beyond such Person’s ability to pay such debts and liabilities as they mature, (d) such Person is not engaged in business or a transaction, and is not about to engage in business or a transaction, for which such Person’s property would constitute an unreasonably small capital, and (e) such Person is able to pay its debts and liabilities, contingent obligations and other commitments as they mature in the ordinary course of business. The amount of contingent liabilities at any time shall be computed as the amount that, in the light of all the facts and circumstances existing at such time, represents the amount that can reasonably be expected to become an actual or matured liability.

“**Specified Person**” is defined in the definition of “Affiliate”.

“**SPE Guarantor**” is defined in the preamble.

“**SPE Operating Agreement**” means that certain Operating Agreement of SuperCom IP LLC, dated as of the date hereof, in form and substance acceptable to the Lender.

“**Structuring Fees**” means, collectively, the Initial Structuring Fee and each Incremental Structuring Fee and “**Structuring Fee**” means, individually, the Initial Structuring Fee and each Incremental Structuring Fee.

“**Subordinated Debt**” means Indebtedness incurred by Parent, non-recourse to the Borrower and subordinated to the Obligations pursuant to a subordination agreement in form and substance satisfactory to Lender.

“**Subsidiary**” mean a corporation, partnership, trust, limited liability company or other business entity of which more than 50% of the shares of stock or other ownership interests are at the time owned, directly, or indirectly through one or more Subsidiaries, or both, by Parent. Unless the context otherwise requires, each reference to a Subsidiary herein shall be a reference to a Subsidiary of Parent and Borrower shall be deemed a Subsidiary of Parent.

“**Taxes**” means all present or future taxes, levies, imposts, duties, deductions, withholdings (including backup withholding), assessments, fees or other charges imposed by any Governmental Authority, including any interest, additions to tax or penalties applicable thereto.

“**Term Loan Request**” means an Initial Term Loan Request, a Delayed Draw Term Loan Request or Incremental Term Loan Request, as the context may require.

“**Term Loans**” means the Initial Term Loan, the Delayed Draw Term Loan and any Incremental Term Loans and “**Term Loan**” means the Initial Term Loan, a Delayed Draw Term Loan or an Incremental Term Loan.

“**Trademarks**” means all of the following: (a) all trademarks, service marks, corporate names, company names, business names, trade names, trade dress, logos, Internet domain names, other source or business identifiers, designs and general intangibles of like nature, all registrations thereof, and all registrations and applications filed in connection therewith in the United States Patent and Trademark Office or any similar offices in any State of the United States or any other country or any political subdivision thereof, and all renewals thereof, (b) all goodwill associated therewith or symbolized thereby, (c) all income, royalties, damages and payments now or hereafter due or payable under and with respect thereto, including payments under all licenses entered into in connection therewith and damages and other payments for past or future infringements or other violations, and (d) the right to sue for past, present and future infringement, dilution or other violation thereof.

“**Trade Secrets**” means all of the following: (a) trade secrets and other proprietary or confidential business information, including inventions, invention disclosures, discoveries, know how, systems, processes, methods, data, business and marketing plans, and customer and vendor lists, (b) all income, royalties, damages and payments now or hereafter due or payable under and with respect thereto, including payments under all licenses entered into in connection therewith and damages and other payments for past or future misappropriation or other violation, and (c) the right to sue for past, present and future misappropriation or other violation thereof.

“**Transaction Costs**” means the fees, costs and expenses payable by Parent, Borrower or any of Parent’s Subsidiaries on or before the Closing Date in connection with the transactions contemplated by the Loan Documents.

“**Transfer**” means to sell, exchange, transfer, assign, license, hypothecate, pledge or make a gift.

“**UCC**” means the Uniform Commercial Code in effect from time to time in the State of New York, except as such term may be used in connection with the perfection of a security interest in the Collateral, in which case, the applicable jurisdiction with respect to the affected Collateral shall apply.

“**Unfunded Pension Liability**” means the excess of a Pension Plan’s benefit liabilities under Section 4001(a)(16) of ERISA, over the current value of that Pension Plan’s assets, determined in accordance with the assumptions used for funding the Pension Plan pursuant to Section 412 of the Code for the applicable plan year.

“**Unrestricted Cash-on-Hand**” means all cash and Cash Equivalents owned by Parent and its Subsidiaries and held in a Deposit Account over which Lender has a first priority perfected Lien and subject to the Lender’s “control” (as defined in Section 9-104 of the UCC) on the date of determination (excluding for purposes of clarity, any amounts available to be drawn or funded under lines of credit or other debt facilities, including any revolving loans); provided that amounts included under this definition shall (x) be included only to the extent such amounts are not subject to any consensual Lien or other restriction or encumbrance of any kind (other than Liens in favor of the Lender) and (y) exclude any amounts held by Parent or any of its Subsidiaries in escrow, trust or other fiduciary capacity for or on behalf of a client, borrower or customer of Parent, its Subsidiaries or any of their respective Affiliates.

“**Warrant**” means a Warrant, in substantially the form attached hereto as Exhibit G executed by Parent in favor of Lender or an Affiliate of Lender on the Closing Date, pursuant to which Lender or its Affiliate, as applicable, shall be entitled to purchase shares of the Parent’s Equity Interests as set forth therein.

SECTION 1.02. Other Interpretative Provisions.

(a) With reference to this Agreement and each other Loan Document, unless otherwise specified herein or in such other Loan Document:

(i) The definitions of terms herein shall apply equally to the singular and plural forms of the terms defined. Whenever the context may require, any pronoun shall include the corresponding masculine, feminine and neuter forms. The words “**include**,” “**includes**” and “**including**” shall be deemed to be followed by the phrase “**without limitation**.” The word “**will**” shall be construed to have the same meaning and effect as the word “**shall**”. Unless the context requires otherwise, (a) any definition of or reference to any agreement, instrument or other document (including any Organization Document) shall be construed as referring to such agreement, instrument or other document as from time to time amended, supplemented or otherwise modified (subject to any restrictions on such amendments, supplements or modifications set forth herein or in any other Loan Document); (b) any reference herein to any Person shall be construed to include such Person’s successors and assigns; (c) the words “**hereto**,” “**herein**,” “**hereof**” and “**hereunder**”, and words of similar import when used in any Loan Document, shall be construed to refer to such Loan Document in its entirety and not to any particular provision thereof, (d) all references in a Loan Document to Sections, Exhibits and Schedules shall be construed to refer to Sections of, and Exhibits and Schedules to, the Loan Document in which such references appear; (e) any reference to any Law shall include all statutory and regulatory provisions consolidating, amending, replacing or interpreting such Law and any reference to any Law or regulation shall, unless otherwise specified, refer to such Law or regulation as amended, modified or supplemented from time to time; and (f) the words “**asset**” and “**property**” shall be construed to have the same meaning and effect and to refer to any and all tangible and intangible, real and personal, assets and properties, including cash, securities, accounts and contract rights.

(ii) In the computation of periods of time from a specified date to a later specified date, the word “**from**” means “from and including;” the words “**to**” and “**until**” each mean “to but excluding;” and the word “**through**” means “to and including.”

(iii) Section headings herein and in the other Loan Documents are included for convenience of reference only and shall not affect the interpretation of this Agreement or any other Loan Document.

SECTION 1.03. Accounting Terms.

(a) Generally. All accounting terms not specifically or completely defined herein shall be construed in conformity with, and all financial data (including financial ratios and other financial calculations) required to be submitted pursuant to this Agreement shall be prepared in conformity with, GAAP applied on a consistent basis, as in effect from time to time, applied in a manner consistent with that used in preparing the Audited Financial Statements, except as otherwise specifically prescribed herein. Notwithstanding the foregoing, for purposes of determining compliance with any covenant (including the computation of any financial covenant) contained herein, Indebtedness of the Loan Parties and their Subsidiaries shall be deemed to be carried at 100% of the outstanding principal amount thereof, and the effects of FASB ASC 825 on financial liabilities shall be disregarded.

(b) Changes in GAAP. If at any time any change in GAAP would affect the computation of any financial ratio or requirement set forth in any Loan Document, at Lender’s request, Lender and Borrower shall negotiate in good faith to amend such ratio or requirement to preserve the original intent thereof in light of such change in GAAP; *provided* that, until so amended (i) such ratio or requirement shall continue to be computed in accordance with GAAP prior to such change therein and (ii) Borrower and Parent shall provide to Lender financial statements and other documents required under this Agreement or as reasonably requested hereunder setting forth a reconciliation between calculations of such ratio or requirement made before and after giving effect to such change in GAAP. Without limiting the foregoing, operating leases shall continue to be classified and accounted for on a basis consistent with GAAP as in effect on the Closing Date for all purposes of this Agreement, notwithstanding any change in GAAP relating thereto, unless the parties hereto shall enter into a mutually acceptable amendment addressing such changes, as provided for above.

SECTION 1.04. Rounding. Any financial ratios required to be maintained by the Parent pursuant to this Agreement shall be calculated by dividing the appropriate component by the other component, carrying the result to one place more than the number of places by which such ratio is expressed herein and rounding the result up or down to the nearest number (with a rounding-up if there is no nearest number).

ARTICLE II. LOANS AND TERMS OF PAYMENT

SECTION 2.01. Term Loans.

(a) Term Loans.

(i) Initial Term Loan. Subject to the terms and conditions of this Agreement, Lender agrees to make a term loan to Borrower, in the full amount of \$5,000,000 on the Closing Date (the “**Initial Term Loan**”). When repaid, the repaid portion of the Initial Term Loan may not be re-borrowed.

(ii) Delayed Draw Term Loan. Subject to the terms and conditions of this Agreement, the Lender agrees to make a term loan to Borrower, in the full amount of \$5,000,000 on the Delayed Draw Term Loan Funding Date (the “**Delayed Draw Term Loan**”). When repaid, the repaid portion of the Delayed Draw Term Loan may not be re-borrowed.

(b) Principal Repayment.

(i) Commencing on October 1, 2019 and continuing thereafter on the 1st day of each successive calendar month through and including the Maturity Date, Borrower shall make thirty-six (36) Monthly Amortization Payments plus all accrued and unpaid interest with respect to the Term Loans.

(ii) All unpaid principal and accrued and unpaid interest of the Term Loans is due and payable in full on the Maturity Date unless earlier accelerated.

(iii) The Term Loans may only be prepaid in accordance with Sections 2.01(c), 2.01(d), and 2.01(e).

(c) Mandatory Prepayment Upon Acceleration. If the Term Loans are accelerated (whether following the occurrence and during the continuation of an Event of Default, by operation of law or otherwise), Borrower shall immediately pay to Lender an amount equal to the sum of (i) all outstanding principal plus accrued and unpaid interest of the Term Loans, plus (ii) the End of Term Fee, as further described in Section 2.01(f), below; plus (iii) all other sums, if any, that shall have become due and payable under the Loan Documents, including interest at the Default Rate to the extent applicable.

(d) Permitted Prepayment of Loans. Borrower shall have the option to prepay all or part of the Term Loans advanced by Lender under this Agreement; *provided*, that Borrower (i) provides written notice to Lender of its election to prepay all or a part of the Term Loans at least three (3) Business Days prior to such prepayment, and (ii) pays, on the date of such prepayment (A) all outstanding principal plus accrued and unpaid interest for the portion of the Term Loans specified for prepayment in the written notice provided pursuant to clause (i); (B) the End of Term Fee (if the Term Loans are being prepaid in full); and (C) all other sums, if any, that shall have become due and payable upon prepayment under the Loan Documents, including interest at the Default Rate with respect to any past due amounts and any Applicable Prepayment Premium, as further described in Section 2.01(f), below. Each partial prepayment shall be applied to the principal balance of the Term Loans and applied pro rata to each of the remaining Monthly Amortization Payments occurring thereafter.

(e) Mandatory Prepayment Upon Certain Events.

(i) The Borrower shall make a prepayment of the Term Loans (in each case, without premium or penalty except as otherwise expressly provided in Section 2.01(f) or Section 2.02(f)) upon the occurrence of any of the following at the following times and in the following amounts:

(1) Within five (5) days after the receipt by Parent or any of its Material Subsidiaries of any Net Cash Proceeds in excess of \$100,000 in the aggregate since the Closing Date from any Asset Disposition (other than any Alvarion Patent Disposition), in an amount equal to 100% of such Net Cash Proceeds; provided, so long as no Default or Event of Default shall have occurred and be continuing, upon delivery of a written notice to Lender, Borrower shall have the option, directly or through one or more Subsidiaries, to invest Net Cash Proceeds (the “**Asset Disposition Reinvestment Amounts**”) in long-term productive assets of the general type used in the business of Borrower if such assets are purchased or constructed within one hundred eighty (180) days following receipt of such Net Cash Proceeds (and so long as any such individual or aggregate investment in the amount of \$250,000 or more has been consented to by Lender); provided further, pending any such reinvestment all Asset Disposition Reinvestment Amounts shall be held at all times prior to such reinvestment, in an escrow account in form and substance reasonably acceptable to Lender. In the event that the Asset Disposition Reinvestment Amounts are not reinvested by Borrower prior to the earlier of (i) the last day of such one hundred eighty (180) day period, and (ii) the date of the occurrence of an Event of Default, Lender shall apply such Asset Disposition Reinvestment Amounts to the Obligations in accordance with this Agreement.

(2) Within five (5) days of the receipt by Parent or any of its Material Subsidiaries of any Net Cash Proceeds in excess of \$100,000 in the aggregate since the Closing Date of insurance or condemnation awards, in an amount equal to 100% of such Net Cash Proceeds; provided, so long as no Default or Event of Default shall have occurred and be continuing, upon delivery of a written notice to Lender, Borrower shall have the option, directly or through one or more Subsidiaries, to invest Net Cash Proceeds (the “**Insurance/Condemnation Reinvestment Amounts**”) in long-term productive assets of the general type used in the business of Borrower if such assets are purchased or constructed within one hundred eighty (180) days following receipt of such Net Cash Proceeds (and so long as any such individual or aggregate investment in the amount of \$250,000 or more has been consented to by Lender); provided further, pending any such reinvestment all Insurance/Condemnation Reinvestment Amounts shall be held at all times prior to such reinvestment, in an escrow account in form and substance reasonably acceptable to Lender. In the event that the Insurance/Condemnation Reinvestment Amounts are not reinvested by Borrower prior to the earlier of (i) the last day of such one hundred eighty (180) day period, and (ii) the date of the occurrence of an Event of Default, Lender shall apply such Insurance/Condemnation Reinvestment Amounts to the Obligations in accordance with this Agreement.

(3) Substantially concurrently with the receipt by Parent or any of its Subsidiaries of any Net Cash Proceeds from any issuance of any Indebtedness (other than Permitted Indebtedness) of Parent or any of its Subsidiaries, in an amount equal to 100% of such Net Cash Proceeds.

(4) In the event that there shall be Consolidated Excess Cash Flow for any fiscal year of Parent (commencing with the fiscal year ending December 31, 2018), Borrower shall, no later than the earlier of (i) 180 days after the end of each fiscal year of Parent and (ii) the date of delivery by the Borrower of the financial statements described in Section 7.02(a), in an amount equal to 50% of such Consolidated Excess Cash Flow. Any amounts prepaid pursuant to this clause (4) in excess of 50% of Consolidated Excess Cash Flow shall be treated as voluntary prepayments made pursuant to Section 2.01(d).

(5) Substantially concurrently with the receipt by Parent or any of its Subsidiaries of any Net Cash Proceeds from any Alvarion Patent Disposition, in an amount equal to 80% of such Net Cash Proceeds.

(6) Within five (5) days of the receipt by Parent or any of its Subsidiaries of any Early Termination Liability Proceeds, in an amount equal to 100% of such Early Termination Liability Proceeds.

(7) Within the time period set forth in the SPE Operating Agreement, Monetization Net Revenue, in the amounts set forth in the SPE Operating Agreement.

(ii) Other than with respect to Sections 2.01(e)(i)(7) and (8), prepayments pursuant to Section 2.01(e)(i) shall be applied ratably to the Monthly Amortization Payments in inverse order of maturity. Monetization Net Revenue shall be applied to the Obligations as set forth in Section 2.02(e).

(f) End of Term Fee; Applicable Prepayment Premium.

(i) Notwithstanding anything herein to the contrary, upon the earliest to occur of: (A) the Maturity Date, (B) payment in full of the principal amount of the Term Loans outstanding, (C) the Obligations being accelerated (whether as a result of an Event of Default, by operation of law or otherwise), including as a result of the commencement of an Insolvency Proceeding or any Event of Default under Section 9.01(h), (D) satisfaction, release, payment, restructuring, reorganization, replacement, reinstatement, defeasance or compromise of any of the Obligations in any Insolvency Proceeding, foreclosure (whether by power of judicial proceeding or otherwise) or deed in lieu of foreclosure or the making of a distribution of any kind in any Insolvency Proceeding to Lender in full or partial satisfaction of the Obligations, and (E) a termination of this Agreement for any reason (the occurrence of any of the events set forth in the foregoing clauses (A) through (E), the “**End of Term Fee Event**”), Borrower shall pay Lender as an inducement for making the Term Loans (and not as a penalty) an amount equal to the End of Term Fee, which End of Term Fee shall be fully earned, and due and payable, on the date of such End of Term Fee Event, and non-refundable when made.

(ii) Notwithstanding anything herein to the contrary, if all or any portion of the Term Loans are prepaid pursuant to Section 2.01(d) or 2.01(e)(3) (other than any such prepayment made with the Net Cash Proceeds of Permitted Indebtedness) (a “**Premium Event**”), Borrower shall pay Lender as an inducement for making the Term Loans (and not as a penalty) an amount equal to the Applicable Prepayment Premium, which Applicable Prepayment Premium shall be fully earned, and due and payable, on the date of such Premium Event, and nonrefundable when made.

(iii) If the Term Loans are accelerated for any reason under this Agreement pursuant to the terms herein, the End of Term Fee shall be calculated as if the date of acceleration of the Term Loans was the date of prepayment of the Term Loans. The parties hereto further acknowledge and agree that neither the End of Term Fee nor the Applicable Prepayment Premium is intended to act as a penalty or to punish the Loan Parties for any such repayment or prepayment. Any prepayment or repayment, whether voluntary or involuntary, of the Term Loans upon the occurrence of any End of Term Fee Event or Premium Event shall be accompanied by all accrued interest on the principal amount prepaid or repaid, together with the End of Term Fee and/or the Applicable Prepayment Premium, as applicable. Without limiting the generality of the foregoing, and notwithstanding anything to the contrary in this Agreement or any Loan Document, it is understood and agreed that if the Obligations are accelerated (whether as a result of the occurrence and continuance of any Event of Default, by operation of law or otherwise), the End of Term Fee, determined as of the date of acceleration, will also be due and payable and will be treated and deemed as though the Term Loans were prepaid as of such date and shall constitute part of the Obligations for all purposes herein. The End of Term Fee shall also be payable in the event the Obligations (and/or this Agreement) are satisfied or released by foreclosure (whether by power of judicial proceeding), deed in lieu of foreclosure or by any other similar means. THE LOAN PARTIES EXPRESSLY WAIVE THE PROVISIONS OF ANY PRESENT OR FUTURE STATUTE OR LAW THAT PROHIBITS OR MAY PROHIBIT THE COLLECTION OF THE FOREGOING END OF TERM FEE IN CONNECTION WITH ANY SUCH ACCELERATION. The Loan Parties expressly agree that (i) each of the End of Term Fee and the Applicable Prepayment Premium is reasonable and is the product of an arm's length transaction between sophisticated business people, ably represented by counsel, (ii) the End of Term Fee and Applicable Prepayment Premium shall be payable notwithstanding the then prevailing market rates at the time payment is made, (iii) there has been a course of conduct between Lender and the Loan Parties giving specific consideration in this transaction for such agreement to pay the End of Term Fee and Applicable Prepayment Premium, (iv) the Loan Parties shall be estopped hereafter from claiming differently than as agreed to in this Section 2.01(f), (v) their agreement to pay the End of Term Fee and Applicable Prepayment Premium is a material inducement to the Lender to make the Term Loans, and (vi) the End of Term Fee and Applicable Prepayment Premium represents a good faith, reasonable estimate and calculation of the lost profits or damages of the Lender and that it would be impractical and extremely difficult to ascertain the actual amount of damages to the Lender or profits lost by the Lender as a result of such End of Term Fee Event or Premium Event.

(g) Structuring Fees.

(i) At the Closing Date, the Borrower shall pay to the Lender a structuring fee (the "**Initial Structuring Fee**") equal to [●]% of the original principal amount of the Initial Term Loan, which amount shall be netted out of the funding on the Closing Date.

(ii) At the Delayed Draw Term Loan Funding Date, the Borrower shall pay to the Lender a structuring fee (the "**Delayed Draw Structuring Fee**") equal to [●]% of the original principal amount of the Delayed Draw Term Loan, which amount shall be netted out of the funding on the Delayed Draw Term Loan Funding Date.

(iii) On each Increased Amount Date, the Borrower shall pay to the Lender a structuring fee (each, an "**Incremental Structuring Fee**") equal to [●]% of the original principal amount of the Incremental Term Loan made on such Increased Amount Date, which amount shall be netted out of the funding on the applicable Increased Amount Date.

(iv) The parties agree that for federal and state income tax purposes (1) the Initial Structuring Fee shall be treated as a reduction in the issue price of the Initial Term Loan, (2) the Delayed Draw Structuring Fee shall be treated as a reduction in the issue price of the Delayed Draw Term Loan, and (3) any Incremental Structuring Fee shall be treated as a reduction in the issue price of the applicable Incremental Term Loan, in each case, in accordance with Code Section 1273-2(g)(2), and the parties will file all their tax returns (including information returns) in a manner consistent with this Section 2.01(g)(iv) unless there is a "determination" within the meaning of Code Section 1313 to the contrary.

(h) Unused Incremental Fee. Borrower agrees to pay to Lender an unused line fee equal to (i) the unused portion of the Incremental Term Loans multiplied by (ii) [●]%.

SECTION 2.02. Interest; Fees; Payments.

(a) Interest. Subject to Section 2.03(a)(i), the outstanding principal balance of the Term Loans shall bear interest as set forth below, which interest shall be payable monthly in accordance with Section 2.02(a)(ii).

(i) Default Rate. At all times during the continuation of an Event of Default, the outstanding principal balance of the Term Loans shall bear interest at the Default Rate. All fees, expenses and other Obligations not paid when due shall bear interest at the Default Rate from the date due until paid.

(ii) Cash Pay Interest. Interest is payable on the first day of each calendar month (or if such day is not a Business Day, the first Business Day thereafter) (such day, an “**Interest Payment Date**”), commencing on October 1, 2018, on the outstanding principal amount of the Term Loans (including PIK Interest (as defined below)) at a rate equal to (i) if a Base Rate Loan, at the Base Rate plus the Applicable Margin or (ii) if a LIBO Rate Loan, at the LIBO Rate plus the Applicable Margin.

(iii) PIK Interest. On any Interest Payment Date, at the option of the Borrower and upon no less than five (5) Business Days’ prior written notice to Lender, up to 4.00% of the interest accrued on the Term Loans pursuant to clause (ii) above may be paid in the form of PIK Interest. All PIK Interest so added shall be capitalized monthly on each Interest Payment Date and treated as principal amount of the Term Loans for all purposes of this Agreement. Following any such increase in the principal amount of the Term Loans, all interest will accrue on such increased amount.

(b) Fees. Borrower shall pay Lender the fees, including but not limited to the Structuring Fees, End of Term Fee and Lender Expenses.

(c) Computation. Interest shall be computed on the basis of a 360-day year, actual days elapsed with respect to LIBO Rate Loans and on the basis of a 365/366-day year, actual days elapsed with respect to Base Rate Loans.

(d) Payments. Interest shall be payable monthly, in arrears, on the first day of each month and on the Maturity Date. All payments (including prepayments) to be made by Borrower under any Loan Document shall be made in immediately available funds in U.S. Dollars, without setoff or counterclaim, at or before 1:00 p.m. Pacific Time on the date when due. Payments received after 1:00 p.m. Pacific Time are considered received at the opening of business on the next Business Day. When a payment is due on a day that is not a Business Day, the payment shall be due the next Business Day, and additional fees or interest, as applicable, shall continue to accrue until paid. Each payment made by Borrower under a Loan Document is in addition to any payment or distribution to which Lender may be entitled or may receive pursuant to SPE Guarantor’s Organization Documents, and nothing in any Loan Document shall be construed as limiting, reducing or in any way diminishing any payment or distribution to which Lender may be entitled or may receive under or with respect to the SPE Guarantor’s Organization Documents.

(e) Application of Payments. Borrower shall have no right to specify the order or the accounts to which Lender shall allocate or apply any payment required to be made by Borrower to Lender or otherwise received by Lender under this Agreement when any such allocation or application is not specified elsewhere in this Agreement.

(f) Break Funding Payments. Notwithstanding anything herein to the contrary, in the event of the payment or prepayment by the Borrower of any principal of the Term Loans other than on the last day of an Interest Period applicable thereto (including as a result of an Event of Default), then, in any such event, the Borrower shall compensate the Lender for the loss, cost and expense attributable to such event (other than loss of profit). Such loss, cost or expense to any Lender shall be deemed to include an amount reasonably determined by the Lender to be the excess, if any, of (i) the amount of interest that would have accrued on the principal amount of the Term Loans had such event not occurred, at the LIBO Rate that would have been applicable to the Term Loans, for the period from the date of such event to the last day of the then current Interest Period therefor, over (ii) the amount of interest that would accrue on such principal amount for such period at the interest rate that the Lender would bid were it to bid, at the commencement of such period, for deposits in the applicable currency of a comparable amount and period from other banks in the eurocurrency market. A certificate of the Lender setting forth any amount or amounts that the Lender is entitled to receive pursuant to this Section shall be delivered to the Borrower and shall be conclusive absent manifest error. The Borrower shall pay Lender the amount shown as due on any such certificate upon receipt thereof.

SECTION 2.03. Taxes.

(a) Defined Terms. For purposes of this Section 2.03, the term “applicable law” includes FATCA.

(b) Payments Free of Taxes. Any and all payments by or on account of any obligation of any Loan Party under any Loan Document shall be made without deduction or withholding for any Taxes, except as required by applicable Law. If any applicable Law (as determined in the good faith discretion of the Borrower) requires the deduction or withholding of any Tax from any such payment by the Lender, then the Lender shall be entitled to make such deduction or withholding and shall timely pay the full amount deducted or withheld to the relevant Governmental Authority in accordance with applicable Law and, if such Tax is an Indemnified Tax, then the sum payable by the applicable Loan Party shall be increased as necessary so that after such deduction or withholding has been made (including such deductions and withholdings applicable to additional sums payable under this Section 2.03) the Lender receives an amount equal to the sum it would have received had no such deduction or withholding been made.

(c) Payment of Other Taxes by Borrower. Without limiting the provisions of subsection (a) above, the Borrower shall timely pay to the relevant Governmental Authority in accordance with applicable Laws, or at the option of the Lender timely reimburse it for the payment of, any Other Taxes.

(d) Tax Indemnification. Borrower shall, and does hereby indemnify Lender, and shall make payment in respect thereof within ten (10) days after demand therefor, for the full amount of any Indemnified Taxes (including Indemnified Taxes imposed or asserted on or attributable to amounts payable under this Section) payable or paid by Lender or required to be withheld or deducted from a payment to Lender, and any Taxes due with respect to the payment of Indemnified Taxes under this Section, and any penalties, interest and reasonable expenses arising therefrom or with respect thereto, whether or not such Indemnified Taxes were correctly or legally imposed or asserted by the relevant Governmental Authority. A certificate as to the amount of such payment or liability delivered to the Borrower by the Lender shall be conclusive absent manifest error.

(e) Evidence of Payments. As soon as practicable after any payment of Taxes by Borrower to a Governmental Authority as provided in this Section 2.03, Borrower shall deliver to Lender the original or a certified copy of a receipt issued by such Governmental Authority evidencing such payment, a copy of any return required by Laws to report such payment or other evidence of such payment reasonably satisfactory to Lender.

(f) Status of Lender.

(1) If Lender is entitled to an exemption from or reduction of withholding Tax with respect to payments made under any Loan Document, Lender shall deliver to Borrower, at the time or times reasonably requested by Borrower, such properly completed and executed documentation reasonably requested by Borrower as will permit such payments to be made without withholding or at a reduced rate of withholding. In addition, if reasonably requested by Borrower, Lender shall deliver such other documentation prescribed by applicable Law or reasonably requested by Borrower as will enable Borrower to determine whether or not such Lender is subject to backup withholding or information reporting requirements. Notwithstanding anything to the contrary in the preceding two sentences, the completion, execution and submission of such documentation (other than the documentation required in the following sentence) shall not be required if in Lender's reasonable judgment such completion, execution and submission would subject Lender to any material unreimbursed cost or expense or would materially prejudice the legal or commercial position of Lender. Without limiting the generality of the foregoing, Lender shall deliver to Borrower on or prior to the effective date of this Agreement and at such other times as reasonably requested by Borrower, executed copies of IRS Form W-9 certifying or such other documentation that is reasonably requested by Borrower to indicate that Lender is exempt from U.S. federal backup withholding Tax.

(2) Without limiting the generality of the foregoing, in the event that the Lender makes any assignment of all or a portion of the Term Loans as permitted hereunder to an assignee that is not a "United States Person" as defined in Section 7701(a)(30) of the Code (such assignee a "**Foreign Lender Assignee**"), such Foreign Lender Assignee shall, to the extent it is legally entitled to do so, deliver to Borrower (in such number of copies as shall be requested by the recipient) on or prior to the date on which the assignment to such Foreign Assignee Lender becomes effective under this Agreement (and from time to time thereafter upon the reasonable request of Borrower), whichever of the following is applicable:

(A) in the case of a Foreign Lender Assignee claiming the benefits of an income tax treaty to which the United States is a party (x) with respect to payments of interest under any Loan Document, executed originals of IRS Form W-8BEN or IRS Form W-8BEN-E establishing an exemption from, or reduction of, U.S. federal withholding Tax pursuant to the "interest" article of such tax treaty and (y) with respect to any other applicable payments under any Loan Document, IRS Form W-8BEN or IRS Form W-8BEN-E establishing an exemption from, or reduction of, U.S. federal withholding Tax pursuant to the "business profits" or "other income" article of such tax treaty;

(B) executed originals of IRS Form W-8ECI;

(C) in the case of a Foreign Lender Assignee claiming the benefits of the exemption for portfolio interest under Section 881(c) of the Code, (x) a certificate substantially in the form of Exhibit N-1 to the effect that such Foreign Lender Assignee is not a “bank” within the meaning of Section 881(c)(3)(A) of the Code, a “10 percent shareholder” of Borrower within the meaning of Section 881(c)(3)(B) of the Code, or a “controlled foreign corporation” described in Section 881(c)(3)(C) of the Code (a “**U.S. Tax Compliance Certificate**”) and (y) executed originals of IRS Form W-8BEN or IRS Form W-8BEN-E; or

(D) to the extent a Foreign Lender Assignee is not the beneficial owner, executed originals of IRS Form W-8IMY, accompanied by IRS Form W-8ECI, IRS Form W-8BEN or IRS Form W-8BEN-E, a U.S. Tax Compliance Certificate substantially in the form of Exhibit N-2 or N-3, IRS Form W-9, and/or other certification documents from each beneficial owner, as applicable; provided that if the Foreign Lender Assignee is a partnership and one or more direct or indirect partners of such Foreign Lender Assignee are claiming the portfolio interest exemption, such Foreign Lender Assignee may provide a U.S. Tax Compliance Certificate substantially in the form of Exhibit N-4 on behalf of each such direct and indirect partner;

(3) any Foreign Lender Assignee shall, to the extent it is legally entitled to do so, deliver to Borrower (in such number of copies as shall be requested by the recipient) on or prior to the date on which such Foreign Lender Assignee becomes a Lender under this Agreement (and from time to time thereafter upon the reasonable request of Borrower or Administrative Agent), executed originals of any other form prescribed by applicable law as a basis for claiming exemption from or a reduction in U.S. federal withholding Taxes, duly completed, together with such supplementary documentation as may be prescribed by applicable law to permit Borrower to determine the withholding or deduction required to be made; and

(4) if a payment made to a Foreign Lender Assignee, in its capacity as successor to Lender by assignment, under any Loan Document would be subject to U.S. federal withholding Taxes imposed by FATCA if such Foreign Lender Assignee were to fail to comply with the applicable reporting requirements of FATCA (including those contained in Section 1471(b) or 1472(b) of the Code, as applicable), such Foreign Lender Assignee shall deliver to Borrower at the time or times prescribed by law and at such time or times reasonably requested by Borrower such documentation prescribed by applicable law (including as prescribed by Section 1471(b)(3)(C)(i) of the Code) and such additional documentation reasonably requested by Borrower or Administrative Agent as may be necessary for Borrower to comply with their obligations under FATCA and to determine that such Foreign Lender Assignee has complied with such Foreign Lender Assignee’s obligations under FATCA or to determine the amount to deduct and withhold from such payment. Solely for purposes of this clause (4), “FATCA” shall include any amendments made to FATCA after the date of this Agreement.

(g) Treatment of Certain Refunds. If Lender determines, in its sole discretion exercised in good faith, that it has received a refund of any Taxes as to which it has been indemnified by Borrower or with respect to which Borrower has paid additional amounts pursuant to this Section 2.03, it shall pay to Borrower an amount equal to such refund (but only to the extent of indemnity payments made, or additional amounts paid, by the Borrower under this Section 2.03 with respect to the Taxes giving rise to such refund), net of all reasonable out-of-pocket expenses (including Taxes) incurred by Lender, and without interest (other than any interest paid by the relevant Governmental Authority with respect to such refund); *provided* that Borrower, upon Lender's request, agrees to repay the amount paid over to Borrower (plus any penalties, interest or other charges imposed by the relevant Governmental Authority) to Lender if Lender is required to repay such refund to such Governmental Authority. Notwithstanding anything to the contrary in this subsection, in no event is Lender required to pay any amount to Borrower pursuant to this subsection (i) the payment of which would place Lender in a less favorable net after-Tax position than Lender would have been in if the indemnification payments or additional amounts giving rise to such refund had never been paid or (ii) during the continuation of an Event of Default. This subsection shall not be construed to require Lender to make available its Tax returns (or any other information relating to its Taxes that it deems confidential) to Borrower or any other Person.

(h) Survival. Each party's obligations under this Section 2.03 shall survive the repayment, satisfaction or discharge of all other Obligations.

SECTION 2.04. Special LIBOR Provisions.

(a) Circumstances Affecting LIBO Rate Availability. If the Lender shall determine in good faith that, by reason of circumstances affecting the foreign exchange and interbank markets generally, deposits in Eurodollars in the applicable amounts are not being offered to the Lender at the applicable LIBO Rate, then the Lender shall forthwith give notice thereof to the Borrower. Thereafter, until the Lender notifies the Borrower that such circumstances no longer exist, (i) the obligation of the Lender to make any Term Loan as a LIBO Rate Loan, and the right of the Borrower to convert any Term Loan to, or continue any Term Loan as, a LIBO Rate Loan shall be suspended, (ii) effective upon the last day of each Interest Period related to any existing LIBO Rate Loan, such LIBO Rate Loan shall automatically be converted into a Base Rate Loan (without regard to the satisfaction of any conditions to conversion contained elsewhere herein), and (iii) effective immediately following such notice, each LIBO Rate Loan shall automatically be converted into a Base Rate Loan (without regard to the satisfaction of any conditions to conversion contained elsewhere herein). Notwithstanding the foregoing, if the Lender has made the determination described in this Section, the Lender, in consultation with the Borrower, may establish an alternative interest rate for the Term Loans in lieu of the LIBO Rate, in which case, such alternative rate of interest shall apply with respect to the Term Loans until the Lender revokes the notice delivered with respect to the affected LIBO Rate Loans under first sentence of this clause (a).

(b) Laws Affecting LIBOR Rate Availability. If, after the date of this Agreement, the adoption or introduction of, or any change in, any applicable law, rule or regulation or in the interpretation or administration thereof by any governmental authority charged with the interpretation or administration thereof, or compliance by the Lender with any request or directive (whether or not having the force of law) of any such authority, shall make it unlawful or impossible for the Lender to honor its obligations hereunder to make or maintain any Term Loan as a LIBO Rate Loan, the Lender shall forthwith give notice thereof to the Borrower. Thereafter, (a) the obligations of the Lender to make or maintain any Term Loan as a LIBO Rate Loan and the right of the Borrower to convert any Term Loan into, or continue any Term Loan as, a LIBO Rate Loan shall be suspended and thereafter only the Base Rate shall be available, and (b) if the Lender may not lawfully continue to maintain any Term Loan as a LIBO Rate Loan, such Term Loan shall immediately be converted to a Base Rate Loan.

(c) No Obligation to Purchase Eurodollar Deposits. Anything to the contrary contained herein notwithstanding, Lender is not required actually to acquire Eurodollar deposits to fund or otherwise match fund any Obligation as to which interest accrues based on the LIBO Rate.

(d) Discretion of Lender as to Manner of Funding. Notwithstanding any provision of this Agreement to the contrary, Lender shall be entitled to fund and maintain its funding of all or any part of its Term Loan in any manner it sees fit, it being understood, however, that for the purposes of this Agreement all determinations hereunder shall be made as if Lender had actually funded and maintained each LIBO Rate Loan during each Interest Period for a Term Loan through the purchase of deposits having a maturity corresponding to such Interest Period and bearing an interest rate equal to the LIBO Rate for such Interest Period.

(e) Conclusiveness of Statements. Determinations and statements of Lender pursuant to this Section 2.04 shall be conclusive absent demonstrable error.

SECTION 2.05. Incremental Term Loans.

(a) From time to time until the 24-month anniversary of the Closing Date, subject to the terms and conditions set forth herein, the Borrower may, upon written notice to the Lender (an “**Incremental Term Loan Request**”), elect to request that the Lender make additional term loans to the Borrower (each, an “**Incremental Term Loan**”) in an aggregate amount not to exceed \$10,000,000 (and in a minimum amount of \$1,000,000); provided that at the time of the effectiveness of each Incremental Term Loan (i) no Default or Event of Default shall exist on such Increased Amount Date before or after giving effect to such Incremental Term Loan, (ii) the Loan Parties shall be in compliance with the covenants set forth in Section 7.17 as of the Increased Amount Date before and after giving effect to such Incremental Term Loan, and (iii) each of the conditions set forth in Section 3.03 shall have been satisfied. Each such notice shall specify the date (each, an “**Increased Amount Date**”) on which Borrower proposes that an Incremental Term Loan shall be made, which date shall be at least fifteen (15) Business Days after the date the respective notice was received by Lender. Each Incremental Term Loan shall rank pari passu in right of payment, and shall have the same guarantees as, and be secured by the same Collateral securing, all of the other Obligations hereunder.

(b) Any Incremental Term Loan (i) for purposes of prepayments, shall be treated the same as (and in any event no more favorably than) the Initial Term Loan and the Delayed Draw Term Loan and (ii) shall have the same terms as the Initial Term Loan and the Delayed Draw Term Loan. When repaid, the repaid portion of an Incremental Term Loan may not be re-borrowed.

(c) From and after the making of an Incremental Term Loan pursuant to this Section 2.05, such Incremental Term Loan shall be deemed a “Term Loan” hereunder for all purposes hereof, and shall be subject to the same terms and conditions as the other Term Loans.

(d) Each Incremental Term Loan Request shall set forth the requested amount and proposed terms of the requested Incremental Term Loan.

ARTICLE III. CONDITIONS OF TERM LOANS

SECTION 3.01. Initial Term Loan. Lender’s obligation to fund the Initial Term Loan is subject to its satisfactory completion of due diligence prior to Parent or Borrower entering into this Agreement with Lender (including financial due diligence conducted by a service provider of Lender’s choosing) and the satisfaction or waiver in writing of the following conditions precedent prior to or contemporaneously with the making of the Initial Term Loan:

(a) Documentation. Lender shall have received, in form and substance satisfactory to it and its counsel, each of the following duly executed and delivered:

- (i) each of the Loan Documents (other than any Loan Document required to be delivered under Section 3.02(a) prior to the Delayed Draw Term Loan Funding Date);
- (ii) from each Loan Party, a certificate of its secretary or assistant secretary of such Loan Party (solely in his or her capacity as an officer and not individually) dated as of the Closing Date as to: (A) resolutions of its Board of Directors then in full force and effect authorizing the execution, delivery and performance of each Loan Document to be executed by it; (B) its bylaws, articles of association or operating agreement, a copy of which is attached; and (C) the incumbency and signatures of those of its officers authorized to act with respect to the Loan Documents to be executed by it;
- (iii) with respect to (1) each Loan Party (other than the Parent or any Loan Party that is an Israeli Subsidiary): (A) from the Secretary of State (or other appropriate governmental official) of its jurisdiction of incorporation, a good standing certificate and certified copy of its certificate of incorporation, and (B) a certificate of good standing as a foreign corporation from the Secretary of State of each jurisdiction, if any, described in Section 6.01, in each case dated within ten (10) Business Days of the Closing Date and (2) with respect to the Parent and any Loan Party that is an Israeli Subsidiary, an on-line extract of such Person from the Israeli Registrar of Companies’;
- (iv) evidence of the insurance coverage and endorsements required by Section 7.13;
- (v) formal approval of the transactions contemplated herein by Lender’s Investment Committee;
- (vi) an officer’s certificate of SPE Guarantor certified by an officer of the SPE Guarantor (solely in his or her capacity as an officer and not individually) that the SPE Guarantor’s Organizational Documents (i) include provisions concerning the conduct of business of the SPE Guarantor in the form attached hereto as Exhibit J (the “**Conduct of Business Provisions**”); and (ii) prohibit amendment of the Conduct of Business Provisions without Lender’s consent;
- (vii) evidence of the third-party consents listed on Schedule 6.03;
- (viii) a customary legal opinion from New York, Delaware, California, Nevada and Israeli counsel to the Loan Parties;
- (ix) an Initial Term Loan Request fully completed and duly executed by the Borrower no later than one (1) Business Day prior to the Closing Date; and
- (x) such other documents and information as Lender may reasonably require.

(b) Financial Condition. There is no event or circumstance that has occurred or that could reasonably be expected to have a Material Adverse Effect.

(c) Fees and Expenses. Payment of all fees payable on the Closing Date and payment of the Lender Expenses to the extent invoiced (but limited in the case of Lender Expenses incurred by the Lender in connection with the preparation, negotiation and delivery of the Loan Documents on or prior to the Closing Date, to an amount not to exceed \$[●]), plus such additional amounts of such fees, charges and disbursements as shall constitute Lender's reasonable estimate of such fees, charges and disbursements incurred or to be incurred by it through the Closing Date (provided that such estimate shall not thereafter preclude a final settling of accounts between the Borrower and the Lender).

(d) Representations and Warranties. The representations and warranties of each Loan Party contained in each Loan Document or in any document furnished at any time under or in connection herewith or therewith, shall be true and correct in all respects on and as of the Closing Date (except to the extent any such representations and warranties expressly relate to an earlier date, in which case such representations and warranties shall be true and correct as of such date).

(e) Absence of Default. No Default or Event of Default exists or would result from the proposed credit extension or the application of the proceeds thereof and no event or circumstance exists that can reasonably be expected to have a Material Adverse Effect; *provided*, that, Borrower's transfer of a portion of its assets to SPE Guarantor in accordance with the Patent Assignment Agreement shall not constitute a Material Adverse Effect.

(f) No Material Adverse Effect. Both immediately before and after giving effect to the receipt of Initial Term Loan proceeds, there has not been a Material Adverse Effect since December 31, 2017.

(g) Officer's Certificate. Lender's receipt of an officer's certificate of Borrower, certifying (solely in his or her capacity as an officer and not individually) that the conditions specified in Sections 3.01(d), (e), (f), (i) and (j) have been satisfied.

(h) Assigned Patent Rights. The Lender shall have received duly executed copies of the Patent Assignment Agreement, the Patent License Agreement (Fortress) and Patent License Agreement (Loan Parties).

(i) [Intentionally Omitted].

(j) Maximum EBITDA Leverage Ratio. The Borrower shall demonstrate in form and substance reasonably satisfactory to Lender that on the Closing Date and immediately after giving effect to the making of the Initial Term Loan and the payment of all Transaction Costs required to be made on the Closing Date, the EBITDA Leverage Ratio is not greater than 2.25:1.00; *provided* that, solely for purposes of calculating the EBITDA Leverage Ratio in this clause (j), Consolidated Adjusted EBITDA shall be deemed to be Consolidated Adjusted EBITDA for the two-fiscal quarter period ending on June 30, 2018 multiplied by 2.

(k) Maximum Revenue Leverage Ratio. The Borrower shall demonstrate in form and substance reasonably satisfactory to Lender that on the Closing Date and immediately after giving effect to the making of the Initial Term Loans and the payment of all Transaction Costs required to be made on the Closing Date, the Revenue Leverage Ratio is not greater than 0.20:1.00.

SECTION 3.02. Delayed Draw Term Loan. Lender's funding of the Delayed Draw Term Loan is subject to the satisfaction or waiver in writing of the following conditions precedent prior to or contemporaneously with the making of the Delayed Term Loan:

(a) Documentation. Lender shall have received, in form and substance satisfactory to it and its counsel, each of the following duly executed and delivered originally signed versions of:

- (i) each Israeli Floating Charge;
- (ii) each Israeli Share Charge;
- (iii) each Israeli IP Fixed Charge;
- (iv) a certificate of accuracy in respect of each Israeli Floating Charge and each Israeli Share Charge, in each case appending a Hebrew translation of such Israeli Security Document;
- (v) a Form 10 in respect of each Israeli Floating Charge and each Israeli Share Charge;
- (vi) a Form 1 in respect of each Israeli IP Fixed Charge;
- (vii) a customary legal opinion from Israeli counsel to the Parent and the Israeli Subsidiaries that are Loan Parties;
- (viii) payoff letters in form and substance satisfactory to Lender in respect of the payment in full Management Loans and termination of the commitments to lend thereunder, each of which will be paid in full substantially concurrently with the funding of the Delayed Draw Term Loan to be made on the Delayed Draw Term Loan Funding Date; and
- (ix) such other documents and information as Lender may reasonably request.

(b) Financial Condition. There is no event or circumstance that has occurred or that could reasonably be expected to have a Material Adverse Effect.

(c) Fees and Expenses. Payment of all fees payable on the Delayed Draw Term Loan Funding Date and payment of the Lender Expenses to the extent invoiced, plus such additional amounts of such fees, charges and disbursements as shall constitute Lender's reasonable estimate of such fees, charges and disbursements incurred or to be incurred by it through the Delayed Draw Term Loan Funding Date (provided that such estimate shall not thereafter preclude a final settling of accounts between the Borrower and the Lender).

(d) Representations and Warranties. The representations and warranties of each Loan Party contained in each Loan Document or in any document furnished at any time under or in connection herewith or therewith, shall be true and correct in all respects on and as of the Delayed Draw Term Loan Funding Date (except to the extent any such representations and warranties expressly relate to an earlier date, in which case such representations and warranties shall be true and correct as of such date).

(e) Absence of Default. No Default or Event of Default exists or would result from the proposed credit extension or the application of the proceeds thereof and no event or circumstance exists that can reasonably be expected to have a Material Adverse Effect.

(f) No Material Adverse Effect. Both immediately before and after giving effect to the receipt of Delayed Draw Term Loan proceeds, there has not been a Material Adverse Effect since December 31, 2017.

(g) Maximum EBITDA Leverage Ratio. The Borrower shall demonstrate in form and substance reasonably satisfactory to Lender that on the Delayed Draw Funding Date and immediately after giving effect to the making of the Initial Term Loan and the payment of all Transaction Costs required to be made on the Delayed Draw Funding Date, the EBITDA Leverage Ratio is not greater than 4.50:1.00; provided that, solely for purposes of calculating the EBITDA Leverage Ratio in this clause (g), Consolidated Adjusted EBITDA shall be deemed to be Consolidated Adjusted EBITDA for the two-fiscal quarter period ending on June 30, 2018 multiplied by 2.

(h) Maximum Revenue Leverage Ratio. The Borrower shall demonstrate in form and substance reasonably satisfactory to Lender that on the Closing Date and immediately after giving effect to the making of the Initial Term Loans and the payment of all Transaction Costs required to be made on the Delayed Draw Funding Date, the Revenue Leverage Ratio is not greater than 0.40:1.00.

(i) Officer's Certificate. Lender's receipt of an officer's certificate of Borrower, certifying (solely in his or her capacity as an officer and not individually) that the conditions specified in Sections 3.02(d), (e), (f), (g) and (h) have been satisfied.

SECTION 3.03. Incremental Term Loans. Lender's funding of any Incremental Term Loan is subject to the satisfaction or waiver in writing of the following conditions precedent prior to or contemporaneously with the making of such Incremental Term Loan:

(a) Incremental Term Loan Request. Lender shall have received, in form and substance satisfactory to it and its counsel, a fully executed Incremental Term Loan Request.

(b) Representations and Warranties. The representations and warranties of each Loan Party contained in each Loan Document or in any document furnished at any time under or in connection herewith or therewith, shall be true and correct in all material respects (provided, that such materiality qualifier shall not be applicable to those representations and warranties qualified or modified by materiality in the text thereof) on and as of the date of the applicable Incremental Term Loan Request and of the Increased Amount Date, except to the extent that such representations and warranties specifically refer to an earlier date, in which case they shall be true and correct in all material respects as of such earlier date.

(c) No Defaults. As of the date of the applicable Incremental Term Loan Request and of the Increased Amount Date, no event shall have occurred and be continuing or would result from the funding of such Incremental Term Loan that would constitute an Event of Default or a Default.

(d) Maximum EBITDA Leverage Ratio. The Borrower shall demonstrate in form and substance reasonably satisfactory to Lender that on the date of the making of such Incremental Term Loan and immediately after giving effect to the making of the Incremental Term Loans to be made on such date and the payment of all Transaction Costs required to be made on the applicable Increased Amount Date, the EBITDA Leverage Ratio is not greater than 2.75:1.00.

(e) Maximum Revenue Leverage Ratio. The Borrower shall demonstrate in form and substance reasonably satisfactory to Lender that on the date of the making of such Incremental Term Loan and immediately after giving effect to the making of the Incremental Term Loans to be made on such date and the payment of all Transaction Costs required to be made on the applicable Increased Amount Date, the Revenue Leverage Ratio is not greater than 0.75:1.00.

ARTICLE IV. WARRANT

SECTION 4.01. Warrant to Purchase Shares. Pursuant to the terms and conditions of the Warrant, Parent grants Lender, or a designated Affiliate of Lender, the right to purchase shares in the Parent as more specifically set forth in the Warrant.

ARTICLE V. COLLATERAL

SECTION 5.01. Security Interest in Collateral. As security for the full and prompt payment in cash and performance of the Obligations, Parent and Borrower shall, and shall cause the other Loan Parties, to pledge to Lender all of their right, title and interest in and to the applicable Collateral on the terms and conditions set forth in applicable Security Documents.

ARTICLE VI. REPRESENTATIONS AND WARRANTIES

Each of Parent and Borrower represent and warrant to Lender that the following representations are true and complete as of the Closing Date, as of the Delayed Draw Term Loan Funding Date and on each Increased Amount Date:

SECTION 6.01. Existence, Qualification and Power. Each Loan Party and each Material Subsidiary thereof (a) is duly organized or formed, validly existing and, as applicable, in good standing under the Laws of the jurisdiction of its incorporation or organization; (b) has all requisite corporate power and authority and all requisite governmental licenses, authorizations, consents and approvals to (i) own or lease its assets and carry on its business; and (ii) execute, deliver and perform its obligations under the Loan Documents to which it is a party; (c) is duly qualified and is licensed and, as applicable, in good standing under the Laws of each jurisdiction where its ownership, lease or operation of properties or the conduct of its business requires such qualification or license; and (d) in respect of the Parent and any Loan Party that is an Israeli Subsidiary, it is not a “company in violation” (“*hevrah meferah*”) (as defined in Section 362A of the Israel Companies Law, 1999) and it has not received notice that it is expected to be registered as such.

SECTION 6.02. Authorization; No Contravention. The execution, delivery and performance by each Loan Party of each Loan Document to which it is a party, have been duly authorized by all necessary corporate or other organizational action, and do not and will not (a) contravene the terms of any of its Organization Documents, (b) conflict with or result in any breach or contravention of, or the creation of any Lien under, or require any payment to be made under (i) any material Contractual Obligation to which it is a party or affecting it or its properties or any of its Material Subsidiaries; or (ii) any order, injunction, writ or decree of any Governmental Authority or any arbitral award to which it or its property is subject; or (c) violate any Law.

SECTION 6.03. Governmental Authorization; Other Consents. Except as set forth in Schedule 6.03 and other than actions to perfect security interests, no approval, consent, exemption, authorization, or other action by, or notice to, or filing with, any Governmental Authority or any other Person is necessary or required in connection with the execution, delivery or performance by, or enforcement against, any Loan Party of this Agreement or any other Loan Document.

SECTION 6.04. Binding Effect. This Agreement has been, and each other Loan Document, when delivered hereunder, will have been, duly executed and delivered by each Loan Party that is party thereto. This Agreement constitutes, and each other Loan Document when so delivered will constitute, a legal, valid and binding obligation of such Loan Party, enforceable against each Loan Party that is party thereto in accordance with its terms, except as enforcement may be limited by equitable principles or by bankruptcy, insolvency, reorganization, moratorium, or similar laws relating to or limiting creditors' rights generally.

SECTION 6.05. Financial Statements; No Material Adverse Effect. The Historical Financial Statements (a) were prepared in accordance with GAAP consistently applied throughout the period covered thereby, except as otherwise expressly noted therein; (b) fairly present in all material respects the financial condition of the Parent and its Subsidiaries as of the date thereof and their results of operations for the period covered thereby in accordance with GAAP consistently applied throughout the period covered thereby, except as otherwise expressly noted therein subject, if applicable, to changes resulting from normal year-end adjustments; and (c) show all material indebtedness and other liabilities, direct or contingent, of the Parent and its Subsidiaries as of the date thereof, including liabilities for taxes, material commitments and Indebtedness. Since the date of the Historical Financial Statements, there has been no event or circumstance, either individually or in the aggregate, that has had or could reasonably be expected to have a Material Adverse Effect, except as disclosed to Lender in writing pursuant to Schedule 6.05.

SECTION 6.06. Litigation. Except as set forth on Schedule 6.06, there are no actions, suits, proceedings, claims or disputes pending or, to the Knowledge of any Loan Party, threatened in writing, at Law, in equity, in arbitration or before any Governmental Authority, by or against the Parent or any of its Material Subsidiaries or against any of their properties or revenues that purport to affect or pertain to this Agreement or any other Loan Document, or any of the transactions contemplated hereby, with an amount in controversy in excess of \$500,000. Neither the Parent nor any of its Material Subsidiaries, nor any director or officer thereof, is or has been the subject of any action involving a claim of violation of or liability under federal or state securities laws or a claim of breach of fiduciary duty. The SEC has not issued any stop order or other order suspending the effectiveness of any registration statement filed by the Parent or any Material Subsidiary under the Securities Act and Exchange Act, as applicable.

SECTION 6.07. No Default. Neither any Loan Party nor any Material Subsidiary thereof is in default under or with respect to any material Contractual Obligation. No Default has occurred and is continuing or would result from the consummation of the transactions contemplated by this Agreement or any other Loan Document.

SECTION 6.08. Ownership of Property; Liens. Parent and its Material Subsidiaries each has, in all material respects, good, indefeasible and merchantable title to and ownership of its property free and clear of all Liens, except Permitted Liens.

SECTION 6.09. Environmental Compliance. Parent and its Material Subsidiaries conduct in the ordinary course of business a review of the effect of existing Environmental Laws and claims alleging potential liability or responsibility for violation of any Environmental Law on their respective businesses, operations and properties, and as a result thereof the Borrower has reasonably concluded that such Environmental Laws and claims could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

SECTION 6.10. Insurance. The properties of Parent and its Material Subsidiaries are insured with insurance companies that are not Affiliates of the Loan Parties that, to their Knowledge, are financially sound and reputable, in such amounts (after giving effect to any self-insurance reasonable and customary for similarly situated Persons engaged in the same or similar business as the Borrower or applicable Material Subsidiary), with such deductibles and covering such risks as are customarily carried by companies engaged in similar businesses and owning similar properties in localities where the Parent or the applicable Material Subsidiary operates.

SECTION 6.11. Taxes. Parent and each Material Subsidiary has prepared and filed (or filed applicable extensions therefor) all tax returns required to have been filed by Parent or such Material Subsidiary with all appropriate governmental agencies and paid all taxes shown thereon or otherwise owed by it, other than any such taxes which the Parent or any Material Subsidiary are contesting in good faith and for which adequate reserves have been provided and reflected in the Parent's financial statements. The charges, accruals and reserves on the books of the Parent in respect of taxes for all fiscal periods are adequate in all material respects, and there are no material unpaid assessments against the Parent or any Material Subsidiary nor, to Parent's or Borrower's Knowledge, any basis for the assessment of any additional taxes, penalties or interest for any fiscal period or audits by any federal, state or local taxing authority. All taxes and other assessments and levies that the Parent or any Material Subsidiary is required to withhold or to collect for payment have been duly withheld and collected and paid to the proper governmental entity or third party when due, other than any such taxes which the Parent or any Material Subsidiary are contesting in good faith and for which adequate reserves have been provided and reflected in the Parent's financial statements. There are no tax liens or claims pending or, to Parent's or Borrower's Knowledge, threatened in writing against the Parent or any Material Subsidiary or any of their respective assets or property except in connection with any such taxes which the Parent or any Material Subsidiary are contesting in good faith as provided in the immediately preceding sentence. There are no outstanding tax sharing agreements or other such arrangements between the Parent and any Material Subsidiary or other corporation or entity.

SECTION 6.12. ERISA Compliance.

(a) Except as would not, either individually or in the aggregate, reasonably be expected to result in a Material Adverse Effect, each Plan is in compliance in all material respects with the applicable provisions of ERISA, the Code and other Federal or state Laws. Each Plan that is intended to qualify under Section 401(a) of the Code has received a favorable determination letter from the IRS or an application for such a letter is currently being processed by the IRS with respect thereto and, to the Knowledge of the Borrower or Parent, nothing has occurred which would prevent, or cause the loss of, such qualification. The Borrower and each ERISA Affiliate have made all required contributions to each Plan subject to Section 412 of the Code, and no application for a funding waiver or an extension of any amortization period pursuant to Section 412 of the Code has been made with respect to any Plan.

(b) There are no pending or, to the Knowledge of the Borrower or Parent, threatened in writing claims, actions or lawsuits, or action by any Governmental Authority, with respect to any Plan that could reasonably be expected to have a Material Adverse Effect. There has been no prohibited transaction or violation of the fiduciary responsibility rules with respect to any Plan.

(c) (i) No ERISA Event has occurred or is reasonably expected to occur; (ii) no Pension Plan has any Unfunded Pension Liability; (iii) neither the Borrower nor any ERISA Affiliate has incurred, or reasonably expects to incur, any liability under Title W of ERISA with respect to any Pension Plan (other than premiums due and not delinquent under Section 4007 of ERISA); (iv) neither the Borrower nor any ERISA Affiliate has incurred, or reasonably expects to incur, any liability (and no event has occurred which, with the giving of notice under Section 4219 of ERISA, would result in such liability) under Section 4201 or 4243 of ERISA with respect to a Multiemployer Plan; and (v) neither the Borrower nor any ERISA Affiliate has engaged in a transaction that could be subject to Section 4069 or 4212(c) of ERISA.

SECTION 6.13. Subsidiaries; Equity Interests. Parent has no Subsidiaries other than those specifically set forth on Schedule 6.13, and all of the outstanding Equity Interests in such Subsidiaries have been validly issued, are fully paid and nonassessable and are owned by a Loan Party in the amounts set forth on Schedule 6.13, free and clear of all Liens other than Permitted Liens. Parent and its Subsidiaries have no equity investments in any other corporation or entity. All of the outstanding Equity Interests of Parent and its Subsidiaries have been validly issued and are fully paid and nonassessable.

SECTION 6.14. Margin Regulations; Investment Company Act. Each of Parent and the Borrower is not engaged nor will it engage, principally or as one of its important activities, in the business of purchasing or carrying margin stock (within the meaning of Regulation U issued by the Board of Governors of the Federal Reserve System of the United States), or extending credit for the purpose of purchasing or carrying margin stock. None of Parent, the Borrower, any Person Controlling the Borrower, or any Subsidiary is or is required to be registered as an “investment company” under the Investment Company Act of 1940, as amended.

SECTION 6.15. Disclosure. No representation or warranty of Parent or any of its Subsidiaries contained in any Loan Document and none of the statements contained in any other document, certificate, report, financial statement or written statement furnished to the Lender by or on behalf of the Parent or any of its Subsidiaries pursuant to this Agreement contains any untrue statement of a material fact or omits to state a material fact (known to Borrower, in the case of any document not furnished by it or on its behalf) necessary in order to make the statements contained herein or therein not misleading in any material manner in light of the circumstances in which the same were made. Any projections and pro forma financial information contained in such materials are based upon good faith estimates and assumptions believed by the Parent to be reasonable at the time made.

SECTION 6.16. Compliance with Laws. Each Loan Party and each Material Subsidiary thereof is in compliance in all material respects with the requirements of all Laws and all orders, writs, injunctions and decrees applicable to it or to its properties.

SECTION 6.17. Intellectual Property.

(a) Schedule 6.17 sets forth a complete and accurate list of all: (i) issuances, registrations and applications for Intellectual Property owned or exclusively licensed by Parent or a Subsidiary, indicating for each, as applicable, the title, jurisdiction, record owner, and application or registration number; and (ii) Licenses to which Parent or any of its Subsidiaries is a party or otherwise bound that are material to the conduct of the business of Parent or any Subsidiary or that involve any Assigned Patent (each, a “**Material License**”).

(b) Except as set forth on Schedule 6.17, (x) Parent and each Subsidiary exclusively own all right, title and interest in and to, or have a valid and enforceable right to use, free and clear of any Lien other than any Permitted Liens, all Intellectual Property necessary for the conduct of its business as presently conducted and (y) other than as contemplated by the Patent Assignment Agreement, no Intellectual Property is subject to any assignments, springing licenses, options, non-assertion agreements, earn-outs, monetization agreements, profit and revenue sharing arrangements, derivative interests, fee and recovery splitting agreements, registered user agreements, shop rights and covenants by Parent or any of its Subsidiaries not to sue third persons with respect to such Intellectual Property. Parent or such Subsidiary has the power to bring and sustain actions and recover for past, present and future infringement of such Intellectual Property without having to join any other third party and no provision of any Material License will materially restrict the ability of Parent or such Subsidiary to pursue any monetization of such Intellectual Property. The conduct of the business of Parent and each Subsidiary does not infringe, misappropriate, dilute, or otherwise violate the Intellectual Property of any Person. No claim has been brought, is pending, or, to Borrower’s or Parent’s Knowledge, has been threatened, by any Person (i) alleging that the conduct of the business of the Parent or a Subsidiary infringes, misappropriates, dilutes or otherwise violates the Intellectual Property of any Person or (ii) challenging or questioning the validity, enforceability, ownership, use, registrability or patentability of any Intellectual Property. Except as set forth on Schedule 6.17, no Person is, or is alleged to be, infringing, misappropriating, diluting or otherwise violating any Intellectual Property of Parent or any Subsidiary.

(c) All Material Intellectual Property is: (i) subsisting and has not been adjudged invalid or unenforceable, in whole or part, and (ii) to the Knowledge of Borrower or Parent, valid, in full force and effect. Parent and each Subsidiary has taken commercially reasonable steps to maintain, enforce and protect its Intellectual Property, including by requiring each employee, consultant and independent contractor involved in the creation, development or authorship of any Intellectual Property to execute an agreement pursuant to which such Person (x) agrees to protect the confidential information of Parent and each Subsidiary and (y) assigns to Parent or a Subsidiary, as applicable, all rights in any Intellectual Property created in the course of his, her or its employment or other engagement with Parent or a Subsidiary.

(d) Parent and each of its Subsidiaries has obtained and properly recorded previously executed assignments from inventors and all other Persons for the Patents owned by it, including the Assigned Patents, as necessary to fully perfect its rights and title therein in accordance with governing Law in each respective jurisdiction. To each Loan Party's Knowledge, all inventors named on the Patents are true and correct. Except as may be set forth on Schedule 6.17, there is no obligation imposed by a standards-setting organization to license any of the Patents owned by Parent or its Subsidiaries, including the Assigned Patents.

(e) Except as set forth on Schedule 6.17, no Patent owned by Parent or any of its Subsidiaries, including the Assigned Patents, has ever been found invalid, unpatentable, or unenforceable for any reason in any proceeding and Borrower and Parent have no Knowledge of and has not received any notice or information of any kind suggesting that Patents owned by Parent or any of its Subsidiaries, including the Assigned Patents, may be invalid, unpatentable, or unenforceable other than official notices from patent offices in the course of patent prosecution. If any Assigned Patent is terminally disclaimed to another patent or patent application, all patents and patent applications subject to such terminal disclaimer are included in the Assigned Patents. To the extent "small entity" fees were paid to the United States Patent and Trademark Office for any Patent owned by Parent or any of its Subsidiaries, including the Assigned Patents, such reduced fees were then appropriate because the payor qualified to pay "small entity" fees at the time of such payment and specifically had not licensed rights in such Patent to an entity that was not a "small entity".

(f) Neither Parent nor any Subsidiary is in material breach of or default under the provisions of any of the Material Licenses, or has received written notice of any such breach or default or the intention of the other party to terminate such License, nor is there any event, fact, condition or circumstance which, with notice or passage of time or both, would constitute or result in a material conflict, breach, default or event of default under, any of the foregoing.

(g) Neither Parent nor any Israeli Subsidiary owns or controls any IIA-Funded Know How and no security interest is being created over any IIA-Funded Know-How by any Loan Party.

SECTION 6.18. Rights in Collateral; Priority of Liens. Each Loan Party owns the property granted by it as Collateral under the Loan Documents, free and clear of any and all Liens in favor of third parties other than Permitted Liens. Upon (i) the proper filing of the UCC financing statements, (ii) with respect to any Collateral consisting of Deposit Accounts, Securities Accounts or Securities Entitlements, the Lender obtaining “control” over such Deposit Accounts, Securities Accounts or Securities Entitlements, (iii) with respect to certificated securities representing pledged Equity Interests constituting Collateral, the Lender taking possession of such certificated securities, (iv) with respect to the Israeli Loan Parties, filing in the appropriate form of any Security Document being entered into by an Israeli Loan Party with the Israeli Registrar of Companies (including a Hebrew convenience translation of any such Security Document) within 21 days of execution of such Security Document, (v) with respect to the Israeli IP Fixed Charge, filing in the appropriate form of the Israeli IP Fixed Charge with the Israeli Registrar of Pledges and the Israeli Registrar of Patents, Designs and Trademarks (the latter within 21 days of execution of the Israeli IP Fixed Charge) and (vi) all other actions contemplated by the Security Documents all other actions contemplated by the Security Agreement, the Liens in the Collateral granted to Lender pursuant to the Loan Documents will constitute valid and enforceable first, prior and perfected Liens on the Collateral, subject only to Permitted Liens.

SECTION 6.19. Solvency. Borrower is Solvent and Parent and its Subsidiaries on a consolidated basis are Solvent.

SECTION 6.20. Business Locations; Taxpayer Identification Number. Set forth in Schedule 6.20 are: (a) a list of each location where any Collateral is kept and each Loan Party’s chief executive office, exact legal name, U.S. taxpayer identification number and organizational identification number. Except as set forth on Schedule 6.20, no Loan Party has during the five (5) years preceding the Closing Date (i) changed its legal name; (ii) changed its state of formation; or (iii) been party to a merger, consolidation or other change in structure.

SECTION 6.21. Collateral. The Collateral includes, among other things, 99.8% of the Equity Interests of Borrower and 100% of the Equity Interests of each Subsidiary of a Loan Party; provided that the Collateral includes only 65% of the total outstanding voting Equity Interests of any first tier Subsidiary of a Loan Party (other than Parent) that is a CFC (and none of the Equity Interests of any Subsidiary of such CFC).

SECTION 6.22. Patriot Act; Sanctions; Export Controls; FCPA.

(a) To the extent applicable, each of Parent and its Subsidiaries is in compliance, in all material respects, with the Patriot Act and the Prohibition on Money Laundering Law.

(b) Parent represents that neither Parent nor any of its Subsidiaries nor any director, officer or employee thereof, nor, to its knowledge, any agent, affiliate or representative of Parent or any Subsidiary, is an individual or entity that is, or is owned or controlled by a Person that is:

(i) listed in the annex to, or otherwise subject to the provisions of, Executive Order No. 13224 on Terrorist Financing effective September 24, 2001 (the “**Executive Order**”) or listed in the Israeli Ministry of Defense register of designated “unlawful associations” and terrorist organizations, as well as individuals specifically declared as being involved in designated terrorist activities (as updated from time to time);

(ii) prohibited from dealing or otherwise engaging in any transaction by any laws with respect to terrorism or money laundering (including the Israeli Anti-Terror Laws);

(iii) engaged in “terrorism” as defined in the Executive Order;

(iv) the subject or target of any sanctions administered or enforced by the U.S. Department of the Treasury’s Office of Foreign Assets Control (“**OFAC**”), the U.S. Department of State, the United Nations Security Council, the European Union, the State of Israel or Her Majesty’s Treasury (collectively, “**Sanctions**”); or

(v) located, organized or resident in a country or territory that is the subject of comprehensive Sanctions (including, without limitation, as of the date hereof, Cuba, Iran, Lebanon, North Korea, Sudan, Syria and the Crimea region of the Ukraine) (each a “**Designated Jurisdiction**”).

(c) Parent represents and covenants that it and its Subsidiaries will not, directly or, to its knowledge, indirectly, use the proceeds of the Terms Loans, or lend, contribute or otherwise make available such proceeds to any subsidiary, joint venture partner or other Person:

(i) to fund or facilitate any activities or business (x) of or with any Person that, at the time of such funding or facilitation, is the subject or target of Sanctions or (y) in any country or territory that, at the time of such funding or facilitation, is the subject of comprehensive Sanctions; or

(ii) in any other manner that will result in a violation of Sanctions by any Person (including Lender or other party hereto).

(d) To the extent applicable, each of Parent and its Subsidiaries is in compliance with the Export Control Regulations. Parent represents that neither Parent nor any of its Subsidiaries have engaged in transactions with, or exported any products, services or associated technical data: (i) into (or to a national or resident of) Cuba, Iran, Lebanon, North Korea, Sudan, Syria, the Crimea region of the Ukraine or any other country or territory to which the United States had embargoed exports or with which the United States had proscribed economic transactions as of the date of such export or transaction; or (ii) to any person or entity included on the list of Specially Designated Nationals and Blocked Persons (each as defined and maintained by OFAC) or the Denied Persons List (as defined and maintained by the U.S. Department of Commerce) as of the date of such transaction or export; or (iii) that would otherwise constitute or give rise to a violation of the Export Control Regulations.

(e) Parent represents that neither Parent nor any of its Subsidiaries nor any director, officer or employee thereof, has taken any action, directly or indirectly, that would result in a violation by any of the foregoing of the FCPA and the rules and regulations thereunder or any other applicable anti-corruption law in any material respect. Parent represents that to its knowledge, no agent, affiliate or representative of Parent or any Subsidiary has taken any action, directly or indirectly, that would result in a violation by any of the foregoing of the FCPA and the rules and regulations thereunder or any other applicable anti-corruption law.

(f) Parent represents that the proceeds of the Term Loans will not be used by Parent or any of its Subsidiaries for any payments to any governmental official or employee, political party, official of a political party, candidate for political office, or anyone else acting in an official capacity, in order to obtain, retain or direct business or obtain any improper advantage in violation of the FCPA or any other applicable anti-corruption law in any material respect.

ARTICLE VII. AFFIRMATIVE COVENANTS

Until the Obligations have been fully satisfied in cash and Lender's commitment to advance credit has expired, each of Borrower and Parent shall, and shall (except in the case of the covenants set forth in Sections 7.02 and 7.03) cause each of their Material Subsidiaries to:

SECTION 7.01. Compliance with Laws. Comply in all material respects with all applicable laws, rules, regulations, orders and decrees of all Governmental Authorities.

SECTION 7.02. Financial Statements. Deliver to Lender, in form and detail satisfactory to Lender:

(a) as soon as available, but in any event within 180 days after the end of each fiscal year of the Parent, a consolidated balance sheet of the Parent and its Subsidiaries as at the end of such fiscal year, and the related consolidated statements of income or operations, shareholders' equity and cash flows for such fiscal year, setting forth in each case in comparative form the figures for the previous fiscal year, all in reasonable detail and prepared in accordance with GAAP, such consolidated statements to be audited and accompanied by a report and opinion of PricewaterhouseCoopers or, if Parent decides to replace such firm, by any other "big four" accounting firm or by such other independent certified public accountant of regionally recognized standing reasonably acceptable to the Lender, which report and opinion shall be prepared in accordance with generally accepted auditing standards and shall not be subject to any "going concern" or like qualification or exception or any qualification or exception as to the scope of such audit (the "**Audited Financial Statements**");

(b) as soon as available, but in any event within 60 days after the end of each fiscal quarter (including, for the avoidance of doubt, the last fiscal quarter of each fiscal year), a consolidated balance sheet of the Parent and its Subsidiaries as at the end of such fiscal quarter, and the related consolidated statements of income or operations for such fiscal quarter and for the portion of the Parent's fiscal year then ended, setting forth in each case in comparative form the figures for the corresponding fiscal quarter of the previous fiscal year and corresponding portion of the previous fiscal year, all in reasonable detail and prepared in accordance with GAAP, such consolidated statements to be certified by Parent's chief executive officer, chief financial officer or treasurer (solely in his or her capacity as an officer and not individually) as fairly presenting in all material respects the financial condition and results of operations of the Parent and its Subsidiaries in accordance with GAAP, subject only to normal year-end audit adjustments and the absence of footnotes;

(c) as soon as available, but in any event within 180 days after the end of each fiscal year of the Parent, annual operating and financial projections approved by Parent's Board of Directors and in a form acceptable to Lender.

SECTION 7.03. Certificates; Other Information. Deliver to Lender, in form and detail reasonably satisfactory to Lender:

(a) concurrently with the delivery of the financial statements referred to in Section 7.02(a), a certificate of independent certified public accountants certifying such financial statements;

(b) concurrently with the delivery of the financial statements referred to in Sections 7.02(a), (b) and (c), a duly completed Compliance Certificate signed by the chief executive officer, chief financial officer or treasurer of Parent (solely in his or her capacity as an officer and not individually) which shall include such supplements to each of the Schedules hereto as are necessary such that, as supplemented, the relevant disclosures would be accurate and complete as of the date of such Compliance Certificate;

(c) promptly after any request by the Lender, copies of any detailed audit reports, management letters or recommendations submitted to Parent's Board of Directors (or the audit committee of the Board of Directors) by independent accountants in connection with the accounts or books of Parent or any Subsidiary, or any audit of any of them;

(d) [reserved];

(e) promptly after the furnishing thereof, copies of any material statement or report furnished to any holder of debt or equity securities of any Loan Party or any Subsidiary thereof pursuant to the terms of any indenture, loan or credit or similar agreement and not otherwise required to be furnished to the Lender pursuant hereto;

(f) promptly, and in any event within ten (10) days after receipt thereof by Parent, Borrower or any Material Subsidiary thereof, copies of each notice or other correspondence received from the SEC (or comparable agency in any applicable non-U.S. jurisdiction) concerning any investigation or possible investigation or other inquiry by such agency regarding financial or other operational results of Parent, Borrower or any Material Subsidiary thereof to the extent permitted to be disclosed to third parties under applicable Law; and

(g) promptly, such additional information regarding the business, financial or corporate affairs of Parent or any Subsidiary, or compliance with the terms of the Loan Documents, as the Lender may from time to time reasonably request.

SECTION 7.04. Notices. Promptly after a Responsible Officer of Parent or Borrower obtains Knowledge thereof notify the Lender:

(a) of the occurrence of any Default;

(b) of the occurrence of any ERISA Event;

(c) of any matter that has resulted or could reasonably be expected to result in a Material Adverse Effect, a Material Asset Value Impact or a Material Adverse Loan Impact, including (i) breach or non-performance of, or any default under, a Contractual Obligation of Parent or any Material Subsidiary; (ii) any dispute, litigation, investigation, proceeding or suspension between Parent or any Material Subsidiary and any Governmental Authority; or (iii) the commencement of, or any material development in, any litigation or proceeding affecting Parent or any Material Subsidiary, including pursuant to any applicable Environmental Laws; and

(d) of any material change in accounting policies or financial reporting practices by Parent or any Subsidiary.

SECTION 7.05. Payment of Obligations. Pay and discharge as the same shall become due and payable, (a) all tax liabilities, assessments and governmental charges or levies upon it or its properties or assets, unless the same are being contested in good faith by appropriate proceedings diligently conducted and adequate reserves in accordance with GAAP are being maintained by Parent or such Material Subsidiary, except to the extent that the failure to make such payments would not reasonably be expected to have a Material Adverse Loan Impact; (b) all lawful claims which, if unpaid, would by Law become a Lien upon its property other than Permitted Liens, except to the extent that the failure to make such payments would not reasonably be expected to have a Material Asset Value Impact; (c) all Obligations, as and when due and payable subject to any applicable grace or cure periods and (d) all other obligations and liabilities, except to the extent that the failure to make such payments would not reasonably be expected to have a Material Adverse Loan Impact and/or a Material Asset Value Impact.

SECTION 7.06. Books and Records. Maintain proper books of record and account, in which full, true and correct entries shall be made of all financial transactions and matters involving the assets and business of Parent or such Material Subsidiary, as the case may be.

SECTION 7.07. Inspection Rights. Permit representatives and independent contractors of the Lender to visit and inspect any of its properties, to examine its corporate, financial and operating books and records, and make copies thereof or abstracts therefrom, and to discuss its affairs, finances and accounts with its directors, officers, and independent public accountants, all at the expense of the Loan Parties and at such reasonable times during normal business hours, upon reasonable advance notice to Borrower not more than one (1) time each calendar year (in the absence of an Event of Default); *provided, however,* that (a) when an Event of Default has occurred and is continuing, the Lender (or any of its respective representatives or independent contractors) may do any of the foregoing as often as may be reasonably desired, at the expense of the Loan Parties at any time during normal business hours and without advance notice; and (b) the Borrower shall not be required to pay the reasonable expenses of more than one (1) visit and inspections during any calendar year unless an Event of Default has occurred and is continuing.

SECTION 7.08. Litigation Cooperation. To the extent permitted by applicable Law, make available to Lender, without expense to Lender, Parent, its Subsidiaries and their directors, officers, employees and agents and its corporate, financial and operating books and records to the extent that Lender may deem them reasonably necessary to prosecute or defend any third-party suit or proceeding instituted by or against Lender with respect to any Collateral (including the Patent Rights) or the Obligations.

SECTION 7.09. Use of Proceeds. Use the loan proceeds (a) for working capital, growth capital, capital expenditures and other general corporate purposes, (b) to pay Transaction Costs, (c) to make Permitted Investments; acquisitions permitted by clause (xi) of the definition of Permitted Investments, (d) solely with respect to the proceeds of the Initial Term Loans, for the payment in full of the CB&T Loan, and (e) solely with respect to the proceeds of the Delayed Draw Term Loan, for the payment in full of certain loans made to Parent and Borrower by certain members of the Loan Parties' management team prior to the Closing Date (the "Management Loans"). In no event shall the proceeds from a Term Loan be used in contravention of any Law or of any Loan Document.

SECTION 7.10. Preservation of Existence, Etc. (a) Preserve, renew and maintain in full force and effect its legal existence and good standing under the Laws of the jurisdiction of its organization, except any such failure to remain in existence or good standing that is remedied by the Parent, the Borrower or the applicable Material Subsidiary, as the case may be, in a manner that retroactively reinstates such Person's existence or good standing, as if such failure to remain in existence and/or good standing had not occurred, no more than five (5) days following the revocation of such legal existence or good standing; (b) take all action to maintain all rights, material privileges, permits, licenses and franchises reasonably necessary or desirable in the normal conduct of its business, except in the case of any Material Subsidiary to the extent that the failure to do so would not reasonably be expected to have a Material Adverse Loan Impact and/or a Material Asset Value Impact.

SECTION 7.11. Maintenance of Properties. (a) Maintain or cause to be maintained in good repair, working order and condition (ordinary wear and tear excepted) all material properties used or useful in the business of the Parent and its Material Subsidiaries and from time to time will make or cause to be made all appropriate repairs, renewals and replacements thereof, except to the extent that the failure to do so would not reasonably be expected to have a Material Asset Value Impact and (b) maintain, enforce and protect all of the Material Intellectual Property, maintain and keep in full force and effect all issued or registered Material Intellectual Property and continue to prosecute all applications for any Material Intellectual Property.

SECTION 7.12. Formation or Acquisition of Subsidiaries. At the time that any Loan Party (other than Parent) forms any direct or indirect Material Subsidiary or acquires any direct or indirect Material Subsidiary after the date hereof, Borrower shall, or shall cause such other Loan Party to (a) concurrently with such Material Subsidiary becoming a Material Subsidiary of the Borrower or such other Loan Party, cause such new Material Subsidiary to become a Guarantor under the Guaranty and a “Grantor” under the Security Agreement by executing a joinder to the Guaranty and a joinder to the Security Agreement, in each case in form and substance satisfactory to the Lender; provided that a joinder to the Guaranty and the Security Agreement shall not be required to be provided to Lender with respect to any such Material Subsidiary that is a CFC or a Subsidiary of a CFC, (b) take all such actions and execute and deliver, or cause to be executed and delivered, all such documents, instruments, agreements and certificates as are required under the Guaranty and Security Agreement, such other documents, instruments, agreements and certificates set forth in Sections 3.01(a)(ii), (iii), (iv), (vii) and (viii) and Section 3.01(g) and, for any Israeli Subsidiary or Subsidiary organized under the laws of any non-U.S. jurisdiction, Section 3.01(i), to grant to Lender a first priority Lien (subject to Permitted Liens) on substantially all of the assets of such Material Subsidiary and to pledge to Lender 100% the Equity Interests of such Subsidiary, all of the foregoing in form and substance satisfactory to the Lender; provided that only 65% of the total outstanding voting Equity Interests of any first tier Subsidiary of a Loan Party (other than Parent) that is a CFC (and none of the Equity Interests of any Subsidiary of such CFC) shall be required to be pledged (which pledge, if reasonably requested by Lender, shall be governed by the laws of the jurisdiction of such Subsidiary), and (c) to the extent reasonably requested by the Lender, provide to the Lender all other documentation in form and substance reasonably satisfactory to the Lender (including additional local law security, if applicable), including one or more opinions of counsel reasonably satisfactory to the Lender, which in its opinion is customary with respect to the execution and delivery of the applicable documentation referred to above. Any document, agreement, or instrument executed or issued pursuant to this Section 7.12 shall be a Loan Document.

SECTION 7.13. Insurance. Keep its business insured for risks as may customarily be carried or maintained under similar circumstances by Persons of established reputation engaged in similar businesses of a similar size, in each case in such amounts, with such deductibles, covering such risks and otherwise on such terms and conditions as shall be customary for such Persons. (i) All property policies of the Parent and its Material Subsidiaries shall have a lender’s loss payable endorsement showing Lender as a lender loss payee and waive subrogation against the Lender; (ii) all liability policies of Parent and its Material Subsidiaries shall show, or have endorsements showing, the Lender as an additional insured; and (iii) all policies of the Parent and its Material Subsidiaries (or their respective endorsements) shall provide that the insurer shall give the Lender at least thirty (30) days’ notice before canceling, amending, or declining to renew its policy. At the Lender’s request, Parent and its Material Subsidiaries shall deliver certified copies of policies and evidence of all premium payments. If the Borrower fails to obtain insurance as required under this Section 7.13 or to pay any amount or furnish any required proof of payment to third persons and the Lender, the Lender may upon concurrent notice to the Parent make all or part of such payment or obtain such insurance policies required in this Section 7.13, and take any action under the policies the Lender reasonably deems prudent.

SECTION 7.14. Further Assurances. The Loan Parties shall, at their own expense, execute any further instruments and take further action as Lender reasonably requests to perfect or continue Lender's Lien in the Collateral or to effect the purposes of this Agreement.

SECTION 7.15. SPE Compliance. SPE Guarantor shall comply with, and Borrower shall use best efforts, to the full extent of its power and obligations as an equity holder of SPE Guarantor, to comply, with the Conduct of Business Provisions.

SECTION 7.16. Post-Closing Obligations. The Loan Parties shall deliver, or cause to be delivered, to Lender, or otherwise complete to Lender's reasonable satisfaction, the items set forth on Schedule 7.16 on or before the date specified for such item or such later date determined by Lender in its sole discretion.

SECTION 7.17. Financial Covenants.

(a) **Minimum Liquidity.** The Loan Parties shall have a minimum of \$1,500,000 of Unrestricted Cash-on-Hand at all times, and shall provide monthly certifications with respect thereto at the end of each calendar month in form and substance satisfactory to Lender.

(b) **Minimum Debt Service Coverage Ratio.** Loan Parties shall not permit the Debt Service Coverage Ratio, as of the last day of any fiscal quarter of Parent and its Subsidiaries, beginning with the fiscal quarter ending September 6, 2018, to be less than 1.15:1.00.

(c) **Total EBITDA Leverage Ratio.** Loan Parties shall not permit the EBITDA Leverage Ratio as of the last day of any fiscal quarter of Parent and its Subsidiaries, beginning with the fiscal quarter ending September 30, 2018, to exceed the correlative ratio below:

Fiscal Quarter Ending	EBITDA Leverage Ratio
September 30, 2018	4.50:1.00
December 31, 2018	4.50:1.00
March 31, 2019	4.00:1.00
June 30, 2019	4.00:1.00
September 30, 2019	4.00:1.00
December 31, 2019	4.00:1.00
March 31, 2020 and thereafter	3.50:1.00

SECTION 7.18.

Patents and Patent Rights.

(a) Borrower shall not waive or modify, and shall use best efforts not to suffer the waiver or modification of, any legal rights of a material nature arising out of or relating to the Patent Rights without the express prior written consent of Lender.

(b) Borrower shall be liable to Lender for (and shall pay Lender within fifteen (15) days of delivery by Lender of any demand or invoice for) any reasonable expenditures by Lender in connection with (i) the maintenance and preservation of the Collateral, including, but not limited to, taxes, recording fees, appraisal fees, certificate of title charges, recording and filing fees (including UCC financing statement fees, taxes (including documentary stamps) and search fees), fees arising out of or relating to the Patent Rights, the reasonable fees and disbursements of Lender's outside counsel, levies, insurance and repairs; and (ii) in addition to damages for breach of warranty, misrepresentation, or breach of covenant by Borrower, the enforcement of this Agreement and the Loan Documents as a result of such breach or misrepresentation, including, but not limited to, the repossession, holding, preparation for sale, and the sale of the Collateral (including reasonable attorneys' and accountants' fees and expenses), and all such liabilities shall be included in the definition of Obligations, shall be secured by the security interest granted herein, and shall be payable upon demand.

(c) Borrower and Parent shall use its best efforts to ensure that no standards-setting organization shall impose an obligation to license any of the Patents owned by Parent and its Material Subsidiaries, including the Assigned Patents, on particular terms or conditions. Borrower shall not agree to be subject to any covenant not to sue or other restrictions on its enforcement or enjoyment of the Patent Rights without Lender's consent.

(d) Borrower does not know of and has not received any notice or information of any kind suggesting that the Patents owned by Parent and its Material Subsidiaries, including the Assigned Patents, may be invalid, unpatentable, or unenforceable other than (i) official notices from patent offices in the course of patent prosecution and (ii) allegations from third parties in litigation involving, or invited to take a license under, certain Patents owned by Parent and its Material Subsidiaries, including the Assigned Patents.

(e) All applications to Patent any Intellectual Property that is owned by Borrower or Parent (or any of its Material Subsidiaries) shall be filed in the name of SPE Guarantor, and (i) Parent shall, or shall cause any of its Material Subsidiaries to, file all documents and take such other actions as shall be necessary or reasonably requested by Lender to assign all right, title and interest in and to such patent application, and all related Trade Secrets, to Parent or any of its Material Subsidiaries, including the execution of, and recording with the relevant filing office of, an assignment in the form of the Patent Assignment Agreement with respect to such patent application, and all related Trade Secrets, and (ii) such Patent application shall automatically be deemed an Assigned Patent and such Trade Secrets shall automatically be deemed Assigned Trade Secrets hereunder, and Borrower, Parent and each of its Material Subsidiaries, as applicable, hereby assign to SPE Guarantor all right, title, and interest in and to such Patent applications and Trade Secrets.

(f) All Patents acquired by Borrower or Parent (or any of its Material Subsidiaries) from any other Person, or which any right, title or interest arises in Parent (or any of its Material Subsidiaries), shall be assigned to and held in the name of Borrower and (i) Parent shall, or shall cause any of its Material Subsidiaries to, file all documents and take such other actions as shall be necessary or reasonably requested by Lender to cause all right, title and interest in and to such Patents, and all related Trade Secrets, to vest in SPE Guarantor, including the execution of, and recording with the relevant filing office of, a Patent Assignment Agreement with respect to such Patents, and all related Trade Secrets, and (ii) such Patents shall automatically be deemed Assigned Patents and such Trade Secrets shall automatically be deemed Assigned Trade Secrets hereunder and shall be owned by SPE Guarantor together with all Assigned Patent Rights associated therewith, and Borrower, Parent and each of their Material Subsidiaries, as applicable, hereby assign to SPE Guarantor all right, title, and interest in and to such Patents and Trade Secrets.

(g) All Patents that are material to the conduct of the business of Parent and its Subsidiaries shall be owned by a Loan Party.

ARTICLE VIII. NEGATIVE COVENANTS

Until the Obligations have been fully satisfied in cash and Lender's commitment to advance credit has expired, Parent and Borrower shall not, nor shall they permit any Material Subsidiary to, directly or indirectly:

SECTION 8.01. Dispositions. Transfer, or permit any of its Material Subsidiaries to Transfer, in one transaction or a series of transactions, all or any part of their or their Material Subsidiary's business, property or assets except for (a) Alvarion Patent Dispositions and (b) transfers (i) of worn-out or obsolete equipment; (ii) in connection with Permitted Liens, investments, and any dividends or distributions not prohibited by this Agreement; (iii) of nonexclusive licenses for the use of the property of Parent or its Material Subsidiaries in the ordinary course of business; (iv) of cash or cash equivalents in a manner that is not prohibited by the terms of this Agreement; (v) pursuant to the Patent Assignment Agreement, the Patent License Agreement (Fortress) and the Patent License Agreement (Loan Parties); and (vi) of inventory in the ordinary course of business; and (vii) of other property (other than Intellectual Property) for a purchase price equal to or greater than the greater of (x) fair market value and (y) 1.25x the original purchase price paid by Borrower or such Material Subsidiary (as determined by Lender in its reasonable discretion) and in an aggregate amount not to exceed \$2,000,000 in any fiscal year of Parent. Notwithstanding the foregoing or anything else herein to the contrary, Borrower shall not Transfer the Assigned Patent Rights and neither Parent nor any of its Subsidiaries shall Transfer its rights under the Patent License Agreement (Fortress) or the Patent License Agreement (Loan Parties) without Lender's prior written consent (in its sole and absolute discretion).

SECTION 8.02. Changes in Business, Management, Ownership, or Business Locations. (a) Engage in or permit any of its Material Subsidiaries to engage in any business other than the businesses engaged in by Parent and such Material Subsidiary, as applicable, on the Closing Date and other business activities complementary, incidental or related thereto; (b) liquidate or dissolve, except that any Material Subsidiary that is not a Loan Party may liquidate or dissolve and any Material Subsidiary that is a Loan Party may liquidate or dissolve so long as the assets of such Loan Party are transferred to another Loan Party; or (c) change Parent's chief executive officer where Parent's Board of Directors does not replace such officer with at least a Board-approved interim chief executive officer within ninety (90) days of such change and a Board-approved permanent replacement chief executive officer within two hundred-forty (240) days of such change. Neither Parent nor Borrower shall, (1) without at least five (5) days prior written notice to Lender (or such shorter period as it may agree), add any new offices or business locations (unless such new offices or business locations contain less than \$100,000 of any Loan Party's property), (2) without at least thirty (30) days prior written notice to Lender (or such shorter period as it may agree); (i) change its jurisdiction of organization; (ii) change its organizational structure or type; (iii) change its legal name; or (iv) change any organizational number (if any) assigned by its jurisdiction of organization or (3) without the consent of the Lender, enter into any agreement or arrangement with the Israeli Tax Authority (the "ITA") for payment in instalments or rescheduling of amounts due to the ITA ("*Hesder Prisah*").

SECTION 8.03. Mergers or Acquisitions. Consummate a Business Combination (except for a Permitted Investment) without obtaining the written consent of the Lender (in its sole and absolute discretion); except (i) any Subsidiary of Parent (other than the Borrower or the SPE Guarantor) may be merged with or into Borrower or any Guarantor (other than Parent or the SPE Guarantor), or be liquidated, wound up or dissolved, or all or any part of its business, property or assets may be conveyed, sold, leased, transferred or otherwise disposed of, in one transaction or a series of transactions, to Borrower or any Guarantor (other than the SPE Guarantor); provided, in the case of such a merger, Borrower or such Guarantor, as applicable shall be the continuing or surviving Person and (ii) any non-Loan Party Subsidiary of Parent may be merged with or into any other non-Loan Party Subsidiary of Parent.

SECTION 8.04. Liens. Create, incur, assume or suffer to exist any Lien, except Permitted Liens, upon any of its property, assets or revenues, whether now owned or hereafter acquired.

SECTION 8.05. Distributions; Investments. (a) Pay any dividends or make any distribution or payment or redeem, retire or purchase any of its capital stock; *provided*, that (i) Parent may convert any of its convertible securities into other securities that do not constitute Disqualified Equity Interests pursuant to the terms of such convertible securities or otherwise in exchange thereof, (ii) Parent may pay dividends solely in common stock, (iii) Parent may repurchase the stock of former employees or consultants pursuant to stock repurchase agreements so long as an Event of Default does not exist at the time of such repurchase and would not exist after giving effect to such repurchase, *provided*, that such repurchases do not exceed in the aggregate \$50,000 per fiscal year or (iv) Subsidiaries of Parent may make distributions to Parent, Lender or an Affiliate of Lender or (b) directly or indirectly make any Investment other than Permitted Investments, or permit any of its Subsidiaries to do so.

SECTION 8.06. Transactions with Affiliates. Enter into or permit to exist any transaction (including the purchase, sale, lease or exchange of any property or the rendering of any service) with any Affiliate of a Loan Party on terms that are less favorable to Parent or that Subsidiary, as the case may be, than those that might be obtained at the time from Persons who are not such an Affiliate other than any transactions between the Loan Parties expressly permitted hereunder.

SECTION 8.07. Subordinated Debt. (a) Make or permit any payment on any Subordinated Debt, except under the terms of the subordination, intercreditor, or other similar agreement to which such Subordinated Debt is subject, such agreements to be in form and substance satisfactory to Lender in its sole discretion or (b) amend any provision in any document relating to the Subordinated Debt which would increase the amount thereof or adversely affect the subordination thereof to Obligations owed to Lender.

SECTION 8.08. Compliance. Become an “investment company” or a company controlled by an “investment company” under the Investment Company Act of 1940, as amended, or undertake as one of its important activities extending credit to purchase or carry margin stock (as defined in Regulation U of the Board of Governors of the Federal Reserve System), or use the proceeds of a Term Loan for that purpose; fail to meet the minimum funding requirements of ERISA, permit a Reportable Event or Prohibited Transaction (as defined in ERISA), to occur; fail to comply with the Federal Fair Labor Standards Act or violate any other Law or regulation, if the violation could reasonably be expected to have a Material Adverse Effect on Borrower’s business, or permit any of its Subsidiaries to do so; withdraw or permit any Subsidiary to withdraw from participation in, permit partial or complete termination of, or permit the occurrence of any other event with respect to, any present pension, profit sharing and deferred compensation plan which could reasonably be expected to result in any liability of Borrower in excess of \$50,000, including any liability to the Pension Benefit Guaranty Corporation or its successors or any other governmental agency.

SECTION 8.09. **Indebtedness.** Create or suffer to exist any Indebtedness, other than Permitted Indebtedness.

SECTION 8.10. **Amendments to Organization Documents, Patent Assignment Agreement or Patent License Agreement.** Amend, or permit the amendment of, Parent's, or any of its Subsidiaries', Organization Documents in a manner adverse to the Lender or amend, or permit the amendment of, the Patent Assignment Agreement or the Patent License Agreement (Loan Parties).

SECTION 8.11. **Sanctions.** Use the proceeds of a Term Loan, or lend, contribute or otherwise make available proceeds of a Term Loan to any Subsidiary of the Borrower or Parent, joint venture partner or other individual or entity, directly, or knowingly indirectly, (a) in furtherance of an offer, payment, promise to pay, or authorization of the payment or giving of money, or anything else of value, to any Person in violation in any material respect of the United States Foreign Corrupt Practices Act of 1977, the UK Bribery Act 2010, the Prohibition on Money Laundering Law, and other similar anti-corruption legislation in other jurisdictions to the extent applicable to the Loan Parties or (b) to fund any activities of or business with any individual or entity, or in any Designated Jurisdiction, that, at the time of such funding, is the subject of Sanctions in material violation thereof, or in any other manner that will result in a material violation by an individual or entity (including any individual or entity participating in the transactions contemplated hereby or otherwise) of Sanctions.

ARTICLE IX. EVENTS OF DEFAULT.

SECTION 9.01. **Events of Default.** Any one of the following shall constitute an event of default (an "**Event of Default**"):

(a) **Payment Default.** A Loan Party fails to (i) make any payment of principal or interest on the Term Loans within five (5) days after the due date therefor or (ii) pay any other payment Obligation and such default shall continue unremedied for a period of five (5) days after the date when due and payable or when declared due and payable in accordance with this Agreement.

(b) **Representations and Warranties.** Any representation, warranty, certification or other statement made in writing (including via email) by Parent or any of its Subsidiaries in any Loan Document or in any written statement (including via email) or certificate at any time given by the Parent or any of its Subsidiaries pursuant hereto or thereto or in connection herewith or therewith shall have been false in any material respect on the date as of which made (other than with respect to any projections or forward-looking statements, unless such projections or forward-looking statements were intentionally misleading when made or were not based on good faith estimates and assumptions of the management of Parent).

(c) **Specific Covenants.**

(1) A Loan Party fails to deliver any item required in Sections 7.02 or 7.03 (other than 7.03(g)) or fails to perform or observe any term, covenant or agreement contained in Sections 7.04 (other than 7.04(d)), 7.07, 7.09, 7.10(a) (solely with respect to the legal existence of the Borrower), 7.12, 7.15, 7.16, 7.17 or 7.18 or Article 8,

(2) a Loan Party fails to perform or observe any term, covenant or agreement contained in Sections 7.03(g), 7.04(d), 7.12 and such failure continues for fourteen (14) days, or

(3) any Guarantor fails to perform or observe any term, covenant or agreement contained in its Guaranty and such failure continues for fourteen (14) days.

(d) Other Defaults. Any Loan Party fails to perform or observe any other covenant or agreement (not specified in Sections 9.01(a), 9.01(b), or 9.01(c)) contained in any Loan Document on its part to be performed or observed and such failure continues for thirty (30) days.

(e) Cross-Default.

(1) Parent or any of its Material Subsidiaries shall fail to pay when due (after giving effect to any applicable grace period) any principal of or interest on or any other amount payable in respect of one or more items of Indebtedness in an individual principal amount of \$150,000 or more or with an aggregate principal amount of \$150,000 or more; or

(2) The breach or default (after giving effect to any applicable grace period) by Parent or any of its Material Subsidiaries with respect to any other term of (a) one or more items of Indebtedness in the individual or aggregate principal amounts referred to in clause (i) above or (b) any loan agreement, mortgage, indenture or other agreement relating to such item(s) of Indebtedness, if the effect of such breach or default is to cause, or to permit the holder or holders of that Indebtedness (or a trustee on behalf of such holder or holders) to cause, that Indebtedness to become or be declared due and payable prior to its stated maturity or the stated maturity of any underlying obligation, as the case may be (upon the giving or receiving of notice, lapse of time, both, or otherwise).

(f) Restraint on Business. (a) Any Loan Party shall be enjoined, restrained or in any way prevented by the order of any Governmental Authority from conducting any material part of the business of such Loan Party and such order shall continue in effect for more than thirty (30) days thereafter, (b) there shall occur any damage to, or loss, theft, attachment, levy or destruction of, any material part of the Collateral, whether or not insured, or (c) any strike, lockout, labor dispute, embargo, condemnation, act of God or public enemy or terrorism, or other casualty, which in any such case causes, for more than fifteen (15) consecutive days, the cessation or substantial curtailment of revenue producing activities of a Loan Party if such event or circumstance is not covered by business interruption insurance and would have a Material Adverse Effect.

(g) Asset Seizure. (i) Any material portion of any Loan Party's assets is attached, seized, levied on, or comes into possession of a trustee or receiver; or (ii) any court order enjoins, restrains, or prevents any Loan Party from conducting any material part of its business, in each case, as to each of clauses (i) and (ii), which event continues in existence and is not remedied, dismissed or stayed for thirty (30) days after the date when such event first occurred.

(h) Insolvency Proceedings. (i) Parent or any of its Subsidiaries institutes, or consents to, or cooperates or colludes with a third party regarding, the institution of any proceeding under any Debtor Relief Law, or makes an assignment for the benefit of creditors, or applies for or consents to the appointment of any receiver, trustee, custodian, conservator, liquidator, rehabilitator or similar officer for it or for all or any material part of its property; (ii) any receiver (temporary or permanent), trustee, custodian, conservator, liquidator, rehabilitator or similar officer is appointed without the application or consent of such Person; or (iii) any proceeding under any Debtor Relief Law relating to any such Person or to all or any material part of its property is instituted without the consent of such Person or an order for relief is entered in any such proceeding, in each case with respect to clauses (ii) and (iii) above which event continues in existence and is not remedied, dismissed or stayed for sixty (60) days after the date when such event first occurred.

(i) Inability to Pay Debts. Parent or any of its Subsidiaries becomes unable or admits in writing its inability or fails generally to pay its debts as they become due and such circumstance, event or failure continues in existence and is not remedied for thirty (30) days after the date when such circumstance, event or failure first occurred or came into existence.

(j) Judgments. Any money judgment, writ or warrant of attachment or similar process involving (i) in any individual case an amount in excess of \$300,000 over the amount covered by independent third-party insurance as to which liability has been accepted by the applicable insurance carrier or (ii) in the aggregate at any time an amount in excess of \$300,000 over the amount covered by independent third-party insurance as to which liability has been accepted by the applicable insurance carrier, shall be entered or filed against Parent or any of its Material Subsidiaries or any of their respective assets and shall remain undischarged, unvacated, unbonded or unstayed for a period of sixty (60) days (or in any event later than five days prior to the date of any proposed sale thereunder).

(k) Change of Control. A Change of Control occurs.

(l) ERISA. (i) An ERISA Event occurs with respect to a Pension Plan or Multiemployer Plan which has resulted or could reasonably be expected to result in liability of a Loan Party under Title W of ERISA to the Pension Plan, Multiemployer Plan or the PBGC in an aggregate amount in excess of \$250,000 and such ERISA Event continues in existence and is not remedied for thirty (30) days after actual or constructive notice of the occurrence thereof, or (ii) a Loan Party or any ERISA Affiliate fails to pay when due, after the expiration of any applicable grace period, any installment payment with respect to its withdrawal liability under Section 4201 of ERISA under a Multiemployer Plan in an aggregate amount in excess of \$250,000 and such failure to pay continues in existence and is not remedied for sixty (60) days after the date when such payment was due.

(m) Invalidity of Loan Documents. (i) Any material provision of any Loan Document, at any time after its execution and delivery and for any reason other than as expressly permitted hereunder or thereunder or prior to satisfaction in full of all the Obligations, ceases to be in full force and effect; (i) any Loan Party (1) contests in any manner the validity or enforceability of any Loan Document as a whole or (2) unsuccessfully contests the asserted applicability by Lender of any specific provision of any Loan Document; or (iii) any Loan Party wrongfully denies that it has any or further liability or obligation under any Loan Document, or purports to revoke, terminate or rescind any Loan Document.

(n) Intellectual Property. (i) Parent or any of its Subsidiaries (including the SPE Guarantor's obligations under Section 5.07 of the SPE Operating Agreement) fails to make timely payment of maintenance fees, annuities or the like for any Patent (for the avoidance of doubt, such timely payment includes payment of any maintenance fees for which the fee is payable (e.g., the fee payment window opens) even if the surcharge date or final deadline for payment of such fee would be in the future) or (ii) any Patent is found invalid, unpatentable or unenforceable due to a future act or omission by Parent or any of its Subsidiaries that constitutes gross negligence or willful misconduct, in each case, as to each of clauses (i) and (ii), which failure or event continues in existence and is not remedied for thirty (30) days after Borrower's receipt of actual or constructive notice thereof.

(o) Subordinated Debt. Any document, instrument, or agreement evidencing any Subordinated Debt shall for any reason cause such subordination to be revoked or invalidated or otherwise cease to be in full force and effect (other than a termination in accordance with the terms of the payment in full of such Subordinated Debt so long as such payment is permitted under the terms of the subordination or other agreement between such Person and Lender or otherwise agreed by Lender in writing) or the Obligations shall for any reason be subordinated or shall not have the priority contemplated by this Agreement.

Notwithstanding the foregoing or anything to the contrary contained in this Agreement, if the Loan Parties fail to comply with Section 7.11(a), or any covenant set forth Section 7.17 as of the last day of the applicable testing period (each, a “**Specified Breach**”), such Specified Breach shall not constitute an Event of Default hereunder unless there is a failure to comply with such individual Section for two consecutive testing periods and an Event of Default did not occur as of the immediately preceding testing period. Notwithstanding the immediately preceding sentence, the occurrence of any Specified Breach following the occurrence of three (3) non-consecutive Specified Breaches of an individual Section which do not result in an Event of Default in accordance with the foregoing, shall constitute an Event of Default; provided further with respect to any such individual Section that is qualified by Material Adverse Loan Impact or Material Asset Value Impact, the event giving rise thereto shall have been remedied and/or the damages arising therefor shall have been paid or otherwise discharged on or prior to the last day of the applicable testing period.

ARTICLE X. LENDER’S RIGHTS AND REMEDIES

SECTION 10.01. Rights and Remedies.

(a) While an Event of Default occurs and continues Lender may, without notice or demand, do any or all of the following, singularly, consecutively or cumulatively:

(i) Declare all Obligations (including any Applicable Prepayment Premium and the End of Term Fee) immediately due and payable, without presentment, demand, protest or other notice of any kind, all of which are hereby expressly waived by Borrower (but if an Event of Default described in Section 9.01(h) occurs, all Obligations (including any Applicable Prepayment Premium and the End of Term Fee) are immediately due and payable without any action by Lender);

(ii) Stop advancing money or extending credit for Borrower’s benefit under this Agreement or under any other agreement between Borrower and Lender;

(iii) Make any payments and do any acts it considers necessary or reasonable to protect the Collateral or its security interest in the Collateral. Lender may pay, purchase, contest, or compromise any Lien, other than a Permitted Lien, which appears to be prior or superior to its security interest and in exercising any such powers, incur any liability, expend whatever amounts in its absolute discretion it may deem necessary therefor, including cost of evidence of title, employ counsel and pay reasonable attorneys’ fees;

(iv) Without notice to or demand upon Parent or any of its Subsidiaries and without releasing any Loan Party from any obligation hereof, reclaim, recover, maintain, prepare for sale, advertise for sale, and sell the Collateral and in exercising any such powers, incur any liability, expend whatever amounts in its absolute discretion it may deem necessary therefor, including cost of evidence of title, employ counsel and pay reasonable attorneys’ fees. Lender is hereby granted a non-exclusive, royalty-free license or other right to use, without charge, Parent’s or any of its Subsidiaries’ labels, Patents, copyrights, mask works, rights of use of any name, trade secrets, trade names, trademarks, and advertising matter, or any similar property as it pertains to the Collateral, in completing production of, advertising for sale, and selling any Collateral and, in connection with Lender’s exercise of its rights under this Section 10.01. Parent’s and each of its Subsidiaries’ rights under all licenses and all franchise agreements inure to Lender’s benefit;

- (v) Transfer all or part of the Collateral into the name of Borrower or its nominee;
- (vi) Demand and receive possession of Parent's or any of its Subsidiaries' corporate, financial and operating books and records; and
- (vii) Exercise all rights and remedies available to Lender under the Loan Documents or at Law or equity, including all remedies provided under the UCC, all of which rights and remedies shall be cumulative and nonexclusive to the extent permitted by law, including, without limitation, the following:
 - (1) Lender shall have all rights and remedies provided by Law, including but not limited to those of a Lender under the UCC as in effect in the States of New York and Delaware on the date hereof and as amended hereafter, in addition to the rights and remedies provided herein or in the Loan Documents. Lender may, in its sole discretion, require any Loan Party to assemble the Collateral and make it available to Lender at a place to be designated by Lender that is reasonably convenient to such Loan Party and Lender, and without notice except as specified below, dispose of the Collateral or any part thereof in one or more parcels at public or private sale, at any of Lender's offices or elsewhere, for cash, on credit or for future delivery, and upon such other terms as Lender may deem commercially reasonable. If notice of disposition of Collateral is required by Law, ten (10) days prior notice by Lender to the applicable Loan Party designating the time and place of any public sale or the time after which any private sale or other intended disposition of Collateral is to be made shall be deemed to be reasonable notice thereof, and such Loan Party waives any other notice. Lender shall not be obligated to make any sale of Collateral regardless of notice of sale having been given. Lender may adjourn any public or private sale from time to time by announcement at the time fixed therefor, and such sale may, without further notice, be made at the time and place to which it was so adjourned. Upon the sale of Collateral at any public or private sale, Lender may credit bid and purchase (as determined by Lender in its sole discretion) all or any portion of the Collateral. In the event Lender institutes an action to recover any Collateral or seeks recovery of any Collateral by way of prejudgment remedy in an action against any Loan Party, such Loan Party waives the posting of any bond which might otherwise be required. All Lender's rights and remedies shall be cumulative and none are exclusive. Whether or not default has occurred, all payments made by or on behalf of Borrower and all credits due any Loan Party under this Agreement and under any other Loan Document between any Loan Party and Lender may be applied to the Obligations in whatever order and amounts Lender chooses subject to the terms of this Agreement and applicable Law.
 - (2) All cash proceeds received by Lender in respect of any sale of, collection from, or other realization upon all or any part of the Collateral may, in the discretion of Lender, be held by Lender as collateral for, or then or at any time thereafter applied in whole or in part by Lender against, all or any part of the Obligations in such order as Lender shall elect. Any surplus of such cash or cash proceeds held by Lender and remaining after payment in full of all the Obligations shall be paid over to the applicable Loan Party or to whomsoever may be lawfully entitled to receive such surplus.
 - (3) Lender may exercise any and all rights and remedies of each Loan Party under or in respect of the Collateral.

(4) All payments received by any Loan Party under or in respect of the Collateral shall be received in trust for the benefit of Lender, shall be segregated from other funds of such Loan Party and shall be forthwith paid over to Lender in the same form as so received (with any necessary endorsement).

(5) Whether or not an Event of Default shall have occurred, if any Loan Party fails to perform any agreement contained herein, Lender may, in its sole discretion, itself perform, or cause performance of, such agreement, and the reasonable expenses of Lender incurred in connection therewith shall be payable by such Loan Party. The powers conferred upon Lender hereunder are solely for the protection of its interest in the Collateral and shall not impose any duty upon it to exercise any such powers.

(6) Except for the safe custody of any Collateral in its possession and the accounting for monies actually received by it hereunder, Lender shall have no duty as to any Collateral, whether or not Lender has or is deemed to have knowledge of such matters, or as to the taking of any necessary steps to preserve rights against any parties or any other rights pertaining to any Collateral. Lender shall be deemed to have exercised reasonable care in the custody and preservation of any Collateral in its possession if such Collateral is accorded treatment substantially equal to that which Lender accords its own property.

(b) Lender may cause the Collateral to remain on any Loan Party's premises, at such Loan Party's expense, pending sale or other disposition thereof. Lender shall have the right to conduct such sales on such Loan Party's premises or elsewhere, at such Loan Party's expense, on such occasions as Lender may see fit, and such Loan Party, at Lender's request, will, at such Loan Party's expense, assemble the Collateral and make it available to Lender at such place(s) as Lender may reasonably designate from time to time. Any sale, lease or other disposition by Lender of the Collateral, or any part thereof, may be for cash or other value. Each Loan Party shall execute and deliver, or cause to be executed and delivered, such instruments, documents, assignments, deeds, waivers, certificates and affidavits and take such further action as Lender shall reasonably require in connection with such sale, and such Loan Party hereby constitutes Lender as its attorney-in-fact to execute any such instrument, document, assignment, deed, waiver, certificate or affidavit on behalf of such Loan Party and in its name. At any sale of the Collateral, the Collateral to be sold may be sold in one lot as an entirety or in separate lots as Lender may determine. Lender shall not be obligated to make any sale of any Collateral if it determines not to do so, regardless of the fact that notice of sale was given. Lender may, without notice or publication, adjourn any public or private sale or cause the sale to be adjourned from time to time by announcement at the time and place fixed for sale, and such sale may, without further notice, be made at the time and place to which it was so adjourned. In case any sale of Collateral is made on credit or for future delivery, the Collateral so sold may be retained by Lender until the sale price is paid, but Lender shall not incur any liability if any purchaser fails to pay for any Collateral so sold and, in case of any such failure, such Collateral may be sold again. At any public sale, Lender (i) may bid for or purchase the Collateral offered for sale, free (to the extent permitted by Law) from any rights of redemption, stay or appraisal on the part of any Loan Party with respect to the Collateral; (ii) make payment on account thereof by using any claim then due and payable to Lender from Borrower as a credit against the purchase price; and (iii) upon compliance with the terms of sale, hold, retain and dispose of such property without further accountability to such Loan Party therefor. Each Loan Party acknowledges that portions of the Collateral may be difficult to preserve and dispose of and may be subject to complex maintenance and management; accordingly, Lender shall have the widest possible latitude in the exercise of its rights and remedies hereunder.

(c) Any notice required to be given by Lender with respect to any of the Collateral, which notice is given pursuant to Article XI and deemed received pursuant to Article XI at least ten (10) Business Days before a sale, lease, disposition or other intended action by Lender, shall constitute fair and reasonable notice to the applicable Loan Party of any such action. A public sale in the following fashion shall be conclusively presumed to be reasonable if (i) the sale is held in a county where any part of the Collateral is located or in which any Loan Party has a place of business; (ii) the sale is conducted by auction, but it need not be by a professional auctioneer; (iii) any Collateral is sold as is and without any preparation for sale; and (iv) such Loan Party is given notice of such public sale pursuant to the preceding sentence.

(d) Lender shall have no obligation (i) to preserve any rights to the Collateral against any Person; (ii) to make any demand upon or pursue or exhaust any rights or remedies against any Loan Party or others with respect to payment of the Obligations; (iii) to pursue or exhaust any rights or remedies with respect to any of the Collateral or any other security for the Obligations; or (iv) to marshal any assets in favor of any Loan Party or any other Person against or in payment of any or all of the Obligations.

(e) Each Loan Party recognizes that one or more Laws may limit the flexibility desired to achieve a more commercially reasonable disposition of Collateral, and it is intended that consideration of such Laws be taken into account in determining commercial reasonableness.

(f) Each Loan Party is aware that Section 9-610 of the UCC states that Lender is able to purchase the pledged Equity Interests of such Loan Party only if they are sold at a public sale. Each Loan Party is also aware that SEC staff personnel have, over a period of years, issued various No Action Letters that describe procedures which, in the view of the SEC staff, permit a foreclosure sale of securities to occur in a manner that is public for purposes of Part 6 of Article 9 of the UCC, yet not public for purposes of Section 4(2) of the Securities Act of 1933 (as amended from time to time). Each Loan Party is also aware that Lender may wish to purchase the pledged Equity Interests that are sold at a foreclosure sale, and such Loan Party believes that such purchase would be appropriate in circumstances in which the pledged Equity Interests are sold in conformity with the principles set forth in the No Action Letters. Each Loan Party specifically agrees that a foreclosure sale conducted in conformity with the principles set forth in the No Action Letters (i) shall be considered to be a "public" sale for purposes of Section 9-610 of the UCC; (ii) will not be considered commercially unreasonable solely by virtue of the fact that Lender has not registered or sought to register the Equity Interests under the securities Laws; even if such Loan Party agrees to pay all costs of the registration process; and (iii) shall be considered to be commercially reasonable notwithstanding that Lender purchases the pledged Equity Interests at such a sale.

(g) Each Loan Party shall pay to Lender, on demand and as part of the Obligations, all reasonable costs and expenses, including court costs and costs of sale, incurred by Lender in exercising any of its rights or remedies hereunder.

SECTION 10.02. Power of Attorney. Each Loan Party hereby irrevocably appoints Lender as its lawful attorney-in-fact, exercisable upon the occurrence and during the continuance of an Event of Default, to (a) endorse such Loan Party's name on any checks or other forms of payment or security; (b) make, settle, and adjust all claims under such Loan Party's insurance policies; (c) pay, contest or settle any Lien, charge, encumbrance, security interest, and adverse claim in or to the Collateral, or any judgment based thereon, or otherwise take any action to terminate or discharge the same; (d) Transfer the Collateral into the name of Lender or a third party as the UCC permits; and (e) to sign such Loan Party's name on any documents necessary to perfect or continue the perfection of Lender's security interest in the Collateral. Lender's foregoing appointment as such Loan Party's attorney-in-fact, and all of Lender's rights and powers, coupled with an interest, are irrevocable until all Obligations have been fully repaid and performed and Lender's obligation to extend credit terminates.

SECTION 10.03. Protective Payments. If any Loan Party fails to obtain the insurance required hereunder or fails to pay any premium thereon or fails to pay any other amount which such Loan Party is obligated to pay under this Agreement or any other Loan Document, Lender may obtain such insurance or make such payment, and all amounts so paid by Lender are Lender Expenses and are immediately due and payable, bearing interest at the Default Rate and secured by the Collateral. Lender will make reasonable efforts to provide such Loan Party with notice of Lender's obtaining such insurance at the time it is obtained or within a reasonable time thereafter. No payments by Lender are deemed an agreement to make similar payments in the future or Lender's waiver of any Event of Default.

SECTION 10.04. Application of Payments and Proceeds Upon Default. If an Event of Default has occurred and is continuing, Lender may apply any funds in its possession to the Obligations in such order as Lender shall determine in its sole and exclusive discretion. Subject to the terms of the SPE Operating Agreement or any other Loan Document, any surplus shall be paid to the applicable Loan Party or other Persons legally entitled thereto; *provided*, that the Loan Parties shall remain liable to Lender for any deficiency. If Lender, in its good faith business judgment, directly or indirectly enters into a deferred payment or other credit transaction with any purchaser at any sale of Collateral, Lender shall have the option, exercisable at any time, of either reducing the Obligations by the principal amount of the purchase price or deferring the reduction of the Obligations until the actual receipt by Lender of cash therefor.

SECTION 10.05. No Waiver; Remedies Cumulative.

(a) Lender's failure, at any time or times, to require strict performance by any Loan Party of any provision of this Agreement or any other Loan Document shall not waive, affect, or diminish any right of Lender thereafter to demand strict performance and compliance herewith or therewith. No waiver hereunder shall be effective unless signed by the party granting the waiver and then is only effective for the specific instance and purpose for which it is given. Lender's rights and remedies under this Agreement and the other Loan Documents are cumulative. Lender has all rights and remedies provided under the UCC, by Law, or in equity. Lender's exercise of one right or remedy is not an election and shall not preclude Lender from exercising any other remedy under this Agreement or other remedy available at Law or in equity, and Lender's waiver of any Event of Default is not a continuing waiver. Lender's delay in exercising any remedy is not a waiver, election, or acquiescence.

(b) In the event that the Lender enforce rights or remedies against any Non-Assigned Patents, Lender shall (1) grant, and does hereby grant, to Parent and its Subsidiaries, as applicable, a perpetual, irrevocable, non-sublicensable, non-terminable, non-exclusive, royalty-free, worldwide license to the Non-Assigned Patents of scope consistent with the licenses provided by Borrower on the Closing Date under the Patent License Agreement (Loan Parties) (including the right to exercise all rights under the Non-Assigned Patents), which license shall be binding on any third party transferee or any other person or entity that acquires rights in such Non-Assigned Patents (by foreclosure or otherwise) at any time following such exercise of rights or remedies, and (2) require as a condition to the effectiveness of any such transfer or assignment (by foreclosure or otherwise) of such Non-Assigned Patents, rights in such Non-Assigned Patents, that the applicable transferee or assignee acknowledge and agree to the non-revocable grant to Parent and its Subsidiaries of the perpetual license of the type described in the immediately preceding clause (1), which acknowledgement and agreement by such transferee or assignee shall be made in a writing, signed by a duly authorized officer of such transferee or assignee, made to and for the express benefit of Parent and its Subsidiaries, as applicable.

ARTICLE XI. NOTICES

All notices, consents, requests, approvals, demands, or other communication by any party to this Agreement or any other Loan Document must be in writing and shall be deemed to have been validly served, given, or delivered (a) upon the earlier of actual receipt and three (3) Business Days after deposit in the U.S. mail, first class, registered or certified mail return receipt requested, with proper postage prepaid; (b) upon transmission, when sent by email or fax transmission (except that, if not given during normal business hours for the recipient, shall be deemed to have been given at the opening of business on the next Business Day for the recipient); (c) one Business Day after deposit with a reputable overnight courier with all charges prepaid; or (d) when delivered, if hand-delivered by messenger, all of which shall be addressed to the party to be notified and sent to the address, facsimile number, or email address indicated below. Parent, Borrower or Lender may change its mailing or email address or facsimile number by giving the other party written notice thereof in accordance with the terms of this Article XI.

If to Borrower
or Parent or
any Loan Party: c/o SuperCom, Inc.
200 Park Avenue South
9th Floor
New York, NY 10003
Attention: Ordan Trabelsi
Email: ordan@supercom.com

With a copy to: Shibolet LLP
One Penn Plaza, Suite 2527
New York, NY 10119
Attention: Moty Ben Yona, Esq.
Email: MotyB@Shibolet.com

If to Lender: DBFIP SCL LLC.
c/o Fortress Investment Group
1345 Avenue of the Americas, 46th Floor
New York, NY 10105
Attention: General Counsel — Credit Funds
Fax No.: 917-639-9672
Email: gc.credit@fortress.com

With a copy to: Alston & Bird LLP
2828 N. Harwood Street, Suite 1800
Dallas, TX 75201
Attn: Kate K. Moseley, Esq.
Fax: (214) 922-3874
Email: kate.moseley@alston.com

ARTICLE XII. GOVERNING LAW, SUBMISSION TO JURISDICTION, JURY TRIAL WAIVER, AND JUDICIAL REFERENCE

SECTION 12.01. Governing Law; Submission to Jurisdiction. This Agreement shall be governed by and construed in accordance with the laws of the State of New York without regard to its rules of conflict of law, except Sections 5-1401 and 5-1402 of the New York General Obligations Law. The Loan Parties hereby irrevocably submit to the nonexclusive jurisdiction of any New York State or Federal court sitting in the County of New York over any suit, action or proceeding arising out of or relating to this Agreement or any Loan Document, and the Loan Parties hereby agree and consent that, in addition to any methods of service of process provided for under applicable Law, all service of process in any such suit, action or proceeding in any New York State or Federal court sitting in the County of New York may be made by certified or registered mail, return receipt requested, or overnight mail with a reputable national carrier, directed to the Parent or Borrower at the address indicated above, and service so made shall be complete five (5) days after the same shall have been so mailed (one day in the case of an overnight mail service).

SECTION 12.02. Jury Trial Waiver. EACH OF THE LOAN PARTIES AND LENDER HEREBY AGREES NOT TO ELECT A TRIAL BY JURY OF ANY ISSUE TRIABLE OF RIGHT BY JURY, AND WAIVES ANY RIGHT TO TRIAL BY JURY FULLY TO THE EXTENT THAT ANY SUCH RIGHT SHALL NOW OR HEREAFTER EXIST WITH REGARD TO THE LOAN DOCUMENTS, OR ANY CLAIM, COUNTERCLAIM OR OTHER ACTION ARISING IN CONNECTION THEREWITH. THIS WAIVER OF RIGHT TO TRIAL BY JURY IS GIVEN KNOWINGLY AND VOLUNTARILY BY EACH LOAN PARTY AND LENDER, AND IS INTENDED TO ENCOMPASS INDIVIDUALLY EACH INSTANCE AND EACH ISSUE AS TO WHICH THE RIGHT TO A TRIAL BY JURY WOULD OTHERWISE ACCRUE. EACH LOAN PARTY AND LENDER ARE EACH HEREBY AUTHORIZED TO FILE A COPY OF THIS PARAGRAPH IN ANY PROCEEDING AS CONCLUSIVE EVIDENCE OF THIS WAIVER.

SECTION 12.03. Additional Waivers in the Event of Enforcement. EACH LOAN PARTY HEREBY EXPRESSLY AND UNCONDITIONALLY WAIVES, IN CONNECTION WITH ANY SUIT, ACTION OR PROCEEDING BROUGHT BY OR ON BEHALF OF LENDER UNDER THIS AGREEMENT, ANY AND EVERY RIGHT SUCH LOAN PARTY MAY HAVE TO (A) INJUNCTIVE RELIEF; (B) INTERPOSE ANY COUNTERCLAIM THEREIN (OTHER THAN COMPULSORY COUNTERCLAIMS); AND (C) HAVE THE SAME CONSOLIDATED WITH ANY OTHER OR SEPARATE SUIT, ACTION OR PROCEEDING. NOTHING HEREIN CONTAINED SHALL PREVENT OR PROHIBIT GUARANTOR FROM INSTITUTING OR MAINTAINING A SEPARATE ACTION AGAINST LENDER WITH RESPECT TO ANY ASSERTED CLAIM.

ARTICLE XIII. GENERAL PROVISIONS

SECTION 13.01. Successors and Assigns. The Loan Documents shall be binding upon and inure to the benefit of the successors and assigns of the parties; provided, however, that no Loan Party may assign or transfer its interest hereunder or thereunder. Lender reserves the right to sell, assign, Transfer, negotiate or grant participations in all or any part of, or any interest in, Lender's rights and benefits under each of the Loan Documents (other than the Warrant, as to which assignment, Transfer and other such actions are governed by the terms of the Warrant). Each such assignment shall be recorded in the Register and each such participation shall be recorded in the Participant Register. With respect to participations, each Loan Party agrees that each participant shall be entitled to the provisions of Section 2.03, subject to the requirements and limitations therein (it being understood that any documentation required under Section 2.03(e) shall be delivered to Lender), to the same extent as if it had acquired its interest by assignment.

SECTION 13.02. Costs and Expenses; Indemnification.

(a) Lender Expenses. Borrower shall pay Lender Expenses in accordance with Section 2.02(b) and upon request by Lender.

(b) Indemnification by Loan Parties. Each Loan Party shall indemnify Lender and each Related Party of Lender (each such Person being called an "**Indemnitee**") against, and hold each Indemnitee harmless from, any and all losses, claims, damages, liabilities and related expenses (including Lender Expenses), and shall indemnify and hold harmless each Indemnitee from all fees and time charges and disbursements for attorneys who may be employees of any Indemnitee, incurred by any Indemnitee or asserted against any Indemnitee by any Person (including any Loan Party) other than such Indemnitee and its Related Parties arising out of, in connection with, or as a result of (i) the execution or delivery of this Agreement, any other Loan Document or any agreement or instrument contemplated hereby or thereby, the performance by the parties hereto of their respective obligations hereunder or thereunder, the consummation of the transactions contemplated hereby or thereby, or the administration of this Agreement and the other Loan Documents; (ii) a Term Loan or other extension of credit or the use or proposed use of the proceeds therefrom; (iii) any actual or alleged presence or release of Hazardous Materials on or from any property owned or operated by Parent or any of its Subsidiaries, or any Environmental Liability related in any way to Parent or any of its Subsidiaries; or (iv) any actual or prospective claim, litigation, investigation or proceeding relating to any of the foregoing, whether based on contract, tort or any other theory, whether brought by a third party or by any Loan Party, and regardless of whether any Indemnitee is a party thereto; *provided* that such indemnity shall not, as to any Indemnitee, be available to the extent that such losses, claims, damages, liabilities or related expenses (x) are determined by a court of competent jurisdiction by final and nonappealable judgment to have resulted from the gross negligence or willful misconduct of such Indemnitee; or (y) result from a claim brought by any Loan Party against an Indemnitee for breach in bad faith of such Indemnitee's obligations hereunder or under any other Loan Document, if such Loan Party has obtained a final and nonappealable judgment in its favor on such claim as determined by a court of competent jurisdiction. Without limiting the provisions of Section 2.03(c), this Section 13.02(b) shall not apply with respect to Taxes other than any Taxes that represent losses, claims, damages, etc. arising from any non-Tax claim.

(c) Waiver of Consequential Damages, Etc. To the fullest extent permitted by applicable Law, no Loan Party shall assert, and the each Loan Party hereby waives, and acknowledges that no other Person shall have, any claim against any Indemnatee, on any theory of liability, for special, indirect, consequential or punitive damages (as opposed to direct or actual damages) arising out of, in connection with, or as a result of, any Loan Document or any agreement or instrument contemplated hereby, the transactions contemplated hereby or thereby, a Term Loan or other extension of credit or the use of the proceeds thereof. No Indemnatee shall be liable for any damages arising from the use by unintended recipients of any information or other materials distributed to such unintended recipients by such Indemnatee through telecommunications, electronic or other information transmission systems in connection with any Loan Document or the transactions contemplated hereby or thereby other than for direct or actual damages resulting from the gross negligence or willful misconduct of such Indemnatee as determined by a final and nonappealable judgment of a court of competent jurisdiction.

(d) Payments. Except as otherwise provided in this Agreement, all amounts due under this Section shall be payable not later than ten (10) Business following demand therefor.

(e) Survival. The agreements and indemnity provisions in this Section shall survive the repayment, satisfaction or discharge of all the other Obligations.

SECTION 13.03. Time of Essence. Time is of the essence for the performance of all Obligations in this Agreement.

SECTION 13.04. Severability of Provisions. If any provision of any Loan Document is held to be illegal, invalid or unenforceable, (a) the legality, validity and enforceability of the remaining provisions of the Loan Documents shall not be affected or impaired thereby and (b) the parties shall endeavor in good faith negotiations to replace the illegal, invalid or unenforceable provisions with valid provisions the economic effect of which comes as close as possible to that of the illegal, invalid or unenforceable provisions. The invalidity of a provision in a particular jurisdiction shall not invalidate or render unenforceable such provision in any other jurisdiction.

SECTION 13.05. Amendments in Writing; Waiver; Integration. No purported amendment or modification of any Loan Document, or waiver, discharge or termination of any obligation under any Loan Document, shall be enforceable or admissible unless, and only to the extent, expressly set forth in a writing signed by the party against which enforcement or admission is sought. Without limiting the generality of the foregoing, no oral promise or statement, or any action, inaction, delay, failure to require performance or course of conduct shall operate as, or evidence, an amendment, supplement or waiver or have any other effect on any Loan Document. Any waiver granted shall be limited to the specific circumstance expressly described in it, and shall not apply to any subsequent or other circumstance, whether similar or dissimilar, or give rise to, or evidence, any obligation or commitment to grant any further waiver. The Loan Documents represent the entire agreement about this subject matter and supersede prior negotiations or agreements. All prior agreements, understandings, representations, warranties, and negotiations between the parties about the subject matter of the Loan Documents merge into the Loan Documents.

SECTION 13.06. Counterparts. This Agreement may be executed in any number of counterparts and by different parties on separate counterparts, each of which, when executed and delivered, is an original, and all taken together, constitute one Agreement.

SECTION 13.07. Survival. All covenants, representations and warranties made in this Agreement continue in full force until this Agreement has terminated pursuant to its terms, and all Obligations (other than inchoate indemnity obligations and any other obligations which, by their terms, are to survive the termination of this Agreement) have been paid in full and satisfied.

SECTION 13.08. Confidentiality.

(a) Lender agrees to maintain the confidentiality of the Information (as defined below), except that Information may be disclosed (a) to its Affiliates and to its and their respective Related Parties (it being understood that the Persons to whom such disclosure is made will be informed of the confidential nature of such Information and instructed to keep such Information confidential); (b) to the extent required or requested by any governmental or other regulatory authority purporting to have jurisdiction over such Person or its Related Parties (including any self-regulatory authority, such as the Financial Industry Regulatory Authority or National Association of Insurance Commissioners); provided, unless specifically prohibited by applicable Law or court order, Lender shall make reasonable efforts to notify Borrower of any request by any such governmental or regulatory authority (other than any such request in connection with any examination of the financial condition or other routine examination of Lender by such governmental or regulatory authority) for disclosure of any such non-public information prior to disclosure of such information; (c) to the extent required by applicable laws or regulations or by any subpoena or similar legal process; provided, unless specifically prohibited by applicable Law or court order, Lender shall make reasonable efforts to notify Borrower of any such disclosure of any such non-public information prior to disclosure of such information; (e) in connection with the exercise of any remedies hereunder or under any other Loan Document or any action or proceeding relating to this Agreement or any other Loan Document or the enforcement of rights hereunder or thereunder; (f) subject to an agreement containing provisions substantially the same as those of this Section, to any assignee of or participant in, or any prospective assignee of or participant in, any of its rights and obligations under this Agreement; (g) on a confidential basis to (x) any rating agency in connection with rating any Loan Party or its Subsidiaries or the credit facilities provided hereunder; or (y) the CUSIP Service Bureau or any similar agency in connection with the issuance and monitoring of CUSIP numbers or other market identifiers with respect to the credit facilities provided hereunder; (h) with the consent of the Borrower; or (i) to the extent such Information (x) becomes publicly available other than as a result of a breach of this Section; or (y) becomes available to the Lender from a source other than any Loan Party. In addition to the foregoing, Lender agrees to comply with the confidentiality requirements of any license or other agreement relating to any Patents with respect to any such agreement set forth on the Schedules hereto, as in effect on the date hereof, provided that prior to the date hereof Borrower has delivered to Lender a true and correct copy of each such agreement and, in connection therewith, informed Lender of the confidentiality provisions thereof.

For purposes of this Section, “**Information**” means all information received from the Parent or any of its Subsidiaries or Parent’s or any such Subsidiary’s directors, officers, employees, trustees, investment advisors or agents, including accountants and legal counsel relating to Parent or any such Subsidiary or any of their respective businesses, other than any such information that is available to the Lender on a nonconfidential basis prior to disclosure by Parent or any such Subsidiary, provided that, in the case of information received from Parent or any of its Subsidiaries after the Closing Date, such information is clearly identified at the time of delivery as confidential. Any Person required to maintain the confidentiality of Information as provided in this Section shall be considered to have complied with its obligation to do so if such Person has exercised the same degree of care to maintain the confidentiality of such Information as such Person would accord to its own confidential information but in no event less than reasonable care.

(b) Lender acknowledges that (a) the Information may include material non-public information concerning Parent or a Subsidiary of Borrower, as the case may be; (b) it has developed compliance procedures regarding the use of material non-public information; and (c) it will handle such material non-public information in accordance with applicable Laws, including all securities Laws.

(c) Unless required under applicable Law, regulatory authority or legal process, neither Parent nor any of its Subsidiaries shall not make any public announcement or similar publicity related to this Agreement or the transactions contemplated herein without the prior written consent of Lender.

SECTION 13.09. Electronic Execution of Documents. The words “**execution**,” “**signed**,” “**signature**” and words of like import in any Loan Document shall be deemed to include electronic signatures or the keeping of records in electronic form, each of which shall be of the same legal effect, validity and enforceability as a manually executed signature or the use of a paper-based recordkeeping systems, as the case may be, to the extent and as provided for in any applicable Law, including any state Law based on the Uniform Electronic Transactions Act.

SECTION 13.10. Register. The Borrower shall maintain at its offices at 200 Park Avenue South, 9th Floor, New York, NY 10003 a copy of each Transfer of an interest in the Notes by Lender delivered to it and a register for the recordation of the names and addresses of Lender and any assignee Lender and principal amounts of the Term Loans owing to, Lender or any assignee Lender pursuant to the terms hereof from time to time (the “**Register**”). The entries in the Register shall be conclusive absent manifest error, and the Borrower, Lender and any assignee Lender shall treat each Person whose name is recorded in the Register pursuant to the terms hereof as a Lender hereunder for all purposes of this Agreement. The Register shall be available for inspection by Lender and any assignee Lender, at any reasonable time and from time to time upon reasonable prior notice. This Section 13.10 shall be construed so that the Notes are at all times maintained in “registered form” within the meaning of Sections 163(f), 871(h)(2) and 881(c)(2) of the Code.

SECTION 13.11. Participant Register. Lender shall, acting solely for this purpose as a nonfiduciary agent of the Borrower, maintain a register on which it enters the name and address of each participant and the principal amounts (and stated interest) of each participant’s interest in the Notes (the “**Participant Register**”); provided that Lender shall not have any obligation to disclose all or any portion of the Participant Register (including the identity of any participant or any information relating to a participant’s interest in the Notes) to any Person except Borrower.

SECTION 13.12. Captions. The headings used in this Agreement are for convenience only and shall not affect the interpretation of this Agreement.

SECTION 13.13. Construction of Agreement. The parties mutually acknowledge that they and their attorneys have participated in the preparation and negotiation of this Agreement. In cases of uncertainty this Agreement shall be construed without regard to which of the parties caused the uncertainty to exist.

SECTION 13.14. Relationship. The relationship between the parties to this Agreement is determined solely by the provisions of this Agreement. The parties do not intend to create any agency, partnership, joint venture, trust, fiduciary or other relationship with duties or incidents different from those of parties to an arm's-length contract.

SECTION 13.15. Third Parties. Nothing in this Agreement, whether express or implied, is intended to (a) confer any benefits, rights or remedies under or by reason of this Agreement on any Persons other than the express parties to it and their respective permitted successors and assigns; (b) relieve or discharge the obligation or liability of any Person not an express party to this Agreement; or (c) give any Person not an express party to this Agreement any right of subrogation or action against any party to this Agreement.

SECTION 13.16. Payments Set Aside. To the extent that any payment applied to any Obligation (including any payment by way of setoff) is subsequently invalidated, declared to be fraudulent or preferential, set aside or required to be repaid to a trustee, receiver or any other party, in connection with any proceeding under any Debtor Relief Law or otherwise, then to the extent of such recovery, the Obligation or part thereof originally intended to be satisfied shall be revived and continued in full force and effect as if such payment had not been made or such setoff had not occurred.

SECTION 13.17. Right of Setoff. If an Event of Default has occurred and is continuing, Lender is hereby authorized at any time and from time to time, to the fullest extent permitted by applicable Law, to set off and apply any and all deposits (general or special, time or demand, provisional or final, in whatever currency) at any time held and other obligations (in whatever currency) at any time owing by Lender or any of its Affiliates to or for the credit or the account of the Borrower against any and all of the Obligations, irrespective of whether Lender has made demand under any Loan Document. Lender's rights under this Section are in addition to other rights and remedies (including other rights of setoff) that Lender or its Affiliates may have. Lender shall endeavor to notify the Borrower promptly after any such setoff and application; provided that the failure to give such notice shall not affect the validity of such setoff and application.

SECTION 13.18. Interest Rate Limitation. Notwithstanding anything to the contrary contained in any Loan Document, the interest paid or agreed to be paid under the Loan Documents shall not exceed the maximum rate of non-usurious interest permitted by applicable Law (the "**Maximum Rate**") If the Lender receives interest in an amount that exceeds the Maximum Rate, the excess interest shall be applied to the principal of the Term Loans or, if it exceeds such unpaid principal, refunded to the Borrower. In determining whether the interest contracted for, charged, or received by the Lender exceeds the Maximum Rate, the Lender may, to the extent permitted by applicable Law, (a) characterize any payment that is not principal as an expense, fee, or premium rather than interest; (b) exclude voluntary prepayments and the effects thereof; and (c) amortize, prorate, allocate, and spread in equal or unequal parts the total amount of interest throughout the contemplated term of the Obligations.

SECTION 13.19. Securitization of Loans; Appointment of Agent.

(a) Each of Borrower and Parent hereby acknowledges that the Lender and its Affiliates may sell or securitize the Loans (a “**Securitization**”) through the pledge of the Term Loans as collateral security for loans to the Lenders or its Affiliates or through the sale of the Term Loans or the issuance of direct or indirect interests in the Term Loans. Each of Borrower and Parent shall cooperate with the Lender and its Affiliates to effect the Securitization including, without limitation, by (i) amending this Agreement and the other Loan Documents, and executing such additional documents, as reasonably requested by the Lender in connection with the Securitization; provided that (A) any such amendment or additional documentation does not impose material additional costs on the Borrower or Parent and (B) any such amendment or additional documentation does not materially adversely affect the rights, or materially increase the obligations, of the Borrower or Parent under the Loan Documents or change or affect in a manner adverse to the Borrower and Parent the financial terms of the Term Loans; (ii) providing such information as may be reasonably requested by the Lender in connection with the rating of the Term Loans or the Securitization; and (iii) providing in connection with any rating of the Term Loans a certificate (A) agreeing to indemnify each of Lender and its Affiliates, any Rating Agencies rating the Term Loans, or any party providing credit support or otherwise participating in the Securitization (collectively, the “**Securitization Parties**”) for any losses, claims, damages or “liabilities” (the “**Liabilities**”) to which such Lender, its Affiliates or such Securitization Parties may become subject insofar as the Liabilities arise out of or are based upon any untrue statement or alleged untrue statement of any material fact by the Borrower or any Affiliate of the Borrower contained in any Loan Document or in any writing delivered by or on behalf of the Borrower or any Affiliate of the Borrower to the Lenders in connection with any Loan Document or arise out of or are based upon the omission or alleged omission by the Borrower or any Affiliate of the Borrower to state therein a material fact required to be stated therein, or necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading, and such indemnity shall survive any transfer by any Lender or its successors or assigns of the Term Loans and (B) agreeing to reimburse each Lender and its Affiliates for any legal or other expenses reasonably incurred by such Persons in connection with defending the Liabilities.

(b) The Lender shall have the right, in consultation with the Borrower and at Borrower’s expense, to appoint an administrative agent and/or a collateral agent, which appointment shall be mutually acceptable to the Lender and the Borrower, on terms and conditions to be mutually agreed.

SECTION 13.20. Certain Tax Matters. The parties acknowledge and agree that the Initial Term Loan and Warrant are part of an “investment unit” within the meaning of Code Section 1273(c)(2). Notwithstanding anything to the contrary contained herein or in any other agreement, each party further acknowledges and agrees that for United States federal, state and local income tax purposes, (i) the aggregate fair market value of the Warrant being issued to or purchased by Lender or its Affiliates shall equal \$[●], (ii) the aggregate fair market value of the interest in SuperCom IP LLC being issued to or purchased by Lender or its Affiliates shall equal \$[●], (iii) the aggregate fair market value of the Parent Equity Interests being issued to or purchased by Lender or its Affiliates shall equal \$[●], and (iv) the aggregate “issue price” of the Initial Term Loan shall equal \$[●], for purposes of Code Section 1273(b). Company agrees to use such fair market values and issue price for U.S. federal income tax purposes with respect to the aforementioned transactions. The parties agree to file all United States federal, state and local income tax returns consistent with the foregoing fair market values and issue price.

[This space intentionally left blank]

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed as of the Closing Date.

BORROWER:

SUPERCOM INC.,
a Delaware corporation

By: _____
Name: _____
Title: _____

PARENT:

SUPERCOM LTD.
an Israeli company

By: _____
Name: _____
Title: _____

SPE GUARANTOR:

SUPERCOM IP LLC
a _____

By: _____
Name: _____
Title: _____

[Signature Page to Credit Agreement]

Date: 12/03/2019 04:41 PM

Toppan Merrill

Project: 19-23047-1_(v003) **Form Type:** 20-F

Client: 19-23047-1_(v003)_Supercom LTD_20-F

File: tm1923047d1_ex4-6.htm **Type:** EX-4.6 **Pg:** 77
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LENDER:

DBFIP SCL LLC,
a Delaware limited liability company

By: _____

Name:

Title:

[Signature Page to Credit Agreement]

Exhibit 8.1

LIST OF SUPERCOM LTD's SUBSIDIARIES

The following is a list of the Company's active subsidiaries as at December 31, 2018:

Name of active Subsidiary	Jurisdiction of Organization	Percent Owned
S.B.C. Aviation Ltd.	Israel	100%
SuperCom Inc.	United States	100%
SuperCom IP LLC.	United States	99.98%
SuperCom Slovakia A.S.	Slovakia	66%
Prevision Ltd.	Israel	100%
Safend Ltd.	Israel	100%
Leaders in Community Alternatives, Inc.	United States	100%
Alvarion Technologies Ltd	Israel	100%

CERTIFICATION OF CHIEF EXECUTIVE OFFICER AND CHIEF FINANCIAL OFFICER

Pursuant to Rule 13a-14(a) under the Securities Exchange Act of 1934, as amended.

I, Arie Trabelsi, certify that:

1. I have reviewed this annual report on Form 20-F of SuperCom Ltd.;

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 company as of, and for, the periods presented in this report;

4. The company's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13(a)-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 company 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 company, 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) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the company'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 company's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the company's internal control over financial reporting; and

5. The company's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the company's auditors and the audit committee of the company's board of directors (or persons performing the equivalent function):

(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 company'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 company's internal control over financial reporting.

Date: December 3, 2019

/s/ Arie Trabelsi

Arie Trabelsi*

Chief Executive Officer and acting Chief Financial Officer

* The originally executed copy of this Certification will be maintained at the Company's offices and will be made available for inspection upon request.

Exhibit 13.1

CERTIFICATION 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 SuperCom Ltd. (the "Company") on Form 20-F for the period ended December 31, 2018, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Arie Trabelsi, Chief Executive Officer and acting 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, to the best of my knowledge, 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.

/s/ Arie Trabelsi

Arie Trabelsi*

Chief Executive Officer and acting Chief Financial Officer

December 3, 2019

This Certification accompanies this Report pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 and shall not be deemed filed by the Company for purposes of Section 18 of the Securities Exchange Act of 1934, as amended.

* The originally executed copy of this Certification will be maintained at the Company's offices and will be made available for inspection upon request.

Exhibit 15.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement No. 333-121231 and 333-175785 on Form S-8 of SuperCom Ltd. ("the Company") of our reports dated May 24, 2017 (except for Notes 2q, 2x, 6, and 14 as to which the report is dated June 7, 2018), [which report includes an explanatory paragraph with respect the separation revenues and cost of revenue to products and services in accordance with Rules 5-03(b)(1) and (2) of Regulation S-X] ,relating to the 2016 financial statements (before the effects of the adjustments to retrospectively apply the change in accounting for restricted cash discussed in Note 2x (not presented herein), appearing in this Annual Report on Form 20-F of the Company for the year ended December 31, 2018.

/S/ Brightman Almagor Zohar & Co.
Brightman Almagor Zohar & Co.
Certified Public Accountants
A Firm in the Deloitte Global Network
Tel Aviv, Israel
December 2, 2019



CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (No. 333-121231 and 333-175785) of SuperCom Ltd. of our report dated May 21, 2018 relating to the consolidated financial statements, which appears in this Form 20-F.

Tel-Aviv, Israel
December 2, 2019

/s/ Kesselman & Kesselman

Certified Public Accountants (Isr.)

A member firm of PricewaterhouseCoopers International Limited

*Kesselman & Kesselman, Trade Tower, 25 Hamered Street, Tel-Aviv 6812508, Israel,
P.O Box 50005 Tel-Aviv 6150001 Telephone: +972 -3- 7954555, Fax: +972 -3- 7954556, www.pwc.com/il*



December 2, 2019

Securities and Exchange Commission
100 F Street, N.E.
Washington, D.C. 20549

Commissioners:

We have read the statements made by SuperCom Ltd. in Item 16F of the Form 20-F of SuperCom Ltd. dated December 2, 2019, which we understand will be filed with the Securities and Exchange Commission. We agree with the statements concerning our Firm in Item 16F of such Form 20-F.

Kind regards,

/s/ Kesselman and Kesselman

Certified Public Accountants (Isr.)

A member of PricewaterhouseCoopers International Limited