
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM 20-F

REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR 12(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, 2019**

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: **000-30324**



RADWARE LTD.

(Exact name of registrant as specified in its charter)

Israel

(Jurisdiction of incorporation or organization)

22 Raoul Wallenberg Street, Tel Aviv 6971917, Israel

(Address of principal executive offices)

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(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:

<u>Title of each class</u>	<u>Trading Symbol</u>	<u>Name of each exchange on which registered</u>
Ordinary Shares, NIS 0.05 par value per share	RDWR	The Nasdaq Stock Market LLC

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

None
(Title of Class)

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act:

None
(Title of Class)

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 (December 31, 2019):

46,987,757 Ordinary Shares, NIS 0.05 par value per share

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 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 the definitions of "large accelerated filer," "accelerated filer," and "emerging growth company" in Rule 12b-2 of the Exchange Act. (Check one)

Large Accelerated Filer

Non-Accelerated Filer

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.

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

INTRODUCTION

Unless the context otherwise requires, all references in this annual report to “we,” “us,” “our,” the “Company,” and “Radware” are to Radware Ltd. and its subsidiaries.

When the following terms and abbreviations appear in the text of this annual report, they have the meanings indicated below:

- “Companies Law” or the “Israeli Companies Law” are to the Israeli Companies Law, 5759-1999, as amended;
- “dollars,” “\$” or “US\$” are to U.S. dollars;
- “Nasdaq” are to the Nasdaq Global Market (formerly, the Nasdaq National Market);
- “NIS” or “shekels” are to New Israeli Shekels.
- “ordinary shares” are to our Ordinary Shares, par value NIS 0.05 per share;
- the “SEC” are to the U.S. Securities and Exchange Commission;
- the “U.S.” are to the United States; and
- “U.S. GAAP” are to generally accepted accounting principles in the United States.

We have registered trademarks for, among others, Radware®; Radware Logo:



®; OnDemand Switch®; Alteon®; APSolute®; LinkProof®; DefensePro®; CID®; SIPDirector®; AppDirector®; AppXcel®; AppXML®; AppWall®; APSolute Insite®; Triangulation®; SmartNat®; StringMatch Engine®; Web Server Director®; Fireproof®; SecureFlow®; APSolute Vision®; vDirect®; Alteon VA®; AppShape®; FastView®; DefenseFlow®; TeraVIP®; Virtual Director®; DefensePipe®; RADWARE ADC Fabric®; CyberStack®; Virtual DefensePro®; VADI® (Virtual Application Delivery Infrastructure) and SHIELDSQUARE® and we have non registered trademarks for, among others, ADC-VX™ and Inflight™. Unless the context otherwise indicates, all other trademarks and trade names appearing in this annual report are owned by their respective holders.

Our consolidated financial statements appearing in this annual report are prepared in dollars and in accordance with U.S. GAAP and are audited in accordance with the standards of the Public Company Accounting Oversight Board in the United States.

On March 29, 2020, the exchange rate between the NIS and the dollar, as quoted by the Bank of Israel, was NIS 3.598 to \$1.00. Unless derived from our financial statements or indicated otherwise by the context, statements in this annual report that provide the dollar equivalent of NIS amounts or provide the NIS equivalent of dollar amounts are based on such exchange rate.

Statements made in 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 registration statement or annual report that we previously filed, you may read the document itself for a complete description of its terms, and the summary included herein is qualified by reference to the full text of the document which is incorporated by reference into this annual report.

Unless otherwise indicated, information contained in this annual report concerning our industry and the markets in which we operate, including our competitive position and market opportunity, is based on information from our own management estimates and research, as well as from industry and general publications and research, surveys and studies conducted by third parties. Management estimates are derived from publicly available information, our knowledge of our industry and assumptions based on such information and knowledge, which we believe to be reasonable. Our management estimates have not been verified by any independent source, and we have not independently verified any third-party information. In addition, assumptions and estimates of our and our industry's future performance are necessarily subject to a high degree of uncertainty and risk due to a variety of factors, including those described in Item 3.D "Risk Factors" below.

**CAUTIONARY STATEMENT REGARDING
FORWARD-LOOKING STATEMENTS**

Except for the historical information contained herein, the statements contained in this annual report are forward-looking statements, within the meaning of the Private Securities Litigation Reform Act of 1995 and other federal securities laws with respect to our business, financial condition and results of operations. Actual results could differ materially from those anticipated in these forward-looking statements as a result of various factors, including all the risks discussed in "Risk Factors" and elsewhere in this annual report.

We urge you to consider that statements which use the terms "believe," "do not believe," "expect," "plan," "intend," "estimate," "anticipate," and similar expressions are intended to identify forward-looking statements. Such forward-looking statements appear in Item 3.D "Risk Factors," Item 4 "Information on the Company," and Item 5 "Operating and Financial Review and Prospects" as well as elsewhere in this annual report. These statements reflect our current views with respect to future events, are based on assumptions and are subject to risks and uncertainties, including those discussed under Item 3.D "Risk Factors" and in our other filings with the SEC. 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 do not intend to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

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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 tables present selected information from our consolidated statements of income (loss) and balance sheets data for the periods and as of the dates indicated. We derived the selected consolidated statements of income (loss) for the years ended December 31, 2019, 2018 and 2017 and the selected balance sheets data as of December 31, 2019 and 2018 from our audited consolidated financial statements included elsewhere in this annual report, which have been prepared in accordance with U.S. GAAP and audited by Kost, Forer, Gabbay & Kasierer, an independent registered public accounting firm and a member firm of Ernst & Young Global. The selected consolidated statements of income (loss) data for the years ended December 31, 2016 and 2015 and the selected balance sheets data as of December 31, 2017, 2016 and 2015 are derived from our audited consolidated financial statements not included in this annual report, which have been prepared in accordance with U.S. GAAP.

You should read the following selected financial data together with the section of this annual report entitled “Operating and Financial Review and Prospects” and our consolidated financial statements, together with the notes thereto, included elsewhere in this annual report.

	Year ended December 31,				
	2019	2018	2017	2016	2015
	(U.S. dollars and share amounts in thousands, except per share data)				
Consolidated Statements of Income (loss) Data:					
Revenues:					
Products	\$ 133,605	\$ 118,062	\$ 117,968	\$ 110,186	\$ 136,793**
Services	118,467	116,342	93,401	86,399	79,773**
	<u>252,072</u>	<u>234,404</u>	<u>211,369</u>	<u>196,585</u>	<u>216,566</u>
Cost of revenues:					
Products	35,056	30,803	30,862	27,320	29,159
Services	10,118	10,872	8,754	8,375	9,041
	<u>45,174</u>	<u>41,675</u>	<u>39,616</u>	<u>35,695</u>	<u>38,200</u>
Gross profit	<u>206,898</u>	<u>192,729</u>	<u>171,753</u>	<u>160,890</u>	<u>178,366</u>
Operating expenses, net:					
Research and development, net	61,841	57,674	59,003	51,732	49,987
Sales and marketing	109,556	111,386	108,744	103,774	93,347
General and administrative	18,584	16,145	17,577	18,133	17,033
Other income	-	-	(6,900)	-	-
Total operating expenses, net	<u>189,981</u>	<u>185,205</u>	<u>178,424</u>	<u>173,639</u>	<u>160,367</u>
Operating income (loss)	16,917	7,524	(6,671)	(12,749)	17,999
Financial income, net	8,792	7,274	4,830	5,741	5,867
Income (loss) before taxes on Income	25,709	14,798	(1,841)	(7,008)	23,866
Taxes on income	3,143	3,063	5,652	1,651	5,297
Net income (loss)	<u>\$ 22,566</u>	<u>\$ 11,735</u>	<u>\$ (7,493)</u>	<u>\$ (8,659)</u>	<u>\$ 18,569</u>
Basic net earnings (loss) per share*	<u>\$ 0.48</u>	<u>\$ 0.26</u>	<u>\$ (0.17)</u>	<u>\$ (0.20)</u>	<u>\$ 0.40</u>
Diluted net earnings (loss) per share*	<u>\$ 0.47</u>	<u>\$ 0.25</u>	<u>\$ (0.17)</u>	<u>\$ (0.20)</u>	<u>\$ 0.40</u>

* See notes 2(aa) and 13 to our consolidated financial statements included elsewhere in this annual report for an explanation regarding the computation of basic and diluted net earnings (loss) per ordinary share.

** The breakdown between product and service revenues for 2015 was reclassified to include most subscription revenues in product revenues rather than allocating some to product and some to service revenues, which has resulted in a change to previously published figures for the period ended December 31, 2015.

	Year ended December 31,				
	2019	2018	2017	2016	2015
	(in thousands)				
Weighted average number of ordinary shares used in computing basic net earnings (loss) per share	46,817	45,289	43,476	43,868	45,895
Weighted average number of ordinary shares used in computing diluted net earnings (loss) per share	48,523	47,692	43,476	43,868	46,739

	As of December 31,				
	2019	2018	2017	2016	2015
	(U.S. dollars in thousands)				

Consolidated Balance Sheet Data:

Cash and cash equivalents, short-term bank deposits and marketable securities	\$ 177,951	\$ 316,399	\$ 200,961	\$ 226,086	\$ 130,669
Long-term bank deposits and marketable securities	249,791	84,669	143,338	94,059	184,457
Working capital	96,429	241,003	143,087	181,502	101,029
Total assets	595,199	532,721	471,410	430,336	430,887
Shareholders' equity	395,331	363,957	315,356	299,763	319,123
Capital Stock	415,291	384,229	349,923	326,001	313,445

B. Capitalization and Indebtedness

Not applicable.

C. Reasons for the Offer and Use of Proceeds

Not applicable.

D. Risk Factors

You should carefully consider the following risks before deciding to purchase, hold or sell our ordinary shares. Our business, operating results and financial condition could be seriously harmed due to any of the following risks. The following risks are not the only risk factors facing our Company. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also affect our business. The trading price of our ordinary shares could decline due to any of these risks. You should also refer to the other information contained or incorporated by reference in this annual report, before making any investment decision regarding our Company.

Risks Related to Our Business and Our Industry

We have incurred net losses in the past and may incur losses in the future.

Although we have been profitable in 2018 and 2019, we incurred net losses during 2016 and 2017. Our ability to maintain or increase profitability in the future depends in part on the following factors: the economic health of the global economy, including the potential effects of a global crisis resulting from the recent outbreak of a novel strain of coronavirus (COVID-19); the rate of growth of, and changes in technology trends in our market and other industries in which we currently or may in the future operate; our ability to develop and manufacture new products and technologies and deliver new solutions in a timely manner; the competitive position of our products; the continued acceptance of our solutions by our customers and in the industries that we serve; and our ability to manage expenses. In the future, it may be necessary, to undertake cost reduction initiatives to remain profitable, which could lead to a deterioration of our competitive position. Any difficulties that we encounter as we reduce our costs could negatively impact our results of operations and cash flows. Our revenues also may not grow, may grow at a lower rate than experienced in 2019 and 2018 or may decline as they did in 2016, which would negatively impact our results of operations and cash flows. We cannot assure you that we will remain profitable.

We may increase our operating expenses in future periods. Our decision to increase operating expenses and the scope of such increases depends upon several factors, including the market situation and the effectiveness of our past expenditures. We may continue to make additional expenditures in anticipation of generating higher revenues, which we may not realize, if at all, until sometime in the future. This could cause reductions in our profitability or lead to losses. Additionally, a failure of any acquisition or product development initiative to produce increased revenues could have a material adverse effect on our operations and profitability.

We must manage our anticipated growth effectively in order to be profitable.

We have actively expanded our operations in the past and may continue to expand them in the future in order to gain market share in the evolving market for cyber security and application delivery solutions. This expansion has required, and may continue to require, managerial, operational and financial resources.

In some cases, we may choose to increase our cost of operations at the expense of our short-term profitability in order to support future expansion and growth. We cannot assure you that we will continue to expand our operations successfully. If we are unable to manage our expanding operations effectively, our revenues may not increase or may decline, our cost of operations may rise and we may not be profitable.

We must develop new solutions and enhance existing solutions to remain competitive.

The market for cyber security and application delivery solutions is characterized by rapid technological changes, driven primarily by changes in customer needs and requirements, an evolving cyber threats landscape, changes in application infrastructure tools and increasingly demanding compliance mandates. For example, some of the challenges we face include:

- developing more powerful platforms for our products, as our products typically constitute a critical portion of our customers' data centers and the capacity of data centers to facilitate transactions on their servers has been steadily increasing;
- adapting to fundamental changes in our customers' data centers' infrastructure and changes in the locations of applications and data by offering relevant solutions for multi-cloud and hybrid cloud environments, microservices topologies and Kubernetes;
- adapting to changes in the cyber threat landscape, such as application level attacks, encrypted attacks and automated attacks;
- developing and enhancing our cloud and virtual offerings and expanding our managed security services capabilities to address the industry trend of providing services through the cloud; and
- increasing our support offerings to address the industry trend of increased customer reliance on third party-provided managed information technology, or IT, services.

In order to meet these challenges and remain competitive in the market, we have introduced, and must continue to introduce, new solutions and enhancements to our existing solutions. Accordingly, our future success will depend, to a substantial extent, on our ability to accurately and timely identify market trends and needs; on our ability to invest in research and development and timely develop, introduce and support relevant and desired new solutions and enhancements; and on our ability to gain market acceptance of our offerings. There can be no assurances that our continued investment in research and development, including associated capital expenditures, will ultimately allow us to remain competitive in our industry or otherwise result in successful solutions that generate the expected sales and support our growth. In addition, diversifying our solution portfolio might expose us to direct competition with new players and might require additional investments in the associated sales and marketing practices.

If our research and development efforts do not lead to a corresponding increase in our revenues, if we fail to timely develop and deploy new solutions and enhancements to our existing solutions, or if we fail to gain market acceptance of our new solutions or enhanced solutions, our business, operating results and financial condition could be materially adversely affected.

Changing or severe global economic conditions could have a material adverse effect on our results of operations.

Our business is affected by global economic conditions, uncertainties and downturns and their impact on current and anticipated market demand for our solutions. While the global economy has improved in recent years, uncertainties surrounding the strength of the recovery in many regions remain and additional uncertainties, such as due to the recent COVID-19 outbreak, have emerged. As our operations are on a global level, we may be affected by such events and other economic and political uncertainties. Uncertainties about current global economic conditions continue to pose a risk as customers may postpone or reduce demand and spending in response to such uncertainties, and there could be other factors impacting our business, financial condition or results of operations as a consequence of such uncertainties. For example, outbreaks of epidemic, pandemic or contagious diseases, such as the recent COVID-19 outbreak, could negatively affect our customers' operations, including temporary closures of facilities, thereby decreasing demand for our solutions. In addition, the COVID-19 outbreak might negatively affect the demand for our customers' products and services, therefore forcing them to adjust their cost structure and decrease their spending on our solutions. Furthermore, while the COVID-19 outbreak is currently causing only minor disruptions in our supply chain, there is no assurance that we will not suffer material supply chain interruptions in the future, which could result in a material adverse effect on our business, financial condition and results of operations. The productivity of our employees and contractors may also be affected by the COVID-19 outbreak as a result of home confinement, international and domestic travel limitations or other restrictions, which could impact our ability to develop new solutions, serve our customers or respond timely to their needs. The extent to which COVID-19 impacts our business, financial condition or results of operations, will depend on future developments, which are uncertain and cannot be predicted, including new information which may emerge concerning the severity of COVID-19 and the actions to contain COVID-19 or treat its impact, among others. Another example of an uncertainty about current global economic conditions potentially posing a risk to our business, is the disagreements between the United States and certain European states, as well between the United States and China, with respect to placing tariffs and other trade barriers, which may adversely affect international trade, and we cannot predict the implications of such barriers on our business. Furthermore, should companies in our target markets reduce capital or operational expenditures, we may experience a reduction in sales, longer sales cycles, and slower adoption of new technologies as well as downward pressure on the price of our solutions. In addition, if the market for our solutions is stagnant and our customers experience low visibility of global trends or of their own purchasing trend or financial performance, we may not be able to increase our sales (whether direct sales or indirect sales through our distributors). Each of the above scenarios could have a material adverse effect on our business, operating results and financial condition.

Competition in the market for cyber security and application delivery solutions and in our industry in general is intense. If we are unable to compete effectively, we may lose market share and we may be unable to maintain profitability.

The IT marketplace is competitive and has very few barriers to entry. In particular, the cyber security and application delivery market in which we focus is highly competitive. We expect competition to intensify in the future, and we may lose market share if we are unable to compete effectively.

Most of our competitors have greater financial, personnel and other resources than we have, which may limit our ability to effectively compete with them. We expect to continue to face additional competition as new participants enter the market or extend their portfolios into related technologies. Larger companies with substantial resources, brand recognition and sales channels may form alliances with or acquire competing cyber security and application delivery solutions and emerge as significant competitors.

Competition may result in lower prices or reduced demand for our solutions and a corresponding reduction in our ability to recover our costs, which may impair our ability to achieve, maintain and increase profitability. Furthermore, the dynamic market environment poses a challenge in predicting market trends and expected growth. We cannot assure you that we will be able to implement our business strategy in a manner that will allow us to be competitive. If any of our competitors offer products or services that are more competitive than ours, we could lose market share and our business, financial condition and results of operations could be materially and adversely affected as a result.

Our global operations may expose us to additional risks

We currently offer our solutions in over 70 countries. For the years ended December 31, 2019 and 2018, our sales outside the Americas (which include the U.S. and Canada, as well as Central America and Latin America (CALA)) represented approximately 58% and 56%, respectively, of our total sales. We also rely on third-party service providers around the world to supply physical hosting and cloud environments in order to deliver and support our cloud-based services. Our global business operations involve varying degrees of risk and uncertainty inherent in doing business in so many different jurisdictions. Such risks include, among others, difficulties and costs of staffing and managing foreign operations; the possibility of unfavorable circumstances and additional compliance costs arising from host country laws or regulations, including unexpected changes in the interpretations thereof and reduced protection for intellectual property rights in some countries; partial or total expropriation; export duties and quotas; local tax exposure; economic or political instability, including as a result of insurrection, war, natural disasters, and major environmental or public health concerns, such as the recent COVID-19 outbreak; differences in business practices; recessionary environments in multiple foreign markets; and damage to, or failure of, systems at third party hosting facilities around the world resulting in outages or interruptions in our cloud-based services. We cannot be certain that the foregoing factors will not have a material adverse effect on our future revenues and, as a result, on our business, operating results and financial condition.

Outages, interruptions or delays in hosting services could impair the delivery of our cloud-based security services and harm our business.

We offer infrastructure that supports our DDoS scrubbing center services, WAF and bot management cloud-based services. In addition, we provide other services through the cloud, such as Cloud Workload Protect (“CWP”) and Content Delivery Network (“CDN”). Despite precautions taken within our own internal network and at these third-party facilities, the occurrence of a natural disaster or an act of terrorism or other unanticipated problems could result in lengthy interruptions in our services.

The cloud-based security services that we provide are operated from a network of third-party facilities that host the software and systems that operate these security services. Any damage to, or failure of, our internal systems or systems at third party hosting facilities could result in outages or interruptions in our cloud-based services. Outages or interruptions in our cloud-based security services may cause our customers to experience DDoS- or WAF, bot-related attacks and may cause our customers or potential customers to believe our cloud-based security services are unreliable, cause us to issue credits or pay penalties or damages, cause customers to terminate their subscriptions and adversely affect our reputation and renewal rates and our ability to attract new customers, ultimately harming our business and results of operations.

If the market for cyber security and application delivery solutions does not continue to develop and grow, we will not be able to sell enough of our solutions to maintain profitability.

The cyber security and application delivery market in which we operate is rapidly evolving and we cannot assure you that it will continue to develop and grow. In addition, we cannot assure you that our solutions and technology will keep pace with the changes to this market. Market acceptance of cyber security and application delivery solutions may be inhibited by, among other factors, a lack of anticipated congestion and strain on existing network infrastructures and the availability of alternative solutions. If demand for cyber security and application delivery solutions does not continue to grow, or grows in a slower pace than expected, we may not be able to sell enough of our solutions to maintain and increase our profitability.

If the market for our cloud-based solutions does not continue to develop and grow, we may incur capital and operation losses.

As we continue to expand our cloud-based solution offerings, our investments, both capital and operational, in our cloud business increase. We cannot assure you that sales of our cloud-based solutions will continue to develop and grow. In addition, we cannot assure you that our services and technology will keep pace with the changes in this market. Specifically, the emergence of alternative solutions, such as those offered by Amazon AWS, Microsoft Azure or Google public cloud, may negatively affect sales of our solutions.

Government regulations affecting our business are evolving, and unfavorable changes could harm our business.

Laws and regulations that apply to our business are becoming more prevalent and constantly evolving, particularly in the area of data privacy. We may be impacted by changes in privacy-related regulations governing the collection, use, retention, sharing and security of personal data that we collect, utilize, or otherwise process from our customers and/or visitors to their websites and others. Complying with a diverse range of privacy requirements could cause us to incur substantial costs or require us to change our business practices in a manner adverse to our business. Any failure, or perceived failure, by us to comply with any privacy-related laws, government regulations or directives, or industry self-regulatory principles could result in damage to our reputation or proceedings or actions against us by governmental entities or others, which could potentially have an adverse effect on our business.

For example, the European General Data Protection Regulation (Regulation (EU) 2016/679), or GDPR, that came into effect in May 2018, includes operational requirements for companies that receive or process personal data of residents of the European Union and non-compliance will result in significant penalties. Our compliance with GDPR as well as other data privacy laws around the world, evolving regulations of cloud computing, cross-border data transfer restrictions and other domestic or foreign regulations, has required and will continue to require us to invest significant resources.

Furthermore, laws, regulations and industry standards are subject to constant and, at times, drastic changes that, particularly in the case of industry standards, may arrive with little or no notice, and these could either help or hurt the demand for our solutions. If we are unable to adapt our solutions to changing laws and regulatory standards in a timely manner, or if our products fail to assist our customers with their compliance initiatives, our customers may lose confidence in our products and could switch to competing solutions. In addition, if regulations and standards related to cyber security are changed in a manner that makes them less onerous, our customers may view government and industry regulatory compliance as less critical to their businesses, and our customers may purchase fewer of our solutions, or none at all. In either case, our sales and financial results would suffer.

Some of our solutions contain “open source” and third-party software, and any failure to comply with the terms of one or more of these open source and third party licenses could negatively affect our business.

Some of our products utilize open source technologies. Some open source software licenses require users who distribute or make available as a service open source software as part of their own software product to publicly disclose all or part of the source code of the users’ software product or to make available any derivative works of the open source code on unfavorable terms or at no cost. We have established processes to help alleviate these risks, including a review process for screening requests from our development organization for the use of open source software, but we cannot be sure that all open source software is submitted for approval prior to use in our products. In addition, open source license terms may be ambiguous and many of the risks associated with use of open source software cannot be eliminated, and could, if not properly addressed, negatively affect our business. We may face ownership claims from third parties over, or seeking to enforce the license terms applicable to, such open source software, including by demanding the release of the open source software, derivative works or our proprietary source code. Any such requirement to disclose our source code or other confidential information related to our products could materially and adversely affect our competitive position and may adversely impact our business, results of operations and financial condition. In addition, if the license terms for the open source code change, we may be forced to re-engineer our software or incur additional costs.

In addition, some of our solutions include other software or intellectual property licensed from third parties. This exposes us to risks over which we may have little or no control. There can be no assurance that the licenses from such third-party licensors will continue to be available to us on acceptable terms, if at all. In addition, while we believe we are compliant with the terms of our third party licenses, such licensors may still assert that we are in breach of the terms of a license, which could give such licensors the right to terminate a license or seek damages from us, or both. Our inability to maintain such licenses or the need to engage in litigation regarding these matters, could result in delays in releases of new products, and could otherwise disrupt our business, unless and until equivalent technology can be identified, licensed or developed at substantially the same costs to us.

We may pursue acquisitions or other investments that could disrupt our business and harm our financial condition.

As part of our business strategy, we may invest in or acquire complimentary businesses, technologies or assets or enter into joint ventures or other strategic relationships with third parties. For example, in January 2017, we acquired Seculert Ltd. (“Seculert”), an Israeli-based company engaged in cyber-attack detection and hypertext transfer protocol (HTTP) analytics solutions and developing user and entity behavioral analysis (UEBA) solutions and, in March 2019, we acquired Kaalbi Technologies Private Ltd. (“ShieldSquare”), an India-based company engaged in bot mitigation and bot management solutions. Past acquisitions have caused us to, and in connection with any future acquisitions, we may assume liabilities, incur acquisition related costs, incur amortization expenses or realize write-offs on assets no longer being used or phased out. In addition, the future valuation of these acquisitions may decrease from the market price paid by us, which could result in the impairment of our goodwill and other intangible assets associated with the relevant acquired assets. Moreover, our operation of any acquired or merged businesses, technologies or assets could involve numerous risks, including:

- post-merger integration problems resulting from the combination of any acquired operations with our own operations or from the combination of two or more operations into a new unified entity;
- diversion of management’s attention from our core business;
- substantial expenditures, which could divert funds from other corporate uses;
- entering markets in which we have little or no experience;
- loss of key employees of the acquired operations; and
- known or unknown contingent liabilities, including, but not limited to, tax and litigation costs.

We cannot be certain that any past or future acquisitions or mergers will be successful. If the operation of the business of any future acquisitions or mergers disrupts our operations, our results of operations may be adversely affected, and even if we successfully integrate the acquired business with our own, we may not receive the intended benefits of the acquisition. In addition, our pursuit of potential acquisitions may divert our management’s attention from our core business and require considerable cash outlays at the expense of our existing operations, whether or not such transactions are consummated. For example, the technology we acquired as part of our acquisition of Seculert developed, in our case, into technology designated to mitigate cloud native attacks and risks and is now our new CWP. A failure of any acquisitions or product developments to produce increased revenues could have a material adverse effect on our operations and profitability.

An increasing amount of intangible assets and goodwill on our books may in the future lead to significant impairment charges.

The amount of goodwill and intangible assets on our consolidated balance sheets was, as of December 31, 2019, approximately \$55.6 million. We regularly review our intangible and tangible assets, including goodwill, for impairment. Goodwill and acquired research and development not yet ready for use are subject to impairment review at least annually. Other intangible assets are reviewed for impairment when there is an indication that impairment may have occurred. Impairment testing has led to and may in the future lead to significant additional impairment charges.

We depend upon independent distributors to sell our solutions to customers. If our distributors do not succeed in selling our products, we may not be able to operate profitably.

We sell our solutions primarily to independent distributors, including value added resellers (VARs), original equipment manufacturers (OEMs) and system integrators, and are highly dependent upon these distributors' active marketing and sales efforts. Our distribution agreements with our distributors generally are nonexclusive, ranging from one-year agreements to multiple-year duration with no obligation on the part of our distributors to renew the agreements. Our distribution agreements also typically do not prevent our distributors from selling products of our competitors and do not contain minimum sales or marketing performance requirements. As a result, our distributors may give higher priority to products of our competitors or their own products, thereby reducing their efforts to sell our products. In addition, we may not be able to maintain our existing distribution relationships, and we may not be successful in replacing them on a timely basis, or at all. We may also need to develop new distribution channels for new products, and we may not succeed in doing so. Any changes in our distribution channels, including a termination or other disruption of our commercial relationship with our distributors, or our inability to establish distribution channels for new products could impair our ability to sell our products and result in a material adverse effect on our business, financial condition and results of operations.

Our solutions may have long sales cycles, which may reduce the predictability of our financial performance.

Our solutions are technologically complex and are typically intended for use in applications that may be critical to the business of our customers. As a result, our pre-sales process can be subject to delays associated with customers' budgetary constraints and lengthy approval and procurement processes. The sales cycles of our solutions to new customers can last for as long as twelve months (and in some cases, for example with carrier customers, even longer) from initial presentation to sale. Long sales cycles result in a delay to our generation of revenue. Long sales cycles also subject us to risks not usually encountered in short sales cycles, including our customers' budgetary constraints and internal acceptance reviews and processes prior to purchase. In addition, orders expected in one quarter could shift to another because of the timing of our customers' procurement decisions. Furthermore, customers may defer orders in anticipation of new solutions or product enhancements introduced by us or by our competitors. These factors complicate our planning processes and reduce the predictability of our financial performance.

Currency exchange rates and fluctuations of exchange rates could have a material adverse effect on our results of operations.

We are impacted by exchange rates and fluctuations thereof in a number of ways, including:

- A large portion of our expenses in Israel, principally salaries and related personnel expenses, are paid in NIS, whereas most of our revenues are generated in U.S. dollars. When the dollar is weak, our foreign currency-denominated expenses will be higher, whereas if the dollar is strong, our foreign currency-denominated expenses will be lower. If the NIS strengthens against the U.S. dollar (as happened in 2017), the dollar value of our Israeli expenses will increase and may have a material adverse effect on our business, operating results and financial condition;
- A portion of our international sales are denominated in currencies other than U.S. dollars, such as Euros, Chinese Yuan and Australian Dollars, thereby exposing us to currency fluctuations in such international sales transactions;
- We incur expenses in several other currencies in connection with our operations in Europe and Asia. Devaluation of the U.S. dollar relative to such local currencies causes our operational expenses to increase; and
- The majority of our international sales are denominated in U.S. dollars. Accordingly, devaluation in the local currencies of our customers relative to the U.S. dollar could cause our customers to decrease orders or default on payment.

We generally do not engage in hedging or other transactions intended to manage risks relating to foreign currency exchange rate fluctuations. Consequently, we are exposed to risks related to changes in currency exchange rates and fluctuations of exchange rates, any of which could result in a material adverse effect on our business, financial condition and results of operations. Even if we enter into hedging transactions in the future, they may not effectively protect us from currency exchange rate risks. *For a further discussion of the impact on currency exchange rates on our business, see Item 11 “Quantitative and Qualitative Disclosures About Market Risk.”*

Undetected defects and errors may increase our costs and impair the market acceptance of our products.

Our products have occasionally contained, and may in the future contain, undetected defects or errors, especially when first introduced or when new versions are released, due to defects or errors that we fail to detect, including in components supplied to us by third parties. These defects or errors may be found after the commencement of commercial shipments. In addition, because our customers integrate our products into their networks with products from other vendors, it may be difficult to identify the product that has caused the problem in the network. Regardless of the source of these defects or errors, we will then need to divert the attention of our engineering personnel from our product development efforts to detect and correct these errors and defects. In the past, we have not incurred significant warranty or repair costs, nor have we been subject to liability claims for material damages related to product errors or defects, nor have we experienced any material lags or delays as a result thereof. However, we cannot assure you that these costs, liabilities, lags and delays will continue to be immaterial in the future. Any insurance coverage that we maintain may also not provide sufficient protection should a claim be asserted. Moreover, the occurrence of errors and defects, whether caused by our products or the components supplied by another vendor, may result in significant customer relations problems and injure our reputation, thereby impairing the market acceptance of our products.

A shortage of components or manufacturing capacity could cause a delay in our ability to fulfill orders or increase our manufacturing costs.

Our ability to meet customer demands depends in part on our ability to obtain timely deliveries of parts from our suppliers and contract manufacturers. We cannot assure you that we will not encounter supply and fulfillment issues in the future. Although in many cases we use standard parts and components for our products, certain components are presently available to us only from limited sources (see the risk factor below titled “We rely on a few vendors to provide our hardware platforms and components for the manufacture of our products and on a single managed security service provider to provide us with scrubbing center services required for the provision of our cloud DDoS protection service” and the discussion under Item 4 “Information on the Company—”Business Overview—Manufacturing and Suppliers”). We may not be able to diversify sources in a timely and cost-effective manner, which could harm our ability to deliver products to customers and seriously impact present and future sales and profitability.

We may experience a shortage of certain component parts as a result of our own manufacturing issues, manufacturing issues at our suppliers or contract manufacturers, capacity problems experienced by our suppliers or contract manufacturers, or strong demand in the industry for those parts, especially if there is growth in the overall economy. If there is growth in the economy, such growth is likely to create greater pressures on us and our suppliers to accurately project overall component demand and component demands within specific product categories and to establish optimal component levels. If shortages or delays persist, the price of these components may increase, or the components may not be available at all.

We may also encounter shortages if we do not accurately anticipate our needs. We may not be able to secure enough components at reasonable prices or of acceptable quality to build new products in a timely manner in the quantities or configurations needed. Accordingly, our revenues and gross margins could be materially and adversely affected until other sources can be developed.

In addition, our operating results could be materially and adversely affected if we anticipate greater demand than actually develops and we commit to purchase more components than we actually require. We see this specifically with respect to dated components, which we need to order in large quantities due to manufacturing stoppage. Due to technology advancement, we are required from time to time to make “last buy” type of stock purchases of such dated components for our legacy products.

Any disruption in our supply chain, such as disruptions resulting from failure in telecommunication systems; acts of war, terrorism, cyber-attacks or natural disasters (including major environmental or public health concerns, such as the recent COVID-19 outbreak); subcontractors' lack of skilled labor; the disruption of transportation networks; and adverse weather conditions, could result in a material adverse effect on our business, financial condition and results of operations.

We rely on a few vendors to provide our hardware platforms and components for the manufacture of our products and on a single managed security service provider to provide us with scrubbing center services required for the provision of our cloud DDoS protection service

We primarily rely on a few original design manufacturers, or ODMs, for the manufacture and supply of our hardware platforms, with approximately 81% of our direct product costs in 2019 relating to these vendors. Furthermore, we rely on a single managed security service provider to provide us with scrubbing center services required for the provision of our cloud DDoS protection service (see Item 7.B “Major Shareholders and Related Party Transactions—Related Party Transactions—Managed Security Service Provider Agreement.”). If we are unable to continue to acquire from these ODMs and/or components vendors and/or the managed security service provider on acceptable terms, or should any of these ODMs and/or components vendors and/or managed security service provider cease to supply us with such platforms or components or scrubbing center services for any reason, we may not be able to identify and integrate an alternative source of supply or service in a timely fashion or at the same costs. Any transition to one or more alternate manufacturers or managed security service provider would likely result in delays, operational problems and increased costs, and may limit our ability to deliver our products or DDoS protection service to our customers on time during such transition period, any of which could result in a material adverse effect on our business, financial condition and results of operations.

Our business and operating results could suffer if third parties infringe upon our proprietary technology.

Our success depends, in part, upon the protection of our proprietary software installed in our products, our trade secrets and our trademarks. We seek to protect our intellectual property rights through a combination of trademark and patent law, trade secret protection, confidentiality agreements and other contractual arrangements with our employees, affiliates, distributors and others. In the United States and several other countries, we have registered or acquired trademarks. In addition, we have registered patents in the U.S. and have pending patent applications and provisional patents in connection with several of our products’ features.

The protective steps we have taken may be inadequate to deter infringement upon our intellectual property rights or misappropriation of our proprietary information. We may be unable to detect the unauthorized use of our proprietary technology or take appropriate steps to enforce our intellectual property rights. Effective trademark, patent and trade secret protection may not be available in every country in which we offer, or intend to offer, our products. Failure to adequately protect our intellectual property rights could devalue our proprietary content, impair our ability to compete effectively and eventually harm our operating results. Furthermore, defending our intellectual property rights, either by way of initiating intellectual property litigation or defending such, could result in the expenditure of significant financial and managerial resources. For example, in 2019, 2018 and 2017, intellectual property litigation costs amounted to \$0.3 million, \$0.8 million and \$2.1 million, respectively, and continue in 2020 (see Item 8 “Financial Information—Legal Proceedings”). If additional court-room trials result from these litigation disputes, we may incur such additional increased expenses in the future. Moreover, the outcome of such proceedings, if such outcome is negative, could result in devaluation of our proprietary technology and cause an additional significant financial impact, which may harm our operating results.

Our products may infringe on the intellectual property rights of others.

Third parties may assert claims that we have violated a patent, trademark, copyright or other proprietary intellectual property right belonging to them. As is characteristic of our industry, there can be no assurance that our products do not or will not infringe the proprietary rights of third parties, that third parties will not claim infringement by us with respect to patents or other proprietary rights or that we would prevail in any such proceedings. We have received in the past, and may receive in the future, communications asserting that the technology used in some of our products requires third-party licenses. Any infringement claims, whether or not meritorious, could result in significant costly litigation or arbitration and divert the attention of technical and management personnel. For example, see the discussion in Item 8 “Financial Information—Legal Proceedings.” Any adverse outcome in litigation alleging infringement could require us to develop non-infringing technology or enter into royalty or licensing agreements. If, in such situations, we are unable to obtain licenses on acceptable terms, we may be prevented from manufacturing or selling products that infringe such intellectual property of a third party. An unfavorable outcome or settlement regarding one or more of these matters could have a material adverse effect on our business, reputation and operating results.

If our products fail to protect against malicious attacks and our end-users experience security breaches, our reputation and business could be harmed, and our operating results could be adversely impacted.

Defects may cause our products to be vulnerable to security attacks or cause them to fail to help secure networks. Data thieves are increasingly sophisticated, often affiliated with organized crime, and operate large-scale and complex automated attacks. In addition, the techniques they use to access or sabotage networks change frequently and generally are not recognized until launched against a target. As a result, our products may be unable to anticipate these techniques and provide a solution in time to protect our end-users’ networks. If we fail to identify and respond to new and increasingly complex methods of attack and to update our products to detect or prevent such threats in time to protect our end-users’ critical business data, the integrity of our products and reputation, as well as our business and operating results, could suffer.

In addition, an actual or perceived security breach or theft of sensitive data of one of our end-users, regardless of whether the breach is attributable to the failure of our products or services, could adversely affect the market’s perception of our security products. Furthermore, security breaches or product defects in our solutions could result in loss or alteration of customers’ data, unauthorized access to multiple customers’ data and compromise of our customer’s networks secured by our physical and cloud solutions. If such a security breach results in the disruption or loss of availability, integrity or confidentiality of customers’ data, we could incur significant liability to our customers and to businesses or individuals whose information was being handled by our customers.

There is no guarantee that our products will be free of flaws or vulnerabilities. Our end-users may also misuse our products, which could result in a breach or theft of business data.

As a security provider, our internal network system is subject to intentional disruption by cyber-attackers or other malicious actors, and such disruptions could, among other things, harm the integrity of our solutions, and the public perception of our solutions, and consequently adversely impact our future sales.

We will not succeed with our application and network security solutions unless the marketplace is confident that we provide effective IT security protection. We provide security solutions, and as a result we could be an attractive target of cyber-attacks (including, among others, malware, viruses and attachments to e-mails, and other disruptive activities of individuals or groups) designed to impede the performance of our solutions, penetrate our network security or the security of our cloud platform or our internal systems, misappropriate proprietary information and/or cause other interruptions to our services. Furthermore, third parties may attempt to illegally induce employees or customers into disclosing our proprietary information or otherwise compromise the security of our internal networks, systems or physical facilities in order to gain access to our data or our customers' data. Although we have not identified any act of sabotage or unauthorized access by a third party of our network systems, if we experience an actual or perceived breach of security in our internal systems, it could adversely affect the integrity and market perception of our solutions. Furthermore, the costs to eliminate or address security threats and vulnerabilities before or after a cyber-security incident could be significant.

We rely on third-party service providers to supply physical hosting, cloud environments and specific support technologies in order to deliver and support our security solutions. Such third-party service providers are subject to the same risks of cyber-attacks and malicious actors. While we periodically evaluate the internal security posture of each third-party service provider to determine their level of compliance, we may not be able to detect any breach in the first instance it occurs. These risks may impact the integrity and availability of our solutions.

Our remediation efforts may not be successful and could result in interruptions, delays or cessation of service and loss of existing or potential customers. There can be no assurance that limitation of liability, indemnification or other protective provisions in our contracts would be applicable, enforceable or adequate in connection with a security breach, or would otherwise protect us from any such liabilities or damages with respect to any particular claim. Additionally, we maintain professional, product and cyber liability insurance coverages that may cover certain liabilities in connection with a security breach or other security incident; however, we cannot be certain our insurance coverage will be adequate for liabilities actually incurred, that insurance will continue to be available to us on commercially reasonable terms, if at all, or that any insurer will not deny coverage as to any future claim.

In addition, any such security breach could impair our ability to operate our business, including our ability to provide maintenance and support services to our customers. If this happens, our revenues could decline and our reputation and business could suffer.

We rely on information systems to conduct our businesses, and failure to protect these systems against security breaches and otherwise to implement, integrate, upgrade and maintain such systems in working order could have a material adverse effect on our results of operations, cash flows or financial condition.

The efficient operation of our businesses depends on our computer hardware and software systems. For instance, we rely on information systems to process customer orders, manage accounts receivable collections, manage accounts payable processes, track costs and operations, maintain client relationships and accumulate financial results. Despite our implementation of industry-accepted security measures and technology, our information systems are vulnerable to, and have been in the past subject to, computer viruses, attempts to insert malicious codes, unauthorized access, phishing efforts, denial-of-service attacks and other cyber-attacks and we expect to be subject to similar attacks in the future as such attacks become more sophisticated and frequent. A breach of our information systems could result in decreased performance, operational difficulties and increased costs, any of which could have a material adverse effect on our business and operating results.

Our non-competition agreements with our employees may not be enforceable. If any of these employees leave us and join a competitor, our competitor could benefit from the expertise our former employees gained while working for us.

We currently have non-competition agreements with most of our employees. These agreements prohibit our employees, in the event they cease working for us, from directly competing with us or working for some of our competitors for a limited period after termination of employment. The laws of the United States, Israel and most other countries in which we have employees may limit or prohibit our ability to enforce these non-competition agreements or may allow us to enforce them only to a limited extent. In the event that we are unable to enforce any of these agreements, competitors that employ our former employees could benefit from the expertise our former employees gained while working for us.

We may be required to pay additional taxes due to tax positions that we undertook. Additional tax liabilities could materially adversely affect our results of operations and financial condition.

We operate our business in various countries, and we attempt to utilize an efficient operating model to optimize our tax payments based on the laws in the countries in which we operate. This can cause disputes between us and various tax authorities in the countries in which we operate, whether due to tax positions that we have taken in various tax returns we have filed or due to determinations we have made not to file tax returns in certain jurisdictions. In particular, not all of our tax returns are final and may be subject to further audit and assessment by applicable tax authorities. There can be no assurance that the applicable tax authorities will accept our tax positions, and, if they do not, we may be required to pay additional taxes. In the past few years, certain tax authorities who have audited our tax returns have rejected our tax positions, and, while we intend to vigorously maintain our positions, we cannot be sure that our positions will be accepted, and we may end up paying additional taxes, whether as a result of litigation, if ensued, or settlement negotiations. While we have established reserves based on assumptions and estimates that we believe are reasonable to cover such positions, these reserves may prove to be insufficient and as such, our future results may be adversely affected.

In recent years, we have seen changes in tax laws resulting in an increase in applicable tax rates, especially increased liabilities of corporations and limitations on the ability to benefit from strategic tax planning, with these laws particularly focused on international corporations. Such legislative changes in one or more jurisdictions in which we operate may have implications on our tax liability and have a material adverse effect on our results of operations and financial condition. For example, the Organization for Economic Cooperation and Development, or the OECD, an intergovernmental organization with 36 member countries, that aims to promote the economic and social well-being of people around the world, introduced the base erosion and profit shifting (“BEPS”) project. The BEPS project contemplates changes to numerous international tax principles, as well as national tax incentives, and these changes, if adopted by individual countries, could adversely affect our provision for income taxes. Countries have only recently begun to translate the BEPS recommendations into specific national tax laws, and it remains difficult to predict with accuracy the magnitude of any impact that such new rules may have on our financial results. The U.S. and Israel, among other countries in which we have operations, are members of the OECD.

The adoption of the tax reform and the enactment of additional legislation changing the United States taxation of international business activities could materially impact our financial position and results of operations.

On December 22, 2017, President Trump signed into law what is known as the “Tax Cuts and Jobs Act” (the “TCJA”) that significantly reformed the Internal Revenue Code of 1986, as amended (the “Code”). The TCJA, among other things, included changes to U.S. federal corporate and individual income tax rates. The TCJA made significant changes to the U.S. tax law which may affect our operations and the impact of these provisions on our operations and our investors is still uncertain and may not become evident for some period of time. Since enactment, the IRS has issued proposed and final regulations, some of which may be further revised and possibly withdrawn, implementing the changes to the U.S. federal tax laws pursuant to the TCJA. The application and implementation of the new provisions may require us to apply the provisions without clear guidance from the U.S. Treasury Department or the Internal Revenue Service (“IRS”). The U.S. Treasury Department and the IRS could interpret or issue guidance on how provisions of the TCJA will be applied or otherwise administered that is different from our interpretation. As part of our compliance with the changes pursuant to the TCJA, we made adjustments to our current provision for income taxes and other items impacted by the TCJA.

The TCJA, among other things, reduced the corporate tax rate from a top marginal rate of 35% to a flat rate of 21%, limited the tax deduction for interest expense to 30% of adjusted taxable income (except for certain small businesses), implemented a “base erosion anti-abuse tax” which requires U.S. corporations to make an alternative determination of taxable income without regard to tax deductions for certain payments to affiliates, taxed certain non-U.S. corporations’ earnings considered to be “global intangible low taxed income” (also referred to as “GILTI”), repealed the alternative minimum tax, or AMT, for corporations and changed a taxpayer’s ability to either utilize or refund the AMT credits previously generated, changed the attribution rules relating to shareholders of certain “controlled foreign corporations,” limited the deduction for net operating losses carried forward from taxable years beginning after December 31, 2017 to 80% of current year taxable income and eliminated net operating loss carrybacks, imposed a one-time tax on offshore earnings at reduced rates regardless of whether they are repatriated, eliminated U.S. tax on foreign earnings (subject to certain important exceptions), allowed immediate deductions for certain new investments instead of deductions for depreciation expense over time, and modified or repealed many business deductions and credits.

Due to the expansion of our international business activities, any changes in the U.S. taxation of such activities may increase our worldwide effective tax rate, and adversely affect our financial position and results of operations. Further, other foreign governments may enact tax laws in response to the TCJA that could result in further changes to global taxation and materially affect our financial position and results of operations. The impact of the TCJA on holders of our securities remains uncertain. We therefore recommend our shareholders consult with their legal and tax advisors with respect to such legislation and the potential tax consequences.

Our bank deposits and investments in Israel are not insured, and our bank deposits in the United States are in excess of insured limits.

The majority of our cash and cash equivalents, and short and long-term bank deposits are invested in banks in Israel and, to a smaller extent, in banks in the United States. The Israeli bank deposits are not insured, while the deposits made in the United States are in excess of insured limits and are not otherwise insured. If one or more of these financial institutions were to become insolvent, the loss of these investments would have a material adverse effect on our financial condition.

If we are unable to realize our investment objectives, our financial condition and results of operations may be adversely affected.

We maintain substantial balances of cash and liquid investments as strategic assets for purposes of acquisitions and general corporate purposes, including share repurchase. Our cash, cash equivalents, short and long-term bank deposits and marketable securities totaled \$427.7 million as of December 31, 2019. The performance of the capital markets is the primary factor that affects the values of funds that are held in marketable securities. While we believe we have taken a conservative approach in our investments, by investing the majority of our debt marketable securities portfolio at securities that are rated A- or higher, these assets are subject to market fluctuations and various developments, including, without limitation, rating agency downgrades that may impair their value. We expect that market conditions will continue to fluctuate and that the fair value of our investments may be affected accordingly, including, without limitation, by the economic effects of the COVID-19 outbreak.

Financial income is a component of our net income (loss). As of December 31, 2019, our investment portfolio, including cash and cash equivalents, deposits and marketable securities, had a carrying value of \$427.7 million, compared with \$401.1 million as of December 31, 2018. For the years ended December 31, 2019, 2018 and 2017, we had \$8.8 million, \$7.3 million and \$4.8 million, respectively, of net financial income.

The outlook for our financial income is dependent, in part, on the future direction of interest rates, exchange rates, the amount of any share repurchases or acquisitions that we make and the amount of cash flows from operations that are available for investment. The performance of the capital markets affects the values of our funds that are held in marketable securities. These assets are subject to market fluctuations and will yield uncertain returns. Due to certain market developments, including investments' rating downgrades, the fair value of these investments may decline. If market conditions continue to fluctuate, the fair value of our investments may be impacted accordingly. Although our investment guidelines stress diversification and capital preservation, our investments are subject to a variety of risks, including risks related to general economic conditions, interest rate fluctuations and market volatility.

In particular, our investment portfolios include a significant amount of interest rate-sensitive instruments, such as bonds, which, in addition to the inherent risk associated with the debt, may be adversely affected by changes in interest rates. Changes in interest rates and credit quality may also result in fluctuations in the income derived from, or the valuation of, our fixed income securities. Interest rates are highly sensitive to many factors, including governmental monetary policies, domestic and international economic and political conditions and other factors beyond our control. For example, benchmark interest rates, such as the U.S. Federal Funds Rate, are currently relatively low, which is likely to significantly impact our investment income. Increases in interest rates will decrease the value of our investments in fixed-income securities. If increases in interest rates occur during periods when we sell investments to satisfy liquidity needs, we may experience investment losses. Conversely, if interest rates decline, reinvested funds will earn less than expected.

In terms of credit risk, our investment portfolio policy is "buy and hold," while minimizing credit risk by setting maximum concentration limit per issuer and credit rating. Our investments consist primarily of government and corporate debentures and bank deposits. Although we believe that we generally adhere to conservative investment guidelines, if turmoil in the financial markets reoccurs in the future, it may result in impairments of the carrying value of our investment assets since we classify our investments in marketable securities as available-for-sale. Changes in the fair value of investments classified as available-for-sale are not recognized as income (loss) during the period, but rather are recognized as a separate component of equity until realized. Realized losses in our investments portfolio may adversely affect our financial position and results. For example, if we had reported all the changes in the fair values of our investments into income (loss), our reported net income would have increase by \$1.1 million during the year ended December 31, 2019 and would have decreased by \$1.1 million during the year ended December 31, 2018. Any significant decline in our financial income or the value of our investments as a result of continued low interest rates, deterioration in the credit worthiness of the securities in which we have invested, general market conditions or other factors, could have an adverse effect on our results of operations and financial condition.

Our success depends on our ability to attract, train and retain highly qualified personnel.

We may need to increase our research and development, sales and marketing, technical, customer support, operations and IT staff. Our products require a sophisticated technology, marketing and sales effort targeted at several levels within a prospective customer's organization. Accordingly, we need highly trained research and development, sales, marketing, technical, customer support, operations and IT personnel. Competition for such qualified personnel is intense. Consequently, we may not be able to hire or retain sufficient personnel to support our business operations or, if we do, we may be required to offer increased compensation to attract such employees, which could result in a material adverse effect on our business, financial condition and results of operations.

Global rollout of new information systems could disrupt our operations and cause unanticipated increases in our costs.

In the past few years, we have invested significant capital and human resources in a project for a company-wide enterprise resource planning, or ERP, system, including modules such as a new customer relationship management, or CRM, system for our sales operations, a new customer service system for our customer support and a new material requirements planning, or MRP, system for our supply chain planning. We intend to continue to invest significant capital and human resources to further improve and implement our ERP and other information systems. Any major disruptions or deficiencies in the design and implementation of the new information systems, particularly those that impact our operations, could adversely affect our ability to process customer orders, ship products, provide services and support to our customers, bill and track our customers, timely report our financial results and otherwise run our business.

Risks Related to the Market for Our Ordinary Shares

Yehuda Zisapel, our chairman of the board, Nava Zisapel, and Roy Zisapel, our President, Chief Executive Officer and director, may exert significant influence in the election of our directors and over the outcome of other matters requiring shareholder approval.

As of March 29, 2020, Yehuda Zisapel, the Chairman of our Board of Directors, beneficially owned approximately 3.61% of our outstanding ordinary shares; Nava Zisapel, beneficially owned approximately 6.34% of our outstanding ordinary shares; and their son, Roy Zisapel, our President, Chief Executive Officer and director, beneficially owned approximately 3.11% of our outstanding ordinary shares (see Item 6.E "Directors, Senior Management and Employees-Share Ownership"). As a result, if these shareholders act together, they could exert significant influence on the election of our directors and on decisions by our shareholders on matters submitted to shareholder vote, including mergers, consolidations and the sale of all or substantially all of our assets. This concentration of ownership of our ordinary shares could delay or prevent proxy contests, mergers, tender offers, or other purchases of our ordinary shares that might otherwise give our shareholders the opportunity to realize a premium over the then-prevailing market price for our ordinary shares. This concentration of ownership may also adversely affect our share price.

If we are characterized as a passive foreign investment company, our U.S. shareholders may suffer adverse tax consequences.

Generally, if for any taxable year, after applying certain "look through" tax rules, (i) 75% or more of our gross income is passive income, or (ii) at least 50% of the fair market value of our assets, averaged quarterly over our taxable year, are held for the production of, or produce, passive income, we would be characterized as a passive foreign investment company, or PFIC, for U.S. federal income tax purposes. If we are classified as a PFIC, our U.S. shareholders could suffer adverse U.S. tax consequences, including having gain realized on the sale of our ordinary shares treated as ordinary income, as opposed to capital gain income, and having potentially punitive interest charges apply to such gain. Similar rules apply to certain "excess distributions" made with respect to our ordinary shares.

For our taxable year ended December 31, 2019, we do not believe that we should be classified as a PFIC. There can be no assurance, however, that the IRS will not challenge this treatment, and it is possible that the IRS could attempt to treat us as a PFIC for 2019 and prior taxable years. The tests for determining PFIC status are applied annually, and require a factual determination that depends on, among other things, the composition of our income, assets and activities in each taxable year, and can only be made annually after the close of each taxable year. Furthermore, because the value of our gross assets is likely to be determined in part by reference to our market capitalization, a decline in the value of our ordinary shares may result in our becoming a PFIC. Accordingly, there can be no assurance that we will not become a PFIC in future taxable years. U.S. shareholders should consult with their U.S. tax advisors with respect to the U.S. tax consequences of investing in our ordinary shares. For a more detailed discussion of the rules relating to PFICs and related tax consequences, please see the section of this annual report titled Item 10 "Additional Information—Taxation—United States Federal Income Tax Considerations."

If a U.S. person is treated as owning at least 10% of our shares, such holder may be subject to adverse U.S. federal income tax consequences.

Depending upon the aggregate value and voting power of our shares that U.S. persons are treated as owning (directly, indirectly, or constructively), we could be treated as a controlled foreign corporation ("CFC"). Additionally, because our group consists of one or more U.S. subsidiaries, certain of our non-U.S. subsidiaries could be treated as CFCs, regardless of whether or not we are treated as a CFC. If a U.S. person is treated as owning (directly, indirectly or constructively) at least 10% of the value or voting power of our shares, such person may be treated as a "U.S. shareholder" with respect to each CFC in our group (if any), which may subject such person to adverse U.S. federal income tax consequences. Specifically, a U.S. shareholder of a CFC may be required to annually report and include in its U.S. taxable income its pro rata share of each CFC's "Subpart F income," "global intangible low-taxed income" and investments in U.S. property, whether or not we make any distributions of profits or income of a CFC to such U.S. shareholder. If you are treated as a U.S. shareholder of a CFC, failure to comply with these reporting obligations may subject you to significant monetary penalties and may prevent the statute of limitations with respect to your U.S. federal income tax return for the year for which reporting was due from starting. Additionally, a U.S. shareholder that is an individual would generally be denied certain tax deductions or indirect foreign tax credits that may otherwise be allowable to a U.S. shareholder that is a U.S. corporation. We cannot provide any assurances that we will assist investors in determining whether we or any of our non-U.S. subsidiaries are treated as CFCs or whether any investor is treated as a U.S. shareholder with respect to any of such CFC, nor do we expect to furnish to any U.S. shareholders information that may be necessary to comply with the aforementioned reporting and tax paying obligations. The United States Internal Revenue Service provided limited guidance on situations in which investors may rely on publicly available alternative information to comply with their reporting and tax paying obligations with respect to foreign-controlled CFCs. U.S. investors should consult their advisors regarding the potential application of these rules to their investment in our ordinary shares.

Provisions of our Articles of Association and Israeli law as well as the terms of our equity incentive plan could delay, prevent or make a change of control of us more difficult or costly, which could depress the price of our ordinary shares.

The provisions in our Articles of Association that provide that our directors are elected in three staggered classes by a majority vote of our shareholders as well as the quorum requirement for adjourned shareholder meetings may have the effect of delaying or making an unsolicited acquisition of our Company more difficult. Israeli corporate and tax laws, including the ability of our Board of Directors to adopt a shareholder rights plan without further shareholder approval, may also have the effect of delaying, preventing or making an acquisition of us more difficult. For example, under the Companies Law, upon the request of a creditor of either party to a proposed merger, an Israeli court may delay or prevent the merger if it concludes that there is a reasonable concern that, as a result of the merger, the surviving company will be unable to satisfy the obligations of any of the parties to the merger. In addition, our Key Employee Share Incentive Plan (1997), as amended, or the Share Incentive Plan, provides that, in the event of a “Hostile Takeover” (which is defined to include, among others, an unsolicited acquisition of more than 20% of our outstanding shares), the vesting of all or a portion of our outstanding equity awards, including stock options, will accelerate, unless otherwise determined by our Board of Directors (or a committee thereof). As a result, an acquisition of our Company that triggers the said acceleration will be more costly to a potential acquirer. These provisions could cause our ordinary shares to trade at prices below the price for which third parties might be willing to pay to gain control over us. Third parties who are otherwise willing to pay a premium over prevailing market prices to gain control of us may be unwilling to do so because of these provisions.

Compliance with the disclosure rules regarding the use of conflict minerals may affect our relationships with suppliers and customers.

Pursuant to Section 1502 of the Dodd-Frank Act, United States publicly traded companies, such as Radware, are required to disclose use or potential use of “conflict minerals” that are mined from the Democratic Republic of Congo or adjoining countries (collectively, “Covered Countries”). Conflict minerals are defined by the SEC as columbite-tantalite (coltan), cassiterite, gold, wolframite, or their derivatives, which are limited to tantalum, tin and tungsten (“conflict minerals” or “3TG”). These requirements necessitate due diligence efforts to assess whether such minerals are used in our products in order to make the relevant required annual disclosures. These requirements could adversely affect the sourcing, supply and pricing of materials used in our products.

We have conducted an analysis of our products and found that small quantities of 3TG could potentially be found in our products. The products that we manufacture are highly complex, typically containing thousands of parts from many direct suppliers. In general, we primarily rely on third-party assembly and manufacturing vendors to provide our finished products and, in this respect, these vendors typically receive components and subassemblies included in our products from other suppliers and subcontractors. We have relationships with a vast network of suppliers throughout the world, and there are generally multiple tiers between the 3TG mines and our direct suppliers. Therefore, we must rely on our direct suppliers to cooperate with us and work with their own upstream suppliers or sub-contractors in order that they may provide us with accurate information about the origin of 3TG in the components we purchase from them. In particular, many of our supplier contracts have fixed durations and we cannot unilaterally impose new contract terms or flow-down requirements that would otherwise compel these suppliers to support our due diligence efforts with respect to 3TG content. Currently, we do not have sufficient information from our suppliers to determine the country of origin of the conflict minerals used in our products or the facilities used to process those conflict minerals. Therefore, we cannot exclude the possibility that some of these conflict minerals may have originated in Covered Countries and are not from recycled or scrap sources.

We may face reputational challenges that could impact future sales (i) based on the fact that we are unable to verify with sufficient accuracy the origins of all conflict minerals used in our products, and thus are unable to determine if such conflict minerals originate in the Covered Countries and are not entirely from recycled or scrap sources, or (ii) if we later determine that certain of our products contain minerals not determined to be "conflict free," (meaning that such minerals originate from one of the Covered Countries and have not been verified as "conflict free" by an independent third party audit body).

Additionally, there are, and will be, ongoing costs associated with complying with these disclosure requirements pursuant to Section 1502 of the Dodd-Frank Act, including funding of the due diligence process to determine the sources of those minerals that may be used or which are necessary to the production of our products in order to make the relevant required annual disclosures.

Our share price has been volatile in the past and may be subject to volatility in the future.

The market price for our ordinary shares, as well as the prices of shares of other technology companies, has been volatile. For example, during 2019 the lowest closing price of our share was \$22.01, compared to the highest closing price of our share of \$26.75 during the same year. The volatility of our share price may have a negative impact on our financial performance as a result of its negative impact on employee retention. Numerous factors, many of which are beyond our control, may cause the market price and trading volume of our ordinary shares to fluctuate significantly and further decrease, including:

- lower than expected operating results from levels forecasted by securities analysts;
- announcements concerning us or our competitors;
- the introduction of new products and new industry standards;
- general market conditions and changes in market conditions in our industry;
- the general state of the securities market (particularly the technology sector);
- political, economic and other developments in the State of Israel, the U.S. and worldwide, including, for example, the recent COVID-19 outbreak; and
- any of the events underlying any of the other risks or uncertainties set forth elsewhere in this annual report actually occurs.

Risks Related to Operations in Israel

Security and political and economic instability in the Middle East may harm our business.

We are incorporated under Israeli law, and our principal offices and manufacturing and research and development facilities are located in Israel. In addition, the majority of our key employees, officers and directors are residents of Israel. Accordingly, our operations and financial results could be adversely affected if political, economic or military events curtailed or interrupted trade between Israel and its present trading partners or if major hostilities involving Israel should occur in the Middle East.

Over the past several decades, a number of armed conflicts have taken place between Israel and its Arab neighbors and a state of hostility, varying in degree and intensity, has existed between Israel and certain other countries or militant groups in the region. Since late 2000, there has also been an increase in violence and unrest between Israel and the Palestinians, including during the summer of 2014, when Israel was engaged in an armed conflict with Hamas, a militia and political group operating in the Gaza Strip. This conflict has strained Israel's relationship with its Arab citizens, Arab countries and, to some extent, with other countries around the world. In addition, since the end of 2010, several countries in the region have been experiencing increased political instability, which has led to changes in government in some of these countries and increases in violence and turbulence, including the ongoing civil war in Syria which shares a common border with Israel, the effects of which are currently difficult to assess. In addition, Israel faces threats from more distant neighbors, such as Iran (which has previously threatened to attack Israel and is believed to have influence over Hamas in Gaza and Hezbollah, a militia and political group operating in Lebanon) and the militant group known as the Islamic State of Iraq and Syria. This situation may potentially escalate in the future. In addition, this instability in the region may affect the global economy and marketplace. We do not believe that the political and security situation has had a material impact on our business to date; however, there can be no assurance that this will be the case for future operations. Our commercial insurance does not cover losses that may occur as a result of events associated with the security situation in the Middle East, such as damages to our facilities resulting in disruption of our operations. Although the Israeli government currently covers the reinstatement value of direct damages that are caused by terrorist attacks or acts of war, we cannot be assured that this government coverage will be maintained or will be adequate in the event we submit a claim. We could be adversely affected by any major hostilities, including acts of terrorism as well as cyber-attacks or any other hostilities involving or threatening Israel, the interruption or curtailment of trade between Israel and its trading partners, a significant downturn in the economic or financial condition of Israel or a significant increase in the rate of inflation.

Furthermore, some neighboring countries, as well as certain companies, organizations and movements, continue to participate in a boycott of Israeli firms and others doing business with Israel or with Israeli companies. In the past several years, there have been increased efforts by activists to cause companies and consumers to boycott Israeli goods based on Israeli government policies. Similarly, Israeli companies are limited in conducting business with entities from several countries. For example, in 2008, the Israeli legislature passed a law forbidding any investments in entities that transact business with Iran. Restrictive laws, policies or practices directed towards Israel or Israeli businesses could have an adverse impact on our operating results, financial condition or the expansion of our business.

Some of our directors and officers as well as many of our Israeli employees are obligated to perform annual military reserve duty in Israel. We cannot assess the potential impact of these obligations on our business.

Some of our directors, officers and employees are, unless exempt, obligated to perform annual military reserve duty, depending upon their age and prior position in the army. They may also be subject to being called to active duty at any time under emergency circumstances. Our operations could be disrupted by the absence, for a significant period, of one or more of these officers or other key employees due to military service, and any disruption in our operations could harm our business. The full impact on our workforce or business if some of our officers and employees will be called upon to perform military service, especially in times of national emergency, is difficult to predict.

The exchange rate between the New Israeli Shekel against the U.S. dollar is volatile, and may negatively impact our profitability.

Most of our revenues worldwide are denominated in U.S. dollars or are dollar-linked, whereas a portion of our revenues is denominated in other currencies, including NIS. At the same time, a substantial portion of our expenses is incurred in U.S. dollars, but we incur a portion of our expenses, principally salaries and related personnel expenses, in other currencies, mainly in Israel - in NIS, in Europe - in Euros and in Asia-Pacific - in several local currencies. If the NIS increases in value relative to the dollar, as was the case in 2017, the dollar cost of our operations in Israel will increase and our dollar-measured results of operations will be adversely affected. We cannot provide assurances that we will not be materially adversely affected by exchange rate fluctuations in the future. See also "Currency exchange rates and fluctuations of exchange rates could have a material adverse effect on our results of operations" above in this section.

The tax benefits we may receive in connection with our approved enterprise, beneficiary or preferred enterprise programs require us to satisfy prescribed conditions and may be terminated or reduced in the future. This would increase taxes and decrease our net profit.

We have in the past benefited, and currently benefit, from certain government programs and tax benefits in Israel. To remain eligible to obtain such tax benefits, we must continue to meet certain conditions. If we fail to comply with these conditions in the future, the benefits we receive could be cancelled and we may have to pay certain taxes. We cannot guarantee that these programs and tax benefits will be continued in the future, at their current levels or at all. If these programs and tax benefits are ended, our tax expenses and the resulting effective tax rate reflected in our financial statements may increase and as such our business, financial condition and results of operations could be materially and adversely affected.

In the event of distribution of dividends from tax-exempt income or in conducting certain transactions that may be viewed by the Israeli tax authorities as a deemed dividend event, the amount distributed will be subject to corporate tax at the rate ordinarily applicable to the approved/beneficiary enterprise's income. Tax-exempt income generated under the approved/beneficiary enterprise program will be subject to taxes upon dividend distribution (which includes the repurchase of the Company's shares) or liquidation.

We have obtained benefits from the Israeli Innovation Authority, which subjects us to ongoing restrictions. In addition, these benefits may not continue or in the future may be limited or restricted.

We have in the past received, and in the future may apply for, royalty-bearing or non-royalty bearing grants from the Israeli Innovation Authority (formerly known as the Office of the Chief Scientist of the Israeli Ministry of Economy and Industry), or the IIA, for research and development programs that meet specified criteria pursuant to the Law for the Encouragement of Research, Development and Technological Innovation in Industry, 1984 (formerly known as the Law for Encouragement of Research and Development in Industry, 1984), and the regulations promulgated thereunder, or the R&D Law. The terms of the IIA grants limit our ability to manufacture products outside of Israel or to transfer technologies in or outside Israel if such products or technologies were developed using know-how developed with or based upon IIA grants. In addition, a change of control in us and the acquisition of 5% or more of our ordinary shares by a non-Israeli may require notification to the IIA and the provision of an undertaking to comply with the R&D Law, some of the principal restrictions and penalties of which are the transferability limits described above and elsewhere in this annual report.

Further, the IIA grants may be terminated in the future or the available benefits may be reduced or impacted, including, among other possible circumstances, should we transfer IIA funded know how or derivatives thereof to any third party and/or manufacturing activities outside the State of Israel, without the IIA's prior approval. The termination or curtailment of these programs or the loss or reduction of such benefits could have a material adverse effect on our business, financial condition and results of operations. In addition, the IIA may establish new guidelines regarding the R&D Law, which may affect our existing and/or future IIA programs and incentives for which we may be eligible. We cannot predict what changes, if any, the IIA may make.

It may be difficult to enforce a U.S. judgment against us or our officers and directors and to assert U.S. securities laws claims in Israel.

We are incorporated under the laws of the State of Israel, our corporate headquarters is located in Israel and several of our current officers and directors reside in Israel. Service of process upon us, our Israeli subsidiary, our directors and officers and the Israeli experts, if any, named in this annual report, substantially all of whom reside outside the United States, may be difficult to obtain within the United States. Furthermore, because a majority of our assets and investments, and substantially all of our directors, officers and such Israeli experts are located outside the United States, any judgment obtained in the United States against us or any of them may be difficult to collect within the United States and may not be enforced by an Israeli court.

We have been informed by our legal counsel in Israel that it may also 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 an alleged violation of U.S. securities laws if they determine that 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. There is little binding case law in Israel addressing these matters. If U.S. law is found to be applicable, the content of applicable U.S. law must be proven as a fact, which can be a time-consuming and costly process. Certain matters of procedure will also be governed by Israeli law.

Subject to specified time limitations and legal procedures, under the rules of private international law currently prevailing in Israel, Israeli courts may enforce a U.S. judgment in a civil matter, including a judgment based upon the civil liability provisions of the U.S. securities laws as well as a monetary or compensatory judgment in a non-civil matter, provided that the following key conditions are met:

- subject to limited exceptions, the judgment is final and non-appealable;
- the judgment was given by a court competent under the laws of the state of the court and is otherwise enforceable in such state;
- the judgment was rendered by a court competent under the rules of private international law applicable in Israel;
- the laws of the state in which the judgment was given provide for the enforcement of judgments of Israeli courts;
- adequate service of process has been effected and the defendant has had a reasonable opportunity to present his arguments and evidence;
- the judgment is enforceable under the laws of State of Israel and its enforcement is not contrary to the law, public policy, security or sovereignty of the State of Israel;
- the judgment was not obtained by fraud and does not conflict with any other valid judgment in the same matter between the same parties; and
- an action between the same parties in the same matter was not pending in any Israeli court at the time the lawsuit was instituted in the U.S. court.

ITEM 4. INFORMATION ON THE COMPANY

A. History and Development of the Company

Corporate History and Details

Radware Ltd. was organized in May 1996 as a corporation under the laws of the State of Israel and commenced operations in 1997. Our principal executive offices are located at 22 Raoul Wallenberg Street, Tel-Aviv 6971917, Israel and our telephone number is 972-3-766-8666. Our website address is www.radware.com (information contained on our website is not incorporated herein by reference and shall not constitute part of this annual report).

As of September 1, 1998, we established Radware Inc., our wholly owned subsidiary in the United States (“Radware US”), which conducts the sales and marketing of our products in the Americas and is our authorized representative and agent in the United States. The principal offices of Radware US are located at 575 Corporate Dr., Lobby 2, Mahwah, New Jersey 07430 and its telephone number is 201-512-9771. We also have several other wholly owned subsidiaries world-wide handling primarily local support and promotion activities.

In September 1999, we conducted the initial public offering of our ordinary shares and our ordinary shares commenced trading on the Nasdaq.

In the past decade we made several acquisitions, including the acquisition of Seculert, a company engaged in cyber-attack detection and HTTP analytics solutions and developing user and entity behavioral analysis “UEBA” solutions, in 2017, and the acquisition of ShieldSquare, an India-based provider of bot mitigation and bot management space, in 2019.

Recent Major Business Developments

In March 2019, we completed our previously announced acquisition of ShieldSquare, a bot management solutions provider.

For recent major product activities, see Item 4.B “Information about the Company—Business Overview—Our Solutions—Recent Product Activities.”

For a discussion of our capital expenditures and divestitures, see Item 5.B “Operating and Financial Review and Prospects—Liquidity and Capital Resources.”

B. Business Overview

(a) Overview

We are a provider of cyber security and application delivery solutions for physical, cloud, and software defined data centers (SDDC). Our solutions portfolio secures the digital experience by providing infrastructure, application, and corporate IT protection and availability services to enterprises globally. Our solutions are deployed by, among others, enterprises, carriers and cloud service providers.

Our solutions are offered in two main categories:

- **Products** – We offer a range of physical, software-based products, product subscriptions and cloud-based subscriptions (or a combination of these) for enterprise and carrier data centers, as part of their IT and application infrastructure.
- **Customer Services (“Services”)** – We offer technical support, professional services, managed services and training and certification to our customers.

(b) Our Solutions

Our Products

- i. Our physical products and software-based products currently consist of the following key products:
 - o *DefensePro Attack Mitigation Device.* DefensePro® is a real-time network attack mitigation device that protects the application infrastructure against network and application downtime, application vulnerability exploitation, malware spread, network anomalies, information theft and other emerging network attacks.
 - o *AppWall Web Application Firewall.* AppWall® is our Web Application Firewall (WAF) that is designed to secure the delivery of mission-critical Web applications for corporate networks and in the cloud. AppWall is an ICSA Labs certified WAF that combines positive and negative security models designed to prevent data theft, manipulation of sensitive corporate and customer information and help achieve Payment Card Industry (PCI) compliance.
 - o *Radware Kubernetes WAF.* Radware Kubernetes WAF is a Web Application Firewall solution for CI/CD environments orchestrated by Kubernetes. Our Kubernetes WAF integrates with common software provisioning, testing and visibility tools in the CI/CD pipeline offering both IT security and DevOps personnel detailed insight down to the pod and container levels, and enables organizations to implement effective application and data security in on-premise and cloud-based implementations.
 - o *DefenseFlow Cyber Command and Control Application.* DefenseFlow® is a network-wide cyber command and control application that helps service providers to scale and automate network DDoS attacks response. DefenseFlow acts as a cyber-defense control-plane that collects and analyzes multiple sources of security telemetries and, based on this information, applies designated intelligent security actions. DefenseFlow enables service providers to handle large amounts of customers efficiently and with minimal errors.
 - o *Alteon® Application Delivery Controller/Load Balancer.* Alteon is our Application Delivery Controller (ADC). It provides advanced, end-to-end local and global load balancing capabilities for web, cloud and mobile-based applications. Designed to guarantee application service level agreement (SLA), Alteon ADC incorporates a set of next-generation services including SSL offloading, FastView Web Performance Optimization (WPO), HTTP/2.0 Gateway, Application Performance Monitoring (APM), AppWall Web Application Firewall (WAF), Authentication Gateway, bandwidth management, and SSL inspection security.

We offer Alteon ADC in three different packages (available on each of its models and throughput levels) to address different deployment scenarios and needs:

- *Alteon Deliver*. For applications that require high performance ADCs with advanced layer 4-7 ADC functionality.
 - *Alteon Perform*. For deployments requiring performance optimization, advanced application performance monitoring, global server load balancing, link load balancing and automated/optimized ADC service operation.
 - *Alteon Secure*. For applications that require our most advanced protection (with an embedded WAF module, authentication gateway) and SSL processing from perimeter security devices (with its embedded SSL inspection module).
- o *LinkProof NG Link Load Balancer*. LinkProof® NG is a next-generation multi-homing and enterprise gateway solution that allows service level availability and continuous connectivity of enterprise and cloud-based applications. It is an application-aware multi-homing and link load balancing module that delivers 24/7 continuous connectivity and service level assurance, improved performance and cost-effective scalability of bandwidth for corporate and cloud-based applications.
- ii. Our product subscriptions currently consist of the following key subscription-based products:
- o *Security Updates Subscription (SUS)*. Our SUS service consists of periodic updates, emergency updates, and custom filters (which are supported by our own security operations center for vulnerability and exploit detection); security risk assessment; and threat mitigation support services. The service provides immediate and ongoing security updates to protect customers against the latest threats. The service is available for DefensePro and AppWall products.
 - o *ERT Active Attackers Feed*. Our Emergency Response Team (ERT) Active Attackers Feed is available on top of our DefensePro base product offering. It provides customers with information pertaining to attack sources recently involved in DDoS attacks. Provided by Radware's ERT, this feed enhances Radware's Attack Mitigation Solution and extends the automated, real-time protection provided by Radware's DDoS mitigation platform, DefensePro, enabling preemptive blocking of attackers before they target the customer's network.
 - o *Alteon Global Elastic License (GEL)*. Alteon GEL is a new type of architecture and solution subscription that captures complete application lifecycle for large ADC deployments. GEL includes purchasing, provisioning and dynamic capacity management of ADC services for applications hosted in the cloud and on-premises. This new application delivery licensing model helps eliminate planning risks in the purchase and deployment of application delivery services across a business's private datacenters and cloud environments, while improving investment protection.

- o *APolute Vision*. APolute Vision is the network management tool and network monitoring tool for the Radware family of cyber security and application delivery solutions. It provides our customers immediate visibility to health, real-time status, performance and security of our products from one central, unified console (even if the customer has multiple data centers).
- o *MSSP Portal*. The Managed Security Service Provider (MSSP) Portal is a turnkey, multi-tenant DDoS detection and mitigation service portal. The Portal collects and aggregates security attack measurement and events (including traffic utilization, attack distribution and alerts) and displays them in real-time and historical reports. Our MSSP Portal enables service providers to resell cyber security mitigation services to their customers as a managed service.
- iii. Our cloud-based subscriptions offerings currently consist of the following key cloud-based subscriptions:
 - o *Cloud DDoS Protection Service*. Our Cloud DDoS Protection Services provide a full range of enterprise-grade DDoS protection services in the cloud. Based on our DDoS protection technology, it aims to offer organizations wide security coverage, accurate detection and short time to protect from today's dynamic and evolving DDoS attacks. We offer a multi-vector DDoS attack detection and mitigation service, handling network-layer attacks, server-based attacks and application-layer DDoS attacks.

Our Cloud DDoS Service is offered in multiple deployment options to meet an organization's specific needs:

- *Always-On Cloud DDoS Protection Service*. This service provides always-on protection where traffic is always routed through Radware's cloud security POPs (Points of Presence) with no on-premises device required for detection and mitigation. Recommended for organizations that have applications hosted in the cloud or those that are not able to deploy an on-premise attack mitigation device in their data center.
- *Always-On Hybrid Cloud DDoS Protection Service*. For companies that place a high premium on the user experience and wish to avoid even the slightest possible downtime as a result of DDoS attacks, the optimal solution is to deploy an always-on cloud DDoS protection service together with an on-premise hardware appliance. This helps ensure that services are protected against any type of attack, at all times.
- *On-Demand Cloud DDoS Protection Service*. This service protects against Internet pipe saturation and is activated when the attack threatens to saturate the organization's Internet pipe. It is recommended for organizations that are looking for the lowest cost solution and are less sensitive to real-time detection of DDoS attacks.

- *On-Demand Cloud Hybrid DDoS Protection Service.* This DDoS mitigation solution is recommended for organizations who can deploy our on-premise attack mitigation device DefensePro in their data center. The On-premise DefensePro device detects and mitigates all type on DDoS attacks in real-time. Volumetric DDoS attacks are mitigated in the cloud.
- *Cloud WAF Service.* Our Cloud WAF Service provides enterprise-grade, continuously adaptive web security protection and is based on our ICSA Labs certified web application firewall. Cloud WAF includes full coverage of OWASP Top-10 threats, advanced attacks and zero-day attack protection. It automatically adapts the protections to evolving threats and protected assets. Our Content Delivery Network (CDN) Service is also available as an add-on to our Cloud WAF Service customers.
- *Bot Manager.* Our Bot Manager is designed to protect web applications, mobile applications and APIs from emerging generations of automated threats (bots) targeting applications and systems, including account takeover, denial of inventory, DDoS, card fraud, web scraping and other OWASP automated threats, and also helps organizations reduce expenses and increase revenue. It is available as an add on to Cloud WAF or as a standalone cloud service.
- *Cloud Workload Protection (CWP) Service.* Our CWP service detects excessive permissions to our customers' workloads, hardens security configurations before data exposure occurs, and detects data theft using advanced machine-learning algorithms. It is an agentless, cloud-native solution for comprehensive protection of AWS assets, designed to protect both the overall security posture of cloud environments, as well as individual cloud workloads against cloud-native attack vectors.

Customer Services

We offer technical support, professional services, managed services and training and certification to our customers. Our key customer services currently consist of the following:

- *Certainty Support Program.* We offer technical support for all our products through our Certainty Support Program. Certainty support levels include:
 - *Basic.* This level provides business day access including weekends from 9 a.m. to 5 p.m. (local time) to technical support center services and technical documentation, either via the Web, e-mail or direct phone support during working days. New software releases are available for units covered under the certainty support program.
 - *Standard.* This level increases access to the technical support center 24/7/365 and adds next business day replacement of failed hardware and waives customer shipping costs.
 - *Advanced.* This level increases certainty support level standard to four hours' replacement of failed hardware advanced replacement.

- *Professional Services.* Our professional services group is staffed by a global team of experts possessing extensive knowledge and experience in security and application delivery both in data centers and the cloud. The group offers a full range of services to design, implement, automate and optimize our customer solutions. We offer the following key professional services:
 - *Design and Planning.* This service plans and designs applications for future growth with Radware engineers. The service starts with a review of business goals, network optimization assessment and overview of application architecture and security requirements to help create a comprehensive deployment plan that is tailored to organizational IT requirements.
 - *Application and Security Optimization Services.* This service analyzes and reviews the current implementation and design and provide recommendations to help optimize the system and achieve business goals.
 - *Resident Engineer.* Our Resident Engineer service is a proactive on-site engineer who performs operations, design and automation activities. From initial deployment to ongoing management and day-to-day operation, our resident engineer decreases the time demands on our customers' staff, allowing them to focus on their core business.
 - *Technical Account Manager (TAM).* Our technical account manager (TAM) is a proactive consultant that implements best practices, provides guidance and optimizes networking and application resources.
- *ERT Managed Service.* Our ERT (Emergency Response Team) offers a fully managed network and application security service. The service is provided 24/7 by security experts and includes:
 - *Attack mitigation.* Radware's ERT maintains a 10-minute SLA to provide organizations under attack with immediate access to security experts.
 - *Fully Managed Service.* Covering on-premises device installation, tunings, management, upgrading, consulting and immediate attack mitigation for application and network security by experienced professionals.
 - *Online Portal and Reporting.* The service portal provides visibility to the customer attack status and progress of attack mitigation in real-time.
 - *Security Update Service.* Continuous protection from the most recent known attack tools and vulnerabilities — ongoing signature files, rapid response to high-impact security events and development and distribution of custom filters.
- *ERT Under Attack Service.* The ERT Under Attack Service provides 24/7 access to a security expert within 10 minutes – one of the industry's fastest SLA. The ERT engineer will take the lead, fight attacks off and provide post-mortem analysis of security events. The ERT Under Attack Service lets organizations know there is someone to rely on, guaranteeing support throughout the attack lifecycle from the moment it begins. The ERT experts are available 24/7/365 and assist large enterprises worldwide with complex, multi-vector attacks against their networks, data centers and application services.

Recent Product Activities

During 2019, our key activities regarding our solution offerings consisted of the following:

- We completed the acquisition of ShieldSquare, a bot management solutions provider. ShieldSquare's cloud-based anti-bot solutions help online businesses differentiate between human and non-human traffic on websites, mobile applications and APIs, preventing data harvesting and scraping attacks, account takeover attacks, denial of inventory, application DDoS and brute force attacks. The solution is now called Radware Bot Manager.
- We launched Cloud Workload Protection Service, a new service that secures customers' cloud-based assets from data breaches, account compromise and resource exploitation. As organizations increasingly migrate their computing workloads to publicly hosted clouds, the new CWP service helps IT and security managers to prevent cloud misconfigurations, identify cyberattacks as they are happening and respond in time.
- We released a new Live Threat Map, available on our web site. The Live Threat Map presents information, nearly in real-time, about cyberattacks as they occur, based on our global threat deception network and cloud systems event information. The systems transmit a variety of anonymized and sampled network and application attacks to our Threat Research Center and are shared with the community via this threat map.
- We released Radware Kubernetes WAF, a comprehensive and highly scalable web application security solution for Kubernetes-based environments. Kubernetes WAF enables DevOps organizations to develop and deliver applications securely without compromising agility.
- We released Alteon Cloud Control versions 1.0 and 1.1, an ADC controller that provides tools for fast and agile delivery of new applications across various environments, such as on-premise datacenters, private clouds and various public cloud providers. Alteon Cloud Control provides REST APIs to enable smooth integration with DevOps tools and streamline the ADC service lifecycle into DevOps processes, regardless of where the ADC service is required (i.e., private cloud, AWS, Azure, and more).
- We have continued our investment in the OEM agreement with Cisco Systems, Inc. ("Cisco") for our application delivery solutions, by adding our Alteon ADC portfolio for server load balancing, SSL offloading and SSL Inspection use-cases into Cisco's global price list, which means that Cisco customers can purchase our Alteon products and subscriptions directly from Cisco.
- We have continued our investment in the OEM agreement with Check Point Software Technologies Ltd. ("Check Point") by upgrading Check Point DDoS Protector version to DefensePro version 8; and adding Cloud WAF, Cloud DDoS Protecting services into Check Point's offering; adding Alteon models into Check Point's offering to offer on-premises WAF, SSL offloading and SSL Inspection capabilities – all available for Check Point customers directly from Check Point's price list.

(c) Our Competitive Strengths and Growth Strategies

Our Competitive Strengths

Our solutions incorporate proprietary and innovative cyber security and application delivery technologies that help our customers to secure the digital experience for users of business-critical applications. We believe our competitive strengths are based on the following key elements:

- *Innovation, Proprietary Technologies and Thought Leadership.* We are offering innovative solutions in our domain. We were one of the first companies to offer hybrid attack mitigation solutions; behavioral DDoS attacks detection with automated real-time signature creation for attack mitigation; device fingerprinting technology implementation for advanced Bot-based attacks detection; auto-policy generation for our WAF solution; and protection against encrypted attacks without opening the sessions for DDOS protection. We believe this has given us significant expertise, know-how and leadership in the market for cyber-attack mitigation solutions and we take part in many technology communities, standard organizations and open source projects. At the same time, we continue to invest in research and development of cyber security and application delivery technologies in order to introduce new and innovative solutions, which are supported and protected by multiple patents and proprietary rights.
- *Industry Awards.* We gained multiple industry awards during 2019, including the following:
 - IDC MarketScape for DDoS Prevention Solution – Leader, March 2019;
 - Frost & Sullivan Innovation Leadership Award for Global 5G Security – Visionary, December 2019;
 - Frost & Sullivan India 2019 WAF & Anti DDoS award - vendor of the year, July 2019; and
 - InfoTech CX Diamond Champion for application performance management, May 2019.

- *Global Presence.* We have more than 12,500 customers worldwide and have global sales, support and marketing capabilities. For example, we offer global cloud and service infrastructure based on multiple service centers dispersed globally through service data centers in Europe, Asia, North America, South America, Africa and Australia. We currently have a local presence in nearly 30 local offices, subsidiaries or branches globally, across Asia-Pacific, Europe and the Americas. As such, our Technical Assistance Centers (TAC) are located to provide 24/7 support service to our customers. Additionally, we normally maintain between 80-100 service centers around the world that aim to provide four hour and next business day advance replacement service levels and can also be utilized as backup inventory if needed. We offer services from a global network of Cloud Security Service centers consisting of 11 large scrubbing centers (SC) and a global network of 24 Points-of-Presence (POP) nodes focused on application attacks for our Cloud WAF service. The global network distribution includes:
 - North America: four SCs (Las Vegas, Ashburn, San Jose and Dallas) and eight POPs (Ashburn, Chicago, San Jose, Toronto, Azure East and Azure north central). Note that in some locations we run more than one POP;
 - Latin America: one POP (Sao Paulo, Brazil);
 - EMEA: three SCs (London, Frankfurt, Johannesburg) and seven POPs (Frankfurt, London, Azure Paris, Tel Aviv, Azure EU north, AZ EU west, Johannesburg); and
 - Asia and Australia: four SCs (Tokyo, Hong Kong, Seoul, and Sydney) and six POPs (Chennai, Sydney, Singapore, Tokyo and Hong Kong). Note that we run in some locations more than one POP.
- *Strategic Relationships.* We have global technology partner alliances with leading vendors such as Check Point, Cisco, Hewlett Packard Enterprise Company (“HPE”), International Business Machines Corporation (“IBM”), Microsoft Corporation (“Microsoft”), Nokia Corporation (“Nokia”) and VMware, Inc. We believe these relationships enable us to increase our market reach as well as offer prospects with higher solutions value.
- *Customers.* Our customers include top-tier banks, stock exchanges, carriers, cloud service providers, internet service providers, retailers and higher education institutions. We believe this portfolio of high-profile customers demonstrates the advantage and recognition of our solution offerings.

Our Growth Strategy

Our growth strategy is based on several key elements:

- *Focus on data center solutions.* We focus on developing and selling holistic cyber security and application delivery solutions for physical, virtual and cloud data centers and cloud applications.
- *Continue investing in cloud and cyber security.* We aim to offer superior and innovative cyber security solutions and cloud-based solutions and expand our portfolio in these two dimensions. We also invest in go-to-market efforts related to cloud security services and public cloud solutions.

- *Increase our market footprint.* We believe that a significant market opportunity exists to sell our solutions with the complementary products and services provided by other organizations with whom we wish to collaborate. To that end, we have already established strategic relationships with various third parties, including leading global-class partners, such as Cisco, Check Point and Nokia and other global system integrators, who provide critical access to certain large customers allowing us to sell our solutions. We intend to further increase our market footprint through OEMs, global system integrators and collaboration with leading cloud and content delivery network (CDN) providers. In particular, during 2019, we hired additional personnel to support our OEMs and global system integrator initiatives and expect to continue hiring in 2020.
- *Pursue acquisitions and investments.* In order to achieve our business objectives, we may evaluate and pursue the acquisition of, or significant investments in, other complementary companies, technologies, products and/or businesses that enable us to enhance and increase our technological capabilities and expand our product and service offerings.

(d) Sales and Marketing

Sales. We market and sell our products primarily through indirect sales channels that consist of distributors and resellers located in the Americas (including the U.S., Canada and Central and Latin America), Europe, Africa, Asia and Australia. In addition, we generate direct sales to select customers mainly in the United States. Our direct sales channels are supported by our sales and marketing managers who are also responsible for recruiting potential distributors and resellers and for initiating and managing marketing projects in their assigned regions. The sales managers are supported by our internal sales support staff that help generate and qualify leads for the sales managers. As of December 31, 2019, we had a total of 223 sales and marketing personnel. We have subsidiaries and representative offices and branches in several countries (see Item 4.C “Organizational Structure”), to promote and market our products and provide customer support in their respective regions.

Marketing. Our marketing strategy is to enhance brand recognition and maintain our reputation as a provider of technologically advanced, quality cyber security and application delivery solutions to help drive demand for our products. We seek to build upon our marketing and branding efforts globally to achieve greater worldwide sales. Our marketing initiatives are principally directed at developing brand awareness, generating qualified leads and providing sales tools to our distributors/resellers to promote sales. We participate in major trade shows, regionally based events/seminars and offer support to our distributors and resellers who participate in these events. We also participate in our partners’ events, such as Cisco Live and Checkpoint Experience, to promote our solutions within their audiences. We also invest in online and search engine advertising campaigns, global public relations and regionalized field marketing campaigns. In addition to our independent marketing efforts, we invest in joint marketing efforts with our distributors, OEMs, VARs, system integrators and other companies that have formed strategic alliances with us.

We have entered into co-marketing and reseller arrangements with companies in other complementary sectors in order to broaden our customer base by selling joint solutions comprised of such complementary products. As an example, application vendors may sell our Alteon® to their customers in conjunction with their application in order to load-balance and optimize the application availability and performance. We established such co-marketing and reseller arrangements with, among others, Check Point, Cisco, HPE, IBM, Microsoft, NEC Corporation, Ericsson Inc., Nokia and Verint Americas, Inc. However, there is no assurance that the above co-marketing and strategic alliance agreements would result in a substantial increase in our revenues.

Strategic Alliances and OEM Agreements. In the past several years, we have entered into strategic alliances and OEM agreements with other software and hardware vendors, as well as mutual channel information sharing arrangements, where products can either be branded with our name or the vendor's name. We believe that these companies have significant customer relationships and offer products that complement our products. For example, we entered into reseller and OEM agreements for the distribution of our solutions with Check Point and Cisco, with whom we expanded our relationship under these agreements in 2018 and 2019 (respectively) as described above under "Recent Product Activities". We have also entered into OEM agreements with several software vendors, pursuant to which we incorporate such vendors' software into our products to create additional value to our customers.

(e) Customers and End-Users

With the exception of our limited direct sales to selected customers, we sell our products through distributors or resellers who then sell our products to end users.

We have a globally diversified end-user base, consisting of corporate enterprises, including banks, insurance companies, manufacturing, retail companies, media companies, government agencies and utilities, and service providers, such as telecommunication carriers, internet service providers, cloud service providers and application service providers. Customers in these different vertical markets deploy Radware products for availability, performance and security of their applications.

In 2019, approximately 42% of our revenues were in the Americas (principally in the United States), 30% were in Europe, Middle East and Africa ("EMEA") and 28% in Asia-Pacific, compared to 44%, 32% and 24%, respectively, in 2018, and 46%, 27% and 27%, respectively, in 2017. Other than the United States, which accounted for 34%, of our total revenues in 2019, no other single country accounted for more than 10% of our revenues for 2019.

In 2019, approximately 53% of our revenues derived from product sales and 47% derived from service sales, compared to 50% and 50% respectively in 2018 and 56% and 44%, respectively in 2017. This reflects an increase in our product subscriptions as well as in our hardware-based products.

In 2019, approximately 68% of our revenues derived from the enterprise market and 32% derived from the carrier market, compared to approximately 69% and 31%, respectively, in 2018 and 66% and 34%, respectively, in 2017.

As of December 31, 2019, 2018 and 2017, no single customer accounted for more than 10% of our revenues.

For additional details regarding the breakdown of our revenues by geographical distribution and by activity, see “Item 5.A – Operating and Financial Review and Prospects – Operating Results”.

(f) Seasonality

Our quarterly operating results have been, and are likely to continue to be, influenced by seasonal fluctuations in our sales and by seasonal purchasing patterns of some of our customers. Some of our customers plan their annual purchasing budget at the beginning of each year which causes operating results in our first quarter of the year to be typically lower than other quarters. In addition, our operating results in the fourth quarter tend to be higher than other quarters as some of our customers tend to make greater capital and operational expenditures as well as expenditures relating to service renewals towards the end of their own fiscal years, thereby increasing orders for our products, support and subscription services in the fourth quarter.

(g) Customer Support Services

Our technical support team, which consisted of 277 employees worldwide as of December 31, 2019, supports our sales force during the sales process, assists our customers, resellers and distributors with the initial installation, set-up and ongoing support of our products, and trains them on how to best use our solutions. The technical support team also assists with service onboarding processes and provides training to end users of our services. In addition, our technical team trains and certifies our distributors and resellers to provide limited technical support in each of the geographical areas in which our products are sold and is directly responsible for remote support. Our Certainty Support Program provides offerings which allow customers to automatically obtain new software versions of their products and obtain optimized performance by purchasing any of the following optional offerings: extended warranty, software updates, 24x7 help-desk (directly to our customers and through our distributors), on-site support and unit replacement. Some of our on-site services are provided by third party contractors.

(h) Research and Development

We invest in research and development to expand the features of our existing solutions, develop new solutions and features and improve our existing technologies and features. We believe that our future success will depend upon our ability to maintain our technological expertise, enhance our existing solutions and introduce, on a timely basis, new commercially viable solutions that will continue to address the needs of our customers. Accordingly, we intend to continue devoting a significant portion of our personnel and financial resources to research and development. In order to identify market needs and to define appropriate product specifications, as part of the product development process we seek to maintain close relationships with current and potential distributors, customers and vendors in related industry sectors.

As of December 31, 2019, our research and development staff consisted of 358 employees and 57 subcontractors. Research and development activities take place mainly at our facilities in Israel; Bangalore, India; Vancouver, Canada; and North Carolina, United States as well as by our sub-contractor in Bangalore, India. We employ established procedures for the required management, development and quality assurance of our new product developments. Our research and development organization is divided into Security, Application Delivery, Management and Analytics and Chief Technology Officer groups. Within those groups the organization is divided according to our existing product solutions. Each product group is headed by a group leader and includes team leaders and engineers. Each group has a dedicated quality assurance team. In addition, we have an infrastructure department responsible for the development of our platforms which are the basis for all products, serving all product groups, which consist of a senior group leader, group leaders, team leaders, and engineers. The heads of all research and development divisions report to either the Chief Operating Officer or the Chief Technology Officer.

See also below under "Government Regulations – Israeli Innovation Authority."

(i) Manufacturing and Suppliers

Our quality assurance testing, final integration, packaging and shipping operations as well as part of our final assembly activities are primarily performed at our facility in Jerusalem, Israel. All of our products are Underwriters Laboratories (UL) and ISO 9001:2008 compliant and some of them have also achieved significant industry certifications, such as DefensePro (for the Common Criteria Evaluation & Validation Scheme (CCEVS) EAL4+ through the National Security Agency (NSA) program) and AppWall (ICSA certification for Web Application Firewall).

We rely to a large extent on third-party manufacturing vendors to provide our finished products. In this respect, these vendors primarily provide us with manufacturing assembly services in order to deliver the finished goods while we perform the final integration of the products. All components and subassemblies included in our products are supplied to the manufacturing vendors by several suppliers and subcontractors. Each of the manufacturing vendors monitors each stage of the components production process, including the selection of components and subassembly suppliers. Thereafter, each of the manufacturing vendors makes the final assembly in their own facility. Our primary manufacturing vendors are ISO 9001 certified, indicating that each of their manufacturing processes adhere to established quality standards.

In 2019, we primarily relied on three ODMs to manufacture and to supply our hardware platforms, whereby approximately 61% of our direct product costs were from one of these vendors and 20% were from the other vendors. Furthermore, in 2019, we relied on a single managed security service provider to provide us with scrubbing center services required for the provision of our cloud DDoS protection service (see Item 7.B "Major Shareholders and Related Party Transactions—Related Party Transactions—Managed Security Service Provider Agreement.").

We conduct a business continuity plan (BCP) with all our vendors to ensure an immediate recovery in case of crisis that might jeopardize the supply of our products. However, if we are unable to continue to acquire those platforms or components from these platform manufacturers and vendors on acceptable terms, or should any of these suppliers cease to supply us with such platforms or components for any reason, we may not be able to identify and integrate an alternative source of supply in a timely fashion or at the same costs. Any transition to one or more alternate suppliers would likely result in delays, operational problems and increased costs, and may limit our ability to deliver our products to our customers on time for such transition period, although we believe we have levels of inventory that will assist us to transition to alternate suppliers smoothly.

(j) Proprietary Rights

We rely on patent, trademark and trade secret laws, as well as confidentiality agreements and other contractual arrangements with our employees, distributors and others to protect our technology. We have a policy that requires our employees to execute employment agreements, including confidentiality and non-competition provisions.

We have registered trademarks for, among others, Radware®; Radware Logo:



®; OnDemand Switch®; Alteon®; APSolute®; LinkProof®; DefensePro®; CID®; SIPDirector®; AppDirector®; AppXcel®; AppXML®; AppWall®; APSolute Insite®; Triangulation®; SmartNat®; StringMatch Engine®; Web Server Director®; Fireproof®; SecureFlow®; APSolute Vision®; vDirect®; Alteon VA®; AppShape®; FastView®; DefenseFlow®; TeraVIP®; Virtual Director®; DefensePipe®; RADWARE ADC Fabric®; CyberStack®; Virtual DefensePro®; VADI® (Virtual Application Delivery Infrastructure) and SHIELDSQUARE® and we have non registered trademarks for, among others, ADC-VX™ and Inflight™. We own registered U.S. copyrights in all of our primary software product lines.

We have registered patents in the United States and Canada for, among others, our triangle redirection method used for the global load balancing in our AppDirector product; our mechanism for efficient management and optimization of multiple links used in our LinkProof product; our method for load balancing by global proximity used in our AppDirector product; our method for controlling traffic on links between autonomous Border Gateway Protocol (BGP) systems; the stateful distribution of copied SSL traffic; the transparent inspection of encrypted client traffic; the activation of multiple virtual services on a switching platform; the behavioral analysis and detection of zero-day and DoS network attack patterns in our DefensePro product; our hypertext transfer protocol (HTTP) DoS attack mitigation behavioral mechanisms in our DefensePro; a geographically based traffic distribution; a generic proximity based site selection for global load balancing; an internal hardware connectivity plane architecture; a specific proximity based site selection for global load balancing of HTTP transactions implemented in our Alteon products; and additional patents in the software-defined networking (SDN) field, around a new concept of cyber control and automation for our DefenseFlow product.

We have pending patent applications and provisional patents in connection with several methods and features used in our products or that we plan to implement in the future. These applications may not result in any patent being issued, and, even if issued, the patents may not provide adequate protection against competitive technology and may not be held valid and enforceable if challenged. In addition, other parties may assert rights as inventors of the underlying technologies, which could limit our ability to fully exploit the rights conferred by any patent that we receive. See “Item 8 “Financial Information–Legal Proceedings” for a discussion of intellectual property litigation. Our competitors may be able to design around a patent we receive, and other parties may obtain patents that we would need to license or circumvent in order to exploit our patents.

The protective steps we have taken may be inadequate to deter misappropriation of our technology and information. We may be unable to detect the unauthorized use of, or take appropriate steps to enforce, our intellectual property rights. Some of the countries in which we sell our products do not protect intellectual property to the same extent as the United States and Israel. In addition, our competitors may independently develop technologies that are substantially equivalent or superior to our technology. Any licenses for intellectual property that might be required for our services or products may not be available on reasonable terms.

(k) Competition

The cyber security and application delivery market is highly competitive, and we expect competition to intensify in the future. We may lose market share if we are unable to compete effectively with our competitors, which include equipment manufacturers and service providers.

Our principal competitors are:

- o Equipment manufacturers (DDoS Protection): A10 Networks, Inc., or A10, and Netscout Systems, Inc. (through Arbor DDoS Protection).
- o Equipment manufacturers (WAF): F5 Networks, Inc., or F5, and Imperva, Inc., or Imperva.
- o Equipment manufacturers (ADC): A10; Citrix Systems, Inc. and F5.
- o Cloud service providers (DDoS protection and Cloud WAF): Akamai Technologies, Inc. (Prolexic and Kona); Imperva (Imperva DDoS Protection and Imperva WAF) and Neustar, Inc. (Neustar UltraDDoS Protect Mitigation Service and Neustar UltraWAF).
- o Cloud service providers (ADC): Amazon.Com, Inc. (through AWS Elastic Load Balancing service and AWS WAF service) and Microsoft Azure.

We expect to continue to face additional competition as new participants enter the market or extend their portfolios into related technologies. Larger companies with substantial resources, brand recognition and sales channels may also form alliances with or acquire competing providers of application delivery or application and network security solutions and emerge as significant competitors.

Competition may result in lower prices or reduced demand for our products and a corresponding reduction in our ability to recover our costs as well as increased costs associated with sales and marketing expenses to maintain or increase market share which may impair our ability to increase profitability. Furthermore, the dynamic market environment, which is demonstrated by the above acquisitions, poses a challenge in predicting market trends and expected growth. We believe that our success will depend primarily on our ability to provide more technologically advanced and cost-effective application delivery and application and network security solutions, and more responsive customer service and support, than our competitors. However, we cannot assure you that the products we offer will compete successfully with those of our competitors. Furthermore, should competition intensify, we may have to reduce the prices of our products, which will negatively impact our business and financial condition. See also above under “Business Overview—Our Competitive Strengths and Strategies.”

(l) Government Regulations

Data Privacy and Data Protection Laws

Our activities in the cyber security market require that we comply with laws and regulations in the area of data privacy and data protection governing the collection, use, retention, sharing and security of personal data. For example, the GDPR, that came into effect in May 2018, includes operational requirements for companies that receive or process personal data of residents of the European Union and non-compliance will result in significant penalties. Many other countries in which we operate have their own data protection and data security laws that we need to comply with in collecting, utilizing, or otherwise processing personal data from our customers and/or visitors to their websites and others. We believe we are currently in compliance with such data privacy and data protection regulations as they apply in general to our business activities.

Environmental Regulations

Our activities in Europe require that we comply with European Union Directives with respect to product quality assurance standards and environmental standards. The “RoHs” and RoHs II Directives require products sold in Europe to meet certain design specifications, which exclude the use of hazardous substances. Directive 2002/96/EC on Waste Electrical and Electronic Equipment (known as the “WEEE” Directive) requires producers of electrical and electronic equipment to register in different European countries and to provide collection and recycling facilities for used products. We believe we are currently in compliance with the RoHs and WEEE regulations and ISO 14001 standards (regarding Environmental Management Systems).

Israeli Innovation Authority

From time to time, eligible participants may receive grants under programs of the IIA. Some of the grants received are repaid through a mandatory royalty based on revenues from the sale of products (and ancillary services) incorporating know-how developed, in whole or in part, with the grants. This governmental support is conditioned upon the participant’s ability to comply with certain applicable requirements and conditions specified in the IIA’s programs and the R&D Law.

Under the R&D Law, research and development programs that meet specified criteria and are approved by the Research Committee of the IIA are eligible for grants usually of up to 50% of certain approved expenditures of such programs, as determined by said committee.

The R&D Law provides that know-how developed under an approved research and development program or rights associated with such know-how (1) may not be transferred to third parties in Israel without the approval of the IIA (such approval is not required for the sale or export of any products resulting from such research or development) and (2) may not be transferred to any third parties outside Israel, except in certain special circumstances and subject to the IIA's prior approval, which approval, if any, may generally be obtained, subject to payment of a transfer fee pursuant to which the grant recipient pays to the IIA a portion of the sale price paid in consideration for such IIA-funded know-how; or a portion of the consideration paid in respect of licensing the IIA-funded know-how, as the case may be (according to certain formulas, which may result in repayment of up to 600% of the grant amounts plus interest). Under certain circumstances, such as in the event that the grant recipient receives know-how from a third party in exchange for its IIA-funded know-how, such transfer fee would not apply.

The R&D Law imposes reporting requirements with respect to certain changes in the ownership of a grant recipient. The law requires the grant recipient and its controlling shareholders and foreign interested parties to notify the IIA of any change in control of the recipient or a change in the holdings of the means of control of the recipient and requires a non-Israel interested party to undertake to the IIA to comply with the R&D Law. In addition, the rules of the IIA may require additional information or representations in respect of certain of such events. For this purpose, "control" is defined as the ability to direct the activities of a company other than any ability arising solely from serving as an officer or director of the company. A person is presumed to have control if such person holds 50% or more of the means of control of a company. "Means of control" refers to voting rights or the right to appoint directors or the chief executive officer. An "interested party" of a company includes a holder of 5% or more of its outstanding share capital or voting rights, its chief executive officer and directors, someone who has the right to appoint its chief executive officer or at least one director, and a company with respect to which any of the foregoing interested parties owns 25% or more of the outstanding share capital or voting rights or has the right to appoint 25% or more of the directors. Accordingly, any non-Israeli who acquires 5% or more of our ordinary shares will be required to notify us that it has become an interested party and needs to sign an undertaking to comply with the R&D Law.

The Israeli authorities have indicated in the past that the government may further reduce or abolish the IIA grants in the future. Even if these grants are maintained, we cannot presently predict what would be the amounts of future grants, if any, that we might receive.

During 2012-2014 we received grants from the IIA to fund certain other research and development projects as part of our participation in the MAGNET Consortium Program, which is a program that sponsors innovative generic industry-oriented technologies to strengthen the country's technological expertise and enhance competitiveness. These grants do not bear any royalty repayment obligations. In 2012, 2013 and 2014 we received \$0.3 million, \$0.4 million, and \$0.3 million respectively, in IIA grants under such MAGNET programs.

In 2019 and 2018, we were qualified to participate in three projects funded by the IIA to develop generic technology relevant to the development of our products. We were eligible to receive grants constituting between 30% and 50% of certain research and development expenses relating to these projects. The grants under these projects are not required to be repaid by way of royalties. Grants for the years ended December 31, 2019 and 2018 were \$0.9 million and \$0.7 million, respectively.

C. Organizational Structure

We have a wholly owned subsidiary in the United States, Radware Inc., which conducts the sales and marketing of our products in the United States. We also have subsidiaries in other countries, most of which typically conduct sales and marketing of our products in their respective locations. We have also established representative offices in Taiwan. Our subsidiaries include:

<u>Name of Subsidiary</u>	<u>Place of Incorporation</u>
Radware Inc.	New Jersey, United States
Radware UK Limited	United Kingdom
Radware France	France
Radware Srl	Italy
Radware GmbH	Germany
Nihon Radware KK	Japan
Radware Australia Pty. Ltd.	Australia
Radware Singapore Pte. Ltd.	Singapore
Radware Korea Ltd.	Korea
Radware Canada Inc.	Canada
Radware India Pvt. Ltd.	India
Kaalbi Technologies Limited Ltd.	India
Radware China Ltd. 睿伟网络科技(上海)有限公司	China
Radware (Hong Kong) Limited	Hong Kong
Radyoos Media Ltd.*	Israel
Radware Canada Holdings Inc.	Canada
Radware Iberia, S.L.U.	Spain
Edgehawk Security Ltd.**	Israel

* We own 91% of this subsidiary, which ceased its activities during 2017. All other listed subsidiaries are wholly owned.

** Established in January 2020.

Yehuda Zisapel, one of our co-founders and shareholders, is the Chairman of our Board of Directors and the father of Roy Zisapel, our President, Chief Executive Officer and director. Individually or together with his brother, Zohar Zisapel, and with Nava Zisapel, Yehuda Zisapel is also a founder, director and/or principal shareholder of several other companies which, together with our Company and our subsidiaries listed above, are known as the RAD-Bynet Group. These companies include, among others:

AB-NET Communications Ltd.	Ceragon Networks Ltd.	RADWIN Ltd.
Binat Business Ltd.	Internet Binat Ltd.	SecurityDam Ltd.
BYNET Data Communications Ltd.	Nuance Hearing Ltd.	Silicom Ltd.
CloudRide Ltd.	Packetlight Networks Ltd.	
BYNET Electronics Ltd.	RAD-Bynet Properties and Services (1981) Ltd.	
BYNET SEMECH (outsourcing) Ltd.	Radbit Computers, Inc.	
Bynet Software Systems Ltd.	RADCOM Ltd.	
Bynet System Applications Ltd.	RAD Data Communications Ltd.	
	Radiflow Ltd.	

The RAD-Bynet Group also includes several other holdings, real estate companies, biotech and pharmaceutical companies. The above list does not constitute a complete list of the holdings of Messrs. Yehuda and Zohar Zisapel.

Members of the RAD-Bynet Group are actively engaged in designing, manufacturing, marketing and supporting data communications products, none of which currently compete with our products. Some of the products of members of the RAD-Bynet Group are complementary to, and may be used in connection with, our products. See also Item 7.B “Major Shareholders and Related Party Transactions—Related Party Transactions.”

D. Property, Plants and Equipment

General. We operate from leased premises mainly in Tel Aviv and Jerusalem in Israel and New Jersey in the United States. We also lease premises in several locations in Europe and Asia-Pacific for the activities of our subsidiaries, representative offices and branches. Our aggregate annual rent expenses under these leases were approximately \$5.6 million in 2019.

We believe that the following offices and facilities are suitable and adequate for our operations as currently conducted and as currently foreseen. In the event that additional or substitute offices and facilities are required, we believe that we could obtain such offices and facilities at commercially reasonable rates.

Israel. Our headquarters and principal administrative, finance, research and development and marketing operations are located in approximately 108,000 square feet of leased office space in Tel Aviv, Israel, in two buildings: one building, consisting of approximately 40,000 square feet, plus storage and parking space, with a lease expiring in June 2020. We are currently negotiating an extension of this lease. These facilities are leased from affiliated companies owned by Yehuda, Nava and Zohar Zisapel; and the second building, consisting of approximately 60,000 square feet, plus parking spaces, with a lease expiring in June 2020. These second facilities are leased from, among others, affiliated companies owned by Yehuda and Nava Zisapel and by Zohar Zisapel. In February 2020, we amended the lease agreement for the second building, whereby we agreed to lease an additional space of 8,000 square feet and extended the term of the lease for the whole 68,000 square feet to June 2030. For more information, see Item 7.B “Major Shareholders and Related Parties Transactions – Related Party Transactions.”

In addition, we lease approximately 3,600 square feet of space in Jerusalem, Israel, for development facilities from an affiliated company owned by Yehuda and Nava Zisapel. The lease expires in July 2020 and will be automatically extended by an additional five years. We also sublease approximately 15,000 square feet for manufacturing facilities in Jerusalem, Israel, from an affiliated company owned by Yehuda, Nava and Zohar Zisapel. The lease expires in July 2022. For more information, see Item 7.B “Major Shareholders and Related Parties Transactions – Related Party Transactions.”

Other locations. In the United States, we lease approximately 16,900 square feet of property in Mahwah, New Jersey, consisting of approximately 12,700 square feet of office space and 4,200 square feet of warehouse space, from a company controlled by Yehuda, Nava and Zohar Zisapel. The lease expires in December 2026. For more information, see Item 7.B “Major Shareholders and Related Party Transactions - Related Party Transactions.”

We lease approximately 3,850 square feet of property for our research and development facilities in North Carolina, the lease for which will expire in March 2026. In addition, we lease approximately 5,700 square feet of property in Sunnyvale, California, the lease for which will expire in February 2022.

We also lease facilities for the operation of our subsidiaries and representative offices in several locations in Europe and Asia-Pacific, all from unrelated third parties.

ITEM 4A. UNRESOLVED STAFF COMMENTS

None.

ITEM 5. OPERATING AND FINANCIAL REVIEW AND PROSPECTS

Our discussion and analysis of our financial condition and results of operation are based upon our consolidated financial statements, which have been prepared in accordance with generally accepted accounting principles in the United States. Our operating and financial review and prospects should be read in conjunction with our financial statements, accompanying notes thereto and other financial information appearing elsewhere in this annual report.

A. Operating Results

Overview

We are a provider of cyber security and application delivery solutions for physical, cloud, and software defined data centers (SDDC). Our solutions portfolio secures the digital experience by providing infrastructure, application, and corporate IT protection and availability services to enterprises globally. Our solutions are deployed by, among others, enterprises, carriers and cloud service providers.

We began sales in 1997, and currently have 30 local offices, subsidiaries or branches globally across Asia-Pacific, Europe and the Americas.

We sell through sales channels such as resellers and distributors whereas most of our direct sales are to strategic customers.

Most of our revenues are generated in dollars or are dollar-linked, and the majority of our expenses are incurred in dollars. As such, the dollar is our functional currency. Our consolidated financial statements are prepared in dollars and in accordance with U.S. GAAP.

We recognize revenues in accordance with the Financial Accounting Standards Board (“FASB”) Accounting Standards Update (“ASU”) No. 2014-09, or ASC 606, “Revenue from Contracts with Customers (Topic 606)” (“ASC 606”) when (or as) it satisfies performance obligations by transferring promised products or services to our customers in an amount that reflects the consideration we expect to receive. We determine revenue recognition through the following steps: (1) identify the contract with a customer, (2) identify the performance obligations in the contract, (3) determine the transaction price, (4) allocate the transaction price to the performance obligations in the contract, and (5) recognize revenue when (or as) a performance obligation is satisfied.

Our revenues are derived from sales of our solutions:

- We recognize physical product revenues when control of the product is transferred to the customer (i.e., when our performance obligation is satisfied), which typically occurs at shipment and we recognize revenues from product subscriptions, as part of the product revenues, ratably over the subscription period.
- Revenues from post-contract customer support (PCS), which represents mainly, help-desk support and unit repairs or replacements, professional services and ERT services, are recognized ratably over the contract or subscription period, which is typically between one year and three years.

We operate in one reportable market segment, and our revenues are attributed to geographic areas based on the location of the end-users.

In the years ended December 31, 2019, 2018 and 2017, revenues derived from sales of the Company’s products and product subscriptions constituted approximately 53%, 50% and 56%, respectively, of our total revenues, with the remaining revenues being derived from services.

On March 12, 2019 we acquired ShieldSquare, a company engaged in bot mitigation solutions for a total consideration of \$14.2 million denominated in Indian Rupee, as determined pursuant to the acquisition agreement (\$14.3 million as of the closing date). The total consideration was composed of (1) approximately \$12.6 million in cash payable at closing (subject to certain working capital adjustments) and (2) an approximately \$2.1 million holdback amount to secure possible indemnity claims for damages arising out of breaches or inaccuracies of ShieldSquare’s or ShieldSquare shareholders’ representations and warranties, to be paid 18 months subsequent the acquisition date.

For our recording of technology and goodwill associated with the acquisition, see Note 3 to our consolidated financial statements included elsewhere in this annual report.

Critical Accounting Policies

In many cases, the accounting treatment of a particular transaction is specifically dictated in U.S. GAAP and does not require management's judgment in its application. There are also areas in which management's judgment in selecting among available alternatives would produce a materially different result. Our management has reviewed these critical accounting policies and related disclosures with our Audit Committee. See note 2 to our consolidated financial statements included elsewhere in this annual report, which contains additional information regarding our accounting policies and other disclosures required by U.S. GAAP.

Our management believes that the significant accounting policies which affect its more significant judgments and estimates used in the preparation of its consolidated financial statements and which are the most critical to aid in fully understanding and evaluating our reported financial results include the following:

- **Revenue recognition;**
- **Deferred contract costs;**
- **Investment in marketable securities;**
- **Goodwill;**
- **Stock-based compensation; and**
- **Income taxes.**

Revenue Recognition. We recognize revenues in accordance with ASC 606. As such, we identify a contract with a customer, identify the performance obligations in the contract, determine the transaction price, allocate the transaction price to each performance obligation in the contract and recognize revenues when (or as) we satisfy a performance obligation. We derive revenues mainly from sales of solutions:

- Revenues from physical products and software-based products are recognized upon shipment when control of the promised goods is transferred to the customer, generally when the product has been delivered. Revenues from product subscriptions, included as product revenues, are recognized ratably, on a straight-line basis, over the subscription period.
- Revenues from customer support, which represents mainly, help-desk support and unit repairs or replacements, professional services and ERT services, are recognized ratably, on a straight-line basis, over the term of the related contract, which is typically between one year and three years. Renewals of support contracts create new performance obligations that are satisfied over the term with the revenues, recognized ratably, on a straight-line basis, over the renewed period.

Our solutions are sold partially through distributors and resellers, all of which are considered end-users.

Our arrangements typically contain various combinations of our products and subscriptions and PCS, which are distinct and are accounted for as separate performance obligations. We allocate the transaction price to each performance obligation based on its relative standalone selling price (“SSP”). If the SSP is not observable, we estimate the SSP taking into account available information such as geographic specific factors and internally approved pricing guidelines related to the performance obligation. For PCS, we determine the standalone selling price based on renewals.

Deferred revenues include unearned amounts received under post-contract customer support and subscription agreements and are classified as short- and long-term based on their contractual term. Deferred revenue amounts which represent uncollected amounts are offset against account receivables.

We record a provision for estimated sale returns, credits and stock rotation granted to customers on our products in the same period that the related revenues are recorded in accordance with ASC 606. These estimates are based on historical sales returns, stock rotations and other factors known to us. Such provisions amounted to \$2.7 million and \$1.5 million as of December 31, 2019 and 2018, respectively.

Deferred Contract Costs. We capitalize sales commission as costs of obtaining a contract when they are incremental and if they are expected to be recovered. Our contracts include performance obligations related to various goods and services, some of which are satisfied at a point in time and others over time. Commission costs related to performance obligations satisfied at a point in time are expensed at the time of sale, which is when revenue is recognized. Commission costs related to long-term service contracts and performance obligations satisfied over time are deferred and recognized on a systematic basis that is consistent with the transfer of the goods or services to which the asset relates. Sales commissions paid for new contracts, which are not commensurate with sales commissions paid for renewal contracts, are capitalized and amortized over an expected period of benefit. We apply judgment in estimating the amortization period, by taking into consideration our customer contract terms, history of renewals, expected length of customer relationship, as well as the useful life of the underlying technology and products. Accordingly, we determined the expected period of benefit to be approximately 3.3 years. Amortization expense is included in Sales and Marketing expenses in the accompanying consolidated statements of income (loss). Deferred sales commission costs capitalized are periodically reviewed for impairment.

As of December 31, 2019 and 2018, the amount of deferred sales commission was approximately \$15.6 million and \$12.6 million, respectively, and is included in other-long term assets on the balance sheets.

As of December 31, 2019 and 2018, we recorded amortization expenses in connection with deferred sales commissions in the amount of approximately \$8.6 million and \$6.8 million, respectively.

Investment in Marketable Securities. We account for investments in debt marketable securities in accordance with Accounting Standards Codification, or ASC 320, "Investments - Debt and equity Securities." Management determines the appropriate classification of our investments at the time of purchase and reevaluates such determinations at each balance sheet date.

We classified our debt securities as available-for-sale securities. Available-for-sale securities are carried at fair value, with the unrealized gains and losses reported in "accumulated other comprehensive income (loss)" in shareholders' equity. Realized gains and losses on sales of investments are included in financial income, net and are derived using the specific identification method for determining the cost of securities.

The amortized cost of debt securities is adjusted for amortization of premiums and accretion of discounts to maturity. Such amortization together with interest and dividends on securities are included in financial income, net.

We recognize an impairment charge when a decline in the fair value of our investments below the cost basis is judged to be other-than-temporary. The factors considered in making such a determination include the duration and severity of the impairment, the reason for the decline in value, the potential recovery period and our intent to sell, including whether it is more likely than not that we will be required to sell the investment before recovery of cost basis. For securities that are deemed other-than-temporarily impaired, the amount of impairment recognized in the statement of income (loss) is limited to the amount related to credit losses, while impairment related to other factors is recognized in other comprehensive income (loss). During the years 2019, 2018 and 2017, we did not record any other-than-temporary impairment loss with respect to our marketable securities.

We account for investments in equity securities in accordance with ASC Topic 321, "Investments-Equity Securities" ("ASC 321"), which requires investments in equity securities be measured at fair value with changes in unrealized gains and losses reported in the statement of income (loss).

Goodwill. Goodwill represents the excess of the purchase price in a business combination over the fair value of the net tangible and intangible assets acquired. Under ASC 350 "Intangibles – Goodwill and Other" ("ASC 350"), goodwill is not amortized, but rather is subject to an annual impairment test. ASC 350 requires goodwill to be tested for impairment at least annually or between annual tests in certain circumstances and written down when impaired. Goodwill is tested for impairment by comparing the fair value of the reporting unit with its carrying value.

ASC 350 allows an entity to first assess qualitative factors to determine whether it is necessary to perform the two-step quantitative goodwill impairment test. If 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 two-step impairment test is performed.

We operate in one operating segment, and this segment comprises our single reporting unit. We perform assessment of qualitative factors during the fourth quarter of each fiscal year, or more frequently if impairment indicators are present. This analysis determined that no indicators of impairment existed for 2019, 2018 and 2017.

Stock-based compensation. We account for stock-based compensation in accordance with ASC 718, "Compensation-Stock Compensation" ("ASC 718"). ASC 718 requires companies to estimate the fair value of equity-based payment awards on the date of grant using an option-pricing model. The value of the portion of the award that is ultimately expected to vest is recognized as an expense over the requisite service periods in our consolidated statement of income (loss).

We recognize compensation expenses for the value of our awards based on the accelerated attribution method over the requisite service period of each of the awards, net of estimated forfeitures. Forfeitures are estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. Estimated forfeitures are based on actual historical pre-vesting forfeitures.

We selected the Black-Scholes-Merton option pricing model to account for the fair value of our stock-options awards with only service conditions and whereas the fair value of the restricted stocks awards is based on the market value of the underlying shares at the date of grant. During 2019 and 2018, we granted potential shares to be issued for performance share awards, subject to a market condition based on the performance of the Company's stock price to our Chief Executive Officer. The fair value of this award was determined using a Monte Carlo simulation methodology. The Monte Carlo simulation model utilizes multiple input variables that determine the probability of satisfying the market condition stipulated in the award and calculates the fair value of each award.

The option-pricing model requires a number of assumptions, of which the most significant are the expected stock price volatility and the expected option term. Expected volatility was calculated based upon actual historical stock price movements over an historical period equivalent to the option's expected term. The expected option term represents the period of time that options are expected to be outstanding. Expected term of options is based on historical experience. The risk-free interest rate is based on the yield from U.S. treasury bonds with an equivalent term. We have historically not paid dividends and have no foreseeable plans to pay dividends.

Income Taxes. We account for income taxes in accordance with ASC 740, "Income Taxes." This statement prescribes the use of the liability method whereby deferred tax assets and liability account balances are determined based on differences between 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. We provide a valuation allowance, if necessary, to reduce deferred tax assets to their estimated realizable value if it is more likely than not that a portion or all of the deferred tax assets will not be realized.

ASC 740 contains a two-step approach to recognizing and measuring a liability for uncertain tax positions. The first step is to evaluate the tax position taken or expected to be taken in a tax return by determining if the weight of available evidence indicates that it is more likely than not that, on an evaluation of the technical merits, the tax position will be sustained on audit, including resolution of any related appeals or litigation processes. The second step is only addressed if the first step has been satisfied (i.e., the position is more likely than not to be sustained), otherwise a full liability in respect of a tax position not meeting the more likely than not criteria is recognized. The second step is to measure the tax benefit as the largest amount that is more than 50% likely to be realized upon ultimate settlement. We accrue interest and penalty, if any, that are related to unrecognized tax benefits in its taxes on income. Although we believe we have adequately reserved for our uncertain tax positions, no assurance can be given that the final tax outcome of these matters will not be different. We adjust these reserves in light of changing facts and circumstances, such as the closing of a tax audit, the refinement of an estimate or changes in tax laws. To the extent that the final tax outcome of these matters is different than the amounts recorded, such differences will impact the provision for income taxes in the period in which such determination is made. The provision for income taxes includes the impact of reserve provisions and changes to reserves that are considered appropriate, as well as the related interest and penalties.

Accounting for tax positions requires judgments, including estimating reserves for potential uncertainties. We also assess our ability to utilize tax attributes, including those in the form of carry forwards for which the benefits have already been reflected in the financial statements. We do not record valuation allowances for deferred tax assets that we believe are more likely than not to be realized in future periods. While we believe the resulting tax balances as of December 31, 2019 and 2018 are appropriately accounted for, the ultimate outcome of such matters could result in favorable or unfavorable adjustments to our consolidated financial statements and such adjustments could be material. See Note 14 to our consolidated financial statements included elsewhere in this annual report for further information regarding income taxes. We have filed or are in the process of filing local and foreign tax returns that are subject to audit by the respective tax authorities. The amount of income tax we pay is subject to ongoing audits by the tax authorities, which often result in proposed assessments. See “Results of Operations—Taxes” below.

While we believe that we have adequately provided for any reasonably foreseeable outcomes related to tax audits and settlement, our future results may include favorable or unfavorable adjustments to our estimated tax liabilities in the period the assessments are made or resolved, audits are closed or when statutes of limitation on potential assessments expire.

Recently Issued Accounting Pronouncements

See Note 2(ac) and Note 2(ad) to our consolidated financial statements included elsewhere in this annual report for information regarding recently issued accounting pronouncements.

Results of Operations

The following discussion of our results of operations for the years ended December 31, 2019, 2018 and 2017, including the following tables, which present selected financial information in dollars and as a percentage of total revenues, are based upon our statements of operations contained in our financial statements for those periods, and the related notes, included in this annual report.

The following table sets forth, for the periods indicated, certain financial data concerning our operating results:

	<u>2019</u>	<u>2018</u>	<u>2017</u>
	(U.S. \$ in thousands)		
Revenues:			
Products	\$ 133,605	\$ 118,062	\$ 117,968
Services	118,467	116,342	93,401
	<u>252,072</u>	<u>234,404</u>	<u>211,369</u>
Cost of revenues:			
Products	35,056	30,803	30,862
Services	10,118	10,872	8,754
	<u>45,174</u>	<u>41,675</u>	<u>39,616</u>
Gross profit	<u>206,898</u>	<u>192,729</u>	<u>171,753</u>
Operating expenses, net:			
Research and development, net	61,841	57,674	59,003
Sales and marketing	109,556	111,386	108,744
General and administrative	18,584	16,145	17,577
Other income	-	-	(6,900)
Total operating expenses, net	<u>189,981</u>	<u>185,205</u>	<u>178,424</u>
Operating income (loss)	16,917	7,524	(6,671)
Financial income, net	8,792	7,274	4,830
Income (loss) before taxes on Income	25,709	14,798	(1,841)
Taxes on income	3,143	3,063	5,652
Net income (loss)	<u>22,566</u>	<u>11,735</u>	<u>(7,493)</u>

The following table sets forth, for the periods indicated, certain financial data expressed as a percentage of our total revenues:

	<u>2019</u>	<u>2018</u>	<u>2017</u>
Revenues:			
Products	53%	50%	56%
Services	47	50	44
	<u>100</u>	<u>100</u>	<u>100</u>
Cost of Revenues:			
Products	14	13	15
Services	4	5	4
	<u>18</u>	<u>18</u>	<u>19</u>
Gross profit	<u>82</u>	<u>82</u>	<u>81</u>
Operating expenses, net:			
Research and development, net	25	25	28
Sales and marketing	43	47	51
General and administrative	7	7	8
Other income	-	-	(3)
Total operating expenses, net	<u>75</u>	<u>79</u>	<u>84</u>
Operating income (loss)	7	3	(3)
Financial income, net	3	3	2
Income (loss) before taxes on Income	10	6	(1)
Taxes on income	1	1	3
Net income (loss)	<u>9%</u>	<u>5%</u>	<u>(4)%</u>

Comparison of Years Ended December 31, 2019, 2018 and 2017

Revenues.

Our revenues are derived from sales of our solutions. We recognize product revenue upon shipment when control of the promised goods is transferred to the customer, generally when the product has been delivered. Revenues from product subscriptions, included as product revenues, are recognized ratably over the subscription period. Revenues from post-contract customer support, which represent mainly help-desk support, unit repairs or replacements, professional services and ERT services are recognized ratably over the contract period. For additional details regarding the manner in which we recognize revenues, see the discussion under the caption “Critical Accounting Policies - Revenue Recognition” above.

Revenues in 2019 were \$252.1 million compared with revenues of \$234.4 million in 2018, an increase of 8%.

Revenues in 2018 were \$234.4 million compared with revenues of \$211.4 million in 2017, an increase of 11%.

The following table provides a breakdown of our revenues (dollars in thousands) by type of revenues both in dollars and as a percentage of total revenues for the past three fiscal years, as well as the percentage change between such periods:

	2019		2018		2017		% Change 2019 vs. 2018	% Change 2018 vs. 2017
Products	133,605	53%	118,062	50%	117,968	56%	13%	0%
Services	118,467	47%	116,342	50%	93,401	44%	2%	25%
Total	252,072	100%	234,404	100%	211,369	100%	8%	11%

The following table shows a breakdown of our total revenues (dollars in thousands) by geographical distribution both in dollars and as a percentage of total revenues for the past three fiscal years, as well as the percentage change between such periods:

	2019		2018		2017		% Change 2019 vs. 2018	% Change 2018 vs. 2017
North, Central and South America (principally the United States)(*)	106,429	42%	102,491	44%	97,901	46%	4%	5%
EMEA (Europe, the Middle East and Africa)	75,275	30%	75,750	32%	56,589	27%	(1)%	34%
Asia-Pacific	70,368	28%	56,163	24%	56,879	27%	25%	(1)%
Total	252,072	100%	234,404	100%	211,369	100%	8%	11%

(*) For the years ended December 31, 2019, 2018 and 2017, our revenues from the United States were \$85.4 million, \$83.0 million and \$78.5 million, respectively, representing 34%, 35% and 37% of total revenues for these years, respectively.

Other than the United States, no other single country accounted for more than 10% of our revenues for the years ended December 31, 2019, 2018 and 2017, other than Germany for the year ended December 31, 2018.

In 2019, our product revenues increased by 13% to \$133.6 million, compared to \$118.1 million in 2018. This increase in product revenues is mainly attributed to an increase in our product subscriptions as well as in our hardware-based products. In 2018, our product revenues remained approximately in the same level as in 2017 which reflected an increase in product subscriptions offset by a decrease in hardware-based products, in line with our continuous transition to product subscription-based solutions as opposed to sales of hardware-based solutions only.

In 2019, our service revenues increased by 2% to \$118.5 million, compared to \$116.3 million in 2018. This increase in service revenues is mainly attributed to service subscriptions increasing by over 100%, partially offset by a decrease in maintenance revenues. In 2018, our service revenues increased by 25% to \$116.3 million, compared to \$93.4 million in 2017, which increase is attributed to renewals of existing support contracts and sales of new support contracts as well as a result of our product installed base that drives a demand for our support, managed services and maintenance.

During 2019, our revenues from the enterprise market increased by 7% to \$172.6 million from \$161.9 million in 2018, whereas revenues from the carrier market increased by 10% to \$79.5 from \$72.5 million in 2018. During 2018 our revenues from the enterprise market increased by 17% to \$ 161.5 million from \$138.6 million, and revenues from the carrier market remained approximately on the same level as in 2017.

Our revenues in the Americas increased in 2019 by 4% compared to 2018, mainly due to greater demand for cloud-based security solutions. Revenues from the EMEA region decreased in 2019 by 1% compared to 2018. Revenues in the Asia-Pacific region increased in 2019 by 25% compared to 2018 mainly due to recognition of large appliance deals.

Our revenues in the Americas increased in 2018 by 5% compared to 2017, mainly due to greater demand for cloud-based security solutions. Revenues from the EMEA region increased in 2018 by 34% compared to 2017 mainly due to increased sales of our security solutions. Revenues in the Asia-Pacific region decreased in 2018 by 1% compared to 2017.

Cost of Revenues.

Cost of revenues refers to both products and service revenues and consists primarily of the cost of circuit boards and other components required for the assembly of our products, salaries and related personnel expenses for those engaged in the final assembly, and in providing support and maintenance service of our products, license fees paid to third parties, fees paid to managed security service providers (related parties), inventory write-offs, amortization of acquired technology and other overhead costs.

The following table sets forth a breakdown of our cost of revenues between products and services for the periods indicated, in absolute figures (dollars in thousands) and as a percentage of the relative product and services revenues:

	2019		2018		2017	
Cost of Products	35,056	26.2%	30,803	26.1%	30,862	26.2%
Cost of Services	10,118	8.5%	10,872	9.3%	8,754	9.4%
Total	<u>45,174</u>	17.9%	<u>41,675</u>	17.8%	<u>39,616</u>	18.7%

Cost of products as a percentage of product revenues in 2019 was 26.2%, approximately the same as 2018. Cost of products in 2019 and 2018 included amortization of intangible assets in the amount of \$2.3 million and \$0.9 million, respectively. Our cost of products as a percentage of product revenues, excluding amortization of intangible assets, represented approximately 24.5% of product revenues in 2019, compared to 25.4% in 2018. The decrease in cost of products as a percentage of product revenues is mainly due to a different mix of sales of our products and product subscriptions. While the cost of operating our cloud infrastructure increased in 2019 compared to 2018, our cost of product revenues decreased due to higher efficiency and improved usage of our inventory.

Cost of services as a percentage of service revenues in 2019 was 8.5% compared to 9.3% in 2018.

Cost of products as a percentage of product revenues in 2018 was 26.1%, approximately the same as 2017. Cost of products in 2018 and 2017 included amortization of intangible assets in the amount of \$0.9 million and \$1.1 million, respectively. Our cost of products as a percentage of product revenues, excluding amortization of intangible assets, represented approximately 25.4% of product revenues in 2018, compared to 25.2% in 2017.

Cost of services as a percentage of service revenues in 2018 was 9.3%, compared to 9.4% in 2017.

Operating Expenses.

The following table sets forth a breakdown of our operating expenses (dollars in thousands) for the periods indicated as well as the percentage change between such periods:

	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>% Change 2019 vs. 2018</u>	<u>% Change 2018 vs. 2017</u>
Research and development, net	\$ 61,841	\$ 57,674	\$ 59,003	7%	(2)%
Selling and marketing	109,556	111,386	108,744	(2)%	2%
General and administrative	18,584	16,145	17,577	15%	(8)%
Other income	-	-	(6,900)		
Total	<u>\$ 189,981</u>	<u>\$ 185,205</u>	<u>\$ 178,424</u>	3%	4%

Our operating expenses increased by 3% in 2019 to \$190.0 million from \$185.2 million in 2018. The increase is primarily attributed to (1) personnel costs and related expenses; (2) the acquisition of ShieldSquare in March 2019; and (3) stock-based compensation expenses. Such increase was partially offset by the strengthening of the dollar against other currencies, as more fully described below.

Research and Development Expenses.

Research and development, or R&D, expenses consist primarily of salaries and related personnel expenses, costs of subcontractors and prototype expenses related to the design, development, quality assurance and enhancement of our products, and depreciation of equipment purchased for the development and testing processes. All R&D costs are expensed as incurred. We believe that continued investment in R&D is critical to attaining our strategic product objectives.

R&D expenses were \$61.8 million in 2019, an increase of \$4.1 million, or 7%, compared with R&D expenses of \$57.7 million in 2018. This increase is primarily a result of the following: (1) \$1.5 million related to the acquisition of ShieldSquare in March 2019; (2) \$2.6 million due to salary raises awarded in the beginning of the year, additional headcount and other salary related expenses; and (3) \$0.4 million related to the impact of the weakening of the dollar mainly against the NIS. Such increase was partially offset by: (1) \$0.3 million of lower stock-based compensation expenses (see also "Stock based compensation expenses" below); and (2) higher grants received from the IIA during 2019. In 2019, we received \$0.9 million in IIA grants compared to \$0.7 million in 2018.

R&D expenses were \$57.7 million in 2018, a decrease of \$1.3 million, or 2%, compared with R&D expenses of \$59.0 million in 2017. This decrease is primarily a result of the following: (1) a decrease of \$0.5 million due to a lower average number of R&D employees and subcontractors in 2018, partially offset by an increase related to salary raises awarded in the beginning of the year; (2) a decrease of \$0.7 million due to lower stock-based compensation expenses (see also "Stock based compensation expenses" below); and (3) higher grants received from the IIA during 2018. In 2018, we received \$0.7 million in IIA grants compared to \$0.5 million in 2017.

Sales and Marketing Expenses.

Sales and marketing expenses consist primarily of salaries, commissions and related personnel expenses for those engaged in the sales and marketing of our products, operational costs of our offices which are located outside Israel and are engaged in the promotion, marketing and support of our products, in addition to the related trade shows, advertising, promotions, web site maintenance and public relations expenses, and amortization of intangible assets.

Sales and marketing expenses were \$109.6 million in 2019, a decrease of \$1.8 million, or 2%, compared with sales and marketing expenses of \$111.4 million in 2018. This decrease is mainly related to a decrease in salaries due to headcount shortage and lower sales commissions, as well as a decrease due to higher capitalization of contract costs related to ASC 606 and a decrease due to the impact of the strengthening of the dollar, mainly against the Euro.

Sales and marketing expenses were \$111.4 million in 2018, an increase of \$2.7 million, or 2%, compared with sales and marketing expenses of \$108.7 million in 2017. This increase is primarily a result of the following: (1) an increase of \$2.0 million attributed to marketing related expenses; (2) an increase of \$2.8 million related to commissions expenses due to the growth in sales during 2018 and an increase related to salary raises awarded in the beginning of 2018 and salary-related expenses; and (3) an increase of \$0.7 million related to the impact of the weakening of the dollar, mainly against the Euro. Such increase was partially offset by a decrease of \$2.5 million related to the capitalization of contract costs following the adoption of ASC 606 in 2018.

General and Administrative Expenses.

General and administrative expenses consist primarily of salaries and related personnel expenses for executive, accounting and administrative personnel, professional fees (which include legal, audit and additional consulting fees), bad debt expenses, acquisition related costs and other general corporate expenses.

General and administrative expenses were \$18.6 million in 2019, an increase of \$2.5 million, or 15% compared with general and administrative expenses of \$16.1 million in 2018. The increase in general and administrative expenses in 2019 was primarily due to (1) an increase of \$0.7 million related to personnel costs and related expenses; (2) an increase of \$0.4 million related to services fees due to consultants and other professionals partially related to the acquisition of ShieldSquare; (3) an increase of \$0.9 million attributed to higher stock-based compensation expenses (see also "Stock based compensation expenses" below); and (4) the remainder of the increase due to a \$0.3 million increase in other general expenses.

General and administrative expenses were \$16.1 million in 2018, a decrease of \$1.5 million, or 8%, compared with general and administrative expenses of \$17.6 million in 2017. The decrease in general and administrative expenses in 2018 was primarily due to (1) a decrease in litigation costs related mainly to intellectual property litigation matters by an amount of \$1.2 million; and (2) a decrease of \$0.6 million related to services fees due to consultants and other professionals, changes in the fair value of our contingent consideration and depreciation expenses. This decrease was partially offset by an increase of \$0.6 million related to personnel costs and related expenses.

For a discussion of the impact of foreign currency fluctuations our business, see Item 11 “Quantitative and Qualitative Disclosures about Market Risk.”

Stock-based compensation expenses.

Our expenses also include the recognition of stock-based compensation, which is allocated among cost of sales, research and development expenses, marketing and selling expenses and general and administrative expenses, based on the division in which the recipient of the option grant is employed. The stock-based compensation is amortized to operating expenses over the requisite service period of the individual options.

Stock-based compensation expenses in 2019 totaled \$13.1 million, an increase of \$0.6 million, or 5%, compared with expenses of \$12.5 million in 2018. During 2019, we granted stock options to purchase approximately 1.2 million shares at a weighted average grant-date fair value of \$5.50 per option and 0.8 million restricted stock units, or RSUs, at a weighted average grant-date fair value of \$23.40 per RSU, compared to 1.1 million options granted during 2018 at an average grant-date fair value of \$6.70 per option and 0.4 million RSUs at a weighted average grant-date fair value of \$23.80 per RSU. The reason for the increase in our stock-based compensation expenses in 2019 is primarily due to the fact that the majority of our options and RSUs, which were granted during 2018, were granted towards the end of 2018 and therefore the related expense was recorded mainly in 2019. In addition, the quantities of RSUs that we granted in 2019 were granted early in the year and the total number of such awards was higher than the number granted in 2018.

Stock-based compensation expenses in 2018 totaled to \$12.5 million, a decrease of \$0.5 million, or 4%, compared with expenses of \$13.0 million in 2017. During 2018, we granted stock options to purchase approximately 1.1 million shares at a weighted average grant-date fair value of \$6.70 per option and 0.4 million restricted stock units, or RSUs, at a weighted average grant-date fair value of \$23.80 per RSU, compared to 1.7 million options granted during 2017 at an average grant-date fair value of \$4.30 per option and 0.4 million RSUs at a weighted average grant-date fair value of \$16.20 per RSU. The reason for the decrease in our stock-based compensation expenses in 2018 is primarily due to the decrease in the quantity of options granted in 2018 compared to 2017, despite the increase in our weighted average grant date fair value.

Other Income

During 2017 we recorded \$6.9 million of other income related to the award we collected in connection with an intellectual property dispute for which we recorded litigation costs in an amount of \$0.8 million and \$2.1 million during 2018 and 2017, respectively.

Financial Income Net.

Financial income, net consists primarily of interest earned on short and long-term bank deposits, amortization of premiums, accretion of discounts, interest and dividends earned on investments in marketable securities, gain from sale of marketable securities and from income and expenses from the translation of monetary balance sheet items denominated in non-dollar currencies.

Financial income, net was \$8.8 million in 2019, compared with \$7.3 million in 2018. The net increase of \$1.5 million is primarily attributed to an increase of \$3.6 million in interest income from investments in marketable securities and short- and long-term bank deposits partially offset by an increase of \$2.1 million in foreign currency exchange losses.

Financial income, net was \$7.3 million in 2018, compared with \$4.8 million in 2017. The net increase of \$2.5 million is primarily attributed to an increase of \$2.0 million in interest income from investments in marketable securities and short- and long-term bank deposits and from a decrease of \$0.4 million in foreign currency exchange losses.

Income Taxes.

Israeli companies are generally subject to corporate tax on their taxable income at the rate of 23% for the 2019 and 2018 tax years. We elected to apply the Preferred Enterprise regime under the Law for the Encouragement of Capital Investment, 1959 (the “Investments Law”) as of the 2014 tax year. The election is irrevocable. Under the Preferred Enterprise regime, a preferred income of an enterprise located in the center of Israel is subject to a tax rate of 16%. Pursuant to Amendment 73 to the Investments Law adopted in 2017, a company located in the center of Israel that meets the conditions for “Preferred Technological Enterprises”, is subject to a tax rate of 12%. We believe we meet those conditions.

We operate our business in various countries and attempt to utilize an efficient operating model to optimize our tax payments based on the laws in the countries in which we operate. This can cause disputes between us and various tax authorities in different parts of the world.

Our effective tax rate in 2019 was 12% compared with an effective tax rate of 21% in 2018. The decrease in the effective tax rate in 2019 as compared to 2018 is primarily due to the release of a valuation allowance we made in 2019 following our expectations to realize the carryforward tax losses.

Tax expense for 2018 amounted to \$3.1 million compared to \$5.7 million in 2017. The decrease of \$2.6 million is primarily related to the reduction of the U.S. federal tax rate.

For additional disclosure and explanations regarding our income taxes, including Approved, Beneficiary and Preferred Enterprise programs, see note 14 to our consolidated financial statements included elsewhere in this annual report and Item 10.E “Taxation—Israeli Tax Considerations.”

Impact of Currency Fluctuations and Inflation

Our financial results may be negatively impacted by foreign currency fluctuations and inflation. Information required by this section is set forth in Item 11 “Quantitative and Qualitative Disclosures about Market Risk” and in Item 3.D “Risk Factors – Currency exchange rates and fluctuations of exchange rates could have a material adverse effect on our results of operations,” each of which are incorporated herein by reference.

Impact of Governmental Policies

For information on the impact of governmental policies on our operations, see Item 4.B “Government Regulations” and Item 3.D “Risk Factors—Government regulation affecting our business is evolving, and unfavorable changes could harm our business” and “—Risks Related to Operations in Israel.”

Related Parties

We have entered into a number of agreements with certain companies, of which Yehuda Zisapel, Zohar Zisapel and/or Nava Zisapel are co-founders, directors and/or principal shareholders, collectively known as the RAD-Bynet Group. Roy Zisapel, our President and Chief Executive Officer and a director, also holds a minority stake in one of these RAD-Bynet Group entities, SecurityDam Ltd. (“SecurityDam”). In addition, we purchase different services and fixed assets from third parties at special rates offered to members of the RAD-Bynet Group, such as car leases, maintenance, insurance and communication. Furthermore, we purchased from SecurityDam managed security service provider (MSSP) scrubbing center services required for the provision of our cloud DDoS protection service.

We believe that the terms of the transactions in which we have entered with members of the RAD-Bynet Group are not different in any material respect from terms we could obtain from unaffiliated third parties and are beneficial to us and no less favorable to us than terms that might be available to us from unaffiliated third parties. The pricing of the transactions was arrived at based on negotiations between the parties. Members of our management reviewed the pricing of the agreements and confirmed that they were not different in any material respect than that which could have been obtained from unaffiliated third parties.

See also below under Item 7.B “Major Shareholders and Related Party Transactions—Related Party Transactions.”

B. Liquidity and Capital Resources

General

Since our inception, we have financed our operations through a combination of issuing equity securities, including two public offerings in October 1999 and February 2000, research and development and/or marketing grants from the Government of Israel, and cash generated by operations.

The Company’s equity as a percentage of its total assets was 66% at December 31, 2019, compared with 68% at December 31, 2018 and 67% at December 31, 2017.

Cash and cash equivalents, short and long-term bank deposits and short- and long-term marketable securities were \$427.7 million at December 31, 2019, compared with \$401.1 million and \$344.3 million at December 31, 2018 and at December 31, 2017 respectively.

Principal Capital Expenditures and Divestitures

Capital expenditures were \$8.2 million, \$8.9 million and \$7.2 million for the years ended December 31, 2019, 2018 and 2017, respectively. These expenditures were mainly comprised of investments in cloud infrastructure, ERP modules, leasehold improvements, machinery and equipment, computers, lab equipment and testing tools.

We expect to engage in additional capital spending to support possible growth in our operations, infrastructure and personnel. In 2020, we anticipate that the majority of our capital expenditures will be primarily for R&D testing, lab equipment, additional investments in new modules to our ERP system and additional infrastructure to support our cloud-based solutions.

We did not affect any principal divestitures in the past three years.

Working Capital and Cash Flows

The following table presents the major components of net cash flows used in and provided by operating, investing and financing activities for the periods presented (dollars in thousands):

	<u>2019</u>	<u>2018</u>	<u>2017</u>
Net cash provided by operating activities	\$ 52,852	\$ 49,251	\$ 31,464
Net cash used in investing activities	(50,793)	(85,503)	(56,342)
Net cash provided by (used in) financing activities	(6,511)	16,218	10,478

Net cash provided by operating activities for 2019, 2018 and 2017 was \$52.9 million, \$49.3 million and \$31.5 million, respectively. Our net income (loss) in 2019, 2018 and 2017 was \$22.6 million, \$11.7 million and (\$7.5) million, respectively.

Net cash provided by operating activities in 2019 consisted of net income adjusted for non-cash activity, including stock-based compensation expenses, depreciation, amortization of intangible assets and amortization of premiums, accretion of discounts and accrued interest on available-for-sale marketable securities, other gain, an increase in deferred revenues, accrued interest on bank deposits, increase in trade payables, decrease in inventories, decrease in other payables and accrued expenses and other long-term liabilities, increase in accrued severance pay, net, and operating lease liabilities, net offset by a decrease in trade receivables, changes in deferred income taxes, net and increase in other current assets and prepaid expenses.

Net cash provided by operating activities in 2018 consisted of net income adjusted for non-cash activity, including stock-based compensation expenses, depreciation, amortization of intangible assets and amortization of premiums, accretion of discounts and accrued interest on available-for-sale marketable securities, an increase in deferred revenues, accrued interest on bank deposits, increase in trade receivables offset by a decrease in other payables and accrued expenses and other long-term liabilities, other current assets and prepaid expenses, decrease in inventories and a decrease in trade payables.

Net cash provided by operating activities in 2017 consisted of net loss adjusted for non-cash activity, including stock-based compensation expenses, depreciation, amortization of intangible assets and amortization of premiums, accretion of discounts and accrued interest on available-for-sale marketable securities, an increase in deferred revenues, accrued interest on bank deposits, decrease in trade receivables partially offset by an increase in other payables and accrued expenses and other long-term liabilities, other current assets and prepaid expenses, increase in inventories and a decrease in trade payables.

Net cash used in investing activities amounted to \$50.8 million for 2019 compared to net cash used in investing activities of \$85.5 million for 2018 and \$56.3 million for 2017.

Net cash used in investing activities in 2019 consisted primarily of purchases of property and equipment and payment for the ShieldSquare acquisition, partially offset by investments in bank deposits and marketable securities.

Net cash used in investing activities in 2018 consisted primarily of purchases of property and equipment, partially offset by investments in bank deposits and marketable securities.

Net cash used in investing activities in 2017 consisted primarily of payment for the Seculert acquisition and purchases of property and equipment, partially offset by investments in bank deposits and marketable securities.

Net cash used in financing activities in 2019 was \$6.5 million compared to net cash provided by financing activities of \$16.2 million in 2018 and net cash provided by financing activities of \$10.5 million in 2017.

Net cash used in financing activities in 2019 was attributed to repurchases of our ordinary shares, partially offset by proceeds from issuance of shares upon exercise of stock options by our employees.

Net cash provided by financing activities in 2018 was attributed to proceeds from issuance of shares upon exercise of stock options by our employees, partially offset by repurchases of our ordinary shares as well as the repayment of the contingent consideration as part of the Seculert acquisition.

Net cash provided by financing activities in 2017 was attributed to proceeds from issuance of shares upon exercise of stock options by our employees, partially offset by repurchases of our ordinary shares.

Cash and Cash Equivalents

As of December 31, 2019, we had cash and cash equivalents, including short- and long-term bank deposits and short and long-term marketable securities, of \$427.7 million, compared to \$401.1 million as of December 31, 2018 and \$344.3 million as of December 31, 2017. As of December 31, 2019, approximately 32%, 25% and 7% of our short and long-term bank deposits were deposited in Israel with major Israeli banks which are rated AAA, A and BBB+, respectively, as determined by S&P's Maalot, and the balance of 36% was deposited in the U.S. branch of another major Israeli bank which is rated A, as determined by S&P's Maalot. As of December 31, 2019, the longest contractual duration of any of our bank deposits was 2.0 years, the weighted average duration of our deposits was 1.50 years, and the weighted average time to maturity was 1.1 years.

Our marketable securities portfolio includes investments in foreign banks and government debentures and in debt securities of corporations. The financial institutions that hold our marketable securities are major U.S. financial institutions, located in the United States. As of December 31, 2019, 58% of our marketable securities portfolio was invested in debt securities of financial institutions and 42% in debt securities of corporations. From a geographic perspective, 45% of our marketable securities portfolio was invested in debt securities of U.S. issuers, 29% was invested in debt securities of European issuers and 26% was invested in debt securities of other geographic-located issuers. As of December 31, 2019, 94% of our marketable securities portfolio was rated A- or higher, 4% was rated BBB or BBB+, and 2% was rated BB-, as determined by S&P.

There are no material legal restrictions, taxes or other costs associated with transferring our funds held in U.S. financial institutions to Israeli financial institutions, and we have access to all of our cash as needed for our operations. Although we have various subsidiaries throughout the world, there are no material legal, tax or other cost impediments to our transferring cash to these subsidiaries for operations as and when needed or to such subsidiaries transferring cash to us to meet our own cash obligations. Further, we believe we generate sufficient cash from our Israeli operations to fund our operating and capital requirements and, therefore, do not need or intend to repatriate any of the earnings of our foreign subsidiaries.

Days-Sales-Outstanding

The days-sales-outstanding (DSO) for a given period is calculated by dividing the end-of-period balance of accounts receivable by the average daily sales in the period.

Our average quarterly DSO (computed over the four quarters of the year) was 23 days in 2019, compared with 27 days in 2018 and 29 days in 2017. When computed annually, the DSO is 33 days in 2019, up from 27 days in 2018 and 28 days in 2017.

The decrease in our average quarterly DSO in 2019 compared to 2018 is mainly due to the strong collection of receivables during 2019 as a result of the increase in our subscription business where we often collect payments ahead of revenue recognition. Despite our strong collections throughout the year, our annual DSO increased mainly due to the total amount of invoices issued in the last month of the year which was significantly higher in 2019. Due to the fact that most of these invoices are not collected within the first month of issuance, but only in the following months, our annual DSO increased in 2019 compared to 2018.

In 2018, we maintained substantially the same DSO levels as in 2017.

Outlook

Our capital requirements depend on numerous factors, including market acceptance of our products and the resources we allocate to our operating expenses. Since our inception, we have experienced substantial increases in our expenditures consistent with growth in our operations and personnel, and we may increase our expenditures in the foreseeable future in order to execute our strategy.

We anticipate that operating activities as well as capital expenditures will demand the use of our cash resources. We believe that our cash balances will provide sufficient cash resources to finance our operations and the projected marketing and sales activities and research and development efforts and other elements of our strategy for a period of no less than the next 12 months.

Market Risk

We are exposed to market risk, including fluctuations in interest rates and foreign currency exchange rates. Additional information about market risk is set forth in Item 11 “Quantitative and Qualitative Disclosures about Market Risk” and incorporated herein by reference.

C. Research and Development, Patents and Licenses, etc.

In order to accommodate the rapidly changing needs of our markets, we place considerable emphasis on research and development projects designed to improve our existing product lines, develop new product lines and customize our products to meet our customers’ needs. As of December 31, 2019, we had 358 employees and 57 subcontractors engaged primarily in research and development activities, compared to 316 employees and 56 subcontractors at the end of 2018. For a further discussion of research and development, see Item 5.A “Operating and Financial Review and Prospects—Operating Results.”

For a discussion regarding the benefits provided under programs of the IIA, see Item 4.B “Information about the Company—Business Overview—Israeli Innovation Authority.”

D. Trend Information

We have identified the following key trends and uncertainties that we believe will materially influence our market, financial condition and the demand for our solutions:

- Applications are migrating to the cloud. Organizations therefore require broader protection that encompasses both the enterprise and cloud-based applications. They also prefer to purchase security services as a subscription, to match the subscription-based consumption of hosting services.
- Datacenter architecture is changing to include various models such as a physical datacenter, a virtual datacenter, a software defined datacenter, and private or public cloud. New emerging edge clouds coupled with the emerging 5G layouts will enable enterprises to leverage their IoT strategy effectively. Many organizations use a mixed infrastructure that includes a combination of one or more of the above. This mixed environment often involves multiple vendors and creates challenges in IT staffing and operational costs, which increase the needs for hybrid cloud services, managed services and modern automated data center technologies.
- Application infrastructure is changing, from monolithic applications based on the three-tier applications, client server and so on, to a cloud-native or micro-services architecture that are packaged as containers, providing a built-in ‘on-demand’ elasticity and availability application infrastructure. This shift in application lifecycle control and delivery methods is triggered by the need to match the ‘cloud clock’ for the ever-changing business needs, rely on a new application networking infrastructure, the service-mesh network. This enables to introduce and run the new generation of cloud-native applications, in a fast, adaptive and more efficient way by interacting with DevOps CICD tools and methods.

- Increasing complexity and intensity of security threats require expertise in identifying the attacks and recommending the right action. Attack delivery is aided by the growing presence of connected devices (IoT) which increases the threat surface against any kind of infrastructure, as well as traffic encryption (dark data) assisting hiding attacks, and attack tools are becoming more sophisticated as hackers use automation and weaponize artificial intelligence. This leads to ever morphing and scalable attack vectors at all levels, from volumetric botnets through web centric attacks and moving into API-centric attacks for both public facing APIs as well as leaking into internal Kubernetes-naïve attacks (container orchestration platform of choice). In addition, attack tools are increasingly available to all through the dark net. The mass amount of uncontrolled IoT devices and cloud hosting opens the door for a new generation of botnets and automated bots, hard to classify and block. Moreover, the usage of published public cloud infrastructure by most of the enterprises creates the need to protect their cloud posture, workloads and services from different attack surfaces, manifested by the fact that the cloud application's DevOps processes are done from the outside of the cloud "perimeter," unlike the premise-based application development process (the insider becomes the outsider). Most organizations are not able to keep up with these developments with their internal cyber security resources and seek managed security services.
- Increasing expectations for applications availability and performance, due to the increasing dependence on applications in today's business world. Businesses are sensitive to the resilience and availability of their applications and given their customers' expectations of a world class experience can identify a direct commercial impact from a less than optimal performance.

We believe that our business, comprised of application security and delivery solutions, is positioned to benefit from the above-mentioned industry dynamics due to the following key factors:

- We have developed a broad portfolio of solutions to address the challenges arising from these trends.
- We continuously focus on innovation and believe that our solutions have, in many instances, a technological advantage over competing solutions.
- We offer our solutions in a wide array of deployment models (on-premise devices and solutions, managed services, cloud-based solutions, etc.), in order to support various customers' business models. We believe this flexibility addresses the complexity and diversity of the current application and infrastructure ecosystem.

We believe that the advantages of our offerings, coupled with the above-mentioned industry dynamics and trends, place us in a good position to meet our business plans. Nevertheless, meeting our business plans and implementing our growth strategy, as more fully described under Item 4.B “Business Overview – Our Growth Strategy” above, may not convert into revenues growth, due to our shift towards subscription-based product sales, where revenues are recognized throughout the subscription period.

In addition, while we believe that the above trends will present significant opportunities for us, they also pose significant challenges, risks and uncertainties, including the following:

- We operate in a highly competitive environment, and some of our competitors have larger internal resources, and a larger installed base.
- While we believe that the shift towards a subscription-based business model is a strategic transition towards higher growth and profitability in the long term, we may not be successful in its execution, including an inability to maintain a high subscription renewal rate.
- In addition, our customers purchasing decisions are related to the conditions in our industry and in the various regions and geographical markets in which we operate and are tied to the overall IT spending climate. Uncertainty about current global economic conditions continues to pose a risk as customers may postpone or reduce spending in response to such uncertainties. In particular, the recent COVID-19 outbreak may negatively affect economic conditions regionally as well as globally, disrupt operations situated in countries particularly exposed to the contagion, affect supply chains or otherwise negatively impact our business, as more fully described in Item 8.B “Financial Information–Significant Changes”.
- The other risks and uncertainties we face, as described under Item 3.D “Risk Factors.”

E. Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements, as such term is defined under Item 5.E of the instructions to Form 20-F, that have or are reasonably likely to have a current or future effect on our financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources.

F. Tabular Disclosure of Contractual Obligations

The following table summarizes our contractual obligations as of December 31, 2019 and the effect those commitments are expected to have on our liquidity and cash flow.

Contractual obligations	Payments Due By Period (US \$ in thousands)				
	Total	Less than 1 year*	1 – 3 years	3–5 years	More than 5 years
Operating leases (1)	6,718	3,622	2,089	681	326
Total contractual cash obligations (2)(3)	6,718	3,622	2,089	681	326

* Become due during 2020.

(1) Consists of outstanding operating leases for the Company's facilities. The lease agreements expire in the years 2020 to 2026, although certain of our leases have renewal options. The data in this row details our future minimum payments under non-cancelable operating lease agreements at December 31, 2019.

(2) Payments for uncertain income tax positions of \$5.6 million under ASC 740 are due upon settlement. Since we are unable to reasonably estimate the timing of settlement, such payments are not included in the table. See also Notes 2(u) and 14(a) of our consolidated financial statements.

(3) Severance payments of \$2.3 million are payable only upon termination, retirement or death of the respective employee and there is no obligation for benefits accrued prior to 2007 if the employee voluntarily resigns. Since we are unable to reasonably estimate the timing of settlement, such payments are not included in the table. See also Note 2(w) of our consolidated financial statements.

ITEM 6. DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES

A. Directors and Senior Management

The following table lists our current directors and senior management:

Name	Age	Position
Yehuda Zisapel (1)	78	Chairman of the Board of Directors
Yair Tauman (1)(2)(3)	71	Director, Chairman of the Compensation Committee
David Rubner (2)(3)(4)	80	Director, Chairman of the Audit Committee
Yael Langer (4)	55	Director
Avraham Asheri (1)(2)(3)	82	Director
Joel Maryles (2)(3)(5)	60	Director
Roy Zisapel (5)	49	President, Chief Executive Officer and Director
Doron Abramovitch	51	Chief Financial Officer
Raffi Kesten	66	Chief Business Officer
David Aviv	64	Chief Technology Officer
Gabi Malka	44	Chief Operating Officer
Anna Convery-Pelletier	51	Chief Marketing Officer
Yoav Gazelle	50	Vice President International Sales

(1) Term as director expires at the annual meeting of shareholders to be held in 2021.

(2) Qualified as an independent director, as determined under the Nasdaq rules.

(3) Serves on the Audit and Compensation Committees of the Board of Directors.

(4) Term as director expires at the annual meeting of shareholders to be held in 2020.

(5) Term as director expires at the annual meeting of shareholders to be held in 2022.

Yehuda Zisapel, co-founder of our Company, has served as a member of our Board of Directors since our inception in May 1996 and served as Chairman of our Board of Directors from May 1996 until August 2006 and again since November 2009. In addition, Mr. Zisapel serves as a director of Radware US and other subsidiaries. Mr. Zisapel is also a founder and a director of RAD Data Communications Ltd., a worldwide data communications company headquartered in Israel, and BYNET Data Communications Ltd., a distributor of data communications products in Israel and serves as a director of other companies in the RAD-Bynet Group. See Item 4.C “Organizational Structure.” Mr. Zisapel has a B.Sc. and a M.Sc. degree in electrical engineering as well as an Award of Honorary Doctorate (DHC-Doctor Honoris Causa) from the Technion, Israel Institute of Technology and an M.B.A. degree from Tel Aviv University, Israel. Yehuda Zisapel is the father of Roy Zisapel, our President, Chief Executive Officer and director.

Professor Yair Tauman has served as a member of our Board of Directors since October 2010 (until February 2020, as an external director). He is the Dean of the Adelson School of Entrepreneurship in the Interdisciplinary Center (IDC) in Herzliya, Israel and was previously the Dean of the Arison School of Business in the IDC. He is also a Leading Professor of Economics and the Director of the Center for Game Theory in Economics at Stony Brook University, New York. He was a professor in Tel-Aviv University for 25 years until 2009 and, prior thereto, served as a professor in Kellogg School of Management at Northwestern University. His areas of research include game theory and industrial organization. Professor Tauman currently serves on the board of directors of other public and private companies from different sectors, including online auctions, education and IT. Professor Tauman obtained his Ph.D. and M.Sc. degrees in mathematics as well as a B.Sc. in mathematics and statistics from The Hebrew University, Israel.

David Rubner has served as a member of our Board of Directors since October 2009 (until February 2020, as an external director). Mr. Rubner is the Chairman and Chief Executive Officer of Rubner Technology Ventures Ltd., and Chairman of the Board of Novelsat, Ltd. During the years 1991 to 2000, he was President and Chief Executive Officer of ECI Telecom Ltd. (“ECI”). Prior to that, Mr. Rubner held several senior positions within ECI, such as Chief Engineer, Vice President of Operations and Executive Vice President, General Manager of the Telecommunications division. Prior to joining ECI, Mr. Rubner was a senior engineer in the Westinghouse Research Laboratories in Pittsburgh, Pennsylvania. Mr. Rubner serves on the boards of Eltek Ltd. and other private companies. He also serves on the boards of trustees of Shaare Zedek Hospital and Jerusalem College of Technology. Mr. Rubner holds a B.Sc. degree in engineering from Queen Mary College, University of London, England and an M.S. degree from Carnegie Mellon University.

Yael Langer has served as a member of our Board of Directors since July 2009. Ms. Langer has served as the general counsel and secretary of RAD Data Communications Ltd. and several other companies in the RAD-BYNET group since July 1998. Since December 2000, Ms. Langer has served as a director in Ceragon Networks Ltd., a company publicly traded on Nasdaq and the Tel-Aviv stock markets. From 1995 to 1998, Ms. Langer served as assistant general counsel to companies in the RAD-BYNET group. From 1993 until 1995, Ms. Langer was a member of the legal department of Poalim Capital Markets and Investments Ltd., the underwriting and investment banking subsidiary of Bank Hapoalim. Ms. Langer holds an L.L.B. degree from The Hebrew University, Israel.

Avraham Asheri has served as a member of our Board of Directors since July 2009. Mr. Asheri was the President and Chief Executive Officer of Israel Discount Bank (“DB”) during the years 1991 to 1998. Prior to that, from 1983 until 1991 he served as Executive Vice President of DB and a member of its Management Committee. Before that, Mr. Asheri served at the Israel Ministry of Industry and Trade and at the Israel Ministry of Finance, including in the positions of Director General of the Ministry of Industry and Trade, Managing Director of Israel Investment Center, and Trade Commissioner of Israel to the United States. Mr. Asheri acts as chairman of the Budget and Finance Committee of the Board of Governors of the Hebrew University, member of the Executive Committee of the Jerusalem Institute for Policy Research and serves as a member of the board of directors of Mishkenot Sha’ananim and as the Chairman of its Finance Committee. Mr. Asheri holds a BA degree in economics and political science from The Hebrew University, Israel.

Joel Maryles has served as a member of our Board of Directors since January 2014. Mr. Maryles was a Partner at OurCrowd from 2015 to 2018. He held numerous senior positions in the financial sector over the past three decades. From 2007 to 2012, Mr. Maryles was a portfolio manager of T-Cubed Investments LP, an equity hedge fund that he founded. From 1996 to 2006, he was a Managing Director at Citigroup Investment Banking where, in addition to his role as a senior technology banker, he founded and managed the Israeli investment banking operations for Citigroup/Salomon Smith Barney. From 1986 to 1996, Mr. Maryles held various senior positions at Furman Selz, a U.S.-based investment bank, including Managing Director focused on Israeli technology and healthcare transactions. Prior to Furman Selz, Mr. Maryles was an Investment Officer at First Chicago Investment Advisors. Mr. Maryles holds a B.Sc. degree in engineering from the University of Illinois and an M.B.A. from the University of Chicago.

Roy Zisapel, co-founder of our Company, has served as our President and Chief Executive Officer and a director since our inception in May 1996. Mr. Zisapel also serves as a director of Radware US and other subsidiaries. From 1996 to 1997, Mr. Zisapel was a team leader of research and development projects for RND Networks Ltd. From 1994 to 1996, Mr. Zisapel was employed as a software engineer for unaffiliated companies in Israel. Mr. Zisapel has a B.Sc. degree in mathematics and computer science from Tel Aviv University, Israel. Roy Zisapel is the son of Yehuda Zisapel, who is the Chairman of the Board of Directors of the Company, and Nava Zisapel, who is one of our major shareholders.

Doron Abramovitch has served as our Chief Financial Officer since September 2015. In such role, Mr. Abramovitch oversees Radware's business performance and strategic growth initiatives. He is responsible for overall financial management of the company, its financial reporting and disclosure practices, and overall corporate operational and infrastructure functions. Prior to Radware, Mr. Abramovitch was Corporate Vice President and Chief Financial Officer of Orbotech Ltd. from May 2011 to June 2015. Prior to joining Orbotech, from 2005 to 2011, Mr. Abramovitch served as senior executive vice president and chief operating officer of Bagir Group Ltd., an Israeli TASE-listed company. Prior to joining Bagir, Mr. Abramovitch served, from 2000 to 2005, as chief financial officer and, from 2004 to 2005, as chief executive officer and chief financial officer, of Phytch Technologies (2000) Ltd., then an Israeli TASE-listed company. Mr. Abramovitch is a certified public accountant and received B.Sc. and M.B.A. degrees in business administration from Tel Aviv University.

Raffi Kesten has served as our Chief Business Officer since June 2019. In such role, Mr. Kesten leads all customer-facing functions worldwide as well as our professional services, sales engineering, carrier and business development, and international sales. Mr. Kesten joined us with over 20 years of experience in leadership roles at various technology companies, including as Vice President of HP Indigo between 1991 and 1995, as a Chief Operating Officer and General Manager of NDS from 1996 to 2012, as Vice President Video and General Manager Israel of Cisco from 2012 to 2015, as Silicon Process Engineer of Intel from 1982 to 1991, and as a managing partner at Jerusalem Venture Partners from 2014 to 2018. Mr. Kesten holds a B.S. in chemical engineering from Ben Gurion University and an Executive MBA from The Hebrew University, Israel.

David Aviv has served as our Chief Technology Officer since 2016 and as our Vice President, Advanced Services, since 2004. Prior to joining Radware, he was the VP of Engineering at Ofek, an Israel based ILEC and a senior consultant. Prior to that, until 2000, Mr. Aviv served in the Israeli Air Force as a senior technical leader. He also serves as the Technical Chairman of the Israeli Telecom Standards Body committee. Mr. Aviv holds a Ph.D. degree in Electrical Engineering (EE) from the Naval Postgraduate School in Monterey, California, a B.S. degree in Electrical Engineering from Ben-Gurion University and an M.S. degree in Electrical Engineering from Tel Aviv University, Israel.

Gabi Malka has served as our Chief Operating Officer since March 2014. From May 2005 to February 2014, Mr. Malka served as Vice President of Research and Development at HP Software (formerly Mercury). Prior to HP, from 2000 to 2005, Mr. Malka headed the R&D of AppStream (acquired by Symantec). Prior to AppStream, from 1998 to 2000, Mr. Malka directed R&D organization at Amdocs Limited. Mr. Malka holds a B.A. from American InterContinental University and has furthered his post-graduate education at Lahav Business School, Tel Aviv University and Harvard Business School.

Anna Convery-Pelletier has served as our Chief Marketing Officer since December 2016. In such role, she leads the global marketing organization, which consists of the corporate, product, field and channel marketing teams. Ms. Convery is responsible for the marketing strategy that shapes the future of the Radware brand while directly increasing the marketing contribution to drive revenue and increase market share. Prior to joining Radware, Ms. Convery held the position of Chief Marketing Officer and Executive Vice President of Strategy for OpenSpan Inc. (now Pega Systems Inc.) for five years. Prior to OpenSpan, Ms. Convery held senior executive roles at NICE Systems Ltd., ClickFox, Inc., and Nexidia Inc., as well as global marketing and business development roles at IBM, Jacada Ltd. and Unibol Inc. Ms. Convery holds a B.A. (with honors) degree from The University of Ulster, Northern Ireland.

Yoav Gazelle has served as our Vice President, EMEA & CALA since June, 2013. Prior to joining Radware, between 2000 and 2013, Mr. Gazelle held a variety of sales, marketing and business development positions in ECI Telecom Ltd., including President, Head of Europe and the Americas from January 2012 to March 2013. Mr. Gazelle holds a B.Sc. degree in electrical and electronic engineering from the Technion – The Israeli Institute of Technology, Israel.

Additional Information

Under Nasdaq requirements, a majority of the members of our Board of Directors are required to be “independent” as defined under Nasdaq Marketplace Rules, or the Nasdaq rules. We currently satisfy this requirement because four of our seven directors (namely, Mr. David Rubner, Prof. Yair Tauman, Mr. Avraham Asheri and Mr. Joel Maryles) qualify as “independent directors” under the Nasdaq rules.

Yehuda Zisapel, the Chairman of the Board of Directors, co-founder of the Company, and a principal shareholder of our company, is the father of Roy Zisapel, our President, Chief Executive Officer and director. In accordance with the Companies Law, Mr. Zisapel’s service as our Chairman was approved by our shareholders in September 2017. There are no other family relationships between any of the directors or members of senior management named above.

We are not aware of any arrangements or understandings with major shareholders, customers, suppliers or others, pursuant to which (1) any person referred to above was selected as a director or member of senior management or (2) any director will receive compensation by a third party in connection with his or her candidacy or board service in the Company.

B. Compensation

General

Our objective is to attract, motivate and retain highly skilled personnel who will assist Radware to reach its business objectives, performance and the creation of shareholder value and otherwise contribute to our long-term success. In October 2013, our shareholders approved the compensation policy for our executive officers and directors, to which we refer, as amended by our shareholders through October 2019, as our Compensation Policy. Our Compensation Policy is designed to correlate executive compensation with Radware’s objectives and goals.

The following table sets forth all salaries, fees, commissions and bonuses and pension retirement and other similar benefits we paid or accrued with respect to all of our directors and officers as a group for the 2019 fiscal year. The table does not include any amounts we paid to reimburse any of our affiliates for costs incurred in providing us with services during such period.

	<u>Salaries, fees, commissions and bonuses</u>	<u>Pension, retirement and other similar benefits</u>
2018 - All directors and officers as a group, consisting of 15 persons*	\$ 4,050,500	\$ 596,800
2019 - All directors and officers as a group, consisting of 13 persons**	\$ 3,409,100	\$ 501,600

* Includes 3 persons who served as our executive officers in 2018 and are no longer serving as our executive officers and one executive officer who was appointed during 2018.

** Includes one executive officer who was appointed during 2019.

During 2019, we granted to our directors and officers listed in Item 6.A above, in the aggregate, 101,599 RSUs at a weighted average grant date fair value per RSU of \$20.22 and options to purchase 324,300 ordinary shares at a weighted average exercise price per share of \$23.83. The options and RSUs expire sixty-two months after grant. The weighted average grant date fair value of these options was \$6.03 per option.

For a discussion of the accounting method and assumptions used in valuation of such options, see Note 2(t) to our consolidated financial statements included elsewhere in this annual report. See also Item 6.E “Directors, Senior Management and Employees—Share Ownership— Share Option Plans” below.

For a discussion of the compensation granted to our five most highly compensated executive officers during 2019, see “Compensation of Executive Officers” below, and for a discussion of the compensation paid to our non-employee directors, see “Compensation of Directors” below.

We currently hold directors and officers liability insurance with an aggregate coverage limit of \$25 million, including side A coverage. In addition, we provide our directors and officers indemnification pursuant to the terms of a Letter of Indemnification substantially in the form approved by our shareholders.

Compensation of Executive Officers

The table and summary below outline the compensation granted to our five most highly compensated executive officers during or with respect to the year ended December 31, 2019. We refer to the five individuals for whom disclosure is provided herein as our “Covered Executives.”

For purposes of the table and the summary below, "compensation" includes base salary, bonuses, equity-based compensation, retirement or termination payments, benefits and perquisites such as car, phone and social benefits, and any undertaking to provide such compensation. All amounts reported in the table are in terms of cost to the Company, as recognized in our financial statements for the year ended December 31, 2019.

Name and Principal Position (1)	Year	Salary	Bonus (including Sales Commissions) (2)	Equity-Based Compensation (3)	All Other Compensation (4)	Total
				(US\$ in thousands)		
<i>Roy Zisapel, Chief Executive Officer, President and Director*</i>	2019	414 (5)	438 (6)	1,740	133	2,725
<i>Raffi Kesten, Chief Business Officer* (7)</i>	2019	198	119	999	47	1,363
<i>Doron Abramovitch, Chief Financial Officer*</i>	2019	312	95	262	96	765
<i>Gabi Malka, Chief Operating Officer*</i>	2019	285	86	216	70	657
<i>Yoav Gazzele, VP International Sales</i>	2019	197	228	186	41	652

- (1) Unless otherwise indicated herein, all Covered Executives are (i) employed on a full-time (100%) basis; and (ii) subject to customary confidentiality, intellectual property assignment and non-solicitation provisions as well as an undertaking not to compete with us or in our field of business for at least 12 months following termination of employment.
- (2) Amounts reported in this column represent annual bonuses, including sales commissions. Consistent with our Compensation Policy, such bonuses are based upon (i) for non-sales executive officers - achievement of milestones and targets and the measurable results of the Company, as compared to our budget and/or work plan for the relevant year, with a portion of the bonus (up to 10% in the case of Roy Zisapel) being based on the achievement and performance of pre-determined individual key performance indicators (KPIs), and, in any event, not to exceed the amount of one (100%) annual base salary of such executive; and (ii) for sales executive officers - achievement of targets of revenues generated by the individual and/or his/her team or division and/or the Company, and in any event, not to exceed the amount of four annual base salaries of such executive.
- (3) Amounts reported in this column represent the grant date fair value in accordance with accounting guidance for stock-based compensation. For a discussion of the assumptions used in reaching this valuation, see Note 2(t) to our consolidated financial statements included elsewhere in this annual report.
- (4) Amounts reported in this column include benefits and perquisites, including those mandated by applicable law. Such benefits and perquisites may include, to the extent applicable to the Covered Executive, payments, contributions and/or allocations for savings funds (e.g., Managers Life Insurance Policy), education funds ('keren hishtalmut'), pension, severance, vacation, car or car allowance, medical insurances and benefits, risk insurances (e.g., life, or work disability insurance), phone, convalescence or recreation pay, relocation, payments for social security, tax gross-up payments and other benefits and perquisites consistent with Radware's guidelines. Unless otherwise indicated herein, all Covered Executives (i) are entitled to a notice period of at least one month prior to termination (other than termination for cause), during which they are generally entitled to all compensation and rights under their employment agreements; and (ii) are not entitled to any special bonuses or benefits upon a change of control of our Company, other than a potential acceleration of the vesting of their stock options pursuant to our equity incentive plan, as more fully described in Item 6.E below.
- (5) Mr. Roy Zisapel is entitled to a gross base salary of \$400,000 (or the equivalent in NIS) per annum, which includes payment for managing our entire on-going North America activities. The additional \$14,000 over the aggregated total \$400,000 annual salary is attributed to the change in the \$/NIS exchange rate from the date of the Shareholders' Annual General Meeting in 2012 where Mr. Zisapel's salary was approved to the average \$/NIS exchange rate in 2019.
- (6) Consistent with our Compensation Policy, and as approved by our shareholders in October 2019, Mr. Roy Zisapel is entitled to an annual bonus of up to \$600,000 (or the equivalent in NIS).
- (7) Employment commenced in June 2019.

* All or part of the base salary is denominated in NIS whereas our functional currency is dollars and therefore fluctuations in dollar amounts may be attributed to exchange rate fluctuations.

Our non-employee directors are entitled to the following compensation: (i) annual compensation in the amount of NIS 120,800 (currently equivalent to approximately \$33,550) per year of service; (ii) per meeting remuneration of NIS 3,600 (currently equivalent to approximately \$1,000) for each board or committee meeting attended, provided that the director is a member of such committee; (iii) compensation for telephonic participation in board and committee meetings (where other members physically attend) in an amount of 60% of what is received for physical participation; and (iv) compensation for board and committee meetings held via electronic means without physical participation in an amount of 50% of what is received for physical meetings. All amounts payable under items (i), (ii), (iii) and (iv) above are subject to adjustment for changes in the Israeli consumer price index after December 2007 and changes in the amounts payable pursuant to Israeli law from time-to-time.

In addition, our non-employee directors are entitled to a grant of options under our stock option plans to purchase 20,000 ordinary shares for each year in which such non-employee director holds office. The options are granted for three years in advance, and therefore every director receives an initial grant of options to purchase 60,000 ordinary shares which vest over a period of three years, with a third (20,000) to vest upon each anniversary of service, provided that the director still serves on the Company's Board of Directors on the date of vesting. The grant is made on the date of the director's election (or the date of commencement of office, if different), and thereafter, every three years, if reelected, an additional grant of options to purchase an additional 60,000 ordinary shares will be made on the date of each annual meeting in which such director is reelected. The exercise price of all options shall be equal to the fair market value of the ordinary shares on the date of the grant (i.e., an exercise price equal to the market price of our ordinary shares on the date of the annual meeting approving the election or reelection of a director or the date of commencement of office, if different).

C. Board Practices

Introduction

Since we are incorporated as an Israeli company, we are subject to the provisions of the Companies Law and the regulations adopted thereunder. In addition, since our ordinary shares are listed on the Nasdaq Global Select Market, we are also subject to the Nasdaq rules.

According to the Companies Law and our Articles of Association, the oversight of the management of our business is vested in our Board of Directors. Our Board of Directors may exercise all powers and may take all actions that are not specifically granted to our shareholders. As part of its powers, our Board of Directors may cause us to borrow or secure payment of any sum or sums of money for our purposes, at times and upon terms and conditions as it determines, including the grant of security interests in all or any part of our property.

Our Articles of Association provide for a Board of Directors of not less than five and not more than nine directors. Currently, our Board of Directors consists of seven directors. In accordance with current Nasdaq requirements, nominees for election as directors are approved and recommended to the Board of Directors by a majority of our independent directors.

Under the Companies Law, our Board of Directors is required to determine the minimum number of directors having accounting and financial expertise, as defined in regulations promulgated under the Companies Law, that our Board of Directors should have. In determining the number of directors required to have such expertise, the Board of Directors must consider, among other things, the type and size of the company and the scope and complexity of its operations. Our Board of Directors has determined that we require at least one director with the requisite financial and accounting expertise and that Mr. Avraham Asheri has such expertise.

Staggered Board

In accordance with the terms of our Articles of Association, our Board of Directors is divided into three classes with each class of directors serving until, generally, the third annual meeting following their election as follows:

<u>Class</u>	<u>Term expiring at the annual meeting for the year</u>	<u>Directors</u>
Class I	2021	Yehuda Zisapel, Avraham Asheri and Yair Tauman
Class II	2022	Roy Zisapel and Joel Maryles
Class III	2020	Yael Langer and David Rubner

At each annual meeting of shareholders after the initial classification, the successors to directors whose terms will then expire will be elected to serve from the time of election and qualification until the third annual meeting following such election. Directors are elected by a simple majority of the votes cast by our shareholders at an annual general meeting, whereas a director's removal from office requires the vote of at least 75% of the voting power represented at the general meeting. Any additional directorships resulting from an increase in the number of directors will be distributed among the three classes so that, to the nearest extent possible, each class will consist of one-third of the directors. This classification of our Board of Directors may have the effect of delaying or preventing changes in control or management of our company.

For a description of how long our directors and officers have served in their current positions, please see Item 6.A "Directors, Senior Management and Employees —Directors and Senior Management."

External Directors and Israeli Relief Regulations

Under the Companies Law, companies incorporated under the laws of Israel whose shares are listed for trading on a stock exchange or have been offered to the public in or outside of Israel, are required to appoint at least two external directors. However, pursuant to Israeli regulations promulgated under the Companies Law, companies whose shares are traded on specified non-Israeli stock exchanges, including Nasdaq, and which do not have a controlling shareholder, such as Radware, may elect to opt out of the requirement to maintain external directors as well as elect to opt out of the composition requirements under the Companies Law with respect to the audit and compensation committees.

Consistent with the aforesaid relief regulations, in February 2020, we elected to opt out from the requirement to appoint external directors and from the composition requirements for the audit and compensation committees under the Companies Law. Our eligibility to opt out is conditioned upon: (i) the continued listing of our ordinary shares on the Nasdaq (or one of a few other specified non-Israeli stock exchanges); (ii) there not being a controlling shareholder of our Company; and (iii) our compliance with the SEC rules and Nasdaq requirements as to the composition of (a) our board of directors (which requires that we maintain a majority of independent directors on our board of directors) and (b) the audit and compensation committees of our board of directors (which, subject to certain exceptions, require that such committees consist solely of independent directors (at least three and two members, respectively), as described under the Nasdaq rules). As a result of our said election to opt out, our then-external directors, Mr. Rubner and Mr. Tauman, began serving as regular directors (i.e., non-external directors) commencing in February 2020 and were assigned as Class III director and Class I director, respectively.

Our election to exempt our Company from compliance with the external director and audit and compensation committee requirements can be reversed at any time by our Board of Directors, in which case we would need to hold a shareholder meeting to once again appoint external directors, whose election, by a special majority, would initially be for a three-year term.

Our Committees

The Board of Directors appoints committees to help carry out its duties. Each committee reports the results of its meetings to the full Board of Directors. The Board of Directors established an Audit Committee and a Compensation Committee and, from time to time, establishes other "ad-hoc" committees of members of the Board of Directors for specific duties or assignments and limited duration.

Audit Committee

Our ordinary shares are listed on the Nasdaq Global Select Market, and we are subject to the Nasdaq rules applicable to listed companies. Under the Nasdaq rules, we are required to have an audit committee consisting of at least three independent directors, all of whom are financially literate and one of whom has accounting or related financial management expertise. To the extent a company is required to appoint external directors, the audit committee must include all of the external directors and comply with additional requirements as to the composition thereof under the Companies Law. However, when we elected to exempt our Company from the external director requirement, we concurrently elected to exempt our Company from all of such requirements.

Our Board has determined that all directors serving on our Audit Committee (namely Mr. Avraham Asheri, Mr. David Rubner, Prof. Yair Tauman and Mr. Joel Maryles) meet the independence standards required of Audit Committee members by the Securities Exchange Act of 1934 and the Nasdaq rules. In addition, the Board of Directors has determined that Mr. Avraham Asheri is considered an “audit committee financial expert” (as defined by SEC rules).

In accordance with the Nasdaq rules, our Audit Committee has adopted a charter that sets forth the Audit Committee’s purpose and responsibilities, which include, among other things, (1) assisting the Board of Directors in fulfilling its responsibility for oversight of the quality and integrity of our accounting, auditing and financial reporting practices and financial statements and the independence qualifications and performance of our independent auditors, and (2) selecting, evaluating and, where appropriate, recommending to replace the independent auditors (or to nominate the independent auditors subject to shareholder approval) and pre-approving audit engagement fees and all permitted non-audit services and fees. Our Audit Committee must also review and approve all related party transactions specified under Item 7.B of Form 20-F.

In accordance with the Companies Law, the duties of our Audit Committee, in addition to the requirements imposed by the Nasdaq rules, include, among other things, (1) identifying irregularities in the business management of the Company, including in consultation with the internal auditor and/or the Company’s independent accountants, and recommending remedial measures to the Board of Directors, (2) reviewing, and, where appropriate, approving certain interested party transactions specified under the Companies Law, as more fully described in Exhibit 2.1 to this annual report under the heading “Approval of Specified Related Party Transactions under Israeli Law,” and (3) examining and monitoring the work of our internal auditor.

Our Audit Committee also functions as our Qualified Legal Compliance Committee, or the QLCC. In its capacity as the QLCC, our Audit Committee is responsible for investigating reports made by any of our attorneys appearing and practicing before the SEC of perceived material violations of U.S. federal or state securities laws, breaches of fiduciary duty or similar violations by us or any of our agents.

Compensation Committee

Pursuant to applicable Nasdaq rules, the compensation payable to a company’s chief executive officer and other executive officers must generally be approved by a compensation committee comprised solely of independent directors. To the extent a company is required to appoint external directors, the compensation committee must include all of the external directors and comply with additional requirements as to the composition thereof under the Companies Law. However, when we elected to exempt our Company from the external director requirement, we concurrently elected to exempt our Company from all of such requirements.

Under the Companies Law, the role of the compensation committee includes recommending to the Board of Directors, for ultimate shareholder approval by a special majority, a policy governing the compensation of office holders based on specified criteria; reviewing, from time to time, modifications to the compensation policy and examining its implementation; approving the actual compensation terms of office holders prior to approval thereof by the Board of Directors; and resolving whether to exempt the compensation terms of a candidate for chief executive officer from shareholder approval. The Companies Law defines the term “office holder” of a company to include a director, the chief executive officer, the chief financial officer, a vice president and any officer of the company that reports directly to the chief executive officer.

Pursuant to its charter, our Compensation Committee is authorized to make decisions regarding executive compensation and terms and conditions of employment, to follow market trends and provide recommendations to the Board of Directors in connection with the Company's general compensation philosophy and policies, as well as to recommend that the Board of Directors issue options under our stock option plans. The Compensation Committee reviews and determines, on behalf of the Board of Directors, the amounts and types of compensation to be paid to the Company's Chief Executive Officer and other executive officers.

Our Compensation Committee currently consists of Mr. David Rubner, Prof. Yair Tauman, Mr. Joel Maryles and Mr. Avraham Asheri, all of whom are independent directors.

Nomination of Directors

Our independent directors consider and vote upon nominations to our Board of Directors.

Board and Committee Meetings

The table below describes the number of meetings and attendance rates of our Board of Directors, Audit Committee and Compensation Committee in 2019*:

Name of Body	No. of Meetings in 2019	Average Attendance Rate
Board of Directors	13	93.4%
Audit Committee	5	100%
Compensation Committee	5	100%

* Excludes ad-hoc committees.

Each director attended at least 80% of all Board meetings.

Directors' Service Contracts

Except as described in Item 6.B above, we do not, as of the date of filing of this annual report, have service or employment contracts with our directors providing for benefits upon termination of employment.

Internal Auditor

Under the Companies Law, the board of directors of a public company must appoint an internal auditor proposed by the audit committee. The role of the internal auditor is to examine, among other things, whether the company's conduct complies with applicable law and orderly business procedure. The internal auditor may participate in all audit committee meetings and has the right to demand that the chairman of the audit committee convene a meeting. Under the Companies Law, the internal auditor may be an employee of the company but may not be an interested party, an office holder or a relative of any of the foregoing, nor may the internal auditor be the company's independent accountant or its representative. Ms. Dana Gottesman – Erlich, CPA, CIA, Partner in BDO Ziv Haft, CPAs is our internal auditor.

Additional Information

For additional information regarding the fiduciary duties and other legal requirements relating to the conduct of our directors and executive officers, see in Exhibit 2.1 to this annual report under the heading “Board of Directors.”

D. Employees

At the time of commencement of employment, our employees in North America generally sign offer letters specifying basic terms and conditions of employment, whereas our employees in Israel, including our executive officers, generally sign standard written employment agreements. The employees in our other jurisdictions sign employment agreements, which differ according to customary practices in the country in which they are located. All our employees worldwide sign confidentiality and non-compete terms and conditions.

The following table details certain data on our workforce (including temporary employees and subcontractors) as at the period indicated:

	As at December 31,		
	2019	2018	2017
<i>Approximate numbers of employees and subcontractors by geographic location:</i>			
Israel	482	456	450
North, Central and South America (principally the United States)	221	210	220
EMEA (Europe, the Middle East and Africa)	108	106	107
Asia-Pacific	283(*)	189(*)	201(*)
Total workforce	1,094	961	978
<i>Approximate numbers of employees and subcontractors by category of activity:</i>			
Research and development	415(*)	372(*)	381(*)
Sales, technical support, business development and marketing	549	452	474
Management, operations and administration	130	137	123
Total workforce	1,094	961	978

(*) Include 57, 56 and 61 subcontractors, as of December 31, 2019, 2018 and, 2017, respectively.

We are subject to Israeli labor laws and regulations with respect to our Israeli employees. These laws principally concern matters such as paid annual vacation, paid sick days, length of the workday and work week, minimum wages, pay for overtime, insurance for work-related accidents, severance pay and other conditions of employment.

Furthermore, we and our Israeli employees are subject to provisions of the collective bargaining agreements between the “Histadrut,” the General Federation of Labor in Israel, and the Coordination Bureau of Economic Organizations, including the Industrialists Association, by governmental order. These provisions principally concern social benefits, cost of living increases, recreation pay and other conditions of employment. We generally provide our employees with benefits and working conditions above the required minimums.

The employees of our subsidiaries are subject to local labor laws, regulations and/or collective bargaining agreements that vary from country to country.

Our employees are not represented by a labor union.

We consider our relations with our employees to be good, and we have never experienced a strike or work stoppage.

E. Share Ownership

The following table sets forth certain information regarding the beneficial ownership of our ordinary shares by our directors and officers as of March 29, 2020. 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 or RSUs currently exercisable or exercisable (vested in the case of RSUs) 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.

Name	Number of ordinary shares	Percentage of outstanding ordinary shares**
Yehuda Zisapel (1)	1,676,215	3.61%
Roy Zisapel (2)	1,444,646	3.11%
Avraham Asheri (3)	*	*
Yael Langer (3)	*	*
David Rubner (3)	*	*
Yair Tauman (3)	*	*
Joel Maryles (3)	*	*
Doron Abramovitch (3)	*	*
Raffi Kesten (3)	*	*
Gabi Malka (3)	*	*
David Aviv (3)	*	*
Anna Convery-Pelletier (3)	*	*
Yoav Gazelle (3)	*	*
All directors and executive officers as a group (13 persons) (4)	3,415,461	7.30%

* Reflects ownership of less than 1%.

** The percentages shown are based on 46,339,201 ordinary shares issued and outstanding as of March 29, 2020. This figure of outstanding ordinary shares excludes employee stock options to purchase an aggregate of 474,600 ordinary shares at a weighted average exercise price of approximately \$16.38 per share, with the latest expiration date of these options being in November 2023 (of which, options to purchase 474,600 of our ordinary shares were exercisable as of March 29, 2020).

(1) Of the ordinary shares beneficially owned by Mr. Yehuda Zisapel (i) 1,394,215 shares are held directly by Yehuda Zisapel; (ii) 202,000 shares are held of record by Neurim Pharmaceuticals (1991) Ltd., an Israeli company wholly owned in equal parts by Yehuda Zisapel and Nava Zisapel; and (iii) 80,000 options to purchase ordinary shares which options are fully vested or which will be fully vested within the next 60 days. The options consist of (i) 60,000 options at an exercise price of \$15.33 per share, which expire in January 2021, and (ii) 20,000 options at an exercise price of \$27.15, which expire in November 2023. In addition, Nava Zisapel holds 2,735,676 ordinary shares which are not included in the total shares reported above as beneficially owned by Yehuda Zisapel. Yehuda and Nava Zisapel have an agreement which provides for certain coordination in respect of sales of shares of Radware as well as for tag along rights with respect to off-market sales of shares of Radware.

(2) Consists of 1,344,646 shares and 100,000 options to purchase ordinary shares which options are fully vested or will be fully vested within the next 60 days. All of the options are at an exercise price of \$15.33 and expire in January 2021.

(3) Owns less than 1% of our outstanding ordinary shares (including options held by each such party, which are vested or shall become vested within 60 days of the date of this annual report) and have therefore not been separately disclosed.

(4) Consists of 2,940,861 shares and 474,600 options to purchase ordinary shares which options are fully vested or which will be fully vested within the next 60 days. The options consist of (i) 52,500 options at an exercise price of \$12.46 which expire in September 2021, (ii) 22,500 options at an exercise price of \$13.35 which expire in December 2021, (iii) 47,500 options at an exercise price of \$14.00 which expire in April 2021, (iv) 35,800 options at an exercise price of \$14.38 which expire in January 2022, (v) 7,500 options at an exercise price of \$14.68 which expire in April 2022, (vi) 193,800 options at an exercise price of \$15.33 which expire in January 2021, (vii) 40,000 options at an exercise price of \$16.67 which expire in November 2022, (viii) 15,000 options at an exercise price of \$17.63 which expire in October 2022, and (ix) 60,000 options at an exercise price of \$27.15 which expire in November 2023. In addition, Nava Zisapel holds 2,735,676 ordinary shares which are not included in the total shares reported above as beneficially owned by Yehuda Zisapel. Yehuda and Nava Zisapel have an agreement which provides for certain coordination in respect of sales of shares of Radware as well as for tag along rights with respect to off-market sales of shares of Radware.

Key Employee Share Incentive Plan

In August 1997, we adopted our Key Employee Share Incentive Plan (1997), as amended, or the Share Incentive Plan. Under the plan, stock options as well as restricted stock units, or RSUs, may be granted to employees employed by us or by our affiliates.

The Share Incentive Plan is administered by the Compensation Committee subject to the provisions of the Companies Law. Pursuant to the plan, the Compensation Committee has the authority to determine (subject to applicable law), or advise the Board of Directors, in its discretion:

- the persons to whom options or RSUs are granted;

- the number of shares underlying each equity award;
- the time or times at which the award shall be made;
- the exercise price, vesting schedule and conditions pursuant to which the awards are exercisable, including cashless exercises; and
- any other matter necessary or desirable for the administration of the plan.

In addition, the Share Incentive Plan provides that, unless otherwise determined otherwise by our Board of Directors (or a committee thereof), in the event of a “Hostile Takeover,” which is defined to include, among others, an unsolicited acquisition of more than 20% of our outstanding shares (other than a purchase by Mr. Yehuda Zisapel), the vesting of all or a portion of our outstanding equity awards, will accelerate. As a result, an acquisition of our Company that triggers the said acceleration will be more costly to a potential acquirer.

Options granted pursuant to the Share Incentive Plan are typically granted for a term of sixty-two months from the date of the grant of the option. As of December 31, 2019, 33,312,967 ordinary shares have been reserved for equity grants under the plan, of which we have granted (i) options to purchase 28,286,653 ordinary shares at a weighted average exercise price of \$8.16 per ordinary share and (ii) 2,741,853 RSUs have been issued under the plan.

The Share Incentive Plan allows the allocation of short-term options to grantees who are not residents of Israel or the United States, with a grant price of 90% of the closing sales price for the shares on the Nasdaq on the date of grant of a respective option award. As of December 31, 2019, 1,000,000 ordinary shares have been reserved for option grants under this arrangement, of which we have granted options to purchase 236,694 ordinary shares at a weighted average exercise price of \$7.09 per ordinary share. This arrangement does not affect the possibility of issuing options under the Share Incentive Plan as detailed above. However, any person who participates in the ESPP (as defined below) shall not be an eligible grantee for purposes of such arrangement.

Directors and Consultants Option Plan

In February 2000, we adopted a Directors and Consultants Option Plan, which is administered by our Compensation Committee. Options granted pursuant to our Directors and Consultants Options Plan are for a term of 62 months from the date of the grant of the option. The terms of the Directors and Consultants Option Plan are similar to the terms of the Share Incentive Plan. The Directors and Consultants Option Plan relies on the 33,312,967 ordinary shares reserved for option grants shares under the Share Incentive Plan which can be rolled over between such plans. The Compensation Committee may not grant options to members of the Committee or to a shareholder of over 10% of our issued and outstanding shares.

Employee Share Purchase Plan

In February 2010, our Board of Directors adopted the 2010 Employee Share Purchase Plan (“ESPP”), which provides for the issuance of a maximum of 2,000,000 ordinary shares. Pursuant to the ESPP, eligible employees (including only Israeli and United States residents) could have up to 10% of their net income withheld, up to certain maximums, to be used to purchase our ordinary shares. The ESPP is implemented with overlapping one year offering periods, each one consisting of two purchases, once in every six-month period. The price of each ordinary share purchased under the ESPP is equal to 90% of the closing price for the shares on the respective offering date. As of December 31, 2019, a total of 255,560 shares had been purchased under the ESPP. During 2019, no shares have been purchased under the ESPP.

ITEM 7. MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS**A. Major Shareholders**

The following table sets forth certain information regarding the beneficial ownership of our ordinary shares as of March 29, 2020, by each person or entity known to own beneficially more than 5% of our outstanding ordinary shares based on information provided to us by the holders or disclosed in public filings with the SEC. The voting rights of all major shareholders are the same as for all other shareholders.

Name	Number of ordinary shares*	Percentage of outstanding ordinary shares**
Senvest Management, LLC (1)	5,401,595	11.66%
Cadian Capital Management, LP (2)	4,232,009	9.13%
Nava Zisapel (3)	2,937,676	6.34%

* 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 or RSUs currently exercisable or exercisable (vested in the case of RSUs) 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.

** The percentages shown are based on 46,339,201 ordinary shares issued and outstanding as of March 29, 2020. This figure of outstanding ordinary shares excludes employee stock options to purchase an aggregate of 474,600 ordinary shares at a weighted average exercise price of approximately \$14.71 per share, with the latest expiration date of these options being in November 2023 (of which, options to purchase 474,600 of our ordinary shares were exercisable as of March 29, 2020).

(1) Shares are beneficially owned by Senvest Management, LLC and Mr. Richard Mashaal (collectively, "Senvest"). This information is based on information provided in the Amendment No. 15 to Statement on Schedule 13G filed with the SEC by Senvest on February 7, 2020. The business address of Senvest is 540 Madison Avenue, 32nd Floor, New York, New York 10022.

(2) This information is based on information provided in the Amendment No. 4 to Statement on Schedule 13G filed with the SEC by Cadian Capital Management, LP, Cadian Capital Management GP, LLC and Mr. Eric Bannasch (collectively, "Cadian") on February 13, 2020. The business address of Cadian is 535 Madison Avenue, 36th Floor, New York, New York 10022.

(3) Of the ordinary shares beneficially owned by Ms. Nava Zisapel, (i) 2,467,843 are held directly; (ii) 267,833 are held of record by Carm-AD Ltd., an Israeli company owned 100% by Nava Zisapel; and (iii) 202,000 are held of record by Neurim Pharmaceuticals (1991) Ltd., an Israeli company wholly owned in equal parts by Yehuda Zisapel and Nava Zisapel. As noted in note 1 in Item 6.E "Share Ownership," Yehuda and Nava Zisapel have an agreement which provides for certain coordination in respect of sales of shares of Radware as well as for tag along rights with respect to off-market sales of shares of Radware.

To our knowledge, the Company is not directly or indirectly owned or controlled by another corporation, by any foreign government or by any other natural or legal person severally or jointly. There are no arrangements, known to the Company, the operation of which may at a subsequent date result in a change in control of the Company.

Significant Changes in the Ownership of Major Shareholders

During the past three years, the significant changes in the percentage ownership of our major shareholders were as follows:

- Based on Amendment No. 15 to Statement on Schedule 13G filed with the SEC by Senvest on February 7, 2020, Senvest beneficially owned 5,401,595 of our outstanding ordinary shares. Based on previous amendments to the Schedule 13G filed with the SEC by Senvest, Senvest beneficially owned (i) as of February 8, 2019, 5,832,115 of our outstanding ordinary shares and (ii) as of February 12, 2018, 5,881,191 of our outstanding ordinary shares.
- Based on Amendment No. 4 to Statement on Schedule 13G filed with the SEC by Cadian on February 13, 2020, Cadian beneficially owned 4,232,009 of our outstanding ordinary shares. Based on previous amendments to the Schedule 13G filed with the SEC by Cadian, Cadian beneficially owned (i) as of February 13, 2019, 3,649,771 of our outstanding ordinary shares and (ii) as of February 13, 2018, 2,704,216 of our outstanding ordinary shares.

Major Shareholders Voting Rights

Our major shareholders do not have different voting rights from those of other shareholders.

Record Holders

Based on a review of the information provided to us by our transfer agent, as of March 29, 2020, there were 26 holders of record of our ordinary shares, of which 16 record holders, holding approximately 7.8% of our ordinary shares, had registered addresses in Israel, and of which seven record holders, holding approximately 92.2% of our ordinary shares, had registered addresses in the United States. These numbers are not representative of the number of beneficial holders of our ordinary shares nor is it 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 92.2% of our outstanding ordinary shares as of said date).

B. Related Party Transactions

General

We have entered into a number of agreements with certain companies, of which Yehuda, Nava and Zohar Zisapel are co-founders, directors and/or principal shareholders, collectively known as the RAD-Bynet Group. Roy Zisapel, our President and Chief Executive Officer and a director, also holds a minority stake of 10% in one RAD-Bynet Group entity, SecurityDam. In addition, we purchase different services and fixed assets from member entities of the RAD-Bynet Group at special rates, such as car leases, maintenance, insurance communication. We also purchase managed security service provider (MSSP) scrubbing center services from SecurityDam.

The RAD-Bynet Group consists of high-tech manufacturers of hardware and software solutions and data communication providers, distributors and integrators as well as service providers. The RAD-Bynet Group includes companies dealing in advanced communication technology, managed security service provider (MSSP) scrubbing center services, networks, and integration. Companies within the RAD-Bynet Group provide a variety of solutions and services to their customers, including engineering, purchasing and sub-contracting, production and final testing, planning and control, and support for end users. The RAD-Bynet Group also includes a few companies that provide services that support the activities of the other RAD-Bynet Group members, such as real estate leasing and administrative services. Some of the products of members of the RAD-Bynet Group are complementary to, and may be used in connection with, our products. Each company in the RAD-Bynet Group is independent from the others. The ownership and Board of Directors structure of each RAD-Bynet Group member is different and certain of the RAD-Bynet Group members are publicly traded companies. See Item 4.C "Organizational Structure." for additional details about the group.

We believe that all of these transactions and arrangements with affiliated parties, including members of the RAD-Bynet Group, are in the ordinary course of our business and are not unusual in their nature or conditions. However, in accordance with the Companies Law, they generally require the approval of our Audit Committee and our Board of Directors and may, in certain circumstances, require approval by our shareholders. In this respect, as permitted by the Companies Law, our Audit Committee established internal policies with certain criteria and procedures designed to ensure that the terms of the transactions to which we enter into with companies within the RAD-Bynet Group are made on market terms and, at the same time, where such transactions are immaterial or negligible, both from a qualitative and quantitative perspective (and/or are otherwise believed to be routine) would not require the pre-approval of our Audit Committee and Board of Directors. Our management is required to examine whether transactions with the RAD-Bynet Group comply with such criteria and transactions which do not meet the criteria require pre-approval of our Audit Committee and such other corporate approvals prescribed by the Companies Law.

We believe that the terms of the transactions to which we have entered with members of the RAD-Bynet Group are not different in any material respect from terms we could obtain from unaffiliated third parties. The pricing of the transactions was based on negotiations between the parties and members of our management reviewed the pricing of these agreements, as well as, in some cases, used a third-party consulting firm, and confirmed that they were not different in any material respect than that which could have been obtained from unaffiliated third parties.

In the event that we cease to be a member of the RAD-Bynet Group, we may not be able to obtain the current rates for such services. We believe, however, that due to the affiliation between us and the RAD-Bynet Group, we have greater flexibility in obtaining certain terms and conditions that may not be available from unaffiliated third parties on similar products and services.

Lease of Property

We lease the office space for our headquarters and principal R&D, administrative, finance and marketing and sales operations from private companies within the RAD-Bynet Group that are owned by Zohar Zisapel, Nava Zisapel and Yehuda Zisapel:

- One lease is a five-story building in Tel Aviv, Israel, consisting of approximately 40,000 square feet, plus storage and parking space. The lease expires in June 2020. The annual rent amounts to approximately \$702,000. We are currently negotiating an extension of this lease.
- Another, second lease, consists of four floors in the Or Tower in Tel Aviv, Israel with approximately 60,000 square feet, plus parking spaces. In February 2020, we amended the lease agreement, whereby we agreed to lease an additional space of 8,000 square feet in a fifth floor in the same building and extended the term of the lease for the whole 68,000 square feet to June 2030. The annual rent amounts to approximately \$1,900,000. In this annual report, we sometime refer to this lease as well as the lease described above as the “Lease Agreements for the Company’s Headquarters”.
- We also lease approximately 3,600 square feet of space in Jerusalem, Israel, for development facilities from an affiliated company owned by Yehuda and Nava Zisapel. This lease expires in July 2020 and will be automatically extended by an additional five years. The annual rent amounts to approximately \$75,000.
- In addition, we lease approximately 15,000 square feet of space in Jerusalem, Israel, for manufacturing facilities, from an affiliated company owned by Yehuda, Nava and Zohar Zisapel. This lease expires in July 2022. The annual rent amounts to approximately \$280,000.
- We lease approximately 16,900 square feet in Mahwah, New Jersey, consisting of approximately 12,700 square feet of office space and 4,200 square feet of warehouse space, from an affiliated company owned by Yehuda, Nava and Zohar Zisapel. The annual rent amounts to approximately \$263,000. The lease expires in December 2026.

Distribution Agreement

Bynet Data Communications Ltd. (“Bynet”), a member of the RAD-Bynet Group, distributes our products in Israel on a non-exclusive basis. We have a written distributor agreement with Bynet under which we provide Bynet with discounts on our solutions similar to the discounts provided to third-party distributors in the region in the ordinary course of business. The total sales to Bynet (and other companies in the RAD-Bynet Group) under such distributor agreement amounted to approximately \$4.5 million in 2019, compared to \$2.5 million in 2018.

Managed Security Service Provider (“MSSP”) Agreement

SecurityDam, a member of the RAD-Bynet Group, is the sole provider of scrubbing center services for our cloud DDoS protection service. Under the MSSP Agreement with SecurityDam, SecurityDam provides us with scrubbing center services through a global network of scrubbing centers. Such scrubbing center services include, for example, diverting the traffic of an attacked site of a customer to a scrubbing center and mitigating the attack and licensing of software to control and monitor such attacks. Total cost of services received from SecurityDam amounted to approximately \$7.1 million in 2019, compared to \$7.0 million in 2018.

Additional RAD-Bynet Group Services

We receive the following additional services from members of the RAD-Bynet Group: network management; IT and communication services; equipment testing and repair; electricity charges; parking and building maintenance; reception services; vehicles and human resource administration; distribution services; and marketing services. Each of these additional services is not material, individually or in the aggregate, to Radware or the other members of the RAD-Bynet Group.

A portion of the above services, such as electricity charges, are “pass through” services for which we are charged on a “back-to-back” basis according to our actual usage (i.e., we are charged pro rata based on the actual charge of the third party electricity company) due to the fact that we lease part of our facilities from a number of other RAD-Bynet Group members. Other services mentioned above, such as vehicles and human resource administration, are performed by one of the RAD-Bynet Group companies and are provided to all members of the RAD-Bynet Group, in order to achieve lower prices for these services based on economies of scale. In addition, since the RAD-Bynet Group is comprised of a number of companies which are engaged in our industry, the RAD-Bynet Group companies initiate marketing events from time to time, which we participate in, to promote the RAD-Bynet Group members’ products. The charges for these services are based on actual costs incurred and are allocated to the Company according to its relative part in such services (e.g., vehicles administration – according to the number of the Company’s vehicles out of the total vehicles of the RAD-Bynet Group; marketing events – according to the number of participants of the Company’s customers out of the total participants in the events).

All other services, such as communication and distribution services are provided to us on the same basis and terms as provided to unrelated companies outside the RAD-Bynet Group, and were compared to prices the Company could have obtained from unaffiliated third parties and were found to be equal or less expensive. All services are charged on a monthly basis and on terms which are generally typical for other third party providers of the Company.

Compensation of Chief Executive Officer

See discussion in Item 6.A “Directors, Senior Management and Employees—Directors and Senior Management.”

C. Interests of Experts and Counsel

Not applicable.

ITEM 8. FINANCIAL INFORMATION

A. Consolidated Statements and other Financial Information

Financial Statements

See Item 18 “Financial Statements.”

Export Sales

For the year ended December 31, 2019, the amount of our export sales (i.e., sales outside Israel) was approximately \$243 million, which represents 96% of our total revenues.

Legal Proceedings

We are, or may be, from time to time named as a defendant in certain routine litigation incidental to our business. However, except for the matter described below, we are currently not, and have not been in the recent past, a party to any legal proceedings which may have or have had in the recent past significant effects on our financial position or profitability.

Intellectual Property Dispute with F5

In April 2016, F5 filed a lawsuit against us in the United States District Court for the Western District of Washington, alleging infringement of three U.S. patents of F5 relating to our ADC and WAF products. In December 2016, we filed an amended counterclaim in this action for patent infringement of a recently issued Radware patent directed to outbound link load balancing. In June 2017, the case was transferred to the United States District Court for the Northern District of California. On November 19, 2018, the Court granted partial summary judgment of non-infringement of the Company’s patent. In May 2019, we reached a mutual confidential settlement of this claim with F5 without any admission of liability by either party.

Dividend Distribution Policy

We have never paid and do not intend to pay cash dividends on our ordinary shares in the foreseeable future. In recent years and specifically in the past seven consecutive years, our Board of Directors has approved “buy-back” programs of our shares, which we implement based on market conditions, share price, trading volume and other factors. Otherwise, our policy is to retain earnings and other cash resources to continue the development and expansion of our business. 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. See also in Exhibit 2.1 to this annual report under the heading “Dividend, Liquidation Rights and Rights to Shares in Profits.”

B. Significant Changes

Except as otherwise disclosed in this annual report and in this Item 8.B below, we are not aware of any significant changes that have occurred since December 31, 2019.

In December 2019, a novel strain of coronavirus (COVID-19) was reported in Wuhan, China. While, initially, the COVID-19 outbreak was largely concentrated in China, it has now spread globally, including to the U.S., Israel and Europe. Many governments and local municipalities around the world, including in the U.S., Israel and Europe, have since implemented significant measures in an attempt to control the spread of the virus, including limitations on international and domestic travel, restrictions with respect to public gatherings, including the number of employees who may be present at a work place at any given time, limitations on access and entrance to various facilities, and other public safety limitations and restrictions.

While we have established, well before the COVID-19 outbreak, a business continuity plan (BCP) designed to prevent the collapse of critical business processes to a large extent or to enable the resumption of critical business processes in case of a natural disaster, and have not, to date, suffered material interruptions in our supply chain, curtail in demand for our solutions or, primarily due to the ability of most of our employees to work off-premise, experienced any work stoppages, there is no assurance that our BCP will prove to be adequate or, even if it is, that we will not be negatively impacted as a result of the various measures taken or that will be implemented to contain the COVID-19 outbreak. For example, limitations on international and domestic travel and public gatherings, such as conventions, could have a negative effect on our sales and marketing efforts. In addition, as the global spread of the COVID-19 continues, we identified increased market volatility and economic uncertainties which may materially impact the valuation of our marketable securities.

The measures implemented by governments and local municipalities, though temporary in nature, may continue and increase depending on developments in the virus' outbreak. Consequently, the ultimate severity, including duration, of the COVID-19 outbreak and its short and long-term impact on the global economy, including overall IT spending climate, is uncertain at this time and therefore we cannot reasonably estimate the various impacts it may have on our targeted markets, business, financial condition and results of operation. There may be other financial or operational impacts, although the extent of such impacts is unpredictable at this time.

ITEM 9. THE OFFER AND LISTING

A. Offer and Listing Details

Our ordinary shares have been listed for quotation on the Nasdaq Global Select Market since September 30, 1999 under the symbol “RDWR”.

B. Plan of Distribution

Not applicable.

C. Markets

Our ordinary shares are listed for quotation on the Nasdaq Global Select Market under the symbol “RDWR.”

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

Copies of our Memorandum of Association and our Amended and Restated Articles of Association are filed as Exhibits 1.1 and 1.2 to this annual report. The information called for by this Item is included in Exhibit 2.1 to this annual report and is incorporated herein by reference.

C. Material Contracts

See the summary of the terms of the Lease Agreements for the Company's Headquarters in Item 7.B "Major Shareholders and Related Party Transactions—Related Party Transactions—Lease of Property."

D. Exchange Controls

There are currently no Israeli currency control restrictions on payments of dividends or other distributions with respect to our ordinary shares or the proceeds from the sale of the shares, except for the obligation of Israeli residents to file reports with the Bank of Israel regarding certain transactions. However, legislation remains in effect pursuant to which currency controls can be imposed by administrative action at any time.

E. Taxation

Holders of our ordinary shares should consult their tax advisors as to the United States, 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.

Israeli Tax Considerations

The following is a summary of the material current tax structure applicable to companies incorporated in Israel and some Israeli Government programs benefiting us, with special reference to its effect on us. The following also contains a discussion of the material Israeli tax consequences to purchasers of our ordinary shares and Israeli government programs benefiting us. To the extent that the discussion is based on new tax legislation which has not been subject to judicial or administrative interpretation, we cannot assure you that the views expressed in the discussion will be accepted by the Israel tax authorities or courts. This summary does not discuss all the aspects 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. Examples of this kind of investor include traders in securities or persons that own, directly or indirectly, 10% or more of our outstanding voting capital, all of whom are subject to special tax regimes not covered in this discussion. Some parts of this discussion are based on new tax legislation which has not been subject to judicial or administrative interpretation. The discussion is not intended, and should not be construed, as legal or professional tax advice and is not exhaustive of all possible tax considerations.

General Corporate Tax Structure

Generally, Israeli companies are subject to “Corporate Tax” on their taxable income. The corporate tax rate is 23% for 2019 and 2018. However, the effective tax rate payable by a company that qualifies as an Industrial Company that derives income from an Approved Enterprise, a Beneficiary Enterprise or a Preferred Enterprise (as discussed below), like us, may be considerably less. Capital gains derived by an Israeli company are subject to the prevailing corporate tax rate.

Tax Benefits Under the Law for the Encouragement of Capital Investments, 1959

The 2005 Amendment to the Investments Law

An amendment to the Law for the Encouragement of Capital Investments 1959 (the “Investments Law”), which was published on April 1, 2005 (the “Amendment”), changed certain provisions of the Investments Law. As a result of the Amendment, a company is no longer obliged to obtain Approved Enterprise status in order to receive the tax benefits previously available under the Alternative Benefits provisions, and therefore generally there is no need to apply to the Investment Center for this purpose. Rather, the Company may claim the tax benefits offered by the Investments Law directly in its tax returns by notifying the ITA within 12 months of the end of that year, provided that its facilities meet the criteria for tax benefits set out by the Amendment.

The Amendment applies to new investment programs and investment programs with an election year commencing after 2004 but does not apply to investment programs approved prior to April 1, 2005. The Amendment provides that terms and benefits included in any certificate of approval that was granted before the Amendment became effective (April 1, 2005) will remain subject to the provisions of the Investments Law as in effect on the date of such approval.

Tax benefits are available under the Amendment to production facilities (or other eligible facilities), which are generally required to derive more than 25% of their business income from export to specific markets with a population of at least 12 million (following an amendment which became effective as of July 2013, the export criteria was increased to markets with a population of at least 14 million; such export criteria will further increase in the future by 1.4% per annum) and meet additional criteria stipulated in the amendment (referred to as a “Beneficiary Enterprise”). In order to receive the tax benefits, the Amendment states that the company must make an investment in the Beneficiary Enterprise, which meets all of the conditions, including exceeding a certain percentage or a minimum amount specified in the Investments Law. Such investment may be made over a period of no more than three years ending at the end of the year in which the company requested to have the tax benefits apply to the Beneficiary Enterprise (the “Year of Election”). Where the company requests to have the tax benefits apply to an expansion of existing facilities, then only the expansion will be considered a Beneficiary Enterprise and the company’s effective tax rate will be the result of a weighted combination of the applicable rates. In this case, the minimum investment required in order to qualify as a Beneficiary Enterprise is required to exceed a certain percentage or a minimum amount of the company’s production assets before the expansion.

The extent of the tax benefits available under the Amendment to qualifying income of a Beneficiary Enterprise depends on, among other things, the geographic location in Israel of the Beneficiary Enterprise. The geographic location of the company at the year of election will also determine the period for which tax benefits are available. Such tax benefits include an exemption from corporate tax on undistributed income for a period of between two to 10 years, depending on the geographic location of the Beneficiary Enterprise in Israel, and a reduced corporate tax rate of between 10% to 25% for the remainder of the benefits period, depending on the level of foreign investment in the company in each year. A company qualifying for tax benefits under the Amendment which pays a dividend out of income derived by its Beneficiary Enterprise during the tax exemption period will be subject to corporate tax in respect of the gross amount of the dividend at the otherwise applicable rate of 10%-25%. Dividends paid out of income attributed to a Beneficiary Enterprise are generally subject to withholding tax at source at the rate of 20% or such lower rate as may be provided in an applicable tax treaty.

The duration of tax benefits is subject to a limitation of the earlier of 7 to 10 years from the commencement year, or 12 years from the first day of the Year of Election.

The benefits available to a Beneficiary Enterprise are subject to the fulfillment of conditions stipulated in the Investments Law and its regulations. If a company does not meet these conditions, it may be required to refund the amount of tax benefits, as adjusted by the Israeli consumer price index, and interest, or other monetary penalties.

We elected 2009 and 2012 as “Years of Election” according to the law prior to the 2011 Amendment mentioned below.

Tax-exempt income generated under the provisions of the Investments Law, as amended, will subject us to taxes upon distribution or liquidation and we may be required to record a deferred tax liability with respect to such tax-exempt income.

Preferred Enterprise – The 2011 Amendment

On December 29, 2010, the Israeli parliament approved an amendment to the Investments Law, effective as of January 1, 2011, which constitutes a reform of the incentives regime under such law.

The amendment generally abolishes the previous tax benefit routes that were afforded under the Investments Law, specifically the tax-exemption periods previously allowed, and introduces new tax benefits for industrial enterprises meeting the criteria of the law, which include the following:

- A reduced corporate tax rate for industrial enterprises, provided that more than 25% of their annual income is derived from export, which will apply to the enterprise’s entire preferred income. As of the tax year 2017 and onwards, the reduced tax rate is 7.5% for development zone A and 16% for the rest of Israel.

- The reduced tax rates will no longer be contingent upon making a minimum qualifying investment in productive assets.
- A definition of “preferred income” was introduced into the Investments Law to include certain types of income that are generated by the Israeli production activity of a preferred enterprise.
- Dividends paid out of preferred income attributed to a Preferred Enterprise are generally subject to withholding tax at the rate of 20% or such lower rate as may be provided in an applicable tax treaty (subject to the receipt in advance of a valid certificate from the Israel Tax Authority allowing for a reduced tax rate). However, if such dividends are paid to an Israeli company, no tax is required to be withheld (although, if such dividends are subsequently distributed to individuals or a non-Israeli company, withholding tax at a rate of 20% or such lower rate as may be provided in an applicable tax treaty will apply).

A “Preferred Company” (as defined in the Investments Law) may generally elect to apply the provisions of the amendment to preferred income produced or generated by it commencing on January 1, 2011. The amendment provides various transition provisions which allow, under certain circumstances, to apply the new regime to investment programs previously approved or elected under the Investments Law in its previous form.

Under the transition provisions of the new legislation, we decided to irrevocably implement the new law, effective January 1, 2014.

Tax Benefits under the 2017 Amendment

The 2017 Amendment was enacted as part of the Economic Efficiency Law (Legislative Amendments for Applying the Economic Policy for the 2017 and 2018 Budget Years), 2016 that was published on December 29, 2016, and is effective as of January 1, 2017. The 2017 Amendment provides new tax benefits for two types of “Technology Enterprises,” as described below, and is in addition to the other existing tax beneficial programs under the Investments Law.

The 2017 Amendment provides that a technology company satisfying certain conditions will qualify as a “Preferred Technology Enterprise” and will thereby enjoy a reduced corporate tax rate of 12% on income that qualifies as “Preferred Technology Income,” as defined in the Investments Law. The tax rate is further reduced to 7.5% for a Preferred Technology Enterprise located in development Zone A. In addition, a Preferred Technology Enterprise will enjoy a reduced corporate tax rate of 12% on capital gain derived from the sale of certain “Benefitted Intangible Assets” (as defined in the Investments Law) to a related foreign company if the Benefitted Intangible Assets were acquired from a foreign company on or after January 1, 2017 for at least NIS 200 million, and the sale receives prior approval from the National Authority for Technological Innovation, or NATI.

The 2017 Amendment further provides that a technology company satisfying certain conditions will qualify as a “Special Preferred Technology Enterprise” and will thereby enjoy a reduced corporate tax rate of 6% on “Preferred Technology Income” regardless of the company’s geographic location within Israel. In addition, a Special Preferred Technology Enterprise will enjoy a reduced corporate tax rate of 6% on capital gain derived from the sale of certain “Benefitted Intangible Assets” to a related foreign company if the Benefitted Intangible Assets were either developed by an Israeli company or acquired from a foreign company on or after January 1, 2017, and the sale received prior approval from NATI. A Special Preferred Technology Enterprise that acquires Benefitted Intangible Assets from a foreign company for more than NIS 500 million will be eligible for these benefits for at least ten years, subject to certain approvals as specified in the Investments Law.

Dividends distributed by a Preferred Technology Enterprise or a Special Preferred Technology Enterprise, paid out of Preferred Technology Income, are generally subject to withholding tax at source at the rate of 20% or such lower rate as may be provided in an applicable tax treaty (subject to the receipt in advance of a valid certificate from the Israel Tax Authority allowing for a reduced tax rate). However, if such dividends are paid to an Israeli company, no tax is required to be withheld. If such dividends are distributed to a foreign company and other conditions are met, the withholding tax rate will be 4%.

We have examined the impact of the 2017 Amendment and the degree to which we will qualify as a Preferred Technology Enterprise and have elected to adopt it as of 2018 onwards.

Tax Benefits Under the Law for the Encouragement of Industry (Taxes), 1969

Under the Law for the Encouragement of Industry (Taxes), 1969 (the “Industry Encouragement Law”), Industrial Companies are entitled to the following preferred corporate tax benefits, among others:

- Deduction of purchases of know-how and patents over an eight-year period for tax purposes;
- Right to elect, under specified conditions, to file a consolidated tax return with additional related Israeli Industrial Companies;
- Accelerated depreciation rates on equipment and buildings; and
- Deductions over a three-year period of expenses involved with the issuance and listing of shares on a recognized stock market.

Eligibility for benefits under the Industry Encouragement Law is not subject to receipt of prior approval from any governmental authority. Under the Industry Encouragement Law, an “Industrial Company” is defined as a company resident in Israel, at least 90% of the income of which, in any tax year, exclusive of income from government loans, capital gains, interest and dividends, is derived from an “Industrial Enterprise” owned by it. An “Industrial Enterprise” is defined as an enterprise, located in Israel, owned by an Industrial Company, whose major activity in a given tax year is industrial production activity.

We believe that we currently qualify as an Industrial Company within the definition of the Industry Encouragement Law. No assurance can be given that we will continue to qualify as an Industrial Company or that the benefits described above will be available in the future.

Capital Gains Tax on Sales of Our Ordinary Shares

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 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.

Generally, the tax rate applicable to capital gains derived from the sale of shares, whether listed on a stock market or not, is 25% for Israeli individuals, unless such shareholder claims a deduction for financing expenses in connection with such shares, in which case the gain will generally be taxed at a rate of 30%. Additionally, if such shareholder is considered a "significant shareholder" at any time during the 12-month period preceding such sale, i.e., such shareholder holds directly or indirectly, including with others, at least 10% of any means of control in the company, the tax rate shall be 30%. However, the foregoing tax rates do not apply to: (i) dealers in securities; and (ii) shareholders who acquired their shares prior to an initial public offering (that may be subject to a different tax arrangement). Israeli companies are subject to the Corporate Tax rate on capital gains derived from the sale of listed shares.

Shareholders that are individuals who have taxable income that exceeds NIS 640,000 in a tax year (linked to the CPI each year), which amounts to NIS 649,560 in the 2019 tax year), will be subject to an additional tax, referred to as High Income Tax, at the rate of 3% on their taxable income for such tax year which is in excess of such threshold. For this purpose, taxable income will include taxable capital gains from the sale of our shares and taxable income from dividend distributions.

Non-Israeli residents are generally exempt from Israeli capital gains tax on any gains derived from the sale of shares of Israeli companies publicly traded on a recognized stock exchange or regulated market outside of Israel, provided that such capital gains are not derived from a permanent establishment in Israel and such shareholders did not acquire their shares prior to an initial public offering. However, non-Israeli corporations will not be entitled to such exemption if Israeli residents (i) have a controlling interest of more than 25% 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 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.

Pursuant to the Convention Between the Government of the United States of America and the Government of the State of Israel with Respect to Taxes on Income, as amended (the "U.S.-Israel Tax Treaty"), the sale, exchange or disposition of ordinary shares by a person who (i) holds the ordinary shares as a capital asset, (ii) qualifies as a resident of the United States within the meaning of the U.S.-Israel Tax Treaty and (iii) is entitled to claim the benefits afforded to such person by the U.S.-Israel Tax Treaty, generally, will not be subject to the Israeli capital gains tax. Such exemption will not apply if (i) such Treaty U.S. Resident holds, directly or indirectly, shares representing 10% or more of our voting power during any part of the 12-month period preceding such sale, exchange or disposition, subject to certain conditions, (ii) the capital gains from such sale, exchange or disposition can be allocated to a permanent establishment in Israel, or (iii) such Treaty U.S. Resident is an individual and was present in Israel for 183 days or more during the relevant taxable year. In such case, the sale, exchange or disposition of ordinary shares would be subject to Israeli tax, to the extent applicable; however, under the U.S.-Israel Tax Treaty, such Treaty 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 U.S.-Israel Tax Treaty does not relate to U.S. state or local taxes.

Taxation of Dividends paid to Non-Israeli Resident Holders of Shares

Non-residents of Israel are subject to income tax on income accrued or derived from sources in Israel. Such 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, unless a different rate is provided in a treaty between Israel and the shareholder’s country of residence. The portion of dividends paid out of income attributed to a Preferred Enterprise is subject to withholding tax at the rate of 20%.

Under the U.S.-Israel Tax Treaty, the maximum tax on dividends paid to a holder of ordinary shares who is a Treaty U.S. Resident is 25%. However, if the income out of which the dividend is paid is not generated by an Approved Enterprise, Beneficiary Enterprise or Preferred Enterprise, and not more than 25% of our gross income consists of interest or dividends, dividends paid to a U.S. corporation holding at least 10% of our issued voting power during the part of the tax year which precedes the date of payment of the dividend and during the whole of its prior tax year, are generally taxed at a rate of 12.5%. Dividends generated by an Approved Enterprise, Beneficiary Enterprise or Preferred Enterprise, are taxed at the rate of 15% under the U.S.-Israel Tax Treaty.

United States Federal Income Tax Considerations

Subject to the limitations described herein, the following discussion summarizes certain United States federal income tax considerations to a U.S. Holder of the acquisition, ownership and disposition of our ordinary shares. A “U.S. Holder” means a holder of our ordinary shares who is:

- An individual citizen or resident of the United States for U.S. federal income tax purposes;
- A corporation (or other entity taxable as a corporation for U.S. federal income tax purposes) created or organized in the United States or under the laws of the United States or any political subdivision thereof or the District of Columbia;
- An estate, the income of which is subject to U.S. federal income tax regardless of its source; or
- A trust (i) if, in general a court within the United States is able to exercise primary supervision over its administration and one or more U.S. persons have the authority to control all of its substantial decisions, or (ii) that has in effect a valid election under applicable U.S. Treasury Regulations to be treated as a United States person for U.S. federal income tax purposes.

This discussion considers only U.S. Holders that will own their ordinary shares as capital assets (generally, for investment) and does not purport to be a comprehensive description of all of the tax considerations that may be relevant to each person's decision to acquire our ordinary shares. Certain aspects of U.S. federal income taxation relevant to a holder of our ordinary shares that is not a U.S. Holder and not a partnership or other pass-through entity or arrangement (a "Non-U.S. Holder") are also discussed below.

This discussion is based on current provisions of the Code, current and proposed U.S. Treasury Regulations promulgated thereunder, and administrative and judicial decisions as of the date hereof, all of which are subject to change, possibly on a retroactive basis. This discussion does not address all aspects of U.S. federal income taxation that may be relevant to any particular U.S. Holder in light of such holder's individual circumstances. In particular, this discussion does not address the potential application of the alternative minimum tax or U.S. federal income tax considerations to U.S. Holders that are subject to special treatment, including without limitation:

- Broker-dealers or insurance companies;
- Dealers or traders in securities, commodities or currencies;
- Traders that have elected the mark-to-market accounting method;
- Tax-exempt entities, accounts, organizations or retirement plans;
- Grantor trusts;
- Partnerships or other pass-through entities or arrangements;
- Partners or other equity owners in partnerships or other pass-through entities or arrangements that hold our ordinary shares through such an entity or arrangement;
- U.S. Holders selling our ordinary shares short,
- U.S. Holders deemed to have sold our ordinary shares in a "constructive sale,"
- S corporations;
- Banks, financial institutions or "financial services entities";

- Persons that hold their ordinary shares as part of a straddle, “hedge,” “integrated” or “conversion transaction” with other investments;
- Certain former citizens or long-term residents of the United States;
- Persons that acquired their ordinary shares upon the exercise of employee stock options or otherwise as compensation;
- Real estate investment trusts or regulated investment companies;
- Pension funds;
- Persons subject to special tax accounting rules as a result of any item of gross income with respect to our ordinary shares being taken into account in an applicable financial statement;
- Persons that own directly, indirectly or by attribution at least 10% of our shares by vote or value; or
- Persons that have a functional currency that is not the U.S. dollar.

If an entity or arrangement treated as a partnership for U.S. federal income tax purposes holds our ordinary shares, the tax treatment of the partnership and a partner in such partnership will generally depend on the status of the partner and the activities of the partnership. Such a partner or partnership should consult its tax advisor as to its tax consequences.

In addition, this discussion does not address any aspect of state, local or non-United States tax laws or the possible application of United States federal gift or estate taxes, nor does it address the Medicare contribution tax on net investment income.

Each holder of our ordinary shares is advised to consult such holder’s tax advisor with respect to the specific tax consequences to such holder of acquiring, holding or disposing of our ordinary shares, including the applicability and effect of federal, state, local and foreign laws and possible changes in the tax laws in such holder’s particular circumstances.

Taxation of Dividends Paid On Ordinary Shares. Subject to the discussion below under “Passive Foreign Investment Company Status,” a U.S. Holder will be required to include in gross income as dividend income the amount of any distribution paid on our ordinary shares (other than certain distributions, if any, of our ordinary shares distributed pro rata to all our shareholders) on the date on which the dividends are actually or constructively received, including any non-U.S. taxes withheld from the amount paid, to the extent the distribution is paid out of our current or accumulated earnings and profits as determined for U.S. federal income tax purposes. Distributions in excess of such earnings and profits will be applied against and will reduce the U.S. Holder’s adjusted basis in our ordinary shares and, to the extent in excess of such basis, will be treated as capital gain from the deemed sale or exchange of our ordinary shares. However, we do not maintain calculations of our earnings and profits under United States federal income tax principles. Therefore, U.S. Holders should expect that the entire amount of any distribution generally will be reported as dividend income to a U.S. Holder. The dividend portion of such distributions generally will not qualify for the dividends received deduction available to corporations and thus will be subject to tax at the rate applicable to their taxable income.

Dividends that are received by non-corporate U.S. Holders will generally be taxed at the preferential rates applicable to “qualified dividend income” (currently a maximum rate of 20%), provided certain holding period requirements are met, we are not a “passive foreign investment company” (as discussed below) and we are eligible for the benefits of the U.S.-Israel Tax Treaty. Dividends that fail to meet such requirements, and dividends received by corporate U.S. Holders, are taxed at ordinary income rates. No dividend received by a U.S. Holder will be a qualified dividend (1) if the U.S. Holder held the ordinary share with respect to which the dividend was paid for less than 61 days during the 121-day period beginning on the date that is 60 days before the ex-dividend date with respect to such dividend, excluding for this purpose, under the rules of Code Section 246(c), any period during which the U.S. Holder has an option to sell, is under a contractual obligation to sell, has made and not closed a short sale of, is the grantor of a deep-in-the-money or otherwise nonqualified option to buy, or has otherwise diminished its risk of loss by holding other positions with respect to, such ordinary share (or substantially identical securities); or (2) to the extent that the U.S. Holder is under an obligation (pursuant to a short sale or otherwise) to make related payments with respect to positions in property substantially similar or related to the ordinary share with respect to which the dividend is paid. If we were to be a “passive foreign investment company” (as such term is defined in the Code) for any year, dividends paid on our ordinary shares in such year or in the following year would not be qualified dividends. In addition, a non-corporate U.S. Holder will be able to take a qualified dividend into account in determining its deductible investment interest (which is generally limited to its net investment income) only if it elects to do so; in such case the dividend will be taxed at ordinary income rates.

Distributions of current or accumulated earnings and profits paid in foreign currency to a U.S. Holder (including any non-U.S. taxes withheld therefrom) will generally be includible in the income of a U.S. Holder in a U.S. dollar amount calculated by reference to the exchange rate on the date the distribution is received regardless of whether the foreign currency is converted into U.S. dollars at the time. A U.S. Holder that receives a foreign currency distribution and converts the foreign currency into U.S. dollars after the date of receipt may have foreign exchange gain or loss based on any appreciation or depreciation in the value of the foreign currency against the U.S. dollar, which will generally be U.S. source ordinary income or loss.

U.S. Holders may have the option of claiming the amount of any non-U.S. income taxes withheld on a dividend distribution either as a deduction from gross income provided a deduction is claimed for all of the foreign income taxes the U.S. Holder pays or accrues in the particular year or as a dollar-for-dollar credit against their U.S. federal income tax liability. Individuals who do not claim itemized deductions, but instead utilize the standard deduction, may not claim a deduction for the amount of the non-U.S. income taxes withheld, but such amount may be claimed as a credit against the individual's U.S. federal income tax liability. The deduction, however, is not subject to the limitations applicable to foreign tax credits, but may be subject to other limitations and each U.S. Holder is urged to consult its tax advisor. The amount of non-U.S. income taxes which may be claimed as a credit in any year is subject to complex limitations and restrictions, which must be determined on an individual basis by each U.S. Holder. These limitations include, among others, rules which limit foreign tax credits allowable with respect to specific classes of income to the U.S. federal income taxes otherwise payable with respect to each such class of income. Distributions of current or accumulated earnings and profits generally will be "passive category income" for U.S. foreign tax credit purposes. The total amount of allowable foreign tax credits in any year generally cannot exceed the pre-credit U.S. tax liability for the year attributed to non-U.S. source taxable income. A U.S. Holder will be denied a foreign tax credit with respect to non-U.S. income tax withheld from a dividend received on the ordinary shares if such U.S. Holder has not held the ordinary shares for at least 16 days of the 31-day period beginning on the date which is 15 days before the ex-dividend date with respect to such dividend, or to the extent such U.S. Holder is under an obligation to make related payments with respect to positions in substantially similar or related property. Any days during which a U.S. Holder has substantially diminished its risk of loss on the ordinary shares are not counted toward meeting the required 16-day holding period. The rules relating to the determination of the foreign tax credit are complex, and a U.S. Holder should consult its tax advisor to determine whether and to what extent it will be entitled to this credit.

Taxation of the Disposition of Ordinary Shares. Subject to the discussion below under "Passive Foreign Investment Company Status," upon the sale, exchange or other disposition of our ordinary shares (other than with respect to certain non-recognition transactions), a U.S. Holder will recognize capital gain or loss in an amount equal to the difference between such U.S. Holder's adjusted basis in such ordinary shares, which is usually the cost of such shares, and the amount realized on the disposition. A U.S. Holder that uses the cash method of accounting calculates the U.S. dollar value of the proceeds received on the sale as of the date that the sale settles, while a U.S. Holder that uses the accrual method of accounting is required to calculate the value of the proceeds of the sale as of the "trade date," unless such U.S. Holder has made a special election (which must be applied consistently from year to year and cannot be changed without the consent of the IRS) to use the settlement date to determine its proceeds of sale. Capital gain from the sale, exchange or other taxable disposition of our ordinary shares held more than one year will be long-term capital gain, and may be eligible for a reduced rate of taxation for individuals, estates or trusts (currently taxable at a maximum rate of 20%). U.S. Holders should consult their tax advisors regarding the availability of the reduced rate of U.S. federal income tax on long-term capital gains in light of their own particular circumstances.

Gains or losses recognized by a U.S. Holder on a sale, exchange or other disposition of our ordinary shares generally will be treated as U.S. source income for U.S. foreign tax credit purposes. The deductibility of a capital loss recognized on the sale, exchange or other disposition of our ordinary shares may be subject to limitations. A U.S. Holder that receives foreign currency upon disposition of our ordinary shares and subsequently converts the foreign currency into U.S. dollars or disposes of such foreign currency, may have foreign exchange gain or loss based on any appreciation or depreciation in the value of the foreign currency against the U.S. dollar, which will generally be U.S. source ordinary income or loss. If a U.S. Holder used foreign currency to purchase ordinary shares, the cost of such ordinary shares will be the U.S. dollar value of the foreign currency purchase price on the date of purchase, translated at the spot rate of exchange on that date. If our ordinary shares are treated as traded on an established securities market for U.S. federal income tax purposes and the relevant U.S. Holder is either a cash basis taxpayer or an accrual basis taxpayer who has made the special election described above, the U.S. Holder will determine the U.S. dollar value of the cost of such ordinary shares by translating the amount paid at the spot rate of exchange on the settlement date of the purchase.

Passive Foreign Investment Company Status. We will be a “passive foreign investment company” (a “PFIC”) if (taking into account certain “look-through” rules with respect to the income and assets of our subsidiaries) either (i) 75 percent or more of our gross income in a taxable year is passive income or (ii) the average percentage of our total assets (by value, determined on a quarterly basis) which produce, or are held for the production of, passive income during the taxable year is at least 50 percent. Passive income for this purpose generally includes dividends, interest, royalties, rents, gains from commodities and securities transactions. The Code does not specify how a corporation must determine the fair market value of its assets for this purpose, and the issue has not been definitively determined by the IRS or the courts. The market capitalization approach has generally been used to determine the fair market value of the assets of a publicly traded corporation. The IRS and the courts, however, have accepted other valuation methods besides the market capitalization approach in certain other valuation contexts.

For our taxable year ended December 31, 2019, we do not believe that we should be classified as a PFIC. There can be no assurance, however, that the IRS will not challenge this treatment, and it is possible that the IRS could attempt to treat us as a PFIC for 2019 and prior taxable years. The tests for determining PFIC status require a factual determination that depends on, among other things, the composition of our income, assets and activities in each taxable year, and can only be made annually after the close of each taxable year. Furthermore, because the value of our gross assets is likely to be determined in part by reference to our market capitalization, a decline in the value of our ordinary shares may result in our becoming a PFIC. Accordingly, there can be no assurance that we will not become a PFIC in future taxable years.

If we were a PFIC, each U.S. Holder would (unless it made one of the elections discussed below on a timely basis) be taxed on gain recognized from the disposition of our ordinary shares (including gain deemed recognized if the ordinary shares are used as security for a loan) and upon receipt of certain excess distributions with respect to our ordinary shares as if such income had been recognized ratably over the U.S. Holder’s holding period for the ordinary shares. The U.S. Holder’s income for the current taxable year would include (as ordinary income) amounts allocated to the current year and to any period prior to the first day of the first taxable year for which we were a PFIC. Tax would also be computed at the highest ordinary income tax rate in effect for each other period to which income is allocated, and an interest charge on the tax as so computed would also apply. The tax liability with respect to the amount allocated to the taxable year prior to the taxable year of the distribution or disposition cannot be offset by any net operating losses. Further, if we are a PFIC during any year in which a U.S. Holder owns our ordinary shares, each U.S. Holder generally will be required to file an annual report with the IRS on Form 8621 (Information Return by a Shareholder of a Passive Foreign Investment Company or Qualified Electing Fund) with respect to us (regardless of whether a QEF or mark-to market election (described below) is made). If we are classified as a PFIC in any year with respect to which a U.S. Holder owns our ordinary shares, we will continue to be treated as a PFIC with respect to such U.S. Holder in all succeeding years during which the U.S. Holder owns our ordinary shares, regardless of whether we continue to meet the tests described above unless such U.S. Holder elects to apply the QEF or the mark-to-market election (described below) and certain conditions are met.

Under certain attribution rules, if we are considered a PFIC, U.S. Holders may be deemed to own their proportionate share of equity in any PFIC owned by us (if any), such entities referred to as “lower-tier PFICs,” and will be subject to U.S. federal income tax in the manner discussed above on (1) a distribution to us on the shares of a “lower-tier PFIC” and (2) a disposition by us of shares of a “lower-tier PFIC,” both as if the holder directly held the shares of such “lower-tier PFIC.”

As an alternative to the tax treatment described above, a U.S. Holder could elect to treat us as a “qualified electing fund” (“QEF”), in which case the U.S. Holder would be required to include in income, for each taxable year that we are a PFIC, its pro rata share of our ordinary earnings as ordinary income and its pro rata share of our net capital gain as capital gain, subject to a separate election to defer payment of taxes, which deferral is subject to an interest charge. Any income inclusion will be required whether or not such U.S. Holder owns our ordinary shares for an entire taxable year or at the end of our taxable year. The amount so includable will be determined without regard to our prior year losses or the amount of cash distributions, if any, received from us. Special rules apply if a U.S. Holder makes a QEF election after the first year in its holding period in which we are a PFIC. We will supply U.S. Holders with the information needed to report income and gain under a QEF election if we are a PFIC. A U.S. Holder’s basis in its ordinary shares will increase by any amount included in income and decrease by any amounts not included in income when distributed because such amounts were previously taxed under the QEF rules. So long as a U.S. Holder’s QEF election is in effect beginning with the first taxable year in which we were a PFIC during the U.S. Holder’s holding period for its ordinary shares, any gain or loss realized by such holder on the disposition of its ordinary shares held as a capital asset ordinarily would be capital gain or loss. Such capital gain or loss ordinarily would be long-term if such U.S. Holder had held such ordinary shares for more than one year at the time of the disposition and would be eligible for a reduced rate of taxation for certain non-corporate U.S. holders. The QEF election is made on a shareholder-by-shareholder basis, applies to all ordinary shares held or subsequently acquired by an electing U.S. Holder and can be revoked only with the consent of the IRS.

As an alternative to making a QEF election, a U.S. Holder of PFIC stock which is “marketable stock” (e.g., “regularly traded” on a “qualified exchange”) may in certain circumstances avoid certain of the tax consequences generally applicable to holders of stock in a PFIC by electing to mark the stock to market as of the beginning of such U.S. Holder’s holding period for the ordinary shares. The Nasdaq Global Select Market, on which our ordinary shares are traded, is considered a “qualified exchange” for this purpose. As a result of such election, in any taxable year that we are a PFIC, a U.S. Holder would generally be required to report gain or loss to the extent of the difference between the fair market value of the ordinary shares at the end of the taxable year and such U.S. Holder’s tax basis in its ordinary shares at that time. Any gain under this computation, and any gain on an actual disposition of the ordinary shares in a taxable year in which we are a PFIC, would be treated as ordinary income. Any loss under this computation, and any loss on an actual disposition of the ordinary shares in a taxable year in which we are a PFIC, generally would be treated as ordinary loss to the extent of the cumulative net-mark-to-market gain previously included. Any remaining loss from marking ordinary shares to market will not be allowed, and any remaining loss from an actual disposition of ordinary shares generally would be capital loss. A U.S. Holder’s tax basis in its ordinary shares is adjusted annually for any gain or loss recognized under the mark-to-market election. There can be no assurances that there will be sufficient trading volume with respect to our ordinary shares for the ordinary shares to be considered “regularly traded” or that our ordinary shares will continue to trade on the Nasdaq Global Select Market. Accordingly, there are no assurances that the ordinary shares will be marketable stock for these purposes. As with a QEF election, a mark-to-market election is made on a shareholder-by-shareholder basis, applies to all ordinary shares held or subsequently acquired by an electing U.S. Holder and can only be revoked with consent of the IRS (except to the extent the ordinary shares no longer constitute “marketable stock”).

U.S. Holders are urged to consult their tax advisors about the PFIC rules, including eligibility for and the manner and advisability of making, the QEF election or the mark-to-market election.

Tax Consequences for Non-U.S. Holders of Ordinary Shares

Except as described in “Information Reporting and Backup Withholding” below, a Non-U.S. Holder of ordinary shares will not be subject to U.S. federal income or withholding tax on the payment of dividends on, and the proceeds from the sale, exchange or other taxable disposition of, ordinary shares, unless, for U.S. federal income tax purposes:

- such item is effectively connected with the conduct by the Non-U.S. Holder of a trade or business in the United States and, in the case of a resident of a country which has a treaty with the United States, such item is attributable to a permanent establishment or, in the case of an individual, a fixed place of business, in the United States; or
- the Non-U.S. Holder is an individual who holds the ordinary shares as a capital asset and is present in the United States for 183 days or more in the taxable year of the disposition and certain other requirements are met.

Information Reporting and Backup Withholding

U.S. Holders (other than certain exempt recipients, such as corporations) generally are subject to information reporting requirements with respect to dividends paid in the United States on ordinary shares and proceeds received from the sale, exchange, redemption or other disposition of ordinary shares. Under the Code, a U.S. Holder may be subject, under certain circumstances, to backup withholding with respect to dividends paid on our ordinary shares and proceeds received from the sale, exchange, redemption or other disposition of ordinary shares unless such holder provides proof of an applicable exemption or correct taxpayer identification number and otherwise complies with applicable requirements of the backup withholding rules.

Any U.S. Holders required to establish their exempt status generally must provide a properly executed IRS Form W-9 (Request for Taxpayer Identification Number and Certification).

A U.S. Holder of ordinary shares who provides an incorrect taxpayer identification number may be subject to penalties imposed by the IRS. Amounts withheld under the backup withholding rules are not an additional tax and may be refunded or credited against the U.S. Holder’s U.S. federal income tax liability, provided the required information is timely furnished to the IRS.

Non-U.S. Holders generally are not subject to information reporting or backup withholding with respect to dividends paid on, or the proceeds from the disposition of, ordinary shares, provided that such Non-U.S. Holder provides a taxpayer identification number, certifies to its foreign status, or otherwise establishes an exemption.

Certain U.S. Holders who are individuals or certain other non-corporate entities (and to the extent provided in IRS guidance, certain Non-U.S. Holders) who hold interests in “specified foreign financial assets” (as defined in Section 6038D of the Code) are generally required to file an IRS Form 8938 as part of their U.S. federal income tax returns to report their ownership of such specified foreign financial assets, which may include our ordinary shares, if the total value of those assets exceed certain thresholds. Substantial penalties may apply to any failure to timely file IRS Form 8938. In addition, in the event a holder that is required to file IRS Form 8938 does not file such form, the statute of limitations on the assessment and collection of U.S. federal income taxes of such holder for the related tax year may not close until three years after the date that the required information is filed. Holders should consult their tax advisors regarding their tax reporting obligations.

F. Dividends and Paying Agents

Not applicable.

G. Statement by Experts

Not applicable.

H. Documents on Display

We are subject to the informational requirements of the Exchange Act, as applicable to “foreign private issuers” (as defined in Rule 3b-4 under the Exchange Act), and fulfill the obligations with respect to such requirements by filing reports and other information with the SEC.

As a foreign private issuer, we are exempt from the rules under the Exchange Act prescribing the furnishing and content of proxy statements, and our officers, directors and principal shareholders are exempt from the reporting and “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 with the SEC as frequently or as promptly as U.S. companies whose securities are registered under the Exchange Act.

Notwithstanding the foregoing, we furnish reports with the SEC on Form 6-K containing unaudited financial information for the first three quarters of each fiscal year, and we solicit proxies and furnish proxy statements for all meetings of shareholders, a copy of which proxy statement is furnished promptly thereafter with the SEC under the cover of a Current Report on Form 6-K. This annual report and the exhibits thereto and any other document we file pursuant to the Exchange Act are available on the SEC website (<http://www.sec.gov>) and on our website www.radware.com. However, the content of our website is not incorporated by reference into this annual report.

The documents concerning our Company which are referred to in this annual report may also be inspected at our offices located at 22 Raoul Wallenberg Street, Tel Aviv 6971917, Israel.

I. Subsidiary Information

Not applicable.

ITEM 11. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to market risk, including fluctuations in interest rates and foreign currency exchange rates. Our primary market risk exposure occurs because we generate a portion of our revenues in foreign currencies, mainly in Chinese Yuan, Australian Dollars and Euros and incur a portion of our expenses in foreign currencies, mainly in NIS, but also in Euros and other foreign currencies. We generally do not engage in hedging or other transactions intended to manage risks relating to foreign currency exchange rate or interest rate fluctuations.

In addition, as of December 31, 2019, we had cash and cash equivalents, including short and long-term bank deposits and short and long-term marketable securities, of \$427.7 million. As of that date, approximately 96% of our cash, cash equivalents and marketable securities are held by Radware Ltd. in Israeli or U.S. financial institutions.

The majority of our cash and cash equivalents, and short and long-term bank deposits are invested in banks in Israel and, to a smaller extent, in banks in the United States. The Israeli bank deposits are not insured, while the deposits made in the United States in excess of insured limits are not otherwise insured. If one or more of these financial institutions were to become insolvent, the loss of these investments would have a material adverse effect on our financial condition.

Exposure to Interest Rate Fluctuations

Approximately 34% of our cash throughout the world is invested in fixed-income securities which are affected by changes in interest rates. Interest rates are highly sensitive to many factors, including governmental monetary policies and domestic and international economic and political conditions. These securities are readily available for sale and are treated as such in our financial statements.

Consequently, our investments are exposed to risks relating to a fluctuation in interest rates, which may affect our interest income and the fair market value of our investments. This is because, in a declining interest rate environment, borrowers may seek to refinance their borrowings at lower rates and, accordingly, prepay or redeem securities held earlier than initially expected. This action may cause us to reinvest the redeemed proceeds in lower yielding investments. An increase in market interest rates could also have an adverse effect on the value of our investment portfolio, for example, by decreasing the fair values of the fixed income securities that comprise a substantial majority of our investment portfolio.

Our investments consist primarily of government and corporate debentures and bank deposits. As of December 31, 2019, approximately 19% of our portfolio was invested in foreign banks and government debentures, 18% in other corporate debentures and the rest of the funds were invested in bank deposits and money market funds. Although we believe that we generally adhere to conservative investment guidelines, the continuing turmoil in the financial markets may result in impairments of the carrying value of our investment assets. Realized losses in our investments portfolio may adversely affect our financial position and results.

Any significant decline in our investment income or the value of our investments as a result of falling interest rates, deterioration in the credit of the securities in which we have invested, or general market conditions, could have an adverse effect on our results of operations and financial condition.

We currently have no debt.

Exposure to Currency Fluctuations

Approximately 87% of our sales in 2019 were denominated in dollars or are dollar-linked and we incur most of our expenses in dollars, NIS, and Euros. We believe that the dollar is the primary currency of the economic environment in which we operate. Thus, our functional and reporting currency is the dollar and monetary accounts maintained in currencies other than the dollar are re-measured into U.S. dollars in accordance with ASC 830 "Foreign Currency Matters." Changes in currency exchange rates between our functional currency and the currency in which a transaction is denominated are included in our results of operations as financial income (expense) in the period in which the currency exchange rates change.

Our revenues and expenses may be affected by fluctuations in the value of the dollar as it relates to foreign currencies, mainly the NIS, Euro, Chinese Yuan and Australia Dollar. For example, if there were no changes in the average exchange rates of the dollar relative to the NIS, Euro, Chinese Yuan and Australia Dollar during the year in 2019 compared to the average exchange rates in 2018, our revenues would have been higher in an amount of \$1.3 million and our expenses would have been higher in an amount of \$0.9 million. Assuming our revenues and expenses in 2020 remain at the same level and with the same currency mix as in 2019, a 10% weakening in the value of the dollar relative to all currencies in which we operate would result in an increase in revenues of \$3.2 million and an increase in our expenses of \$12.4 million.

The following table presents information about the changes in the exchange rates of the U.S. dollar relative to the NIS, Euro, Chinese Yuan and Australian Dollar:

Year ended December 31,	U.S. dollar against:			
	NIS	Euro	Chinese Yuan	Australian Dollar
2015	0.3%	11.6%	5.2%	12.2%
2016	(1.5)%	3.5%	6.2%	1.2%
2017	(9.8)%	(12.2)%	(6.7)%	(7.5)%
2018	8.1%	4.6%	5.6%	10.7%
2019	(7.8)%	2.0%	1.7%	0.7%

ITEM 12. DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES

ITEMS 12.A, 12.B AND 12.C

Not applicable.

ITEM 12.D

The Company does not have any outstanding American Depositary Shares or American Depositary Receipts.

PART II

ITEM 13. DEFAULTS, DIVIDEND ARREARAGES AND DELINQUENCIES

Not applicable.

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

ITEMS 14.A, 14.B, 14.C AND 14.D

Not applicable.

ITEM 14.E

Not applicable.

ITEM 15. CONTROLS AND PROCEDURES

• Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act), as of December 31, 2019. Based on this evaluation, our Chief Executive Officer and Chief Financial Officer concluded that, as of December 31, 2019, our disclosure controls and procedures were effective to ensure that: (1) information required to be disclosed by the Company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms; and (2) such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

• Management's Annual Report on Internal Control Over Financial Reporting and Attestation Report of Registered Public Accounting Firm

Our management, under the supervision of our Chief Executive Officer and Chief Financial Officer, is responsible for establishing and maintaining adequate internal control over financial reporting for us. Our internal control over financial reporting is a process to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with U.S. generally accepted accounting principles. Our internal control over financial reporting includes those policies and procedures that:

- pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of our assets;
- provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that our receipts and expenditures are being made only in accordance with authorizations of our management and directors; and
- provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on our financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projection of any evaluation of effectiveness to future periods is subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, assessed the effectiveness of our internal control over financial reporting as of December 31, 2019. In conducting its assessment of internal control over financial reporting, our management based its evaluation on the framework in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Our management has concluded based on its assessment, that our internal control over financial reporting was effective as of December 31, 2019 based on these criteria.

The effectiveness of our internal control over financial reporting as of December 31, 2019, has been audited by Kost, Forer, Gabbay & Kasierer (a Member of Ernst & Young Global), an independent registered public accounting firm who audited and reported on the consolidated financial statements of the company for the year ended December 31, 2019.

- **Attestation Report of the Registered Public Accounting Firm**

This annual report includes an attestation report of our independent registered public accounting firm regarding internal control over financial reporting on page F-4 of our audited consolidated financial statements set forth in Item 18 “Financial Statements,” and incorporated herein by reference.

- **Changes in Internal Control Over Financial Reporting**

During the year ended December 31, 2019, no changes in our internal control over financial reporting have occurred that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

ITEM 16A. AUDIT COMMITTEE FINANCIAL EXPERT

Our Board of Directors has determined that Mr. Avraham Asheri, a member of our Audit Committee, is a financial expert as defined in the applicable regulations, and has determined that such member is “independent” as such term is defined in the Nasdaq listing standards. The education and experience of the Audit Committee financial expert is presented in Item 6 “Directors, Senior Management and Employees – Directors and Senior Management” and is incorporated herein by reference.

ITEM 16B. CODE OF ETHICS

We have adopted a Code of Conduct and Ethics which applies to all directors, officers and employees of the Company, including our President and Chief Executive Officer, Chief Financial Officer, Director of Finance and Corporate Controller. Our Code of Conduct and Ethics has been posted on our Internet website, <http://www.radware.com/corporategovernance/>.

ITEM 16C. PRINCIPAL ACCOUNTANT FEES AND SERVICES**Fees Paid to Independent Public Accountants**

In the annual meeting held in October 2019, our shareholders approved the reappointment of Kost, Forer, Gabbay & Kasierer, a member of Ernst & Young Global (“Ernst & Young”), to serve as our independent auditors until the next annual meeting.

The following table sets forth, for each of the years indicated, the aggregate fees billed by Ernst & Young and the percentage of each of the fees out of the total amount paid to them classified by category:

	Year Ended December 31,			
	2018		2019	
	<i>(US\$ in thousands)</i>			
Audit and Audit Related Fees (1)	335	55%	330	54%
Tax Fees (2)	119	20%	158	26%
All Other Fees (3)	154	25%	118	20%
Total	<u>608</u>	<u>100%</u>	<u>606</u>	<u>100%</u>

(1) Audit Fees include fees associated with the annual audit, including the audit of internal control over financial reporting, the reviews of the Company’s quarterly financial statements, statutory audits required internationally, special projects of implementation of ASC 842, a new lease standard, acquisition audit procedures and Critical Audit Matters assessment, consents and assistance with and review of documents filed with the SEC.

(2) Tax Fees include tax compliance, including the preparation of tax returns, tax planning and tax advice, including assistance with tax audits and appeals, advice related to acquisitions, transfer pricing and assistance with respect to requests for rulings from tax authorities.

(3) Other Fees include fees for consultation with Company management about accounting or disclosure treatment of transactions or events and consulting services such as obtaining grants from the Government of Israel for approved research and development projects.

Audit Committee's pre-approval policies and procedures

Our Audit Committee oversees our independent auditors. See also the description in Item 6.C "Directors, Senior Management and Employee—Board Practices."

Our Audit Committee has adopted a policy requiring management to obtain the Committee's approval before engaging our independent auditors to provide any other audit or permitted non-audit services to us or our subsidiaries. Pursuant to this policy, which is designed to assure you that such engagements do not impair the independence of our auditors, and which is discussed and approved at the end of each calendar year, the Audit Committee pre-approves annually a catalog of specific audit and non-audit services in the categories Audit Service, Audit-Related Service and Tax Consulting Services that may be performed by our auditors. In addition, the Audit Committee limited the aggregate amount in fees our auditors may receive during fiscal year for non-audit services in certain categories, unless pre-approved. Our Director of Finance reviews all individual management requests to engage our independent auditors as a service provider in accordance with this catalog and, if the requested services are permitted pursuant to the catalog, approve the request accordingly. We inform the Audit Committee about these approvals on a quarterly basis. Services that are not included in the catalog require pre-approval by the Audit Committee on a case-by-case basis. Our Audit Committee is not permitted to approve any engagement of our auditors if the services to be performed either fall into a category of services that are not permitted by applicable law or the services would be inconsistent with maintaining the auditors' independence.

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

None.

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

During 2019, we repurchased our ordinary shares under a share repurchase plan, in an aggregate amount of \$24.5 million, as follows:

Period	(a) Total Number of Shares (or Units) Purchased	(b) Average Price Paid per Share (or Units) (in US\$)	(c) Total Number of Shares (or Units) Purchased as Part of Publicly Announced Plans or Programs (1)(2)	(d) Maximum Number (or Approximate Dollar Value) of Shares (or Units) that May Yet Be Purchased Under the Plans or Programs (1)(2)
January 1 through 31	2,201	22.00	196,905	\$35,677,012 (1)
February 1 through 28	0	N/A	0	\$35,677,012 (1)
March 1 through 31	0	N/A	0	\$35,677,012 (1)
April 1 through 30	0	N/A	0	\$35,677,012 (1)
May 1 through 31	222,972	24.22	222,972	\$34,594,667 (2)
June 1 through 30	188,146	24.40	411,118	\$30,000,214 (2)
July 1 through 31	0	N/A	411,118	\$30,000,214 (2)
August 1 through 31	247,107	25.53	658,225	\$23,686,131 (2)
September 1 through 30	149,939	24.52	808,164	\$20,005,926 (2)
October 1 through 31	0	N/A	808,164	\$20,005,926 (2)
November 1 through 30	126,727	23.56	934,891	\$17,017,636 (2)
December 1 through 31	61,307	23.90	996,198	\$15,551,203 (2)

(1) In May 2018, the Company's Board of Directors authorized a new plan for the repurchase of up to an aggregate of \$40.0 million of the Company's ordinary shares in the open market, subject to normal trading restrictions, or in privately negotiated transactions. This plan was announced in a press release dated May 2, 2018 and expired on April 30, 2019.

(2) In April 2019, the Company's Board of Directors authorized a new plan for the repurchase of up to an aggregate of \$40.0 million of the Company's ordinary shares in the open market, subject to normal trading restrictions, or in privately negotiated transactions. This plan was announced in a press release dated May 1, 2019 and will expire on April 30, 2020.

On March 20, 2020, we announced that the Company's Board of Directors has authorized a new plan for the repurchase of up to an aggregate of \$20.0 million of our ordinary shares.

ITEM 16F. CHANGE IN REGISTRANT'S CERTIFYING ACCOUNTANT

None.

ITEM 16G. CORPORATE GOVERNANCE

We are a foreign private issuer whose ordinary shares are listed on the Nasdaq Global Select Market. As such, we are required to comply with U.S. federal securities laws, including the Sarbanes-Oxley Act, and the Nasdaq rules, including the Nasdaq corporate governance requirements. The Nasdaq rules provide that foreign private issuers may follow home country practice in lieu of certain qualitative listing requirements subject to certain exceptions and except to the extent that such exemptions would be contrary to U.S. federal securities laws, so long as the foreign issuer discloses that it does not follow such listing requirement and describes the home country practice followed in its reports filed with the SEC. Below is a concise summary of the significant ways in which our corporate governance practices differ from the corporate governance requirements of Nasdaq applicable to domestic U.S. listed companies:

- The Nasdaq rules require that an issuer have a quorum requirement for shareholders meetings of at least one-third of the outstanding shares of the issuer's common voting stock. Our Articles of Association provide that the quorum for any meeting of shareholders is 35% or more of the voting rights in the Company, consistent with the Nasdaq rules, however, we have chosen to follow home country practice with respect to the quorum requirements of an adjourned shareholders meeting. Our Articles of Association, as permitted under the Israeli Companies Law and Israeli practice, provide that a meeting adjourned for lack of a quorum of at least 35% of the voting power, if convened upon requisition under the provisions of the Companies Law, shall be dissolved, but in any other case it shall be adjourned and, at such reconvened meeting, the required quorum consists of any two members present in person or by proxy.
- The Nasdaq rules require shareholder approval of stock option plans and other equity compensation arrangements available to officers, directors or employees and any material amendments thereto. We have decided to follow home country practice in lieu of obtaining shareholder approval for our current or future equity incentive plans. However, subject to exceptions permitted under the Companies Law, we are required to seek shareholder approval of any grants of options and other equity-based awards to directors and controlling shareholders or plans that require shareholder approval for other reasons.
- Additionally, we have chosen to follow our home country practice in lieu of the requirements of Nasdaq Rule 5250(d)(1), relating to an issuer's furnishing of its annual report to shareholders. Specifically, we file annual reports on Form 20-F, which contain financial statements audited by an independent accounting firm, electronically with the SEC and post a copy on our website.

Although we may rely on certain home country corporate governance practices, we must comply with Nasdaq Rule 5625 Notification of Noncompliance and Rule 5640 Voting Rights. Further, we must have an audit committee that satisfies Rule 5605(c)(3), which addresses audit committee responsibilities and authority, and that consists of committee members that meet the independence requirements of Rule 5605(c)(2)(A).

We may in the future elect to follow Israel corporate governance practices in lieu of Nasdaq corporate governance rules with regard to other matters.

ITEM 16H. MINE SAFETY DISCLOSURE

Not applicable.

PART III

ITEM 17. FINANCIAL STATEMENTS

We have responded to Item 18 in lieu of this item.

ITEM 18. FINANCIAL STATEMENTS

The Financial Statements required by this item are found at the end of this annual report, beginning on page F-1.

ITEM 19. EXHIBITS

The exhibits filed with or incorporated into this annual report are listed on the index of exhibits below.

<u>Exhibit No.</u>	<u>Exhibit</u>
1.1	Memorandum of Association¶*
1.2	Amended and Restated Articles of Association*
2.1	Description of the Rights of Each Class of Securities Registered under Section 12 of the Securities Exchange Act of 1934*
4.1	Form of Directors and Officers Indemnity Deed (A)
4.2	Summary of Material Terms of the Lease Agreements for the Company's Headquarters*
4.3	1997 Key Employee Share Incentive Plan, as amended and restated (B)
4.4	2010 Addendum (for international grantees) (C)
4.5	Radware Ltd. – 2010 Employee Share Purchase Plan (D)
4.6	Amended and Restated Compensation Policy for Executive Officers and Directors*
8.1	List of Subsidiaries*
12.1	Certification of the Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002*
12.2	Certification of the Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002*
13.1	Certification of the Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002**
13.2	Certification of the Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002**
15.1	Consent of Independent Registered Public Accounting Firm*
101.INS ¹	Inline XBRL Instance Document (The instance document does not appear in the interactive data file because its XBRL tags are embedded within the Inline XBRL document)*
101.SCH	Inline XBRL Taxonomy Extension Schema Document*
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document*
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document*
101.LAB	Inline XBRL Taxonomy Extension Labels Linkbase Document*
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document*
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)*

¶ Translated from Hebrew

* Filed herewith.

** Furnished herewith.

(A) Incorporated by reference to Annex B to the Proxy Statement filed as Exhibit 1.2 to Report of Foreign Private Issuer on Form 6-K submitted to the SEC on July 28, 2011.

(B) Incorporated by reference to Exhibit 4.4 to the Annual Report on Form 20-F for the year ended December 31, 2018, filed with the SEC on April 15, 2019.

(C) Incorporated by reference to Exhibit 4.8 to the Annual Report on Form 20-F for the year ended December 31, 2009, filed with the SEC on April 29, 2010.

(D) Incorporated by reference to Exhibit 4.9 to the Annual Report on Form 20-F for the year ended December 31, 2009, filed with the SEC on April 29, 2010.

SIGNATURE

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.

RADWARE LTD.

By: /s/ Roy Zisapel
Roy Zisapel
Chief Executive Officer

Date: April 2, 2020

RADWARE LTD. AND ITS SUBSIDIARIES
CONSOLIDATED FINANCIAL STATEMENTS
AS OF DECEMBER 31, 2019
U.S. DOLLARS IN THOUSANDS
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Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of Radware Ltd.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Radware Ltd. and subsidiaries (the Company) as of December 31, 2019 and 2018, the related consolidated statements of income (loss), comprehensive income (loss), changes in shareholders' equity and cash flows for each of the three years in the period ended December 31, 2019, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2019, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2019, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated April 2, 2020 expressed an unqualified opinion thereon.

Adoption of Accounting Standards Update (ASU) No. 2014-09, Revenue from Contracts with Customers (Topic 606):

As discussed in Note 2 to the consolidated financial statements, the Company changed its method of accounting for revenue in 2018 due to the adoption of Accounting Standards Update (ASU) No. 2014-09, Revenue from Contracts with Customers (Topic 606), and the related amendments.

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 PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits 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 audits 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 audits provide a reasonable basis for our opinion.



Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current period audit of the financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective or complex judgments. The communication of the critical audit matter does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Revenue Recognition

Description of the Matter	<p>As described in Note 2 to the consolidated financial statements, the Company's contracts with customers consist mainly of multiple performance obligations, which are accounted for separately when they are distinct. In such cases, the transaction price, which reflects the consideration the Company expects to receive in exchange for those products or services, is then allocated to the distinct performance obligations on a relative stand-alone selling price basis and recognizes associated revenue as control is transferred to the customer.</p> <p>Auditing the Company's revenue recognition is a critical audit matter area due to the effort required to analyze the high volume of transactions, significance of the total amounts recognized as revenue and subjective assumptions used to develop the stand-alone selling prices for each distinct performance obligations.</p>
How We Addressed the Matter in Our Audit	<p>We obtained an understanding, evaluated the design and tested the operating effectiveness of the Company's internal controls over the revenue process, including the Company's controls over the development of stand-alone selling prices.</p> <p>Our audit procedures included reading customer agreements and purchase orders to understand the contract. We selected a sample of customer agreements and purchase orders for which we obtained and read contract source documents and for each selection, evaluated the Company's identification of significant terms for completeness, including the identification of distinct performance obligations. To test management's determination of stand-alone selling price for each distinct performance obligation identified, we performed audit procedures, including evaluating the appropriateness of the methodology applied, tested mathematical accrue of the underlying data and evaluated the source of historical data and assumptions used by the management. We evaluated whether revenue was recognized in the appropriate amounts and periods. We also evaluated the Company's disclosures included in Note 2 to the consolidated financial statements.</p>

/s/ KOST FORER GABBAY & KASIERER
A Member of Ernst & Young Global

We have served as the Company's auditor since 2002.
Tel-Aviv, Israel
April 2, 2020



Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of Radware Ltd.

Opinion on Internal Control over Financial Reporting

We have audited Radware Ltd. and subsidiaries' internal control over financial reporting as of December 31, 2019, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) ("the COSO criteria"). In our opinion, Radware Ltd. and subsidiaries (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2019 and 2018, the related consolidated statements of income (loss), comprehensive income (loss), changes in shareholders' equity and cash flows for each of the three years in the period ended December 31, 2019, and the related notes and our report dated April 2, 2020 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the 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 effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed 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. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ KOST FORER GABBAY & KASIERER
A Member of Ernst & Young Global
Tel-Aviv, Israel
April 2, 2020

CONSOLIDATED BALANCE SHEETS

U.S. dollars in thousands

	December 31,	
	2019	2018
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	\$ 40,751	\$ 45,203
Marketable securities	36,924	15,742
Short-term bank deposits	100,276	255,454
Trade receivables, net	22,610	17,166
Other current assets and prepaid expenses	7,469	7,071
Inventories	13,940	18,401
Total current assets	221,970	359,037
LONG-TERM INVESTMENTS:		
Marketable securities	112,696	84,669
Long-term bank deposits	137,095	-
Other assets	2,300	2,973
Total long-term investments	252,091	87,642
Property and equipment, net	22,971	23,677
Operating lease right-of-use assets	18,144	-
Intangible assets, net	14,481	9,467
Goodwill	41,144	32,174
Other long-term assets	24,398	20,724
Total assets	\$ 595,199	\$ 532,721

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

CONSOLIDATED BALANCE SHEETS

U.S. dollars in thousands, except share and per share data

	December 31,	
	2019	2018
LIABILITIES AND SHAREHOLDERS' EQUITY		
CURRENT LIABILITIES:		
Trade payables	\$ 6,315	\$ 4,483
Deferred revenues	79,239	83,955
Operating lease liabilities	5,193	-
Employees and payroll accruals	19,037	17,505
Other payables and accrued expenses	15,757	12,091
Total current liabilities	125,541	118,034
LONG-TERM LIABILITIES:		
Deferred revenues	50,888	43,796
Operating lease liabilities	13,914	-
Other long-term liabilities	9,525	6,934
Total long-term liabilities	74,327	50,730
COMMITMENTS AND CONTINGENT LIABILITIES		
SHAREHOLDERS' EQUITY:		
Share capital -		
Ordinary shares of NIS 0.05 par value -Authorized: 90,000,000 and 60,000,000 at December 31, 2019 and 2018, respectively; Issued: 57,931,770 and 56,293,017 shares at December 31, 2019 and 2018, respectively; Outstanding: 46,987,757 and 46,347,403 shares at December 31, 2019 and 2018, respectively	710	693
Additional paid-in capital	414,581	383,536
Treasury stock 10,944,013 and 9,945,614 of Ordinary shares at December 31, 2019 and 2018, respectively	(145,226)	(120,717)
Accumulated other comprehensive income (loss)	1,145	(1,110)
Retained earnings	124,121	101,555
Total shareholders' equity	395,331	363,957
Total liabilities and shareholders' equity	\$ 595,199	\$ 532,721

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

CONSOLIDATED STATEMENTS OF INCOME (LOSS)

U.S. dollars in thousands, except per share data

	Year ended December 31,		
	2019	2018	2017
Revenues:			
Products	\$ 133,605	\$ 118,062	\$ 117,968
Services	118,467	116,342	93,401
Total revenues	252,072	234,404	211,369
Cost of revenues:			
Products	35,056	30,803	30,862
Services	10,118	10,872	8,754
Total cost of revenues	45,174	41,675	39,616
Gross profit	206,898	192,729	171,753
Operating expenses, net:			
Research and development, net	61,841	57,674	59,003
Sales and marketing	109,556	111,386	108,744
General and administrative	18,584	16,145	17,577
Other income	-	-	(6,900)
Total operating expenses, net	189,981	185,205	178,424
Operating income (loss)	16,917	7,524	(6,671)
Financial income, net	8,792	7,274	4,830
Income (loss) before taxes on income	25,709	14,798	(1,841)
Taxes on income	3,143	3,063	5,652
Net income (loss)	\$ 22,566	\$ 11,735	\$ (7,493)
Basic net earnings (loss) per share	\$ 0.48	\$ 0.26	\$ (0.17)
Diluted net earnings (loss) per share	\$ 0.47	\$ 0.25	\$ (0.17)

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

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)

U.S. dollars in thousands

	Year ended December 31,		
	2019	2018	2017
Net income (loss)	\$ 22,566	\$ 11,735	\$ (7,493)
Other comprehensive income (loss) before tax:			
Unrealized gains (losses) on available-for-sale debt securities:			
Changes in unrealized gains (losses)	2,928	(866)	(530)
Less: reclassification adjustments for losses (gains) included in net income (loss)	-	-	(18)
Other comprehensive income (loss) before tax	2,928	(866)	(548)
Income tax benefits (income tax expenses) related to components of other comprehensive loss	(673)	199	125
Other comprehensive income (loss), net of tax	2,255	(667)	(423)
Comprehensive income (loss)	\$ 24,821	\$ 11,068	\$ (7,916)

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

STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY

U.S. dollars in thousands, except share data

	<u>Number of outstanding ordinary shares</u>	<u>Share capital</u>	<u>Additional paid-in capital</u>	<u>Treasury stock, at cost</u>	<u>Accumulated other comprehensive income (loss)</u>	<u>Retained earnings</u>	<u>Total</u>
Balance as of January 1, 2017	43,188,850	\$ 663	\$ 325,338	\$ (116,029)	\$ (20)	\$ 89,811	\$ 299,763
Repurchase of ordinary shares	(25,782)	-	-	(413)	-	-	(413)
Issuance of shares upon exercise of stock options and vesting of restricted shares units	970,886	10	10,881	-	-	-	10,891
Stock based compensation	-	-	13,031	-	-	-	13,031
Other comprehensive loss, net of tax	-	-	-	-	(423)	-	(423)
Net loss	-	-	-	-	-	(7,493)	(7,493)
Balance as of December 31, 2017	44,133,954	673	349,250	(116,442)	(443)	82,318	315,356
Cumulative-effect adjustment from adoption of ASC 606	-	-	-	-	-	7,502	7,502
Repurchase of ordinary shares	(194,704)	-	-	(4,275)	-	-	(4,275)
Issuance of shares upon exercise of stock options and vesting of restricted shares units	2,408,153	20	21,783	-	-	-	21,803
Stock based compensation	-	-	12,503	-	-	-	12,503
Other comprehensive loss, net of tax	-	-	-	-	(667)	-	(667)
Net income	-	-	-	-	-	11,735	11,735
Balance as of December 31, 2018	46,347,403	693	383,536	(120,717)	(1,110)	101,555	363,957
Repurchase of ordinary shares	(998,399)	-	-	(24,509)	-	-	(24,509)
Issuance of shares upon exercise of stock options and vesting of restricted shares units	1,638,753	17	17,981	-	-	-	17,998
Stock based compensation	-	-	13,064	-	-	-	13,064
Other comprehensive income, net of tax	-	-	-	-	2,255	-	2,255
Net income	-	-	-	-	-	22,566	22,566
Balance as of December 31, 2019	<u>46,987,757</u>	<u>\$ 710</u>	<u>\$ 414,581</u>	<u>\$ (145,226)</u>	<u>\$ 1,145</u>	<u>\$ 124,121</u>	<u>\$ 395,331</u>

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

CONSOLIDATED STATEMENTS OF CASH FLOWS

U.S. dollars in thousands

	Year ended December 31,		
	2019	2018	2017
Cash flows from operating activities:			
Net income (loss)	\$ 22,566	\$ 11,735	\$ (7,493)
Adjustments to reconcile net income (loss) to net cash provided by operating activities:			
Depreciation and amortization	11,283	9,782	11,232
Stock based compensation	13,064	12,503	13,031
Gain from sale of marketable securities	-	-	(18)
Other gain	(537)	-	-
Amortization of premiums, accretion of discounts and accrued interest on marketable securities, net	618	1,395	1,546
Accrued interest on bank deposits	2,123	(2,391)	226
Increase (decrease) in accrued severance pay, net	888	323	(210)
Decrease (increase) in trade receivables, net	(2,407)	(1,169)	3,390
Changes in deferred income taxes, net	(1,535)	(2,308)	91
Decrease (increase) in other current assets and prepaid expenses	(5,454)	5,035	(7,969)
Decrease (increase) in inventories	4,461	371	(1,658)
Increase (decrease) in trade payables	1,775	(884)	(734)
Increase in deferred revenues (short-term and long-term)	2,260	14,440	28,781
Increase (decrease) in other payables and accrued expenses	2,784	419	(8,753)
Operating lease right-of-use assets	5,962	-	-
Operating lease liabilities	(4,999)	-	-
Net cash provided by operating activities	<u>52,852</u>	<u>49,251</u>	<u>31,462</u>
Cash flows from investing activities:			
Purchase of property and equipment	(8,155)	(8,869)	(7,210)
Proceeds from (investing in) other long-term assets	4	40	(6)
Proceeds from bank deposits	320,025	151,324	265,987
Investment in bank deposits	(304,065)	(222,326)	(303,187)
Purchase of marketable securities	(67,145)	(47,455)	(24,595)
Proceeds from maturity of marketable securities	17,005	41,783	20,075
Proceeds from sale of marketable securities	3,777	-	863
Payment for the acquisition of subsidiary, net of cash acquired	(12,239)	-	(8,269)
Net cash used in investing activities	<u>(50,793)</u>	<u>(85,503)</u>	<u>(56,342)</u>

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

CONSOLIDATED STATEMENTS OF CASH FLOWS

U.S. dollars in thousands

	Year ended December 31,		
	2019	2018	2017
<u>Cash flows from financing activities:</u>			
Proceeds from exercise of stock options	17,998	21,803	10,891
Payment of contingent consideration	-	(1,310)	-
Repurchase of ordinary shares	(24,509)	(4,275)	(413)
Net cash provided by (used in) financing activities	(6,511)	16,218	10,478
Decrease in cash and cash equivalents	(4,452)	(20,034)	(14,402)
Cash and cash equivalents at the beginning of the year	45,203	65,237	79,639
Cash and cash equivalents at the end of the year	\$ 40,751	\$ 45,203	\$ 65,237
<u>Supplemental disclosure of cash flow information:</u>			
Cash paid during the year for income taxes	\$ 3,296	\$ 6,415	\$ 14,352
<u>Non-cash investing activity</u>			
Right-of-use asset recognized with corresponding lease liability	\$ 24,105	\$ -	\$ -
Deferred consideration related to acquisition	\$ 2,080	\$ -	\$ -
Cumulative-effect adjustment from adoption of ASC 606	\$ -	\$ 7,502	\$ -

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

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands, except share and per share data**NOTE 1:- GENERAL**

- a. Radware Ltd. (the "Company"), an Israeli corporation commenced operations in April 1997. The Company and its subsidiaries (the "Group") are engaged in the development, manufacture and sale of cyber security and application delivery solutions for physical, cloud, and software defined data centers (SDDC). The Company's solutions portfolio secures the digital experience by providing infrastructure, application, and corporate IT protection and availability services to enterprises globally. The Company's solutions are deployed by, among others, enterprises, carriers and cloud service providers worldwide.
- b. The Company has established wholly-owned subsidiaries in various countries worldwide. The Company's subsidiaries are engaged primarily in sales, marketing and support activities of its core products.
- c. The Company primarily relies on several original design a few vendors to supply certain hardware platforms and components for the production of its products. If one of these suppliers fails to deliver or delays the delivery of the necessary components, the Company will be required to seek alternative sources of supply. A change in suppliers could result in manufacturing delays, which could cause a possible loss of sales and, consequently, could adversely affect the Company's results of operations and financial position.

The Company depends on a sole single managed security service provider, which is a related party, to provide services as part of its protection services. If the managed security service provider fails to provide or delay the delivery of the services, the Company will be required to seek alternative sources of the services. A change in its managed security service provider could result in a possible loss of sales and, consequently, could adversely affect the Company's results of operations and financial position (see note 17).

NOTE 2:- SIGNIFICANT ACCOUNTING POLICIES

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

- a. Use of estimates:

The preparation of the consolidated financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates, judgments and assumptions. The Company's management believes that the estimates, judgments and assumptions used are reasonable based upon information available at the time these estimates are made. These estimates, judgments and assumptions can affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the dates of the consolidated financial statements, and the reported amounts of revenue and expenses during the reporting period. Actual results could differ from those estimates.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands, except share and per share data**NOTE 2:- SIGNIFICANT ACCOUNTING POLICIES (Cont.)**

b. Financial statements in United States dollars:

A majority of the Group's revenues are denominated in United States dollars ("dollar" or "U.S. dollars"). In addition, a substantial portion of the Company's and certain of its subsidiaries' costs are denominated in dollar. The Company's management believes that the dollar is the primary currency of the economic environment in which the Company and its subsidiaries operate. Thus, the functional and reporting currency of the Company and its subsidiaries is the dollar. Accordingly, monetary accounts maintained in currencies other than the dollar are re-measured into dollars in accordance with Accounting Standards Codification ("ASC") No. 830 "Foreign Currency Matters". All transaction gains and losses from the re-measured monetary balance sheet items are reflected in the consolidated statements of income (loss) as financial income or expenses, as appropriate.

c. Principles of consolidation:

The consolidated financial statements include the accounts of the Group. Intercompany transactions and balances have been eliminated upon consolidation.

d. Cash equivalents:

Cash equivalents are short-term highly liquid investments that are readily convertible to cash with original maturities of three months or less, at acquisition.

e. Bank deposits:

Bank deposits with maturities of more than three months but less than one year are included in short-term bank deposits. Such short-term bank deposits are stated at cost which approximates market values.

Bank deposits with maturities of more than one year are included in long-term bank deposits. Long-term bank deposits are stated at cost which approximates market values.

f. Investment in debt marketable securities:

The Company accounts for investments in marketable securities in accordance with ASC No. 320, "Investments - Debt and Equity Securities". Management determines the appropriate classification of its investments at the time of purchase and reevaluates such determinations at each balance sheet date.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands, except share and per share data**NOTE 2:- SIGNIFICANT ACCOUNTING POLICIES (Cont.)**

The Company classified all of its debt securities as available-for-sale marketable securities. Debt securities are carried at fair value, with the unrealized gains and losses reported in "Accumulated other comprehensive income (loss)" in shareholders' equity. Realized gains and losses on sales of investments are included in financial income, net and are derived using the specific identification method for determining the cost of securities.

The amortized cost of debt securities is adjusted for amortization of premiums and accretion of discounts to maturity. Such amortization together with interest and dividends on securities are included in financial income, net.

The Company recognizes an impairment charge when a decline in the fair value of its investments below the cost basis is judged to be other-than-temporary. The factors considered in making such a determination include the duration and severity of the impairment, the reason for the decline in value, the potential recovery period and the Company's intent to sell, including whether it is more likely than not that the Company will be required to sell the investment before recovery of cost basis. For securities that are deemed other-than-temporarily impaired, the amount of impairment recognized in the consolidated statements of income (loss) is limited to the amount related to credit losses, while impairment related to other factors is recognized in other comprehensive income (loss).

During the years 2019, 2018 and 2017, the Company did not record other-than-temporary impairment loss ("OTTI") with respect to its available-for-sale marketable securities.

g. Investment in equity securities

The Company accounts for its investments in equity securities in accordance with ASC Topic 321, "Investments-Equity Securities" ("ASC 321"), which requires investments in equity securities be measured at fair value with changes in unrealized gains and losses reported in the consolidated statements of income (loss).

h. Inventories:

Inventories are stated at the lower of cost or net realizable value. Inventory write-off is provided to cover risks arising from slow-moving items, technological obsolescence, excess inventories and discontinued products. Inventory write-offs totaled \$3,267, \$3,867 and \$2,324 in 2019, 2018 and 2017, respectively, and have been included in cost of revenues of products.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands, except share and per share data

NOTE 2:- SIGNIFICANT ACCOUNTING POLICIES (Cont.)

Cost is determined as follows:

Raw materials and components - using the "first-in, first-out" method.

Work-in-progress and finished products - raw materials as above with the addition of subcontracting costs - calculated on the basis of direct subcontractors costs and with direct overhead costs.

The Company assesses the carrying value of its inventory for each reporting period to ensure inventory is reported at the lower of cost or net realizable value in accordance with ASC No. 330-10-35, "Inventory". Charges for obsolete and slow-moving inventories are recorded based upon an analysis of specific identification of obsolete inventory items and quantification of slow-moving inventory items. These assessments consider various factors, including historical usage rate, technological obsolescence, estimated current and future market values and new product introduction. In cases when there is evidence that the anticipated utility of goods, in their disposal in the ordinary course of business, will be less than the historical cost of the inventory, the Company recognizes the difference as a current period charge to earnings and carries the inventory at the reduced cost basis until it is sold or disposed of.

i. Property and equipment, net:

Property and equipment are stated at cost, net of accumulated depreciation. Depreciation is calculated using the straight-line method over the estimated useful lives of the assets at the following annual rates:

	%
Computers, peripheral equipment and software	15 - 33 (mainly 33)
Office furniture and equipment	6 - 20 (mainly 15)
Leasehold improvements	Over the shorter of the term of the lease or the useful life of the asset

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands, except share and per share data

NOTE 2:- SIGNIFICANT ACCOUNTING POLICIES (Cont.)

j. Impairment of long-lived assets and intangible assets subject to amortization:

Property and equipment and intangible assets subject to amortization are reviewed for impairment in accordance with ASC No. 360, "Accounting for the Impairment or Disposal of Long-Lived Assets," 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 assets. If such assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the assets exceeds the fair value of the assets.

Intangible assets acquired in a business combination are recorded at fair value at the date of acquisition. Following initial recognition, intangible assets are carried at cost less any accumulated amortization and any accumulated impairment losses. The useful lives of intangible assets are assessed to be either finite or indefinite. Intangible assets that are not considered to have an indefinite useful life are amortized over their estimated useful lives, which range from 5 to 9 years. Some of the acquired customer arrangements are amortized over their estimated useful lives in proportion to the economic benefits realized. This accounting policy results in accelerated amortization of such customer arrangements as compared to the straight-line method. All other intangible assets are amortized over their estimated useful lives on a straight-line basis. During 2019, 2018 and 2017, no impairment losses were recorded.

k. Goodwill:

Goodwill represents the excess of the purchase price in a business combination over the fair value of the net tangible and intangible assets acquired. Under ASC No. 350 "Intangibles – Goodwill and Other" ("ASC 350"), goodwill is not amortized, but rather is subject to an annual impairment test. ASC 350 requires goodwill to be tested for impairment at least annually or between annual tests in certain circumstances and written down when impaired. Goodwill is tested for impairment by comparing the fair value of the reporting unit with its carrying value.

ASC 350 allows an entity to first assess qualitative factors to determine whether it is necessary to perform the two-step quantitative goodwill impairment test. If 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 two-step impairment test is performed.

The Company operates in one operating segment, and this segment comprises its single reporting unit. The Company performs an assessment of qualitative factors during the fourth quarter of each fiscal year, or more frequently if impairment indicators are present. For the quantitative analysis, the Company compares the fair value of its reporting unit to its carrying value. If the estimated fair value exceeds book value, goodwill is considered not to be impaired and no additional steps are necessary. This analysis determined that no impairment existed for 2019, 2018 and 2017.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands, except share and per share data**NOTE 2:- SIGNIFICANT ACCOUNTING POLICIES (Cont.)**

l. Leases:

On January 1, 2019, the Company adopted Accounting Standards Update (ASU) No. 2016-02, Leases (“ASC 842”), using a modified retrospective transition approach and elected to use the effective date as the date of initial application. The Company adopted the “package of practical expedients”, which permits it not to reassess under the new standard its prior conclusions about lease identification, lease classification and initial direct costs. As a result, the consolidated balance sheet as of December 31, 2018 was not restated, continue to be reported under ASC 840, which did not require recognition of operating lease assets and liabilities on the balance sheets, and are not comparative.

The Company determines if an arrangement is a lease and the classification of that lease at inception based on: (1) whether the contract involves the use of a distinct identified asset, (2) whether the Company obtains the right to substantially all the economic benefits from the use of the asset throughout the period, and (3) whether the Company has a right to direct the use of the asset. The Company elected to not recognize a lease liability and a right-of-use (“ROU”) asset for leases with a term of twelve months or less.

ROU assets and lease liabilities are recognized at commencement date based on the present value of remaining lease payments over the lease term. ROU assets are initially measured at amounts, which represents the discounted present value of the lease payments over the lease, plus any initial direct costs incurred. The lease liability is initially measured based on the discounted present value of remaining lease payments over the lease term. For this purpose, the Company considers only payments that are fixed and determinable at the time of commencement. The implicit rate within the operating leases is generally not determinable, therefore the Company uses the Incremental Borrowing Rate (“IBR”) based on the information available at commencement date in determining the present value of lease payments. The Company’s IBR is estimated to approximate the interest rate for collateralized borrowing with similar terms and payments and in economic environments where the leased asset is located.

An option to extend the lease is considered in connection with determining the ROU asset and lease liability when it is reasonably certain that the Company will exercise that option. An option to terminate the lease is considered unless it is reasonably certain that the Company will not exercise the option.

m. Contingencies

The Company is currently involved in various claims and legal proceedings. The Company reviews the status of each matter and assesses its potential financial exposure. If the potential loss from any claim or legal proceeding is considered probable and the amount can be reasonably estimated, the Company accrues a liability for the estimated loss.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands, except share and per share data

NOTE 2:- SIGNIFICANT ACCOUNTING POLICIES (Cont.)

n. Revenue recognition:

The Group's revenues are derived from sales of its products, services and subscriptions:

- Revenues from physical products and software-based products are recognized upon shipment when control of the promised goods is transferred to the customer (at a point in time), generally when the product has been delivered. Revenues from product subscriptions, included as product revenues, are recognized ratably, on a straight-line basis, over the subscription period.
- Revenues from post-contract customer support ("PCS"), which represent mainly, help-desk support and unit repairs or replacements, professional services, and emergency response team ("ERT") services are recognized ratably, on a straight-line basis, over the term of the related contract, which is typically between one year and three years. Renewals of support contracts create new performance obligations that are satisfied over the term with the revenues recognized ratably, on a straight-line basis, over the renewed period.

The Company's solutions are sold partially through distributors and resellers, all of which are considered end-users.

The Company recognizes revenues in accordance with ASC No. 606, "Revenue from Contracts with Customers". As such, the Company identifies a contract with a customer, identifies the performance obligations in the contract, determines the transaction price, allocates the transaction price to each performance obligation in the contract and recognizes revenues when (or as) the Company satisfies a performance obligation.

The Company's arrangements typically contain various combinations of its products and subscriptions and PCS, which are distinct and are accounted for as separate performance obligations. The Company allocates the transaction price to each performance obligation based on its relative standalone selling price ("SSP"). If the SSP is not observable, the Company estimates the SSP taking into account available information such as geographic specific factors and internally approved pricing guidelines related to the performance obligation. For PCS, the Company determines the standalone selling price based on renewals.

Deferred revenues represent mainly the unrecognized revenue collected for subscriptions and for PCS. Such revenues are recognized ratably over the term of the related agreement. Out of the deferred revenues balance at the beginning of the year that ended December 31, 2019, an amount of \$98,500 was recognized as revenues during that year. Out of the deferred revenues balance at the beginning of the year that ended December 31, 2018, an amount of \$91,555 was recognized as revenues during that year.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands, except share and per share data

NOTE 2:- SIGNIFICANT ACCOUNTING POLICIES (Cont.)

As of December 31, 2019, the aggregate amount of remaining performance obligations from contracts with customers was \$234,982. The Company expects to recognize approximately 56% of its remaining performance obligations as revenue over the next 12 months, with the remaining recognized up to 3 years. As of December 31, 2018, the aggregate amount of remaining performance obligations from contracts with customers was \$222,094.

Remaining performance obligations represent the amount of the transaction price under contracts with customers that are attributable to performance obligations that are unsatisfied or partially satisfied at the reporting date. This consists of future committed revenue for monthly, quarterly or annual periods within current contracts with customers, as well as deferred revenue arising from consideration invoiced in prior periods for which the related performance obligations have not been satisfied.

The following table provides information about disaggregated revenues by major product line:

	December 31,	
	2019	2018
Products	\$ 86,512	\$ 79,909
Services	110,698	112,778
Subscriptions	54,862	41,717
	<u>\$ 252,072</u>	<u>\$ 234,404</u>

For information regarding disaggregated revenues by geographical market, please see Note 15 below.

The balance of deferred revenues approximates the aggregate amount of the transaction price allocated to the remaining performance obligations at the end of reporting period. In general, the Company expects to recognize the long-term portion of deferred revenue mainly over the remaining service period of up to three years.

The Company records a provision for estimated sale returns, credits and stock rotation granted to customers on products in the same period the related revenues are recorded. These estimates are based on historical sales returns, stock rotations and other known factors. Such provisions amounted to \$2,687 and \$1,537 as of December 31, 2019 and 2018, respectively. The provision for estimated sale returns and stock rotation as of December 31, 2019, is included in other payables and accrued expenses in the consolidated balance sheets.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands, except share and per share data

NOTE 2:- SIGNIFICANT ACCOUNTING POLICIES (Cont.)

Costs to obtain contracts:

Sales commissions earned by the Company's sales force are considered incremental and recoverable costs of obtaining a contract with a customer. Commission costs related to long-term service contracts and performance obligations satisfied over time are deferred and recognized on a systematic basis that is consistent with the transfer of the products or services to which the asset relates. Sales commissions paid for new contracts, which are not commensurate with sales commissions paid for renewal contracts, are capitalized and amortized over an expected period of benefit and are included in sales and marketing expenses in the accompanying consolidated statements of income (loss). The Company applies judgment in estimating the amortization period, by taking into consideration its product life term, history of renewals, expected length of customer relationship, as well as the useful life of the underlying technology and products. Accordingly, the Company has determined the expected period of benefit to be approximately 3.3 years. Deferred commission costs capitalized are periodically reviewed for impairment.

As of December 31, 2019 and 2018, the amount of deferred commission was \$15,596 and \$12,640, respectively and is included in other long-term assets on the consolidated balance sheets.

As of December 31, 2019 and 2018, the Company recorded amortization expenses in connection with deferred commissions in the amount of \$8,568 and \$6,821, respectively.

Upon adoption of ASC 606 on January 1, 2018, deferred commissions costs included within other long-term assets in the consolidated balance sheets, were \$10,171, out of which \$3,199 and \$5,121 of commissions expenses were recognized during the year ended December 31, 2019 and 2018, respectively.

Adoption date impact:

The cumulative effects of applying the new guidance to all contracts with customers that were not substantially completed as of January 1, 2018 was recorded as an adjustment to retained earnings as of the adoption date and were as follows:

	<u>December 31,</u> <u>2017</u>	<u>Adjustment</u> <u>due to</u> <u>Topic 606</u>	<u>January 1, 2018</u>
Trade receivables, net	16,150	(153)	15,997
Other long-term assets	8,133	10,171	18,304
Deferred tax asset, net	7,451	(2,516)	4,935

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands, except share and per share data**NOTE 2:- SIGNIFICANT ACCOUNTING POLICIES (Cont.)**

o. Shipping and handling fees and costs:

Shipping and handling fees charged to the Company's customers are recognized as product revenue in the period shipped and the related costs for providing these services are recorded as a product cost of revenues.

p. Cost of revenues:

Cost of products is comprised of cost of software and hardware production, manuals, packaging, license fees paid to third parties, fees paid to managed security service provider (related parties), inventory write-offs and amortization of acquired technology.

Cost of services is comprised of cost of post-sale customer support and hosting services.

q. Warranty costs:

The Company generally provides a one year warranty for all of its products. A provision is recorded for estimated warranty costs at the time revenues are recognized based on the Company's experience. Warranty expenses for the years ended December 31, 2019, 2018 and 2017 were immaterial.

r. Research and development expenses, net:

Research and development costs are charged to the consolidated statements of income (loss) as incurred. ASC No. 985-20, "Software - Costs of Software to Be Sold, Leased, or Marketed", requires capitalization of certain software development costs subsequent to the establishment of technological feasibility.

Based on the Company's product development process, technological feasibility is established upon completion of a working model. Costs incurred by the Company between completion of the working models and the point at which the products are ready for general release, have been insignificant. Therefore, all research and development costs are expensed as incurred.

s. Government grants:

During 2017-2019, the Company received non-royalty-bearing grants from the Israel Innovation Authority ("IIA") for approved research and development projects. These grants are recognized at the time the Company is entitled to such grants on the basis of the costs incurred as provided by the relevant agreement and included as a deduction from research and development expenses, net.

Research and development grants deducted from research and development expenses, net amounted to \$937, \$712 and \$545 for the years ended December 31, 2019, 2018 and 2017, respectively.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands, except share and per share data**NOTE 2:- SIGNIFICANT ACCOUNTING POLICIES (Cont.)**

t. Accounting for stock-based compensation:

The Company accounts for stock-based compensation in accordance with ASC No. 718, "Compensation-Stock Compensation" ("ASC 718"). ASC 718 requires companies to estimate the fair value of equity-based payment awards on the date of grant using an option-pricing model. The value of the portion of the award that is ultimately expected to vest is recognized as an expense over the requisite service periods in the Company's consolidated statements of income (loss).

The Company recognizes compensation expenses for the value of its awards based on the accelerated attribution method over the requisite service period of each of the awards, net of estimated forfeitures. Forfeitures are estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. Estimated forfeitures are based on actual historical pre-vesting forfeitures.

The Company selected the Black-Scholes-Merton option pricing model to account for the fair value of its stock-options awards with only service conditions and whereas the fair value of the restricted share units awards ("RSUs") is based on the market value of the underlying shares at the date of grant.

Compensation expense related to the performance based RSUs granted to the Chief Executive Officer of the Company is computed using the fair value of the awards at the date of grant. Potential shares to be issued for performance share awards granted in 2019 and 2018 are subject to a market condition based on the price of the Company's ordinary share. The fair value of these awards was determined using a Monte Carlo simulation methodology.

The option-pricing models require a number of assumptions, of which the most significant are the expected stock price volatility and the expected option term. Expected volatility was calculated based upon actual historical stock price movements over an historical period equivalent to the option's expected term. The expected option term represents the period of time that options are expected to be outstanding based on historical experience. The risk-free interest rate is based on the yield from U.S. treasury bonds with an equivalent term. The Company has historically not paid dividends and has no foreseeable plans to pay dividends.

The fair value of the Company's stock options granted to employees and directors for the years ended December 31, 2019, 2018 and 2017 was estimated using the following weighted average assumptions:

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands, except share and per share data

NOTE 2:- SIGNIFICANT ACCOUNTING POLICIES (Cont.)

Employees' stock option plan:

	Year ended December 31,		
	2019	2018	2017
Risk free interest rate	1.86%	2.78%	1.66%
Dividend yields	0%	0%	0%
Expected volatility	26%	30%	32%
Weighted average expected term from grant date (in years)	3.83	3.78	3.80

On January 1, 2017, the Company adopted ASU No. 2016-09 (Topic 718) Compensation - Stock Compensation: Improvements to Employee Stock-Based Payment Accounting, ("ASU 2016-09"), which simplifies several aspects of the accounting for stock-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities, forfeiture, statutory tax withholding requirements, and classification on the statements of cash flows.

The impact of the adoption of ASU 2016-09 on the Company's consolidated financial statements was as follows:

- **Income tax accounting:** The Company is required to record excess tax benefits and tax deficiencies related to stock-based compensation as income tax benefit or expense in the consolidated statements of income (loss) prospectively when share-based awards vest or are settled. Since the Company utilized the entire previously unrecognized excess tax benefits before the adoption, no a cumulative-effect was recorded in the opening retained earnings.
- **Cash flow presentation of excess tax benefits:** The Company is required to classify excess tax benefits along with other income tax cash flows as an operating activity either prospectively or retrospectively. The Company elected to apply the change in presentation to the consolidated statements of cash flows prospectively from January 1, 2017.

u. Income taxes:

The Company accounts for income taxes in accordance with ASC No. 740, "Income Taxes" ("ASC 740"). This statement prescribes the use of the liability method whereby deferred tax assets and liability account balances are determined based on differences between 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 provides a valuation allowance, if necessary, to reduce deferred tax assets to their estimated realizable value if it is more likely than not that a portion or all of the deferred tax assets will not be realized.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands, except share and per share data**NOTE 2:- SIGNIFICANT ACCOUNTING POLICIES (Cont.)**

ASC 740 contains a two-step approach to recognizing and measuring a liability for uncertain tax positions. The first step is to evaluate the tax position taken or expected to be taken in a tax return by determining if the weight of available evidence indicates that it is more likely than not that, on an evaluation of the technical merits, the tax position will be sustained on audit, including resolution of any related appeals or litigation processes.

The second step is only addressed if the first step has been satisfied (i.e. the position is more likely than not to be sustained) otherwise a full liability in respect of a tax position not meeting the more likely than not criteria is recognized.

The second step is to measure the tax benefit as the largest amount that is more than 50% likely to be realized upon ultimate settlement. The Company accrues interest and penalty, if any related to unrecognized tax benefits in its taxes on income.

v. Concentrations of credit risks:

Financial instruments that potentially subject the Company and its subsidiaries to concentrations of credit risk consist principally of cash and cash equivalents, bank deposits, marketable securities and trade receivables.

The majority of the Group's cash, cash equivalents and bank deposits are invested in major banks in Israel and the U.S. The Israeli bank deposits are not insured, while the deposits made in the United States are in excess of insured limits and are not otherwise insured. Generally, these cash equivalents may be redeemed upon demand and, therefore management believes that it bears a lower risk. The short-term and long-term bank deposits are held in financial institutions which management believes are institutions with high credit standing, and accordingly, minimal credit risk from geographic or credit concentration exists with respect to these bank deposits. As of December 31, 2019, 25%, 32%, and 7% of the Company's short and long-term bank deposits were deposited in major Israeli banks in Israel which are rated A, AAA and BBB+, respectively, as determined by the Israeli affiliate of Standard & Poor's ("S&P"), and 36% were deposited in the U.S. branch of another major Israeli bank which is also rated A, as determined by the Israeli affiliate of S&P.

As of December 31, 2019, the maximal contractual duration of any of the Company's bank deposits was 2 years, the weighted average duration of the Company's deposits was 1.5 years, and the weighted average time to maturity was 1.1 years.

The Company's marketable securities include investments in equity securities, foreign banks, government debentures and corporate debentures. The financial institutions that hold the Company's marketable securities are major U.S. financial institutions, located in the United States. The Company's management believes that the Company's marketable securities portfolio is a diverse portfolio of highly-rated securities and the Company's investment policy limits the amount the Company's may invest in each issuer, and accordingly, management believes that minimal credit risk exists from geographic or credit concentration with respect to these securities.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands, except share and per share data**NOTE 2:- SIGNIFICANT ACCOUNTING POLICIES (Cont.)**

From geographic prospective, 45% of the Company's debt marketable securities portfolio was invested in debt securities of U.S. issuers, 29% was invested in debt securities of European issuers and 26% was invested in debt securities of other geographic-located issuers. As of December 31, 2019, 94% of the Company's debt marketable securities portfolio was rated A- or higher, as determined by S&P, 4% was rated BBB or BBB+ and 2% was rated BB-.

The trade receivables of the Group are mainly derived from sales to customers located primarily in the United States, Europe, the Middle East, Africa and Asia Pacific. The Company performs ongoing credit evaluations of its customers. An allowance for doubtful accounts is determined with respect to those amounts that the Company has determined to be doubtful of collection. In certain circumstances, the Company may require from its customers letters of credit, other collateral or additional guarantees. For the years ended December 2019 and 2018, bad debt expenses were nil, and \$109 for the year ended December 31, 2017. Total write offs during 2019, 2018 and 2017 amounted to \$154, \$100 and nil, respectively.

w. Employee related benefits:*Severance pay:*

Effective April 1, 2007, the Company's agreements with employees in Israel, are under Section 14 of the Severance Pay Law, 1963. The Company's contributions for severance pay have extinguished its severance obligation. Upon contribution of the full amount based on the employee's monthly salary for each year of service, no additional obligation exists regarding the matter of severance pay and no additional payments is made by the Company to the employee. Further, the related obligation and amounts deposited on behalf of the employee for such obligation are not stated on the balance sheets, as the Company is legally released from the obligation to pay severance amounts to employees once the required deposit amounts have been fully paid.

Severance pay expenses for the years ended December 31, 2019, 2018 and 2017 amounted to approximately \$4,066, \$4,259 and \$3,296, respectively. Accrued severance pay is included in other long-term liabilities in the consolidated balance sheets.

x. Fair value of financial instruments:

The Company measures its cash equivalents, bank deposits, marketable securities and deferred consideration at fair value. Fair value is an exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or a liability. A three-tier fair value hierarchy is established as a basis for considering such assumptions and for inputs used in the valuation methodologies in measuring fair value:

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands, except share and per share data**NOTE 2:- SIGNIFICANT ACCOUNTING POLICIES (Cont.)**

Level 1 - Observable inputs that reflect quoted prices (unadjusted) for identical assets or liabilities in active markets.

Level 2 - Include other inputs that are directly or indirectly observable in the marketplace.

Level 3 - Unobservable inputs which are supported by little or no market activity.

The carrying amounts of cash equivalents, trade receivables, trade payables, short-term bank deposits, other current assets and prepaid expenses and other payables and accrued expenses, approximate at fair value because of their generally short maturities.

y. Comprehensive income (loss):

The Company accounts for comprehensive income (loss) in accordance with ASC No. 220, "Comprehensive Income." This statement establishes standards for the reporting and display of comprehensive income (loss) and its components in a full set of general purpose financial statements. Comprehensive income (loss) generally represents all changes in shareholders' equity during the period except those resulting from investments by, or distributions to, shareholders. The Company determined that its only item of other comprehensive income (loss) relates to available-for-sale debt marketable securities adjustment.

z. Treasury stock:

The Company repurchases its ordinary shares from time to time on the open market and holds such shares as treasury stock. The Company presents the cost to repurchase treasury stock as a reduction of shareholders' equity. The voting rights attached to treasury stock are revoked.

aa. Basic and diluted net income (loss) per share:

Basic net income (loss) per share is computed based on the weighted average number of ordinary shares outstanding during each period. Diluted net income (loss) per share is computed based on the weighted average number of ordinary shares outstanding during each period, plus potential dilutive ordinary shares considered outstanding during the period, if any, in accordance with ASC No. 260, "Earnings Per Share". The total number of ordinary shares related to outstanding stock options excluded from the calculation of diluted income (loss) per share as they would have been anti-dilutive was 1,938,808, 1,166,488 and 981,750 for the years ended December 31, 2019, 2018 and 2017, respectively.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands, except share and per share data**NOTE 2:- SIGNIFICANT ACCOUNTING POLICIES (Cont.)**

ab. Business combinations:

The Company accounted for business combination in accordance with ASC No. 805, "Business Combinations" ("ASC 805"). ASC No. 805 requires recognition of assets acquired, liabilities assumed, and any non-controlling interest at the acquisition date, measured at their fair values as of that date. Any excess of the fair value of net assets acquired over purchase price and any subsequent changes in estimated contingencies are to be recorded in earnings. In addition, changes in valuation allowance related to acquired deferred tax assets and in acquired income tax position are to be recognized in earnings.

Under ASU No. 2017-01, "Business Combinations (Topic 805): Clarifying the Definition of a Business ("2017-01"), the Company first determines whether substantially all of the fair value of the gross assets acquired is concentrated in a single identifiable asset or a group of similar identifiable assets. If this threshold is met, the single asset or group of assets, as applicable, is not a business.

ac. New accounting pronouncements not yet effective:

In June 2016, the Financial Accounting Standards Board ("FASB") issued ASU No. 2016-13 (ASU 2016-13) "Financial Instruments – Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments." ASU 2016-13 amends guidance on reporting credit losses for assets held at amortized cost basis and available for sale debt securities. ASU 2016-13 is effective in fiscal years beginning after December 15, 2019; early adoption is permitted. The Company does not expect that this new guidance will have a material impact on the Company's consolidated financial statements.

In January 2017, the FASB issued ASU No. 2017-04 (ASU 2017-04) "Intangibles-Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment ("ASU 2017-04)". ASU 2017-04 eliminates step two of the goodwill impairment test and specifies that goodwill impairment should be measured by comparing the fair value of a reporting unit with its carrying amount. Additionally, the amount of goodwill allocated to each reporting unit with a zero or negative carrying amount of net assets should be disclosed. ASU 2017-04 is effective for annual or interim goodwill impairment tests performed in fiscal years beginning after December 15, 2019; early adoption is permitted. The new guidance was effective for the Company on January 1, 2020. The adoption did not have a material impact on the Company's consolidated financial statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands, except share and per share data**NOTE 2:- SIGNIFICANT ACCOUNTING POLICIES (Cont.)**

In December 2019, the FASB issued ASU No. 2019-12 (ASU 2019-12), "Simplifying the Accounting for Income Taxes". The ASU eliminates certain exceptions to the guidance in ASC 740 related to the approach for intra-period tax allocation, the methodology for calculating income taxes in an interim period and the recognition of deferred tax liabilities for outside basis differences. The new guidance also simplifies aspects of the accounting for franchise taxes and enacted changes in tax laws or rates and clarifies the accounting for transactions that result in a step-up in the tax basis of goodwill. The guidance is effective for fiscal years beginning after December 15, 2020, and interim periods within those fiscal years, with early adoption permitted. The Company is still evaluating the effect that this new guidance will have on the Company's consolidated financial statements.

ad. Impact of accounting standards recently adopted:

In February 2016, the FASB issued ASU No. 2016-02, Leases (ASC 842). The standard requires the recognition of ROU assets and lease liabilities for all leases. The standard requires a modified retrospective transition approach to recognize and measure leases at the initial application.

The Company adopted the standard as of January 1, 2019, using a modified retrospective transition approach and elected to use the effective date as the date of initial application. The Company adopted the "package of practical expedients", which permits it not to reassess under the new standard its prior conclusions about lease identification, lease classification and initial direct costs. As a result, the consolidated balance sheets as of December 31, 2018 were not restated, continue to be reported under ASC 840, which did not require recognition of operating lease assets and liabilities on the consolidated balance sheets, and are not comparative.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands, except share and per share data

NOTE 3:- ACQUISITIONS

- a. On January 30, 2017 (the "Closing Date"), the Company acquired 100% of the outstanding shares of Seculert Ltd. ("Seculert"), a company based in Israel and engaged in cyber-attack detection and HTTP analytics solutions and developing user and entity behavioral analysis ("UEBA") solutions. The consideration was \$10,000 in cash and additional contingent consideration of up to \$10,000, based on certain milestones to be achieved. During 2018, the milestone-based contingent consideration was achieved and a payment of \$1,310 to Seculert's former shareholders became due. As of December 31, 2018, the Company estimated that no further payments will be required and accordingly, recorded a benefit of \$240 in the general and administrative in order to reduce the contingent consideration fair value to nil.

Pro forma results of operations for this acquisition have not been presented because they are not material to the consolidated results of operations.

- b. On March 12, 2019 (the "Closing Date"), the Company completed the acquisition of all of the outstanding shares of Kaalbi Technologies Private Ltd. ("ShieldSquare"), a company engaged in Bot mitigation and Bot management solutions for a total consideration of \$14,203 denominated in Indian Rupee, as determined in the agreement (\$14,319 as of Closing Date). The total consideration was composed of (1) \$12,558 in cash payable at closing (subject to certain working capital adjustments, \$12,239 upon closing) and (2) \$2,080 (\$2,035 at December 31, 2019) deferred consideration to secure possible indemnity claims for damages arising out of breaches or inaccuracies of Shieldsquare's or Shieldsquare shareholders' representations, to be paid 18 months subsequent to the acquisition date.

The acquisition was accounted for as a business combination and the purchase consideration were allocated to assets acquired and liabilities assumed based on their estimated fair values, as presented in the following table:

Consideration:	
Cash consideration paid on closing date, including working capital adjustments	\$ 12,239
Deferred consideration	<u>2,080</u>
Total purchase price	\$ <u>14,319</u>
Identifiable assets acquired, and liabilities assumed:	
Technology	\$ 7,385
Goodwill	8,970
Other current assets	271
Deferred tax liability	<u>(2,307)</u>
	\$ <u>14,319</u>

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands, except share and per share data

NOTE 3:- ACQUISITIONS (Cont.)

The estimated useful life of the technology is approximately 9 years.

The derived goodwill from this acquisition is attributable to additional capabilities of the Company to expand its products portfolio. Goodwill generated from this business combination is primarily attributable to synergies between the Company's and Shieldsquare's respective products and services.

Pro forma results of operations for this acquisition have not been presented because they are not material to the consolidated results of operations.

NOTE 4:- MARKETABLE SECURITIES

Debt securities with contractual maturities of less than one year are as follows:

	December 31,							
	2019				2018			
	Adjusted cost	Gross unrealized losses	Gross unrealized gains	Market value	Adjusted cost	Gross unrealized losses	Gross unrealized gains	Market value
Foreign banks and government debentures	\$ 18,193	\$ -	\$ 96	\$ 18,289	\$ 6,759	\$ (11)	\$ -	\$ 6,748
Corporate debentures	15,921	-	144	16,065	9,021	(27)	-	8,994
Total marketable securities	<u>\$ 34,114</u>	<u>\$ -</u>	<u>\$ 240</u>	<u>\$ 34,354</u>	<u>\$ 15,780</u>	<u>\$ (38)</u>	<u>\$ -</u>	<u>\$ 15,742</u>

Debt securities with contractual maturities from one to three years are as follows:

	December 31,							
	2019				2018			
	Adjusted cost	Gross unrealized losses	Gross unrealized gains	Market value	Adjusted cost	Gross unrealized losses	Gross unrealized gains	Market value
Foreign banks and government debentures	\$ 56,201	\$ -	\$ 721	\$ 56,922	\$ 43,266	\$ (358)	\$ 6	\$ 42,914
Corporate debentures	52,419	(19)	467	52,867	19,881	(338)	5	19,548
Total marketable securities	<u>\$ 108,620</u>	<u>\$ (19)</u>	<u>\$ 1,188</u>	<u>\$ 109,789</u>	<u>\$ 63,147</u>	<u>\$ (696)</u>	<u>\$ 11</u>	<u>\$ 62,462</u>

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands, except share and per share data

NOTE 4:- MARKETABLE SECURITIES (Cont.)

Debt securities with contractual maturities of more than three years are as follows:

	December 31,							
	2019				2018			
	Adjusted cost	Gross unrealized losses	Gross unrealized gains	Market value	Adjusted cost	Gross unrealized losses	Gross unrealized gains	Market value
Foreign banks and government debentures	\$ 1,062	\$ -	\$ 19	\$ 1,081	\$ 11,926	\$ (357)	\$ -	\$ 11,569
Corporate debentures	1,767	-	59	1,826	10,998	(360)	-	10,638
Total marketable securities	<u>\$ 2,829</u>	<u>\$ -</u>	<u>\$ 78</u>	<u>\$ 2,907</u>	<u>\$ 22,924</u>	<u>\$ (717)</u>	<u>\$ -</u>	<u>\$ 22,207</u>

Debt securities with continuous unrealized losses for less than 12 months and 12 months or greater and their related fair values as of December 31, 2019 and 2018 were as follows:

	December 31, 2019					
	Investments with continuous unrealized losses for less than 12 months		Investments with continuous unrealized losses for 12 months or greater		Total investments with continuous unrealized losses	
	Fair value	Unrealized losses	Fair value	Unrealized losses	Fair value	Unrealized losses
Corporate debentures	\$ 3,852	\$ (13)	\$ 2,631	\$ (6)	\$ 6,483	\$ (19)
Total marketable securities	<u>\$ 3,852</u>	<u>\$ (13)</u>	<u>\$ 2,631</u>	<u>\$ (6)</u>	<u>\$ 6,483</u>	<u>\$ (19)</u>

	December 31, 2018					
	Investments with continuous unrealized losses for less than 12 months		Investments with continuous unrealized losses for 12 months or greater		Total investments with continuous unrealized losses	
	Fair value	Unrealized losses	Fair value	Unrealized losses	Fair value	Unrealized losses
Foreign banks and government debentures	\$ 26,860	\$ (177)	\$ 24,966	\$ (550)	\$ 51,826	\$ (727)
Corporate debentures	11,947	(122)	23,605	(604)	35,552	(726)
Total marketable securities	<u>\$ 38,807</u>	<u>\$ (299)</u>	<u>\$ 48,571</u>	<u>\$ (1,154)</u>	<u>\$ 87,378</u>	<u>\$ (1,453)</u>

As of December 31, 2019, and 2018, interest receivable amounted to \$1,183 and \$898, respectively, and is included within marketable securities in the consolidated balance sheets.

Equity securities amounted to \$2,570 and as of December 31, 2019 are carried at fair value based on Level 1 inputs.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands, except share and per share data

NOTE 5:- FAIR VALUE MEASUREMENTS

In accordance with ASC No. 820, "Fair Value Measurements and Disclosures", the Company measures its cash equivalents, marketable securities and deferred consideration at fair value on recurring basis. Cash equivalents and marketable securities are classified within Level 1 or Level 2 since these assets are valued using quoted market prices or alternative pricing sources and models utilizing market observable inputs.

The Company's financial assets and liabilities measured at fair value on a recurring basis, including interest receivable components consisted of the following types of instruments as of December 31, 2019, and 2018:

	December 31, 2019			
	Fair value measurements using input type			
	Level 1	Level 2	Level 3	Total
Assets				
Cash equivalents:				
Money market funds	\$ 783	\$ -	\$ -	\$ 783
Marketable securities:				
Equity securities	2,570	-	-	2,570
Foreign banks and government debentures	-	76,293	-	76,293
Corporate debentures	-	70,757	-	70,757
Total financial assets	\$ 3,353	\$ 147,050	\$ -	\$ 150,403
Liabilities				
Other accounts payable and accrued expenses:				
Deferred consideration	\$ -	\$ -	\$ 2,035	\$ 2,035
Total liabilities	\$ -	\$ -	\$ 2,035	\$ 2,035

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands, except share and per share data

NOTE 5:- FAIR VALUE MEASUREMENTS (Cont.)

	December 31, 2018			
	Fair value measurements using input type			
	Level 1	Level 2	Level 3	Total
Assets				
Cash equivalents:				
Money market funds	\$ 4,970	\$ -	\$ -	\$ 4,970
Government debentures	-	4,986	-	4,986
Marketable securities:				
Foreign banks and government debentures	-	61,231	-	61,231
Corporate debentures	-	39,180	-	39,180
Total financial assets	<u>\$ 4,970</u>	<u>\$ 105,397</u>	<u>\$ -</u>	<u>\$ 110,367</u>

NOTE 6:- INVENTORIES

Inventories are comprised of the following:

	December 31,	
	2019	2018
Raw materials and components	\$ 1,881	\$ 2,140
Work-in-progress	1,306	1,894
Finished products	10,753	14,367
	<u>\$ 13,940</u>	<u>\$ 18,401</u>

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands, except share and per share data

NOTE 7:- PROPERTY AND EQUIPMENT, NET

	December 31,	
	2019	2018
Cost:		
Computer, peripheral equipment and software	\$ 95,930	\$ 90,054
Office furniture and equipment	11,989	11,121
Leasehold improvements	<u>6,621</u>	<u>6,188</u>
	<u>114,540</u>	<u>107,363</u>
Accumulated depreciation:		
Computer, peripheral equipment and software	78,711	72,236
Office furniture and equipment	8,677	7,710
Leasehold improvements	<u>4,181</u>	<u>3,740</u>
	<u>91,569</u>	<u>83,686</u>
Property and equipment, net	<u>\$ 22,971</u>	<u>\$ 23,677</u>

Depreciation expenses for the years ended December 31, 2019, 2018 and 2017 were \$8,912, \$8,834 and \$10,001, respectively.

NOTE 8:- INTANGIBLE ASSETS, NET

a. Intangible assets:

	Weighted average amortization Period (years)	December 31,	
		2019	2018
Cost:			
Acquired technology	8.5	\$ 32,946	\$ 25,561
Customers relationships and brand name	5.8	<u>9,817</u>	<u>9,817</u>
		<u>42,763</u>	<u>35,378</u>
Accumulated amortization:			
Acquired technology		18,465	16,139
Customers relationships and brand name		<u>9,817</u>	<u>9,772</u>
		<u>28,282</u>	<u>25,911</u>
Intangible assets, net		<u>\$ 14,481</u>	<u>\$ 9,467</u>

Amortization expenses for the years ended December 31, 2019, 2018 and 2017 were \$2,371, \$948 and \$1,231, respectively.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands, except share and per share data

NOTE 8:- INTANGIBLE ASSETS, NET (Cont.)

Future estimated amortization expenses for the years ending:

December 31,

2020	\$	1,891
2021		1,858
2022		1,858
2023		1,858
2024 and thereafter		7,016
Total	\$	14,481

b. Goodwill:

	<u>2019</u>	<u>2018</u>
Balance as of January 1	\$ 32,174	\$ 32,174
Acquisitions	8,970	-
Balance as of December 31	<u>\$ 41,144</u>	<u>\$ 32,174</u>

NOTE 9:- LEASES

The Company has various operating leases for office space, vehicles and warehouse space that expire on different dates through 2027. Its lease agreements generally do not contain any material residual value guarantees or material restrictive covenants. The Company provided several security deposits mainly to secure various operating lease agreements in connection with its office space.

The adoption of the ASC 842 resulted in the recognition in its consolidated balance sheet at the date of the adoption of operating right-of-use assets, short term operating lease liabilities and long-term operating lease liabilities of \$21,048, \$5,040 and \$16,008, respectively. The adoption did not impact the beginning retained earnings, or prior year consolidated statements of income (loss) and consolidated statements of cash flows.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands, except share and per share data

NOTE 9:- LEASES (Cont.)

Aggregate lease payments for the right of use assets over the remaining lease period as of December 31, 2019 are as follows:

2020	\$	5,677
2021		4,437
2022		3,427
2023		2,622
2024		2,480
2025 and thereafter		<u>1,668</u>
Total undiscounted lease payments	\$	20,311
Less: adjustment to discounted lease payments		<u>(1,204)</u>
Total discounted lease payments	\$	<u>19,107</u>

The weighted average remaining lease terms and discount rates for all of operating leases were as follows as of December 31, 2019:

Weighted average remaining lease term (years)	4.72
Weighted average discount rate	2.6%

Total rent expenses for the years ended December 31, 2019, 2018 and 2017 were \$5,578, \$6,047 and \$6,161 respectively (see also Note 17b).

NOTE 10:- OTHER PAYABLES AND ACCRUED EXPENSES

	December 31,	
	<u>2019</u>	<u>2018</u>
Accrued expenses and other	\$ 10,357	\$ 7,068
Subcontractors accrual	1,627	1,160
Accrued taxes	1,738	3,863
Deferred consideration	<u>2,035</u>	<u>-</u>
	<u>\$ 15,757</u>	<u>\$ 12,091</u>

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands, except share and per share data

NOTE 11:- COMMITMENTS AND CONTINGENT LIABILITIES

Litigation:

1. On April 4, 2016, F5 Networks, Inc. ("F5") filed a lawsuit against the Company's Subsidiary ("Radware Inc.") in the United States District Court for the Western District of Washington, alleging infringement of three U.S. patents of F5 relating to Radware Inc. ADC and WAF products. On December 16, 2016, the Company filed an amended counterclaim in this action for patent infringement of a recently issued Radware patent directed to outbound link load balancing. In June 2017, the case was transferred to the United States District Court for the Northern District of California. On November 19, 2018, the Court granted partial summary judgment of non-infringement of the Company's patent. In May 2019, the Company reached a mutual confidential settlement of this claim with F5 without any admission of liability by either party.
2. On August 29, 2013, F5 filed an amended answer and counterclaim in an action brought by the Company against F5 on May 1, 2013 for infringement of three of the Company's patents regarding link load balancing technology. The Company prevailed in its affirmative case at trial, resulting in a damages award of \$6,800 plus costs. The Court also permanently enjoined F5 from infringing the Company's patents-in-suit. In its counterclaim, F5 alleged infringement of four F5 patents related to cookie persistence technology. In particular, while F5 acknowledged that the Company is licensed to each of the F5 patents-in-suit, F5 contends that the Company's AppDirector and Alteon product lines perform unlicensed modes of the patents-in-suit. F5's counterclaim further alleged trade libel and unfair competition resulting from statements allegedly made by the Company asserting that F5 is responsible for certain internet service problems at major banks, including the Bank of America. On December 6, 2013, the Company filed an answer denying the allegations in F5's counterclaims. On June 26, 2014, pursuant to the parties' joint stipulation, the Court dismissed with prejudice F5's patent infringement counterclaim with respect to the Company's AppDirector product line. In June 2015, in response to the Company's Summary Judgment Motion, F5 conceded that the current version of Alteon does not infringe any of the F5 patents-in-suit and that its allegations are limited to a previous version of Alteon. On January 7, 2016, pursuant to the parties' joint stipulation, the Court dismissed with prejudice F5's trade libel and unfair competition counterclaims. On May 9, 2016, F5 accepted the Company's offer for judgment of \$40 all of F5's remaining claims and on September 7, 2016 the Court entered judgment in the same amount. This portion of the judgment is not appealable. After judgment, both the Company and F5 appealed other portions of the judgment to the Federal Circuit. F5 appealed the judgment for the Company, while the Company appealed orders that limited the amount of damages and the scope of the permanent injunction. F5 has posted a bond with the Court for the entire judgment amount in favor of the Company.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands, except share and per share data**NOTE 11:- COMMITMENTS AND CONTINGENT LIABILITIES (Cont.)**

The Federal Circuit affirmed the entire judgment on September 18, 2017 and remanded the case to the District Court on October 25, 2017, upon expiration of the time allowed for either party to request reconsideration of the affirmance. Upon remand, the case was re-assigned to another judge in the Court on November 21, 2017. On November 28, 2017, the Company moved to release the bond posted by F5. On December 6, 2017, the Court granted the Company's motion. On January 16, 2018 the Company filed the necessary tax documents to collect the funds, which, together with interest amounted to \$6,900 and which were in turn released by the Court to the Company on January 29, 2018.

The above amount was recorded as other income in the consolidated statements of income (loss) for the year ended December 31, 2017.

3. From time to time, the Company is party to other various legal proceedings, claims and litigation that arise in the normal course of business. It is the opinion of management that the ultimate outcome of these matters will not have a material adverse effect on the Company's financial position, results of operations or cash flows and believes that it had provided an adequate accrual to cover the costs to resolve the such legal proceedings, demands and claims.

NOTE 12:- SHAREHOLDERS' EQUITY

The Company's shares are listed for trade on the NASDAQ Global Select Market under the symbol "RDWR".

- a. Rights of shares:

Ordinary Shares:

The ordinary shares confer upon the holders the right to receive notice to participate and vote in shareholders meetings of the Company and to receive dividend, if declared.

- b. Treasury stock:

In April 2017 the Company's Board of Directors authorized a new plan for the repurchase of up to an aggregate of \$40,000 of the Company's ordinary shares in the open market, subject to normal trading restrictions, or in privately negotiated transactions. This plan expired on April 24, 2018. In May 2018 the Company's board of directors authorized a new plan for the repurchase of up to an aggregate of \$40,000 of the Company's ordinary shares in the open market, subject to normal trading restrictions, or in privately negotiated transactions. This plan expired on April 30, 2019. In May 2019 the Company's board of directors authorized a new plan for the repurchase of up to an aggregate of \$40,000 of the Company's ordinary shares in the open market, subject to normal trading restrictions, or in privately negotiated transactions. This plan will expire on April 30, 2020.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands, except share and per share data

NOTE 12:- SHAREHOLDERS' EQUITY (Cont.)

c. Dividends:

Dividends, if any, will be paid in NIS. Dividends paid to shareholders outside Israel may be converted to U.S. dollars on the basis of the exchange rate prevailing at the date of the conversion. The Company does not intend to pay cash dividends in the foreseeable future.

d. Stock Option Plans:

The Company has two stock option plans, the Company's Key Employee Share Incentive Plan (1997) as amended and restated (the "1997 Plan") and the Directors and Consultants Option Plan (the "DC Plan" and together with the 1997 Plan, Stock Option Plans"). Under the Stock Option Plans, options may be granted to officers, directors, employees and consultants of the Group. The exercise price per share under the Stock Option Plans was generally not less than the market price of an ordinary share at the date of grant. The options vest primarily over four years. Each option is exercisable for one ordinary share. Any options, which are forfeited or not exercised before expiration, become available for future grants.

Pursuant to the Stock Option Plans, the Company reserved for issuance 33,312,967 ordinary shares.

RSUs:

In addition to granting stock options, since 2013, the Company started to routinely grant RSUs under the 1997 Plan. RSUs vest primarily over a four years period of employment. RSUs that are cancelled or forfeited become available for future grants.

The number of "Reserved and Authorized Shares" under the Equity Plans shall equal the sum of (i) the number of ordinary shares reserved and authorized under the Equity Incentive, and other awards granted under the Equity Incentive Plans as of such date, and (ii) the number of ordinary shares reserved,

As of December 31, 2019, the number of Reserved and Authorized Shares under the Equity Incentive Plans is as detailed below:

	<u>2019</u>
Stock options exercised and outstanding	28,286,653
RSUs vested and outstanding	2,741,853
Ordinary shares available for issuance under the Equity Incentive Plans	<u>2,284,461</u>
Total reserved and authorized shares as of December 31, 2019	<u>33,312,967</u>

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands, except share and per share data

NOTE 12:- SHAREHOLDERS' EQUITY (Cont.)

A summary of employees and directors option activity under the Company's Stock Option Plans as of December 31, 2019 is as follows:

	<u>Number of options</u>	<u>Weighted- average exercise price</u>	<u>Weighted- average remaining contractual term (in years)</u>	<u>Aggregate intrinsic value</u>
Outstanding at January 1, 2019	4,855,203	\$ 16.96	3.30	\$ 29,774
Granted	1,207,866	24.05		
Exercised	(1,250,680)	14.43		
Expired	(2,875)	16.43		
Forfeited	<u>(511,235)</u>	18.24		
Outstanding at December 31, 2019	<u>4,298,279</u>	<u>\$ 19.54</u>	<u>3.12</u>	<u>\$ 27,514</u>
Exercisable at December 31, 2019	<u>1,185,612</u>	<u>\$ 15.42</u>	<u>1.91</u>	<u>\$ 12,361</u>
Vested and expected to vest at December 31, 2019	<u>3,980,155</u>	<u>\$ 19.27</u>	<u>3.04</u>	<u>\$ 26,549</u>

The weighted-average grant-date fair value of options granted during the years ended December 31, 2019, 2018 and 2017 was \$5.54, \$6.67 and \$4.31, respectively.

As of December 31, 2019, there was approximately \$7,614 of total unrecognized compensation costs related to non-vested share-based compensation arrangements granted under the Company's stock option plans. That cost is expected to be recognized over a weighted-average period of 1.54 years.

The total intrinsic value of options exercised during the years 2019, 2018 and 2017 was 1,125,612, 1,112,589 and 2,068,522, respectively.

The aggregate intrinsic value of the outstanding stock options at December 31, 2019 and 2018, represents the intrinsic value of 3,579,879 and 3,983,216, respectively, outstanding options that are in-the-money as of such dates. The remaining 718,400 and 871,987 outstanding options are out-of-the-money as of December 31, 2019 and 2018, respectively, and their intrinsic value was considered as zero.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands, except share and per share data

NOTE 12:- SHAREHOLDERS' EQUITY (Cont.)

The options outstanding under the Company's Stock Option Plans as of December 31, 2019, have been separated into ranges of exercise price as follows:

December 31, 2019					
Outstanding			Exercisable		
Ranges of exercise price	Number of options	Weighted average remaining contractual life (years)	Weighted average exercise price	Number of options	Weighted Average Exercise price
\$ 10.04-14.74	1,291,709	1.73	\$ 13.40	620,850	\$ 13.31
\$ 15.09-19.30	905,825	2.43	\$ 16.78	490,075	\$ 16.44
\$ 20.62-27.15	2,100,745	4.28	\$ 24.51	74,687	\$ 26.29
	<u>4,298,279</u>			<u>1,185,612</u>	

The following table summarizes information relating to RSUs, as well as changes to such awards during 2019:

	Year ended December 31, 2019
Outstanding at January 1, 2019	1,077,909
Granted	802,513
Vested	(388,073)
Forfeited	(125,436)
Outstanding as of December 31, 2019	<u>1,366,913</u>

As of December 31, 2019, there was approximately \$16,008 of total unrecognized compensation costs related to non-vested RSUs granted under the Company's stock option plans. That cost is expected to be recognized over a weighted-average period of 1.62 years.

The weighted-average grant date fair value of RSUs granted during the year ended December 31, 2019, 2018 and 2017 were \$23.41, \$23.82 and \$16.24, respectively.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands, except share and per share data

NOTE 12:- SHAREHOLDERS' EQUITY (Cont.)

Stock-based compensation was recorded in the following items within the consolidated statements of income (loss):

	Year ended December 31,		
	2019	2018	2017
Cost of revenues	\$ 224	\$ 221	\$ 241
Research and development, net	2,855	3,123	3,867
Sales and marketing	6,953	7,072	6,894
General and administrative	3,032	2,087	2,029
Total expenses	\$ 13,064	\$ 12,503	\$ 13,031

NOTE 13:- EARNINGS (LOSS) PER SHARE

The following table sets forth the computation of basic and diluted net earnings (loss) per share:

	Year ended December 31,		
	2019	2018	2017
Numerator for basic and diluted net earnings (loss) per share:			
Net income (loss)	\$ 22,566	\$ 11,735	\$ (7,493)
Weighted average shares outstanding, net of treasury stock:			
Denominator for basic net earnings (loss) per share	46,816,899	45,289,296	43,475,844
Effect of dilutive securities:			
Employee stock options and RSUs	1,706,221	2,402,572	-
Denominator for diluted net earnings (loss) per share	48,523,120	47,691,868	43,475,844
Basic net earnings (loss) per share	\$ 0.48	\$ 0.26	\$ (0.17)
Diluted net earnings (loss) per share	\$ 0.47	\$ 0.25	\$ (0.17)

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands, except share and per share data

NOTE 14:- TAXES ON INCOME

a. General:

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

	<u>2019</u>	<u>2018</u>
Beginning balance	\$ 3,214	\$ 1,534
Additions for prior year tax positions	484	221
Reclassified from current tax payable	-	574
Decrease for prior year tax positions	-	(88)
Additions for current year tax positions	<u>1,899</u>	<u>973</u>
Ending balance	<u>\$ 5,597</u>	<u>\$ 3,214</u>

As of December 31, 2019, the entire amount of the unrecognized tax benefits could affect the Company's income tax provision and the effective tax rate.

The Company adjusts the unrecognized tax benefit liability and income tax expense in the period in which the uncertain tax position is effectively settled, the statute of limitations expires or when new information is available.

During the years ended December 31, 2019, 2018 and 2017 amounts of \$484, \$(88) and \$290, respectively, were added (deducted from) to the unrecognized tax benefits derived from interest and exchange rate differences expenses related to prior years' uncertain tax positions. As of December 31, 2019, and 2018, the Company had accrued interest liability related to uncertain tax positions in the amounts of \$460 and \$214 respectively, which is included within income tax accrual on the consolidated balance sheets.

Exchange rate differences are recorded within financial income, net, while interest is recorded within taxes on income expense.

In July 2017 the Company reached a settlement with the Israeli Tax Authorities ("ITA") regarding the Company's corporate tax returns from the years 2012, 2013 and 2014. The settlement amounted to a total payment of \$10,728 (NIS 37,727). The Company had provisions for the related years in the amount of \$10,950. The amount in excess (approximately \$200) was recorded as a tax benefit during 2017. As a result, the Company's Israeli tax returns have been examined for all years including and prior to fiscal year 2014, and the Company is no longer subject to audit for these periods.

The Company's U.S subsidiary files income tax return in the U.S federal jurisdiction. As of December 31, 2019, the 2012 through 2018 tax years are open and may be subject to potential examinations in the U.S.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands, except share and per share data

NOTE 14:- TAXES ON INCOME (Cont.)

The Company believes that it has adequately provided for any reasonably foreseeable outcome related to tax audits and settlement. The final tax outcome of its tax audits could be different from that which is reflected in the Company's income tax provisions and accruals. Such differences could have a material effect on the Company's income tax provision and net income in the period in which such determination is made.

b. Israeli taxation:

1. Foreign Exchange Regulations:

Commencing in taxable year 2003, the Company has elected to measure its taxable income and file its tax return under the Israeli Income Tax Regulations. Under the Foreign Exchange Regulations the Israeli company is calculating its tax liability in U.S. Dollars according to certain orders. The tax liability, as calculated in U.S. Dollars is translated into NIS according to the exchange rate as of December 31st of each year.

2. Tax rates:

The Israeli corporate tax rate in 2019 and 2018 was 23%, and in 2017 was 24%. A company is taxable on its real capital gains at the corporate tax rate in the year of sale.

3. Tax benefits under the Law for the Encouragement of Capital Investments, 1959 ("the Law"):

The Company elected to apply the Preferred Enterprise regime under the Law for the Encouragement of Capital Investment (the "Investment Law") as of 2014 tax year. The election is irrevocable. Under the Preferred Enterprise regime, a preferred income of an Enterprise located in the center of Israel is subject to tax rate of 16%.

Pursuant to Amendment 73 to the Investment Law adopted in 2017, a Company located in the Center of Israel that meets the conditions for "Preferred Technological Enterprises", is subject to tax rate of 12% tax rate. The Company believes it meets those conditions.

Income not eligible for Preferred Enterprise benefits is taxed at a regular rate, as follows: 2019 and 2018 – 23%, 2017 – 24%.

Prior to 2014, most of the Company's income was exempt from tax or subject to reduced tax rates under the Investment Law. Upon distribution of exempt income, the distributing company will be subject to corporate reduced tax rates ordinarily applicable to such income under the Investment Law.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands, except share and per share data

NOTE 14:- TAXES ON INCOME (Cont.)

Reduced income under the Investment Law including the Preferred Enterprise Regime and Preferred Technological Enterprise Regime will be freely distributable as dividends, subject to a 15% or 20% withholding tax (or lower rate for non Israeli resident shareholder, under an applicable tax treaty). However, upon the distribution of a dividend from Preferred Income and Technological Preferred Enterprise to an Israeli company, no withholding tax will be remitted.

Out of the Company's retained earnings as of December 31, 2019, \$128,751 are tax-exempted attributable to its Privileged Enterprise programs. If such tax-exempt income is distributed in a manner other than upon complete liquidation of the Company, it would be taxed at the corporate tax rate applicable to such profits, and an income tax liability of up to \$29,613 would be incurred as of December 31, 2019.

The Company's board of directors has determined that it will not distribute any amounts of its undistributed tax-exempt income as dividend. The Company intends to reinvest its tax-exempt income and not to distribute such income as a dividend. Accordingly, no deferred income taxes have been provided on income attributable to the Company's Approved Enterprise and Privileged Enterprise programs as the undistributed tax-exempt income is essentially permanent by reinvestment.

c. Taxes on income are comprised as follows:

	Year ended December 31,		
	2019	2018	2017
Current taxes	\$ 4,678	\$ 5,371	\$ 5,561
Deferred taxes	(1,535)	(2,308)	91
	<u>\$ 3,143</u>	<u>\$ 3,063</u>	<u>\$ 5,652</u>
Domestic	\$ 1,833	\$ 2,049	\$ 238
Foreign	1,310	1,014	5,414
	<u>\$ 3,143</u>	<u>\$ 3,063</u>	<u>\$ 5,652</u>

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands, except share and per share data

NOTE 14:- TAXES ON INCOME (Cont.)

	Year ended December 31,		
	2019	2018	2017
Domestic taxes:			
Current taxes	\$ 3,670	\$ 2,206	\$ 238
Deferred taxes	(1,837)	(157)	-
	<u>1,833</u>	<u>2,049</u>	<u>238</u>
Foreign taxes:			
Current taxes	1,008	3,165	5,323
Deferred taxes	302	(2,151)	91
	<u>1,310</u>	<u>1,014</u>	<u>5,414</u>
	<u>\$ 3,143</u>	<u>\$ 3,063</u>	<u>\$ 5,652</u>

d. 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 Company's and its subsidiaries' deferred tax liabilities and assets are as follows:

	December 31,	
	2019	2018
Carryforward losses and tax credit	\$ 7,175	\$ 4,743
Deferred revenues	4,967	6,350
Temporary differences	4,484	5,093
Unrealized losses on marketable securities	-	331
Deferred tax assets before valuation allowance	16,626	16,517
Valuation allowance	(1,477)	(3,247)
Net deferred tax assets	<u>15,149</u>	<u>13,270</u>
Intangible assets, including goodwill	(5,140)	(4,047)
Depreciable assets	(1,497)	(1,780)
Unrealized gains on marketable securities	(388)	-
Deferred tax liability	<u>(7,025)</u>	<u>(5,827)</u>
Net deferred tax assets	<u>\$ 8,124</u>	<u>\$ 7,443</u>

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands, except share and per share data

NOTE 14:- TAXES ON INCOME (Cont.)

e. Foreign:

On December 22, 2017, the U.S. enacted the Tax Cuts and Jobs Act (the "Act"), which among other provisions, reduced the U.S. corporate tax rate from 35% to 21%, effective January 1, 2018. Apportioned income is also subject to tax in various states.

At December 31, 2017, the Company re-measured certain of its U.S. deferred tax assets and liabilities, based on the new rates at which they are expected to reverse in the future.

The tax expense recorded in 2017 related to the re-measurement of the deferred tax balance was \$3,247.

Through December 31, 2019, the U.S. subsidiary had a U.S. federal loss carry forward of \$7,250, which can be carried forward and offset against taxable income up to 20 years, expiring between fiscal 2023 and fiscal 2038. Utilization of 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.

f. Income taxes of non-Israeli subsidiaries:

Non-Israeli subsidiaries are taxed according to the tax laws in their respective countries of residence.

The Company does not provide deferred tax liabilities when it intends to reinvest earnings of foreign subsidiaries indefinitely.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands, except share and per share data

NOTE 14:- TAXES ON INCOME (Cont.)

- g. A reconciliation between the theoretical tax expense, assuming all income is taxed at the statutory tax rate applicable to income of the Company and the actual tax expense as reported in the consolidated statements of income (loss) is as follows:

	Year ended December 31,		
	2019	2018	2017
Income (loss) before taxes, as reported in the consolidated statements of income (loss)	\$ 25,709	\$ 14,798	\$ (1,841)
Statutory tax rate	23%	23%	24%
Theoretical tax expense (benefit) on the above amount at the Israeli statutory tax rate	\$ 5,913	\$ 3,404	\$ (442)
Tax adjustment in respect of different tax rate of foreign subsidiary	-	65	334
Non-deductible expenses and other permanent differences	188	(340)	375
Deferred taxes on losses for which valuation allowance was provided, net	592	743	1,288
Utilization of tax losses and deferred taxes for which valuation allowance was provided, net	(2,175)	(2,259)	(709)
Stock compensation relating to stock options per ASC No. 718	821	1,073	1,976
Income taxes in respect of prior years	330	273	(1,038)
Change of tax rate	-	696	3,249
Approved, Privileged and Preferred enterprise loss (benefits) (*)	(2,783)	(684)	347
Other	257	92	272
Actual tax expense	\$ 3,143	\$ 3,063	\$ 5,652
(*) Basic earnings per share amounts of the benefit resulting from the "Approved, Privileged and Preferred Enterprise" status	\$ 0.06	\$ 0.00	\$ 0.00
Diluted earnings per share amounts of the benefit resulting from the "Approved, Privileged and Preferred Enterprise" status	\$ 0.06	\$ 0.00	\$ 0.00

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands, except share and per share data

NOTE 14:- TAXES ON INCOME (Cont.)

h. Income (loss) before taxes on income is comprised as follows:

	Year ended December 31,		
	2019	2018	2017
Domestic	\$ 19,185	\$ 9,009	\$ (5,918)
Foreign	6,524	5,789	4,077
Income (loss) before taxes on income	<u>\$ 25,709</u>	<u>\$ 14,798</u>	<u>\$ (1,841)</u>

NOTE 15:- GEOGRAPHIC INFORMATION

Summary information about geographic areas:

The Company operates in one reportable segment (see Note 1 for a brief description of the Company's business). The total revenues are attributed to geographic areas based on the location of the end-users.

The following table presents total revenues for the years ended December 31, 2019, 2018 and 2017 from a geographical perspective:

	Year ended December 31,		
	2019	2018	2017
Revenues from sales to customers located at:			
The United States	\$ 85,447	\$ 82,990	\$ 78,464
America - other	20,982	19,501	19,437
EMEA *)	75,275	75,751	56,589
Asia Pacific	70,368	56,162	56,879
	<u>\$ 252,072</u>	<u>\$ 234,404</u>	<u>\$ 211,369</u>

*) Europe, the Middle East and Africa. For the year ended December 31, 2018, revenues from sales to customers located in Germany amounted to \$ 23,863.

The following table presents long-lived assets as of December 31, 2019 and 2018 from a geographical perspective:

	December 31,	
	2019	2018
Long-lived assets, by geographic region:		
America (principally the United States)	\$ 1,401	\$ 1,736
Israel	20,411	20,856
EMEA - other	246	253
Asia Pacific	913	832
	<u>\$ 22,971</u>	<u>\$ 23,677</u>

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands, except share and per share data

NOTE 16:- SELECTED STATEMENTS OF INCOME DATA

Financial income, net:

	Year ended December 31,		
	2019	2018	2017
Financial income, net:			
Interest on bank deposits and other	\$ 7,016	\$ 5,279	\$ 3,528
Amortization of premiums, accretion of discounts and interest on debt marketable securities, net	3,639	2,304	2,008
Other gain	537	-	-
Gain from sale of available-for-sale marketable securities	-	-	18
Bank charges	(124)	(113)	(89)
Foreign currency translation differences, net	(2,276)	(196)	(635)
	<u>\$ 8,792</u>	<u>\$ 7,274</u>	<u>\$ 4,830</u>

NOTE 17:- BALANCES AND TRANSACTIONS WITH RELATED PARTIES

Represents transactions and balances with other entities in which certain members of the Company's board of directors, management or shareholders have interest:

- a. The following related party balances are included in the consolidated balance sheets:

	December 31,	
	2019	2018
Trade receivables and prepaid expenses	\$ 3,982	\$ 1,676
Trade payables and accrued expenses	\$ 1,419	\$ 604

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands, except share and per share data

NOTE 17:- BALANCES AND TRANSACTIONS WITH RELATED PARTIES (Cont.)

b. The following related party transactions are included in the consolidated statements of income (loss):

	Year ended December 31,		
	2019	2018	2017
Revenues (1)	\$ 4,476	\$ 2,491	\$ 2,547
Cost of revenues (2)	\$ 7,061	\$ 6,956	\$ 4,280
Operating expenses, net - primarily lease, sub-contractors and communications (3)	\$ 4,888	\$ 4,757	\$ 4,853
Purchase of property and equipment	\$ 1,944	\$ 2,761	\$ 1,663

- (1) Distribution of the Company's products on a non-exclusive basis.
- (2) Related to cost of product purchased from one of the related companies. The Company depends on a sole single managed security service provider, which is a related party, to provide services as part of its protection services. If the managed security service provider fails to provide or delay the delivery of the services, the Company will be required to seek alternative sources of the services. A change in its managed security service provider could result in a possible loss of sales and, consequently, could adversely affect the Company's results of operations and financial position.
- (3) The Company leases office space and purchases other miscellaneous services from certain companies, which are considered to be related parties. In addition, the Company provides certain services to related parties.

NOTE 18:- SUBSEQUENT EVENTS

The recent outbreak of Coronavirus, a virus causing potentially deadly respiratory tract infections originating in China and spreading in various jurisdictions, may negatively affect economic conditions regionally as well as globally, disrupt operations situated in countries particularly exposed to the contagion, affect supply chains or otherwise impact our businesses. Governments in affected countries are imposing travel bans, quarantines and other emergency public safety measures. Those measures, though temporary in nature, may continue and increase depending on developments in the virus' outbreak. The ultimate severity of the Coronavirus outbreak is uncertain at this time and therefore the Company cannot reasonably estimate the impact it may have on its end markets and its operations.

[TRANSLATION FROM HEBREW OF
MEMORANDUM OF ASSOCIATION, AS AMENDED AND RESTATED]

THE COMPANIES ORDINANCE (NEW VERSION), 5743-1983

**MEMORANDUM OF ASSOCIATION
OF
A COMPANY LIMITED BY SHARES
(as amended on October 24, 2019)**

The Company's name: Radware Ltd.

1. The objects for which the Company was formed are:
 - (a) to produce, market, sell, import, export, purchase, rent out, lease out, take on rent, take on lease and howsoever engage in the production of computers including computer communication and including any auxiliary equipment, components and items for computers and including any electronic components, auxiliary equipment and equipment of whatsoever type;
 - (b) to conduct business as agents, representatives and attorneys of any person in the computer or electronics industry or in any other industry;
 - (c) to engage in the planning, research and development of computer and electronic equipment including computer communication equipment and including any auxiliary equipment, components and items;
 - (d) to apply for, register, purchase or otherwise acquire patents, licenses, concessions plants, know-how, production processes, professional secrets and rights of whatsoever type in the computer and electronics industries and in any other industry;
 - (e) to engage in any scientific, technical, mechanical and other tests, experiments and trials, including for the perfection in an attempt to perfect any inventions and right patents to which the Company shall be entitled, or to use them or purchase them for itself or wish to purchase for itself;
 - (f) to engage in any business of computers, computer communication, development sale, marketing, distribution, import, real estate, industrial business, trade construction, land, monies and any other business or engagement;
 - (g) to engage in the provision of services of whatsoever type;
 - (h) to conduct business as a company for investments or holdings of whatsoever type;
 - (i) to engage in the management and promotion of businesses of whatsoever type;
 - (j) to do any legal act of whatsoever type.
2. The members' liability is limited.
3. The Company's share capital, including the rights attached thereto, shall be as set forth in the Company's articles of association, as may be amended from time to time.
4. All the objects mentioned or included in paragraph 1 are independent of each other, and stand by their own, and they may not be howsoever limited or restricted by drawing conclusions from sub-paragraph 1(a) or from any other paragraph, or from the Company's name or reliance thereon.

THE COMPANIES ORDINANCE

A COMPANY LIMITED BY SHARES

**ARTICLES OF ASSOCIATION
OF**

Radware Ltd.

(Amended and Restated as of October 24, 2019)

PRELIMINARY

1. **Object and Purpose of the Company**

(a) The object of the Company is to engage, directly or indirectly, in any lawful undertaking or business whatsoever, including without limitation, as set forth in the Company's Memorandum of Association.

(b) In accordance with Section 11(a) of the Companies Law 5759 - 1999 (the "Companies Law"), the Company may contribute a reasonable amount to a worthy cause.

2. **Limitation of Liability**

The liability of the shareholders is limited to the payment of the nominal value of the shares in the Company allotted to them and which remains unpaid, and only to that amount. If the Company's share capital shall include at any time shares without a nominal value, the shareholders' liability in respect of such shares shall be limited to the payment of up to NIS 0.01 for each such share allotted to them and which remains unpaid, and only to that amount.

2A. **Interpretation**

(a) Unless the subject or the context otherwise requires: words and expressions defined in the Companies Law in force on the date when these Articles or any amendment thereto, as the case may be, first became effective shall have the same meanings herein; words and expressions importing the singular shall include the plural and vice versa; words and expressions importing the masculine gender shall include the feminine gender; and words and expressions importing persons shall include bodies corporate.

(b) The captions in these Articles are for convenience only and shall not be deemed a part hereof or affect the construction of any provision hereof.

3. **Not a Private Company**

The Company is a public company as such term is defined in the Companies Law.

SHARE CAPITAL

4. Share Capital

The share capital of the Company is Four Million Five Hundred Thousand New Israeli Shekels (NIS 4,500,000) divided into Ninety Million (90,000,000) ordinary registered shares of NIS 0.05 par value each.

5. Increase of Share Capital

(a) The Company may, from time to time, by Resolution of the General Meeting of Shareholders, whether or not all the shares then authorized have been issued, and whether or not all the shares theretofore issued have been called up for payment, increase its share capital by the creation of new shares. Any such increase shall be in such amount and shall be divided into share of such nominal amounts, and such shares shall confer such rights and preferences, and shall be subject to such restrictions, as such Resolution shall provide.

(b) Except to the extent otherwise provided in such Resolution of the General Meeting of Shareholders, such new shares shall be subject to all the provisions applicable to the shares of the original capital.

6. Special Rights; Modifications of Rights

(a) Without prejudice to any special rights previously conferred upon the holders of existing shares in the Company, the Company may, from time to time, by Resolution of the General Meeting of Shareholders adopted by Special Majority, provide for shares with such preferred or deferred rights or rights of redemption or other special rights and/or such restrictions, whether in regard to dividends, voting, repayment of share capital or otherwise, as may be stipulated in such Special Resolution.

(b) (i) If at any time the share capital is divided into different classes of shares, the rights attached to any class, unless otherwise provided by these Articles, may be modified or abrogated by the Company, by Resolution of the General Meeting of Shareholders adopted by Special Majority, subject to the consent in writing of the holders of seventy-five per cent (75%) of the issued shares of such class or the sanction of a Special Resolution passed at a separate General Meeting of the holders of the shares of such class adopted by Special Majority.

(ii) The provisions of these Articles relating to General Meetings shall, mutatis mutandis, apply to any separate General Meeting of the holders of the shares of a particular class, provided, however, that the requisite quorum at any such separate General Meeting shall be one or more members present in person or proxy and holding not less than seventy-five per cent (75%) of the issued shares of such class.

(iii) Unless otherwise provided by these Articles, the enlargement of an existing class of shares, or the issuance of additional shares thereof, shall not be deemed, for purposes of this Article 6(b), to modify or abrogate the rights attached to the previously issued shares of such class or of any other class.

7. Consolidation, Subdivision, Cancellation and Reduction of Share Capital

(a) The Company may, from time to time, by Resolution of the General Meeting of Shareholders adopted by Special Majority (subject, however, to the provisions of Article 6(b) hereof and to applicable companies law):

(i) consolidate and divide all or any of its issued or unissued share capital into shares of larger nominal value than its existing shares,

(ii) subdivide its shares (issued or unissued) or any of them, into shares of smaller nominal value than is fixed by the Memorandum of Association (subject, however, to the provisions of the Companies Law), and the resolution whereby any share is subdivided may determine that, as among the holders of the shares resulting from such subdivision, one or more of the shares may, as compared with the others, have any such preferred or deferred rights or rights of redemption or other special rights, or be subject to any such restrictions, as the Company has power to attach to unissued or new shares.

(iii) cancel any shares which, at the date of the adoption of Resolution of the General Meeting of Shareholders adopted by Special Majority, have not been taken or agreed to be taken by any person, and diminish the amount of its share capital by the amount of the shares so cancelled, or

(iv) reduce its share capital in any manner, and with and subject to any incident authorized, and consent required, by law.

(b) With respect to any consolidation of issued shares into shares of larger nominal value, and with respect to any other action which may result in fractional shares, the Board of Directors may settle any difficulty which may arise with regard thereto, as it deems fit, including, inter alia, resort to one or more of the following actions:

(i) determine, as to the holder of shares so consolidated, which issued shares shall be consolidated into each share of larger nominal value;

(ii) allot, in contemplation of or subsequent to such consolidation or other action, such shares or fractional shares sufficient to preclude or remove fractional share holdings;

(iii) redeem, in the case of redeemable preference shares, and subject to applicable law, such shares or fractional shares sufficient to preclude or remove fractional share holdings;

(iv) cause the transfer of fractional shares by certain shareholders of the Company to other shareholders thereof so as to most expediently preclude or remove any fractional shareholdings, and cause the transferees to pay the transferors the fair value of fractional shares so transferred, and the Board of Directors is hereby authorized to act as agent for the transferors and transferees with power of substitution for purposes of implementing the provisions of this sub-Article 7(b)(iv).

SHARES

8. Issuance of Share Certificates; Replacement of Lost Certificates

(a) Share certificates shall be issued under the seal of the rubber stamp of the Company and shall bear the signatures of two Directors (or if there be only one Director, the signature of such Director), or of any other person or persons authorized thereto by the Board of Directors.

(b) Each member shall be entitled to one numbered certificate for all the shares of any class registered in his name, and if the Board of Directors so approves, to several certificates, each for one or more of such shares. Each certificate shall specify the serial numbers of the shares represented thereby and may also specify the amount paid up thereon.

(c) A share certificate registered in the names of two or more persons shall be delivered to the person first named in the Registrar of Members in respect of such co-ownership.

(d) If a share certificate is defaced, lost or destroyed, it may be replaced, upon payment of such fee, and upon the furnishing of such evidence of ownership and such indemnity, as the Board of Directors may think fit.

9. Registered Holder

Except as otherwise provided in these Articles, the Company shall be entitled to treat the registered holder of any share as the absolute owner thereof, and, accordingly, shall not, except as ordered by a court of competent jurisdiction, or as required by statute, be bound to recognize any equitable or other claim to, or interest in such share on the part of any other person.

10. Allotment of Shares

The unissued shares from time to time shall be under the control of the Board of Directors, who shall have the power to allot shares or otherwise dispose of them to such persons, on such terms and conditions (including inter alia terms relating to calls as set forth in Article 12(f) hereof), and either at par or at a premium, or, subject to the provisions of the Companies Law, at a discount, and at such times, as the Board of Directors may think fit, and the power to give to any person the option to acquire from the Company any shares, either at par or at a premium, or, subject as aforesaid, at a discount, during such time and for such consideration as the Board of Directors may think fit.

11. Payment in Installments

If by the terms of allotment of any share, the whole or any part of the price thereof shall be payable in installments, every such installment shall, when due, be paid to the Company by the then registered holder(s) of the share of the person(s) entitled thereto.

12. Calls on Shares

(a) The Board of Directors may, from time to time, make such calls as it may think fit upon members in respect of any sum unpaid in respect of shares held by such members which is not, by the terms of allotment thereof or otherwise, payable at a fixed time, and each member shall pay the amount of every call so made upon him (and of each installment thereof if the same is payable in installments), to the person(s) and at the time(s) and place(s) designated by the Board of Directors, as any such time(s) may be thereafter extended and/or such person(s) or place(s) changed. Unless otherwise stipulated in the resolution of the Board of Directors (and in the notice hereafter referred to), each payment in response to a call shall be deemed to constitute a pro rata payment on account of all shares in respect of which such call was made.

(b) Notice of any call shall be given in writing to the member(s) in question not less than fourteen (14) days prior to the time of payment, specifying the time and place of payment, and designating the person to whom such payment shall be made, provided, however, that before the time for any such payment, the Board of Directors may, by notice in writing to such member(s), revoke such call in whole or in part, extend such time, or alter such person and/or place. In the event of a call payable in installments, only one notice thereof need be given.

(c) If, by the terms of allotment of any share or otherwise, any amount is made payable at any fixed time, every such amount shall be payable at such time as if it were a call duly made by the Board of Directors and of which due notice had been given, and all the provisions herein contained with respect to such calls shall apply to each such amount.

(d) The joint holders of a share shall be jointly and severally liable to pay all calls in respect thereof and all interest payable thereon.

(e) Any amount unpaid in respect of a call shall bear interest from the date on which it is payable until actual payment thereof, at such rate (not exceeding the then prevailing debitory rate charged by leading commercial banks in Israel), and at such time(s) as the Board of Directors may prescribe.

(f) Upon the allotment of shares, the Board of Directors may provide for differences among the allottees of such shares as to the amount of calls and/or the times of payment thereof.

13. Prepayment

With the approval of the Board of Directors, any member may pay to the Company any amount not yet payable in respect of his shares, and the Board of Directors may approve the payment of interest on any such amount until the same would be payable if it had not been paid in advance, at such rate and time(s) as may be approved by the Board of Directors. The Board of Directors may at any time cause the Company to repay all or any part of the money so advanced, without premium or penalty. Nothing in this Article 13 shall derogate from the right of the Board of Directors to make any call before or after receipt by the Company of any such advance.

14. Forfeiture and Surrender

(a) If any member fails to pay any amount payable in respect of a call, or interest thereon as provided for herein, on or before the day fixed for payment of the same, the Company, by resolution of the Board of Directors, may at any time thereafter, so long as the said amount or interest remains unpaid, forfeit all or any of the shares in respect of which said call had been made. Any expense incurred by the Company in attempting to collect any such amount or interest, including, inter alia, attorneys' fees and costs of suit, shall be added to, and shall, for all purposes (including the accrual of interest thereon), constitute a part of the amount payable to the Company in respect of such call.

(b) Upon the adoption of a resolution of forfeiture, the Board of Directors shall cause notice thereof to be given to such member, which notice shall state that, in the event of the failure to pay the entire amount so payable within a period stipulated in the notice (which period shall not be less than fourteen (14) days and which may be extended by the Board of Directors), such shares shall be ipso facto forfeited, provided, however, that, prior to the expiration of such period, the Board of Directors may nullify such resolution of forfeiture, but no such nullification shall estop the Board of Directors from adopting a further resolution of forfeiture in respect of the non-payment of the same amount.

(c) Whenever shares are forfeited as herein provided, all dividends theretofore declared in respect thereof and not actually paid shall be deemed to have been forfeited at the same time.

(d) The Company, by resolution of the Board of Directors, may accept the voluntary surrender of any share.

(e) Any share forfeited or surrendered as provided herein shall become the property of the Company, and the same, subject to the provisions of these Articles, may be sold, re-allotted or otherwise disposed of as the Board of Directors thinks fit.

(f) Any member whose shares have been forfeited or surrendered shall cease to be a member in respect of the forfeited or surrendered shares, but shall, notwithstanding, be liable to pay, and shall forthwith pay, to the Company, all calls, interest and expenses owing upon or in respect of such shares at the time of forfeiture or surrender, together with interest thereon from the time of forfeiture or surrender until actual payment, at the rate prescribed in Article 12(e) above, and the Board of Directors, in its discretion, may enforce the payment of such moneys, or any part thereof, but shall not be under any obligation to do so. In the event of such forfeiture or surrender, the Company, by resolution of the Board of Directors, may accelerate the date(s) of payment of any or all amounts then owing by the member in question (but not yet due) in respect of all shares owned by such member, solely or jointly with another, and in respect of any other matter or transaction whatsoever.

(g) The Board of Directors may at any time, before any share so forfeited or surrendered shall have been sold, re-allotted or otherwise disposed of, nullify the forfeiture or surrender on such conditions as it thinks fit, but no such nullification shall estop the Board of Directors from re-exercising its powers of forfeiture pursuant to this Article 14.

15. Lien

(a) Except to the extent the same may be waived or subordinated in writing, the Company shall have a first and paramount lien upon all the shares registered in the name of each member (without regard to any equitable or other claim or interest in such shares on the part of any other person), and upon the proceeds of the sale thereof, for his debts, liabilities and engagements arising from any cause whatsoever, solely or jointly with another, to or with the Company, whether the period for the payment, fulfillment or discharge thereof shall have actually arrived or not. Such lien shall extend to all dividends from time to time declared in respect of such share. Unless otherwise provided, the registration by the Company of a transfer of shares shall be deemed to be a waiver on the part of the Company of the lien (if any) existing on such shares immediately prior to such transfer.

(b) The Board of Directors may cause the Company to sell any shares subject to such lien when any such debt, liability or engagement has matured, in such manner as the Board of Directors may think fit, but no such sale shall be made unless such debt, liability or engagement has not been satisfied within fourteen (14) days after written notice of the intention to sell shall have been served on such member, his executors or administrators.

(c) The net proceeds of any such sale, after payment of the costs thereof, shall be applied in or toward satisfaction of the debts, liabilities or engagements of such member (whether or not the same have matured), or any specific part of the same (as the Company may determine), and the residue (if any) shall be paid to the member, his executors, administrators or assigns.

16. Sale after Forfeiture or Surrender or in Enforcement of Lien

Upon any sale of shares after forfeiture or surrender or for enforcing a lien, the Board of Directors may appoint some person to execute an instrument of transfer of the shares so sold and cause the purchaser's name to be entered in the Register of Members in respect of such shares, and the purchaser shall not be bound to see to the regularity of the proceedings, or to the application of the purchase money, and after his name has been entered in the Register of Members in respect of such shares, the validity of the sale shall not be impeached by any person, and the remedy of any person aggrieved by the sale shall be in damages only and against the Company exclusively.

17. Redeemable Shares

The Company may, subject to applicable law, issue redeemable shares and redeem the same.

18. Conversion of Shares into Stock

(a) The Board of Directors may, with the sanction of the members previously given by Resolution of the General Meeting of Shareholders adopted by Special Majority, convert any paid-up shares into stock, and may, with like sanction, reconvert any stock into paid-up shares of any denomination.

(b) The holders of stock may transfer the same, or any part thereof, in the same manner and subject to the same regulations, as the shares from which the stock arose might have been transferred prior to conversion, or as near thereto as circumstances admit, provided, however, that the Board of Directors may from time to time fix the minimum amount of stock so transferable, and restrict or forbid the transfer of fractions of such minimum, but the minimum shall not exceed the nominal value of each of the shares from which such stock arose.

(c) The holders of stock shall, in accordance with the amount of stock held by them, have the same rights and privileges as regards dividends, voting at meetings of the Company and other matters as if they held the shares from which such stock arose, but no such right or privilege, except participation in the dividends and profits of the Company, shall be conferred by any such aliquot part of such stock as would not, if existing in shares, have conferred that right or privilege.

(d) Such of the Articles of the Company as are applicable to paid-up shares shall apply to stock, and the words "share" and "shareholder" (or "member") therein shall include "stock" and "stockholder."

TRANSFER OF SHARES

19. Effectiveness and Registration

(a) No transfer of shares shall be registered unless a proper instrument of transfer (in form and substance satisfactory to the Board of Directors) has been submitted to the Company, together with the share certificate(s) and such other evidence of title as the Board of Directors may reasonably require. Until the transferee has been registered in the Register of Members in respect of the shares so transferred, the Company may continue to regard the transferor as the owner thereof. The Board of Directors, may, from time to time, prescribe a fee for the registration of a transfer.

(b) The Board of Directors may, in its discretion and to the extent that it deems necessary, close the Register of Members for the registration of transfer of shares for such periods as may determined by the Board of Directors, and no transfers of shares shall be registered during any period in which the Register of Members is so closed.

20. Record Date for General Meetings

Notwithstanding any provision to the contrary in these Articles, for the determination of the members entitled to receive notice of and to vote at a General Meeting, or to express consent to or dissent from any corporate action in writing, or to receive payment of any dividend or other distribution or allotment of any rights or to exercise any rights in respect of shares of the Company, the Board of Directors may fix, in advance, a record date, which shall not be earlier than ninety (90) days prior to the General Meeting or other action, as the case may be. No persons other than holders of record of shares as of such record date shall be entitled to notice of and to vote at such General Meeting, or to exercise such other right, as the case may be. A determination of members of record with respect to a General Meeting shall apply to any adjournment of such meeting, provided that the Board of Directors may fix a new record date for an adjourned meeting.

TRANSMISSION OF SHARES

21. Decedents' Shares

(a) In case of a share registered in the names of two or more holders, the Company may recognize the survivor(s) as the sole owner(s) thereof unless and until the provisions of Article 21(b) have been effectively invoked.

(b) Any person becoming entitled to a share in consequence of the death of any person, upon producing evidence of the grant of probate or letters of administration or declaration of succession (or such other evidence as the Board of Directors may reasonably deem sufficient that he sustains the character in respect of which he proposes to act under this Article or of his title), shall be registered as a member in respect of such share, or may, subject to the regulations as to transfer herein contained, transfer such share.

22. Receivers and Liquidators

(a) The Company may recognize the receiver or liquidator of any corporate member in winding-up or dissolution, or the receiver or trustee in bankruptcy of any member, as being entitled to the shares registered in the name of such member.

(b) The receiver or liquidator of a corporate member in winding-up or dissolution, or the receiver or trustee in bankruptcy of any member, upon producing such evidence as the Board of Directors may deem sufficient that he sustains the character in respect of which he proposes to act under this Article or of his title, shall with the consent of the Board of Directors (which the Board of Directors may grant or refuse in its absolute discretion), be registered as a member in respect of such shares, or may, subject to the regulations as to transfer herein contained, transfer such shares.

GENERAL MEETINGS

23. Annual General Meeting

An Annual General Meeting shall be held once in every calendar year at such time (within a period of not more than fifteen (15) months after the last preceding Annual General Meeting) and at such place either within or without the State of Israel as may be determined by the Board of Directors.

24. Extraordinary General Meetings

All General Meetings other than Annual General Meetings shall be called "Extraordinary General Meetings." The Board of Directors may, whenever it thinks fit, convene an Extraordinary General Meeting at such time and place, within or without the State of Israel, as may be determined by the Board of Directors, and shall be obliged to do so upon a requisition in writing in accordance with the provisions of the Companies Law.

25. Notice of General Meetings; Omission to Give Notice

(a) Unless a shorter period is permitted by law, notice of a General Meeting shall be sent at least seven (7) days' prior to the date fixed for the General Meeting, provided however that such notice shall not be sent more than forty five (45) days from the date fixed for the General Meeting. Each such notice shall specify the place and the day and hour of the meeting and the general nature of each item to be acted upon thereat. Notice shall be given to all members who would be entitled to attend and vote at such meeting, if it were held on the date when such notice is issued. Anything herein to the contrary notwithstanding, with the consent of all members entitled to vote thereon, a resolution may be proposed and passed at such meeting although a lesser notice than hereinabove prescribed has been given.

(b) The accidental omission to give notice of a meeting to any member, or the non-receipt of notice sent to such member, shall not invalidate the proceedings at such meeting.

PROCEEDINGS AT GENERAL MEETINGS

26. Quorum

(a) Two or more members (not in default in payment of any sum referred to in Article 32(a) hereof), present in person or by proxy and holding shares conferring in the aggregate Thirty Five percent (35%) of the voting power of the Company, shall constitute a quorum at General Meetings. No business shall be transacted at a General Meeting, or at any adjournment thereof, unless the requisite quorum is present when the meeting proceeds to business.

(b) If within an hour from the time appointed for the meeting a quorum is not present, the meeting, if convened upon requisition under the provisions of the Companies Law, shall be dissolved, but in any other case it shall stand adjourned to the same day in the next week, at the same time and place, or to such day and at such time and place as the Chairman may determine with the consent of the holders of a majority of the voting power represented at the meeting in person or by proxy and voting on the question of adjournment. No business shall be transacted at any adjourned meeting except business which might lawfully have been transacted at the meeting as originally called. At such adjourned meeting, any two (2) members (not in default as aforesaid) present in person or by proxy, shall constitute a quorum.

27. Chairman

The Chairman, if any, of the Board of Directors shall preside as Chairman at every General Meeting of the Company. If there is no such Chairman, or if at any meeting he is not present within fifteen (15) minutes after the time fixed for holding the meeting or is unwilling to act as Chairman, the members present shall choose someone of their number to be Chairman. The office of Chairman shall not, by itself, entitle the holder thereof to vote at any General Meeting nor shall it entitle such holder to a second or casting vote (without derogating, however, from the rights of such Chairman to vote as a shareholder or proxy of a shareholder if, in fact, he is also a shareholder or such proxy).

28. Adoption of Resolutions at General Meetings

(a) (i) All Resolutions of the General Meeting shall be deemed adopted if approved by the holders of a majority of the voting power represented at the meeting in person or by proxy and voting thereon, except for articles 6(a), 6(b), 7(a), 18(a) and 39(d) which resolution shall be adopted by a Special Majority.

(ii) A Special Majority shall mean a majority of at least seventy-five percent (75%) of the voting power represented at the meeting in person or by proxy and voting thereon.

(b) Every question submitted to a General Meeting shall be decided by a show of hands, but if a written ballot is demanded by any member present in person or by proxy and entitled to vote at the meeting, the same shall be decided by such ballot. A written ballot may be demanded before the proposed resolution is voted upon or immediately after the declaration by the Chairman of the results of the vote by a show of hands. If a vote by written ballot is taken after such declaration, the results of the vote by a show of hands shall be of no effect, and the proposed resolution shall be decided by such written ballot. The demand for a written ballot may be withdrawn at any time before the same is conducted, in which event another member may then demand such written ballot. The demand for a written ballot shall not prevent the continuance of the meeting for the transaction of business other than the question on which the written ballot has been demanded.

(c) A declaration by the Chairman of the meeting that a resolution has been carried unanimously, or carried by a particular majority, or lost, and an entry to that effect in the minute book of the Company, shall be conclusive evidence of the fact without proof of the number or proportion of the votes recorded in favor of or against such resolution.

29. Resolutions in Writing

A resolution in writing signed by all members of the Company then entitled to attend and vote at General Meetings or to which all such members have given their written consent (by letter, facsimile [telecopier], telegram, telex or otherwise), shall be deemed to have been unanimously adopted by a General Meeting duly convened and held.

30. Power to Adjourn

(a) The Chairman of a General Meeting at which a quorum is present may, with the consent of the holders of a majority of the voting power represented in person or by proxy and voting on the question of adjournment (and shall if so directed by the meeting), adjourn the meeting from time to time and from place to place, but no business shall be transacted at any adjourned meeting except business which might lawfully have been transacted at the meeting as originally called.

(b) It shall not be necessary to give any notice of an adjournment, whether pursuant to Article 26(b) or Article 30(a), unless the meeting is adjourned for thirty (30) days or more in which event notice thereof shall be given in the manner required for the meeting as originally called.

31. Voting Power

Subject to the provisions of Article 32(a) and subject to any provision hereof conferring special rights as to voting, or restricting the right to vote, every member shall have one vote for each share held by him of record, on every resolution, without regard to whether the vote hereon is conducted by a show of hands, by written ballot or by any other means.

32. Voting Rights

(a) No member shall be entitled to vote at any General Meeting (or be counted as a part of the quorum thereat), unless all calls and other sums then payable by him in respect of his shares in the Company have been paid, but this Article shall not apply to separate General Meetings of the holders of a particular class of shares pursuant to Article 6(b).

(b) A company or other corporate body being a member of the Company may, by resolution of its directors or any other managing body thereof, authorize any person to be its representative at any meeting of the Company. Any person so authorized shall be entitled to exercise on behalf of such member all the power which the latter could have exercised if it were an individual shareholder. Upon the request of the Chairman of the meeting, written evidence of such authorization (in form acceptable to the Chairman) shall be delivered to him.

(c) Any member entitled to vote may vote either personally or by proxy (who need not be a member of the Company), or, if the member is a company or other corporate body, by a representative authorized pursuant to Article 32(b).

(d) If two or more persons are registered as joint holders of any share, the vote of the senior who tenders a vote, in person or by proxy, shall be accepted to the exclusion of the vote(s) of the other joint holder(s); and for this purpose seniority shall be determined by the order in which the names stand in the Register of Members.

PROXIES

33. Instrument of Appointment

(a) The instrument appointing a proxy shall be in writing and shall be substantially in the following form:

"I _____ of _____
(Name of Shareholder) (Address of Shareholder)
being a member of _____ hereby appoint
(Name of the Company)

_____ of _____
(Name of Proxy) (Address of Proxy)

as my proxy to vote for me and on my behalf at the General Meeting of the Company to be held on the ____ day of _____, 19__ and at any adjournment(s) thereof.

Signed this ____ day of _____, 19__.

(Signature of Appointer)"

or in any usual or common form or in such other form as may be approved by the Board of Directors. It shall be duly signed by the appointer or his duly authorized attorney or, if such appointer is a company or other corporate body, under its common seal or stamp or the hand of its duly authorized agent(s) or attorney(s).

(b) The instrument appointing a proxy (and the power of attorney or other authority, if any, under which such instrument has been signed) shall either be delivered to the Company (at its Registered Office, or at its principal place of business or at the offices of its registrar and/or transfer agent or at such place as the Board of Directors may specify) not less than two (2) hours (or not less than twenty-four (24) hours with respect to a meeting to be held outside of Israel) before the time fixed for the meeting at which the person named in the instrument proposes to vote, or presented to the Chairman at such meeting.

34. Effect of Death of Appointor or Revocation of Appointment

A vote cast pursuant to an instrument appointing a proxy shall be valid notwithstanding the previous death of the appointing member (or of his attorney-in-fact, if any, who signed such instrument), or the revocation of the appointment or the transfer of the share in respect of which the vote is cast, provided no written intimation of such death, revocation or transfer shall have been received by the Company or by the Chairman of the meeting before such vote is cast and provided, further, that the appointing member, if present in person at said meeting, may revoke the appointment by means of a writing, oral notification to the Chairman, or otherwise.

BOARD OF DIRECTORS

35. Powers of Board of Directors

(a) In General

The management of the business of the Company shall be vested in the Board of Directors, which may exercise all such powers and do all such acts and things as the Company is authorized to exercise and do, and are not hereby or by law required to be exercised or done by the Company in General Meeting. The authority conferred on the Board of Directors by this Article 35 shall be subject to the provisions of the Companies Law, of these Articles and any regulation or resolution consistent with these Articles adopted from time to time by the Company in General Meeting, provided, however, that no such regulation or resolution shall invalidate any prior act done by or pursuant to a decision of the Board of Directors which would have been valid if such regulation or resolution had not been adopted.

(b) Borrowing Power

The Board of Directors may from time to time, in its discretion, cause the Company to borrow or secure the payment of any sum or sums of money for the purposes of the Company, and may secure or provide for the repayment of such sum or sums in such manner, at such times and upon such terms and conditions in all respects as it thinks fit, and, in particular, by the issuance of bonds, perpetual or redeemable debentures, debenture stock, or any mortgages, charges, or other securities on the undertaking or the whole or any part of the property of the Company, both present and future, including its uncalled or called but unpaid capital for the time being.

(c) Reserves

The Board of Directors may, from time to time, set aside any amount(s) out of the profits of the Company as a reserve or reserves for any purpose(s) which the Board of Directors, in its absolute discretion, shall think fit, and may invest any sum so set aside in any manner and from time to time deal with and vary such investments, and dispose of all or any part thereof, and employ any such reserve or any part thereof in the business of the Company without being bound to keep the same separate from other assets of the Company, and may subdivide or redesignate any reserve or cancel the same or apply the funds therein for another purpose, all as the Board of Directors may from time to time think fit.

36. Exercise of Powers of Directors

(a) A meeting of the Board of Directors at which a quorum is present shall be competent to exercise all the authorities, powers and discretions vested in or exercisable by the Board of Directors.

(b) A resolution proposed at any meeting of the Board of Directors shall be deemed adopted if approved by a majority of the Directors present when such resolution is put to a vote and voting thereon.

(c) A resolution in writing signed by all Directors then in office and lawfully entitled to vote thereon (as conclusively determined by the Chairman of the Audit Committee ["Va'adat Bikoret"], and in the absence of such determination - by the Chairman of the Board of Directors) or to which all such Directors have given their consent (by letter, telegram, telex, facsimile [telecopier] or otherwise), or their oral consent by telephone (provided that a written summary thereof has been approved and signed by the Chairman of the Board of Directors of the Company) shall be deemed to have been unanimously adopted by a meeting of the Board of Directors duly convened and held.

37. Delegation of Powers

(a) The Board of Directors may, subject to the provisions of the Companies Law, delegate any or all of its powers to committees, each consisting of two or more persons (all of whose members must be Directors), and it may from time to time revoke such delegation or alter the composition of any such committee. Any Committee so formed (in these Articles referred to as a "Committee of the Board of Directors"), shall, in the exercise of the powers so delegated, conform to any regulations imposed on it by the Board of Directors. The meetings and proceedings of any such Committee of the Board of Directors shall, mutatis mutandis, be governed by the provisions herein contained for regulating the meetings of the Board of Directors, so far as not superseded by any regulations adopted by the Board of Directors under this Article. Unless otherwise expressly provided by the Board of Directors in delegating powers to a Committee of the Board of Directors, such Committee shall not be empowered to further delegate such powers.

(b) Without derogating from the provisions of Article 50, the Board of Directors may, subject to the provisions of the Companies Law, from time to time appoint a Secretary to the Company, as well as officers, agents, employees and independent contractors, as the Board of Directors may think fit, and may terminate the service of any such person. The Board of Directors may, subject to the provisions of the Companies Law, determine the powers and duties, as well as the salaries and emoluments, of all such persons, and may require security in such cases and in such amounts as it thinks fit.

(c) The Board of Directors may from time to time, by power of attorney or otherwise, appoint any person, company, firm or body of persons to be the attorney or attorneys of the Company at law or in fact for such purpose(s) and with such powers, authorities and discretions, and for such period and subject to such conditions, as it thinks fit, and any such power of attorney or other appointment may contain such provisions for the protection and convenience of persons dealing with any such attorney as the Board of Directors may think fit, and may also authorize any such attorney to delegate all or any of the powers, authorities and discretions vested in him.

38. Number of Directors

The Board of Directors shall consist of such number of Directors (not less than five (5) nor more than nine (9) as may be determined by Resolution of the General Meeting of the Company.

39. Election and Removal of Directors

(a) The Board of Directors shall be divided into three classes: Class I, Class II and Class III. Each Director, when and however elected, shall be designated as a member of a certain class of Directors. No Director shall be elected or appointed to a class if, as a result, one class shall have more than one director more than any other class. Subject to Article 39(c) herein, if a fraction is contained in the quotient arrived at by dividing the designated number of directors by three, then, if such fraction is one-third, the extra Director shall be a member of Class I, and if such fraction is two-thirds, one of the extra Directors shall be a member of Class I and one of the extra Directors shall be a member of Class II, unless otherwise provided from time to time by resolution adopted by the Board of Directors.

(b) Each Director (other than a Director elected to fill a vacancy in accordance with Article 40) shall serve for a term ending on the date of the third General Meeting following the General Meeting at which such Director was elected; provided, that each initial Director in Class I shall serve for a term ending on the date of the General Meeting in 2000; each initial Director in Class II shall serve for a term ending on the date of the General Meeting in 2001, and each initial Director in Class III shall serve for a term ending on the date of the General Meeting in 2002; and provided, further, that the term of each Director shall be subject to the election and qualification of his successor and to his earlier death, resignation or removal.

(c) In the event of any increase or decrease in the authorized number of Directors, (i) each Director then serving as such shall nevertheless continue as a Director of the class of which he is a member; and (ii) the newly created or eliminated directorships resulting from such increase or decrease shall be apportioned by the Board of Directors among the three classes of directors so as to ensure that no one class has more than one director more than any other class. To the extent possible, consistent with the foregoing rule, any newly created directorships shall be added to those classes whose terms of office are to expire at the latest dates following such allocation, and any newly eliminated directorships shall be subtracted from those classes whose terms of office are to expire at the earliest dates following such allocation, unless otherwise provided from time to time by resolution adopted by the Board of Directors.

(d) Directors shall be elected at the Annual General Meeting by the vote of the holders of a majority of the voting power represented at such meeting in person or by proxy and voting on the election of directors, and each director shall serve, subject to Article 42 hereof and according to the provisions of this Article 39. The shareholders shall be entitled to remove any Director(s) from office by a Special Majority.

(e) Without derogating from the provisions of Article 39(d) above, the Board may at any time appoint any other person as a Director, whether to fill a vacancy or whether in addition to those of their body but so that the total number of Directors shall not at any time exceed any maximum number (if any) fixed by or in accordance with these Articles. Any Director so appointed shall hold office until the first Annual General Meeting convened after such appointment and shall be eligible for re-election at such Annual General Meeting.

(f) Without derogating from the provisions of Article 39(c) above, a shareholder desiring to propose a candidate for election to the Board of Directors or to remove a Director from his position, shall, as a condition to such proposal being considered, advise the Company of the identity of such candidate or serving Director at least two (2) weeks prior to the date of the General Meeting at which such resolution is to be considered (or such shorter period as may be determined by the Board of Directors).

(g) Notwithstanding anything to the contrary herein, the term of a Director may commence as of a date later than the date of the Resolution of the General Meeting of Shareholders electing said Director, if so specified in said Resolution of the General Meeting of Shareholders.

40. Qualification of Directors

No person shall be disqualified to serve as a Director by reason of his not holding shares in the Company or by reason of his having served as a Director in the past.

41. Continuing Directors in the Event of Vacancies

In the event of one or more vacancies in the Board of Directors, the continuing Directors may continue to act in every matter, and, pending the filling of any vacancy pursuant to the provisions of Article 39, may temporarily fill any such vacancy, provided, however, that if they number less than a majority of the number provided for pursuant to Article 38 hereof, they may only act in an emergency, and may call a General Meeting of the Company for the purpose of electing Directors to fill any or all vacancies, so that at least a majority of the number of Directors provided for pursuant to Article 38 hereof are in office as a result of said meeting.

42. Vacation of Office

(a) The office of a Director shall be vacated, ipso facto, upon his death, or if he be found lunatic or become of unsound mind, or if he become bankrupt, or, if the Director is a company, upon its winding-up.

(b) The office of a Director shall be vacated by his written resignation. Such resignation shall become effective on the date fixed therein, or upon the delivery thereof to the Company, whichever is later.

43. Remuneration of Directors

No Director shall be paid any remuneration by the Company for his services as Director except as may be approved pursuant to the provisions of the Companies Law.

44. Conflict of Interests

Subject to the provisions of the Companies Law, the Company may enter into any contract or otherwise transact any business with any Director in which contract or business such Director has a personal interest, directly or indirectly; and may enter into any contract or otherwise transact any business with any third party in which contract or business a Director has a personal interest, directly or indirectly.

45. Alternate Directors

(a) A Director may, by written notice to the Company, appoint an alternate for himself (in these Articles referred to as "Alternate Director"), remove such Alternate Director and appoint another Alternate Director in place of any Alternate Director appointed by him whose office has been vacated for any reason whatsoever. Unless the appointing Director, by the instrument appointing an Alternate Director or by written notice to the Company, limits such appointment to a specified period of time or restricts it to a specified meeting or action of the Board of Directors, or otherwise restricts its scope, the appointment shall be for an indefinite period, and for all purposes.

(b) Any notice given to the Company pursuant to Article 45(a) shall become effective on the date fixed therein, or upon the delivery thereof to the Company, whichever is later.

(c) An Alternate Director shall have all the rights and obligations of the Director who appointed him, provided, however, that he may not in turn appoint an alternate for himself (unless the instrument appointing him otherwise expressly provides), and provided further that an Alternate Director shall have no standing at any meeting of the Board of Directors or any committee thereof while the Director who appointed him is present.

(d) Subject to the Companies Law, any natural person may act as an Alternate Director.

(e) An Alternate Director shall alone be responsible for his own acts and defaults, and he shall not be deemed the agent of the Director(s) who appointed him.

(f) The office of an Alternate Director shall be vacated under the circumstances, mutatis mutandis, set forth in Article 42, and such office shall ipso facto be vacated if the Director who appointed such Alternate Director ceases to be a Director.

PROCEEDINGS OF THE BOARD OF DIRECTORS

46. Meetings

(a) The Board of Directors may meet and adjourn its meetings and otherwise regulate such meetings and proceedings as the Directors think fit.

(b) Any Director may at any time, and the Secretary, upon the request of such Director, shall, convene a meeting of the Board of Directors. Notice of a meeting of the Board of Directors shall be delivered to all its members at a reasonable time before the meeting, but not less than forty eight (48) hours prior to the time set for any such meeting. Notwithstanding the foregoing, in urgent matters, the Board of Directors may be convened for a meeting without notice with the consent of a majority of the Directors.

(c) A notice shall be delivered (via mail, facsimile, electronic mail or otherwise) to the Director's address that was given to the Company in advance. The failure to give notice to a Director in the manner required hereby may be waived by such Director.

47. Quorum

Until otherwise unanimously decided by the Board of Directors, a quorum at a meeting of the Board of Directors shall be constituted by the presence of a majority of the Directors then in office who are lawfully entitled to participate in the meeting (as conclusively determined by the Chairman of the Audit Committee and in the absence of such determination - by the Chairman of the Board of Directors), but shall not be less than two.

48. Chairman of the Board of Directors

The Board of Directors may from time to time elect one of its members to be the Chairman of the Board of Directors, remove such Chairman from office and appoint another in its place. The Chairman of the Board of Directors shall preside at every meeting of the Board of Directors, but if there is no such Chairman, or if at any meeting he is not present within fifteen (15) minutes of the time fixed for the meeting, or if he is unwilling to take the chair, the Directors present shall choose one of their number to be the chairman of such meeting.

49. Validity of Acts Despite Defects

Subject to the provisions of the Companies Law, all acts done bona fide at any meeting of the Board of Directors, or of a Committee of the Board of Directors, or by any person(s) acting as Director(s), shall, notwithstanding that it may afterwards be discovered that there was some defect in the appointment of the participants in such meetings or any of them or any person(s) acting as aforesaid, or that they or any of them were disqualified, be as valid as if there were no such defect or disqualification.

GENERAL MANAGER

50. General Manager

The Board of Directors may from time to time appoint one or more persons, whether or not Directors, as General Manager(s) of the Company and may confer upon such person(s), and from time to time modify or revoke, such title(s) (including Managing Director, Director General or any similar or dissimilar title) and such duties and authorities of the Board of Directors as the Board of Directors may deem fit, subject to such limitations and restrictions as the Board of Directors may from time to time prescribe. Such appointment(s) may be either for a fixed term or without any limitation of time, and the Board of Directors may from time to time (subject to the provisions of the Companies Law and of any contract between any such person and the Company) fix his or their salaries and emoluments, remove or dismiss him or them from office and appoint another or others in his or their place or places.

MINUTES

51. Minutes

(a) Minutes of each General Meeting and of each meeting of the Board of Directors shall be recorded and duly entered in books provided for that purpose. Such minutes shall, in all events, set forth the names of the persons present at the meeting and all resolutions adopted thereat.

(b) Any minutes as aforesaid, if purporting to be signed by the chairman of the meeting or by the chairman of the next succeeding meeting, shall constitute prima facie evidence of the matters recorded therein.

DIVIDENDS

52. Declaration of Dividends

The Board of Directors may from time to time declare, and cause the Company to pay, such interim dividend as may appear to the Board of Directors to be justified by the profits of the Company. The final dividend in respect of any fiscal period shall be proposed by the Board of Directors and shall be payable only after the same has been approved by a Resolution of the General Meeting of the Company, but no such resolution shall provide for the payment of an amount exceeding that proposed by the Board of Directors for the payment of such final dividend, and no such resolution or any failure to approve a final dividend shall affect any interim dividend theretofore declared and paid. The Board of Directors shall determine the time for payment of such dividends, both interim and final, and the record date for determining the shareholders entitled thereto.

53. Funds Available for Payment of Dividends

No dividend shall be paid otherwise than out of the profits of the Company.

54. Amount Payable by Way of Dividends

Subject to the rights of the holders of shares with special rights as to dividends, any dividend paid by the Company shall be allocated among the members entitled thereto in proportion to the nominal value of their respective holdings of the shares in respect of which such dividend is being paid.

55. Interest

No dividend shall carry interest as against the Company.

56. Payment in Specie

Upon the recommendation of the Board of Directors approved by a Resolution of the General Meeting of the Company, a dividend may be paid, wholly or partly, by the distribution of specific assets of the Company or by distribution of paid up shares, debentures or debenture stock of the Company or of any other companies, or in any one or more of such ways.

57. Capitalization of Profits, Reserves etc.

Upon the recommendation of the Board of Directors approved by Ordinary Resolution of the Company, the Company -

(a) may cause any moneys, investments, or other assets forming part of the undivided profits of the Company, standing to the credit of a reserve fund, or to the credit of a reserve fund for the redemption of capital, or in the hands of the Company and available for dividends, or representing premiums received on the issuance of shares and standing to the credit of the share premium account, to be capitalized and distributed among such of the shareholders as would be entitled to receive the same if distributed by way of dividend and in the same proportion, on the footing that they become entitled thereto as capital, or may cause any part of such capitalized fund to be applied on behalf of such shareholders in paying up in full, either at par or at such premium as the resolution may provide, any unissued shares or debentures or debenture stock of the Company which shall be distributed accordingly, in payment, in full or in part, of the uncalled liability on any issued shares or debentures or debenture stock; and

(b) may cause such distribution or payment to be accepted by such shareholders in full satisfaction of their interest in the said capitalized sum.

58. Implementation of Powers under Articles 56 and 57

For the purpose of giving full effect to any resolution under Articles 56 or 57, and without derogating from the provisions of Article 7(b) hereof, the Board of Directors may settle any difficulty which may arise in regard to the distribution as it thinks expedient, and, in particular, may issue fractional certificates, and may fix the value for distribution of any specific assets, and may determine that cash payments shall be made to any members upon the footing of the value so fixed, or that fractions of less value than the nominal value of one share may be disregarded in order to adjust the rights of all parties, and may vest any such cash, shares, debentures, debenture stock or specific assets in trustees upon such trusts for the persons entitled to the dividend or capitalized fund as may seem expedient to the Board of Directors. Where requisite, a proper contract shall be filed in accordance with the Companies Law, and the Board of Directors may appoint any person to sign such contract on behalf of the persons entitled to the dividend or capitalized fund.

59. Deductions from Dividends

The Board of Directors may deduct from any dividend or other moneys payable to any member in respect of a share any and all sums of money then payable by him to the Company on account of calls or otherwise in respect of shares of the Company and/or on account of any other matter of transaction whatsoever.

60. Retention of Dividends

(a) The Board of Directors may retain any dividend or other moneys payable or property distributable in respect of a share on which the Company has a lien, and may apply the same in or toward satisfaction of the debts, liabilities, or engagements in respect of which the lien exists.

(b) The Board of Directors may retain any dividend or other moneys payable or property distributable in respect of a share in respect of which any person is, under Articles 21 or 22, entitled to become a member, or which any person is, under said Articles, entitled to transfer, until such person shall become a member in respect of such share or shall transfer the same.

61. Unclaimed Dividends

All unclaimed dividends or other moneys payable in respect of a share may be invested or otherwise made use of by the Board of Directors for the benefit of the Company until claimed. The payment by the Directors of any unclaimed dividend or such other moneys into a separate account shall not constitute the Company a trustee in respect thereof, and any dividend unclaimed after a period of seven (7) years from the date of declaration of such dividend, and any such other moneys unclaimed after a like period from the date the same were payable, shall be forfeited and shall revert to the Company, provided, however, that the Board of Directors may, at its discretion, cause the Company to pay any such dividend or such other moneys, or any part thereof, to a person who would have been entitled thereto had the same not reverted to the Company.

62. Mechanics of Payment

Any dividend or other moneys payable in cash in respect of a share may be paid by check or warrant sent through the post to, or left at, the registered address of the person entitled thereto or by transfer to a bank account specified by such person (or, if two or more persons are registered as joint holders of such share or are entitled jointly thereto in consequence of the death or bankruptcy of the holder or otherwise, to any one of such persons or to his bank account), or to such person and at such address as the person entitled thereto may by writing direct. Every such check or warrant shall be made payable to the order of the person to whom it is sent, or to such person as the person entitled thereto as aforesaid may direct, and payment of the check or warrant by the banker upon whom it is drawn shall be a good discharge to the Company. Every such check or warrant shall be sent at the risk of the person entitled to the money represented thereby.

63. Receipt from a Joint Holder

If two or more persons are registered as joint holders of any share, or are entitled jointly thereto in consequence of the death or bankruptcy of the holder or otherwise, any one of them may give effectual receipts for any dividend or other moneys payable or property distributable in respect of such share.

ACCOUNTS

64. Books of Account

The Board of Directors shall cause accurate books of account to be kept in accordance with the provisions of the Companies Law and of any other applicable law. Such books of account shall be kept at the Registered Office of the Company, or at such other place or places as the Board of Directors may think fit, and they shall always be open to inspection by all Directors. No member, not being a Director, shall have any right to inspect any account or book or other similar document of the Company, except as conferred by law or authorized by the Board of Directors or by Ordinary Resolution of the Company.

65. Audit

At least once in every fiscal year the accounts of the Company shall be audited and the correctness of the profit and loss account and balance sheet certified by one or more duly qualified auditors.

66. Auditors

The appointment, authorities, rights and duties of the auditor(s) of the Company, shall be regulated by applicable law, provided, however, that in exercising its authority to fix the remuneration of the auditor(s), the members in General Meeting may, by Ordinary Resolution, act (and in the absence of any action in connection therewith shall be deemed to have so acted), to authorize the Board of Directors to fix such remuneration subject to such criteria or standards, if any, as may be provided in such Ordinary Resolution, and if no such criteria or standards are so provided, such remuneration shall be fixed in an amount commensurate with the volume and nature of the services rendered by such auditor(s).

BRANCH REGISTERS

67. Branch Registers

Subject to and in accordance with the provisions of the Companies Law and to all orders and regulations issued thereunder, the Company may cause branch registers to be kept in any place outside Israel as the Board of Directors may think fit, and, subject to all applicable requirements of law, the Board of Directors may from time to time adopt such rules and procedures as it may think fit in connection with the keeping of such branch registers.

RIGHTS OF SIGNATURE, STAMP AND SEAL

68. Rights of Signature, Stamp and Seal

(a) The Board of Directors shall be entitled to authorize any person or persons (who need not be Directors) to act and sign on behalf of the Company, and the acts and signature of such person(s) on behalf of the Company shall bind the Company insofar as such person(s) acted and signed within the scope of his or their authority.

(b) The Company shall have at least one official stamp.

(c) The Board of Directors may provide for a seal. If the Board of Directors so provides, it shall also provide for the safe custody thereof. Such seal shall not be used except by the authority of the Board of Directors and in the presence of the person(s) authorized to sign on behalf of the Company, who shall sign every instrument to which such seal is affixed.

(d) The Company may exercise the powers conferred by the provisions of the Companies Law regarding a seal for use abroad, and such powers shall be vested in the Board of Directors.

NOTICES

69. Notices

(a) Any written notice or other document may be served by the Company upon any member either personally or by sending it by prepaid registered mail (airmail if sent to a place outside Israel) addressed to such member at his address as described in the Register of Members or such other address as he may have designated in writing for the receipt of notices and other documents. Any written notice or other document may be served by any member upon the Company by tendering the same in person to the Secretary or the General Manager of the Company at the principal office of the Company or by sending it by prepaid registered mail (airmail if posted outside Israel) to the Company at its Registered Address. Any such notice or other document shall be deemed to have been served two (2) business days after it has been posted (seven (7) business days if sent internationally), or when actually received by the addressee if sooner than two days or seven days, as the case may be, after it has been posted, or when actually tendered in person, to such member (or to the Secretary or the General Manager), provided, however, that notice may be sent by cablegram, telex, telecopier (facsimile) or other electronic means and confirmed by registered mail as aforesaid, and such notice shall be deemed to have been given twenty-four (24) hours after such cablegram, telex, telecopy or other electronic communication has been sent or when actually received by such member (or by the Company), whichever is earlier. If a notice is, in fact, received by the addressee, it shall be deemed to have been duly served, when received, notwithstanding that it was defectively addressed or failed, in some respect, to comply with the provisions of this Article 69(a).

(b) All notices to be given to the members shall, with respect to any share to which persons are jointly entitled, be given to whichever of such persons is named first in the Register of Members, and any notice so given shall be sufficient notice to the holders of such share.

(c) Any member whose address is not described in the Register of Members, and who shall not have designated in writing an address for the receipt of notices, shall not be entitled to receive any notice from the Company.

(d) Notwithstanding any contrary provision herein, notice by the Company of a General Meeting which is either (A) published in two daily newspapers in Israel and in one daily newspaper in the United States, or (B) published in one international wire service or filed or furnished to the U.S. Securities and Exchange Commission, shall be deemed to have been duly given on the date of such publication (or filing) to any shareholder, wherever located .

(e) Where a given number of days' notice, or notice extending over any period, is required to be given, the day of service or mailing, actual transmission, delivery date or publication date as well as the date of the General Meeting shall be counted in such number of days or other period.

INSURANCE AND INDEMNITY

70. Insurance and Indemnity

(a) For purposes of these Articles, the term "Office Holder" shall mean every Director and every officer of the Company, including, without limitation, each of the persons defined as "Nosei Misra" in the Companies Law.

(b) The Company may insure the liability of any Office Holder therein to the fullest extent permitted by the Companies Law. Without derogating from the foregoing, the Company may enter into a contract for the insurance of all or part of the liability of any Office Holder, in respect of a liability imposed on him as a result of an act done by him in his capacity as an Office Holder of the Company in any of one of the following:

(i) a breach of his duty of care to the Company or to another person;

(ii) a breach of his duty of loyalty to the Company, provided that the Office Holder acted in good faith and had reasonable cause to assume that such act would not prejudice the interests of the Company;

(iii) a financial obligation imposed on him in favor of another person;

(iv) a payment which the Office Holder is obligated to make to an injured party as set forth in Section 52(54)(a)(1)(a) of the Israeli Securities Law, 5728-1968 (the "**Securities Law**"), if applicable, and expenses that the Office Holder incurred in connection with a proceeding under Chapters H'3, H'4 or I'1 of the Securities Law, if applicable, including reasonable legal expenses, which term includes attorney fees; and

(v) Any other matter in respect of which it is permitted or will be permitted under applicable law to insure the liability of an Office Holder in the Company.

(c) The Company may, to the fullest extent permitted by the Companies Law, indemnify an Office Holder. Without derogating from the aforesaid, the Company may indemnify an Office Holder in respect of an obligation or expense specified below imposed on the Office Holder in respect of an act performed in his capacity as an Office Holder, as follows:

(i) a financial obligation imposed on him in favor of another person by a court judgment, including a compromise judgment or an arbitrator's award approved by court;

(ii) reasonable litigation expenses, including attorney's fees, expended by the Office Holder as a result of an investigation or proceeding instituted against him by a competent authority, provided that such investigation or proceeding concluded without the filing of an indictment against him and either (A) concluded without the imposition of any financial liability in lieu of criminal proceedings or (B) concluded with the imposition of a financial liability in lieu of criminal proceedings but relates to a criminal offense that does not require proof of criminal intent or in connection with a financial sanction;

(iii) reasonable litigation expenses, including attorneys' fees, expended by an Office Holder or charged to the Office Holder by a court, in a proceeding instituted against the Office Holder by the Company or on its behalf or by another person, or in a criminal charge from which the Office Holder was acquitted, or in a criminal proceeding in which the Office Holder was convicted of an offense that does not require proof of criminal intent;

(iv) a payment which he is obligated to make to an injured party as set forth in Section 52(54)(a)(1)(a) of the Securities Law, if applicable, and expenses that he incurred in connection with a proceeding under Chapters H'3, H'4 or I'1 of the Securities Law, if applicable, including reasonable legal expenses, which term includes attorney fees; and

(v) any other matter in respect of which it is permitted or will be permitted under applicable law to indemnify an Office Holder in the Company.

The Company may undertake to indemnify an Office Holder as aforesaid, (aa) prospectively, provided that, in respect of Article 70(c)(i), the undertaking is limited to events which in the opinion of the Board of Directors are foreseeable in light of the Company's actual operations when the undertaking to indemnify is given, and to an amount or criteria set by the Board of Directors as reasonable under the circumstances, and further provided that such events and amount or criteria are set forth in the undertaking to indemnify, and (bb) retroactively.

(d) Subject to the provisions of the Companies Law, the Company may exculpate an Office Holder in advance from all or some of the Office Holder's responsibility for liability resulting from the Office Holder's breach of the Office Holder's duty of care to the Company.

(e) The provisions of Articles 70(a), 70(b), 70(c) and 70(d) above are not intended, and shall not be interpreted, to restrict the Company in any manner in respect of the procurement of insurance and/or indemnification and/or exculpation (i) in connection with any person who is not an Office Holder, including, without limitation, any employee, agent, consultant or contractor of the Company who is not an Office Holder, and/or (ii) in connection with any Office Holder to the extent that such insurance and/or indemnification is not specifically prohibited under law; provided that the procurement of any such insurance and/or the provision of any such indemnification and/or exculpation of Office Holders shall be approved by the Audit Committee of the Company.

WINDING UP

71. Winding Up

If the Company be wound up, then, subject to applicable law and to the rights of the holders of shares with special rights upon winding up, the assets of the Company available for distribution among the members shall be distributed to them in proportion to the nominal value of their respective holdings of the shares in respect of which such distribution is being made.

**Description of the Rights of Each Class of Securities Registered
under Section 12 of the Securities Exchange Act of 1934**

Set out below is a description of our share capital and certain provisions of our Memorandum of Association, as amended, or our Memorandum, and of our Amended and Restated Articles of Association, as amended, or our Articles of Association, and of the Companies Law related to such provisions. This description is only a summary and does not purport to be complete and is qualified by reference to the full text of the Memorandum and Articles of Association which are incorporated by reference to exhibits to the annual report on Form 20-F of which this Exhibit 2.1 is part, or the Annual Report, and to the applicable sections of the Companies Law.

General

We were first registered under Israeli law on May 16, 1996 as a private company, and on November 18, 1999 became a public company. Our registration number with the Israeli Registrar of Companies is 52-004437-1.

Objects and Purposes

Pursuant to Section 1 of our Articles of Association, our objective is to engage, directly or indirectly, in any lawful undertaking or business whatsoever, including, without limitation, as stipulated in our Memorandum.

Ordinary Shares

Our authorized share capital consists of 90,000,000 ordinary shares, nominal (par) value NIS 0.05 each. There are no other classes of shares.

All of our outstanding shares are duly authorized, validly issued, fully paid and non-assessable.

Under our Articles of Association, the liability of the shareholders is limited to the payment of the nominal value of the shares in the Company allotted to them and which remains unpaid.

Dividend, Liquidation Rights and Rights to Shares in Profits

According to the Israeli Companies Law, a company may distribute dividends only out of its "profits," as such term is defined in the Israeli Companies Law, as of the end of the most recent fiscal year or as accrued over a period of two years, whichever is higher. Our Board of Directors is authorized to declare dividends, provided that there is no reasonable concern that payment of the dividend will prevent us from satisfying our existing and foreseeable obligations as they become due, and provided further, that our shareholders approve the final dividend declared by the Board of Directors, in an amount not to exceed the Board of Directors' recommendation. Notwithstanding the foregoing, even where there are no sufficient profits, dividends may be paid with the approval of a court, provided that there is no reasonable concern that payment of the dividend will prevent us from satisfying our existing and foreseeable obligations as they become due. "Profits", for purposes of the Israeli Companies Law, means the greater of retained earnings or earnings accumulated during the preceding two years, after deduction of previous distributions that were not already deducted from the surplus, as evidenced by the most recent audited or reviewed financial statements prepared no more than six months prior to the date of distribution.

Our shareholders have the right to share in our profits distributed as a dividend and any other permitted distribution, if any. In the event of our liquidation, after satisfaction of liabilities to creditors, our assets will be distributed to the holders of ordinary shares in proportion to their respective holdings. The right to share in our profits as well as liquidation right may be affected by the grant of preferential dividends or distribution rights to the holders of a class of shares with preferential rights that may be authorized in the future.

Shareholders' Meetings, Voting and Resolutions

Shareholders' Meetings. We have two types of general shareholder meetings: the annual general meeting and the extraordinary general meeting. An annual general meeting must be held once in every calendar year, but not more than 15 months after the last annual general meeting. The Board of Directors may convene an extraordinary general meeting whenever it deems fit, and, in general, must do so upon the request of any of: (i) two directors or one fourth of the then serving directors; (ii) one or more shareholders who hold at least 5% of the issued share capital and at least 1% of the voting rights; or (iii) one or more shareholders who hold at least 5% of the voting rights. The Companies Law further provides that one or more shareholders holding 1% or more of the outstanding voting power in the company may ask the board of directors to add an item to the agenda of the shareholders' meeting.

In accordance with our Articles of Association, unless a longer period for notice is prescribed by the Israeli Companies Law, at least seven days and not more than forty-five days' notice of any general meeting of shareholders must be given. Under the Companies Law, shareholder meetings generally require prior notice of not less than 21 days or, with respect to certain matters, such as election of directors and affiliated party transactions, not less than 35 days. In addition, for the purpose of a shareholder vote, the record date for companies traded outside of Israel, such as Radware, can be set between four and 40 days before the date of the meeting.

The quorum required for an ordinary meeting of shareholders consists of at least two shareholders present in person or by proxy who hold or represent between them at least 35% of the outstanding voting shares unless otherwise required by applicable rules. A meeting adjourned for lack of a quorum, if convened upon requisition under the provisions of the Companies Law, shall be dissolved, but in any other case is adjourned to the same day in the following week at the same time and place or any time and place as the chairman may designate with the consent of a majority of the voting power represented at the meeting and voting on the matter adjourned. At such reconvened meeting, the required quorum consists of any two members present in person or by proxy.

Voting Rights and Resolutions. Holders of ordinary shares have one vote for each ordinary share held on all matters submitted to a vote of shareholders. A shareholder may only vote the shares for which all calls have been paid, except in separate general meetings of a particular class.

Pursuant to the Companies Law and our Articles of Association, unless otherwise provided in the Articles of Association or applicable law, all resolutions of the shareholders, including an increase of our authorized share capital and approval of mergers, require a simple majority of the shares present, in person or by proxy, and voting on the matter. However, our Articles of Association require approval of at least 75% of the shares present and voting on the matter to (i) change the structure of our share capital, such as for share splits; (ii) grant any special rights to the holders of a class of shares with preferential rights or change such rights previously granted; or (iii) remove directors from office.

To the extent permitted under the Companies Law (that currently does not permit written consent for shareholders actions of a public company like us), a resolution in writing signed by the holders of all of our ordinary shares entitled to vote at a meeting of shareholders or to which all such shareholders have given their written consent is required to adopt the resolution in lieu of a meeting.

General Duties of Shareholders

Disclosure by Controlling Shareholders. Under the Companies Law, the disclosure requirements that apply to an "office holder" (which term includes directors and executive officers), as described below under the caption "Board of Directors – Director Interests", also apply to a "controlling shareholder" of a public company. Under the Companies Law, a "controlling shareholder" is a shareholder who has the ability to direct the activities of a company, including a shareholder that owns 25% or more of the voting rights if no other shareholder owns more than 50% of the voting rights, but excluding a shareholder whose power derives solely from his or her position on the board of directors or any other position with the company. Two or more shareholders with a personal interest in the approval of the same transaction are deemed to be holding the shares together.

Duties of Shareholders. Under the Companies Law, each and every shareholder has a duty to act in good faith in exercising its rights and fulfilling its obligations towards the company and other shareholders and refrain from abusing its power in the company, such as in voting in the 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 certain related party transactions and actions, which require shareholder approval pursuant to the Companies Law.

In addition, each and every shareholder has the general duty to refrain from depriving rights of other shareholders.

Furthermore, any controlling shareholder, any shareholder who knows that it possesses the power to determine the outcome of a shareholder vote and any shareholder that, pursuant to the provisions of the articles of association of the company, has the power to appoint or to prevent the appointment of an office holder in the company or any other power toward the company, is under a duty to act in fairness towards the company. However, the Companies Law does not define the substance of this duty of fairness.

These various shareholder duties may restrict the ability of a shareholder to act in what the shareholder perceives to be its own best interests.

Preemptive Rights

The ordinary shares do not entitle their holders to preemptive rights.

Transfer of Shares

Our fully paid ordinary shares are issued in registered form and may be freely transferred under our Articles of Association, unless the transfer is restricted or prohibited by another instrument, applicable law or the rules of a stock exchange on which the shares are listed for trade.

Restrictions on Non-Israeli Residents

The ownership or voting of our ordinary shares by non-residents of Israel, except with respect to citizens of countries which are in a state of war with Israel, is not restricted in any way by our Memorandum or Articles of Association or by the laws of the State of Israel.

Israeli law and regulations also do not impose any material foreign exchange restrictions on non-Israeli holders of our ordinary shares. There are currently no Israeli currency control restrictions on payments of dividends or other distributions with respect to our ordinary shares or the proceeds from the sale of the shares, except for the obligation of Israeli residents to file reports with the Bank of Israel regarding certain transactions. However, legislation remains in effect pursuant to which currency controls can be imposed by administrative action at any time.

Change of Control Provisions Under Israeli Law

There are no specific provisions of our Memorandum or Articles of Association that would have an effect of delaying, deferring or preventing a change in control of us or that would operate only with respect to a merger, acquisition or corporate restructuring involving us (or any of our subsidiaries), except those relating to (i) the quorum for shareholder meetings, as described above under the caption "Shareholders' Meetings, Voting and Resolutions", (ii) the staggered board, as described below under the caption "Board of Directors" and (iii) certain provisions of the Companies Law described below, all of which may have such effect.

The Israeli Companies Law includes provisions that allow a merger transaction and requires that each company that is party to a merger approve the transaction by its board of directors and a vote of the majority of its shares, voting on the proposed merger at a shareholders meeting. For purposes of the shareholder vote, unless a court rules otherwise, the merger will not be deemed approved if shares, representing a majority of the voting power present at the shareholders meeting and which are not held by the other party to the merger (or by any person who holds 25% or more of the voting power of the right to appoint 25% or more of the directors of the other party), vote against the merger. Upon the request of a creditor of either party of the proposed merger, the court may delay or prevent the merger if it concludes that there exists a reasonable concern that as a result of the merger, the surviving company will be unable to satisfy the obligations of any of the parties to the merger. In addition, a merger may not be completed unless at least (i) 50 days have passed from the time that a proposal of the merger has been filed with the Israeli Registrar of Companies by each merging company and (ii) 30 days have passed since the merger was approved by the shareholders of each merging company.

In addition, provisions of the Companies Law that deal with "arrangements" between a company and its shareholders may be used to effect squeeze-out transactions in which the target company becomes a wholly owned subsidiary of the acquirer. These provisions generally require that the merger be approved by a majority of the participating shareholders holding at least 75% of the shares voted on the matter. In addition to shareholder approval, court approval of the transaction is required, which entails further delay.

The Companies Law also provides that an acquisition of shares of a public company must be made by means of a "special" tender offer if as a result of the acquisition (1) the purchaser would become a 25% or greater shareholder of the company and there is no 25% or greater shareholder in the company, or (2) the purchaser would become a 45% or greater shareholder of the company and there is no 45% or greater shareholder in the company. These requirements do not apply if, in general, the acquisition (1) was made in a private placement that received shareholder approval, (2) was from a 25% or greater shareholder of the company which resulted in the acquirer becoming a 25% or greater shareholder of the company, or (3) was from a 45% or greater shareholder of the company which resulted in the acquirer becoming a 45% or greater shareholder of the company. A "special" tender offer must be extended to all shareholders, but the offeror is not required to purchase more than 5% of the company's outstanding shares, regardless of how many shares are tendered by shareholders. In general, the tender offer may be consummated only if (i) at least 5% of the company's outstanding shares will be acquired by the offeror and (ii) the number of shares tendered in the offer exceeds the number of shares whose holders objected to the offer. If a special tender offer is accepted, then the purchaser or any person or entity controlling it or under common control with the purchaser or such controlling person or entity may not make a subsequent tender offer for the purchase of shares of the target company and may not enter into a merger with the target company for a period of one year from the date of the offer, unless the purchaser or such person or entity undertook to effect such an offer or merger in the initial special tender offer. Shares purchased in contradiction to the special tender offer rules under the Companies Law will have no rights and will become dormant shares.

If, as a result of an acquisition of shares, the acquirer will hold more than 90% of a company's outstanding shares, the acquisition must be made by means of a tender offer for all of the outstanding shares. In general, if less than 5% of the outstanding shares are not tendered in the tender offer and more than half of the offerees who have no personal interest in the offer tendered their shares, all the shares that the acquirer offered to purchase will be transferred to it. However, a full tender offer will also be accepted if the shareholders who do not accept the offer hold less than 2% of the issued and outstanding shares of the company. Shareholders may request appraisal rights in connection with a full tender offer for a period of six months following the consummation of the tender offer, but the acquirer is entitled to stipulate that tendering shareholders will forfeit such appraisal rights. If (i) the shareholders who did not respond or accept the tender offer hold at least 5% of the issued and outstanding shares of the company or the shareholders who accept the offer constitute less than a majority of the offerees that do not have a personal interest in the acceptance of the tender offer, or (ii) the shareholders who do not accept the offer hold 2% or more of the outstanding shares of the company, then the acquirer may not acquire shares that will cause its shareholdings to exceed 90% of the outstanding shares. Shares purchased in contradiction to the full tender offer rules under the Companies Law will have no rights and will become dormant shares.

In addition, our Board of Directors may decide to adopt a shareholder rights plan without further shareholder approval.

Finally, Israeli tax law treats stock-for-stock acquisitions between an Israeli company and a foreign company less favorably than does U.S. tax law. For example, Israeli tax law subjects a shareholder who exchanges his ordinary shares for shares in another corporation to taxation prior to the sale of the shares received in such stock-for-stock exchange.

Modification of Class Rights

Our Articles of Association provide that the rights attached to any class (unless otherwise provided by the terms of such class), such as voting, rights to dividends and the like, may be varied by written consent of holders of 75% of the issued shares of that class, or by adoption by the holders of 75% of the shares of that class at a separate class meeting. Subject thereto, the conditions imposed by our Articles of Association governing changes in the rights of any class of shares, are no more stringent than is required by Israeli law.

Board of Directors

Introduction. According to the Companies Law and our Articles of Association, the oversight of the management of our business is vested in our Board of Directors. The Board of Directors may exercise all such powers and may take all such actions that are not specifically granted to our shareholders. As part of its powers, our Board of Directors may cause the Company to borrow or secure payment of any sum or sums of money for the purposes of the Company, at such times and upon such terms and conditions as it thinks fit, including the grants of security interests on all or any part of the property of the Company.

Number of Directors. Our Articles of Association provide that the Board of Directors shall consist of not less than five and not more than nine directors as shall be determined by our shareholders (in October 2006 our shareholders fixed the maximum size of our Board of Directors at nine members).

Appointment of Directors; Staggered Board. Our ordinary shares do not have cumulative voting rights for the election of directors. Rather, under our Articles of Association our directors are elected by the holders of a simple majority of our ordinary shares. In addition, in accordance with our Articles of Association, our Board of Directors is divided into three classes with each class serving until the third annual meeting following their election. See additional information in Item 6 of the Annual Report under “Directors, Senior Management and Employees – Board Practices – Staggered Board.”

There is no requirement under our Articles of Association or under Israeli law for directors to retire on attaining a specific age and our Articles of Association do not require directors to hold our ordinary shares to qualify for election.

Directors Interests. The Companies Law requires that an office holder of a company disclose to the company 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. See additional information under “Approval of Specified Related Party Transactions under Israeli Law - Disclosure of Personal Interest of an Office Holder” below.

Under the provisions of the Companies Law, a director generally cannot participate in a meeting of the board of directors nor vote on a proposal, arrangement or contract in which he or she is personally interested, unless the transaction is not an “extraordinary transaction” or a majority of the other directors have a personal interest in such matter. Under the Companies Law, an extraordinary transaction is a transaction:

- Other than in the ordinary course of business;
- Not on market terms; or
- That is likely to have a material impact on the company’s profitability, assets or liabilities.

In addition, the Companies Law requires that transactions between a company and its office holders or that benefit its office holders, including arrangements as to the compensation of office holders, be approved as provided for in the Companies Law and our Articles of Association, as more fully described below under the caption “Approval of Specified Related Party Transactions Under Israeli Law.”

Adoption of Resolutions. A resolution proposed at any meeting of the Board of Directors shall generally be deemed adopted if approved by a majority of the directors present and voting on the matter.

Fiduciary Duties of Office Holders. The Companies Law imposes a duty of care and a duty of loyalty on all office holders of a company.

The duty of care requires an office holder to act with the level of care with which a reasonable office holder in the same position would have acted under the same circumstances. The duty of care includes a duty to use reasonable means to obtain:

- Information regarding the advisability of a given action submitted for his or her approval or performed by him or her by virtue of his or her position; and
- All other important information pertaining to these actions.

The duty of loyalty of an office holder includes a duty to:

- Refrain from any conflict of interest between the performance of his or her duties in the company and the performance of his or her other duties or his or her personal affairs;
- Refrain from any activity that is competitive with the company;
- Refrain from exploiting any business opportunity of the company to receive a personal gain for himself or herself or others; and
- Disclose to the company any information or documents relating to the company’s affairs which the office holder has received due to his or her position as an office holder.

Exculpation, Insurance and Indemnification

Exculpation of Office Holders. Under the Companies Law, an Israeli company may not exempt an office holder from liability for a breach of his or her duty of loyalty, but may exempt in advance an office holder from his or her liability to the company, in whole or in part, for a breach of his duty of care (except in connection with distributions), provided that the articles of association of the company allow it to do so. Our Articles of Association allow us to exempt our office holders to the maximum extent permitted by law.

Insurance of Office Holders. As permitted by the Companies Law, our Articles of Association provide that we may enter into a contract for the insurance of the liability of any of our office holders, with respect to an act performed in the capacity of an office holder for:

- a breach of his or her duty of care to us or to another person;
- a breach of his or her duty of loyalty to us, provided that the office holder acted in good faith and had reasonable cause to assume that his or her act would not prejudice our interests;
- a financial liability imposed upon him or her in favor of another person;
- expenses he or she incurs as a result of administrative proceedings that may be instituted against him or her under Israeli securities laws, if applicable, and payments made to injured persons under specific circumstances thereunder; and
- any other matter in respect of which it is permitted or will be permitted under applicable law to insure the liability of an office holder in the Company.

Indemnification of Office Holders. As permitted by the Companies Law, our Articles of Association provide that we may indemnify any of our office holders against the following obligations and expenses imposed on the office holder with respect to an act performed in the capacity of an office holder:

- a financial liability incurred by, or imposed on, him or her in favor of another person by a court judgment, including a settlement or an arbitration award approved by the court. Such indemnification may be approved (i) after the liability has been incurred or (ii) in advance, provided that our undertaking to indemnify is limited to events that our Board of Directors believes are foreseeable in light of our actual operations at the time of providing the undertaking and to a sum or criterion that our Board of Directors determines to be reasonable under the circumstances;
- reasonable litigation expenses, including attorney's fees, expended by the office holder as a result of an investigation or proceeding instituted against him or her by a competent authority, provided that such investigation or proceeding either (A) concluded without the filing of an indictment against him or her or (B) concluded with the imposition of financial liability in lieu of criminal proceedings other than with respect to a criminal offense that does not require proof of criminal intent or in connection with a financial sanction;
- reasonable litigation expenses, including attorneys' fees, expended by the office holder or charged to him or her by a court in connection with proceedings we institute against him or her or instituted on our behalf or by another person, a criminal indictment from which he or she was acquitted, or a criminal indictment in which he or she was convicted for a criminal offense that does not require proof of criminal intent;
- expenses he or she incurs as a result of administrative proceedings that may be instituted against him or her under Israeli securities laws, if applicable, and payments made to injured persons under specific circumstances thereunder; and
- any other matter in respect of which it is permitted or will be permitted under applicable law to indemnify an office holder in the Company.

Limitations on Insurance and Indemnification. The Companies Law provides that a company may not 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 unless, with respect to indemnification or 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 unless the breach was done negligently;
- Any act or omission done with the intent to derive an illegal personal benefit; or
- Any fine levied against the office holder.

In addition, under the Companies Law, indemnification of, and procurement of insurance coverage for, our office holders must be approved by our Compensation Committee and our Board of Directors and, in general, if the beneficiary is a director or a chief executive officer, by our shareholders.

Approval of Specified Related Party Transactions under Israeli Law

Disclosure of Personal Interest of an Office Holder. The Companies Law requires that an office holder of a company disclose to the company 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. The disclosure is required to be made promptly and in any event no later than the board of directors meeting in which the transaction is first discussed. If the transaction is an extraordinary transaction, the office holder's duty to disclose also applies to a personal interest of a relative of the office holder.

Once an office holder complies with the above disclosure requirement, the board of directors may approve a transaction between the company and an office holder, or a third party in which an office holder has a personal interest, unless the articles of association provide otherwise. Nevertheless, a transaction that is adverse to the company's interest may not be approved.

If the transaction is an extraordinary transaction, approval is required of both the audit committee and the board of directors, in that order. Under specific circumstances, shareholder approval may also be required. A director who has a personal interest in a matter which is considered at a meeting of the board of directors or the audit committee may not be present at this meeting or vote on this matter, unless a majority of the members of the board of directors or the audit committee, as the case may be, has a personal interest in the matter. If a majority of members of the board of directors have a personal interest therein, shareholder approval is generally also required.

Approval of Office Holder Compensation. Under the Companies Law, every Israeli public company, such as Radware, must adopt a compensation policy, recommended by the compensation committee, and approved by the board of directors and the shareholders, in that order. Shareholder approval requires a majority of the votes cast by shareholders, excluding any controlling shareholder and those who have a personal interest in the matter. In general, all office holders' terms of compensation, including fixed remuneration, bonuses, equity compensation, retirement or termination payments, indemnification, liability insurance and the grant of an exemption from liability, must comply with a company's compensation policy.

In addition, the compensation terms of directors, the chief executive officer, and any employee or service provider who is considered a controlling shareholder must be approved separately by the compensation committee, the board of directors and, subject to certain exceptions, the shareholders of the company (by the same majority noted above), in that order. The compensation terms of other officers generally require the approval of the compensation committee and the board of directors.

Disclosure of Personal Interests of a Controlling Shareholder. See above under the caption “General Duties of Shareholders - Disclosure by Controlling Shareholders.”

Extraordinary Transactions. Extraordinary transactions of a public company with a controlling shareholder or with a third party in which a controlling shareholder has a personal interest, and the terms of engagement of a controlling shareholder as an office holder or employee, generally require the approval of the audit committee, the board of directors and the shareholders of the company in that order. The shareholder approval must be by a majority of the shares voted on the matter, provided that either:

- At least a majority of the shares of shareholders who have no personal interest in the transaction, and who are present and voting (in person, by proxy or by written ballot) vote in favor thereof; or
- The shareholders who have no personal interest in the transaction who vote against the transaction do not represent more than 2% of the voting power in the company.

In addition, any such extraordinary transaction whose term is longer than three years may require further shareholder approval every three years, unless, where permissible under the Companies Law, the audit committee approves that a longer term is reasonable under the circumstances.

Access to Corporate Records

Under the Companies Law, shareholders generally have the right to review minutes of our general meetings, our shareholders register and principal shareholders register, our Articles of Association, our annual audited financial statements and any document that we are required by law to file publicly with the Israeli Registrar of Companies or the Israel Securities Authority. In addition, shareholders may request to be provided with any document related to an action or transaction requiring shareholder approval under the related party transaction provisions of the Companies Law. We may deny this request if we believe it has not been made in good faith or if such denial is necessary to protect our interests or protect a trade secret or patent.

Summary of Material Terms of the Lease Agreements for the Company's Headquarters

Note: this summary does not contain a full or direct translation of the terms of the original Hebrew-language lease agreements, and is designated solely for the purpose of providing a general presentation of such agreements.

Five-story building in Tel Aviv, Israel

- The premises: Five floors of office space and additional areas located at 12 Ha'Nechoshet St., Tel-Aviv, Israel, totaling 3,678 square meters (approximately 39,590 square feet) and 54 parking spaces.
- Signing date: July 9, 2008, as amended on October 29, 2012, October 29, 2015 and November 7, 2017.
- Parties: Yehuda Zisapel Assets Ltd. and Zohar Zisapel Assets Ltd. (together, referred to as "Lessor") and Radware Ltd. ("Radware").
- Lease period: The premises are currently leased until July 1, 2020.
- Lease payments: US\$15 per month per square meter for 3,335 square meters of office space (approximately 36,000 square feet), NIS40 per month per square meter for 178 square meters of office space (approximately 2,000 square feet), US\$8 per month for square meter for 165 square meters of storage (approximately 1,800 square feet), average price of US\$96 per month per parking space for 54 parking spaces (the "Lease Payments"). In addition, Radware pays management fees.
- VAT and linkage payments shall be added to all Lease Payments and the Lease Payments are made in advance on a quarterly basis on the first day of each quarter.
- Guarantees: Radware is required to submit to the Lessor a bank guarantee in NIS against its obligations pursuant to the lease agreement in the amount of six (6) months of the Lease Payments plus VAT and management fees ("Bank Guarantee"). Such Bank Guarantee will be issued only should Yehuda Zisapel's, Roy Zisapel's and Zohar Zisapel's stock holdings in Radware shall drop under 10% of Radware's issued share capital.

Five stories in the Or Tower in Tel Aviv, Israel

- The premises: Certain office space spread out over five floors in the Or Tower located at 4 Ha'Nechoshet St., Tel-Aviv, Israel, totaling 6,344 square meters (approximately 68,300 square feet) and 243 parking spaces.
 - Signing date: July 11, 2016, as amended on July 27, 2016, May 7, 2017, September 8, 2019 and February 11, 2020.
 - Parties: Radwill Ltd., Run-Rad Unlimited Networking Ltd. and Bat Or Electrochemical Industries Ltd. (together, referred to as "Lessor") and Radware.
 - Lease period: The premises are currently leased until July 1, 2030.
 - Lease payments: The monthly lease fee for the office areas for the period until July 1, 2020 is NIS 73 per square meter, and an average price of NIS 485 per month per parking space for 218 parking spaces. Starting on July 1, 2020 and for the remainder of the lease (the "Extended Period"), the monthly lease fee will be NIS 69 per square meter, and an average price of NIS 485 per month per parking space for 243 parking spaces (the "Or Lease Payments"). In addition, Radware pays management fees.
 - VAT and linkage payments shall be added to all Or Lease Payments and the Or Lease Payments are made in advance on a quarterly basis and on the first day of each such quarter.
 - Guarantees: Radware is required to submit to the Lessor a bank guarantee against its obligations pursuant to the lease agreement in the amount equal to four (4) months of the Or Lease Payments plus VAT and management fees ("Bank Guarantee").
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RADWARE LTD.

**COMPENSATION POLICY
FOR
EXECUTIVE OFFICERS AND DIRECTORS**

(Amended and Restated as of September 6, 2018 and thereafter amended on October 24, 2019)

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Compensation Policy for Executive Officers and Directors

This Compensation Policy for Executive Officers and Directors (this "**Compensation Policy**" or this "**Policy**") of Radware Ltd., an Israeli company ("**we**", "**Radware**" or the "**Company**"), was adopted by the Board of Directors of the Company (the "**Board**"), following the recommendation of the Company's Compensation Committee (the "**Compensation Committee**" or the "**Committee**").

A. Overview and Objectives

1. Introduction

This Policy was adopted in accordance with the requirements of the Israeli Companies Law, 1999 (the "**Companies Law**") and applies to the compensation arrangements of all "Executives," which, for purposes of this Policy, shall mean "Office Holders" (as such term is defined in the Companies Law), excluding, unless otherwise expressly indicated, Radware's non-employee directors.

2. Objectives

We believe that compensation is a key element in our overall human resources strategy to attract, retain, reward, and motivate highly skilled individuals who will assist Radware to reach its business objectives, performance and the creation of shareholder value and otherwise contribute to its long-term success. Accordingly, this Policy was designed to correlate executive compensation with Radware's objectives and goals and otherwise embraces a performance culture that is based on merit, and differentiates and rewards excellent performance in the long term.

In light of the foregoing, the main principles and objectives that underlie this Policy, include the following:

- ***Compensation should be aligned with our long-term goals.*** Promoting the Company's goals and purposes, its work program and its policy with a long-term view;
- ***Compensation should serve to attract and retain the best executives, while maintaining our risk policy.*** Creating appropriate incentives to attract, retain, reward, and motivate highly skilled individuals while considering, among others, the Company's risk management policy. To that end, this Policy is designed, among others, to align the interests of the Executives with those of Radware and, at the same, creating appropriate balances, such as imposing limitations on cash bonus, commissions and equity based compensation ("Variable Pay") so as to ensure adequate control of risks;
- ***Compensation should be appropriate for our business.*** Creating a compensation package that matches the Company's size and nature of operations, while taking into account the Company's global nature with a global workforce;

- **Compensation should be competitive.** Providing a competitive compensation package to attract, retain, reward, and motivate highly skilled individuals, including by providing increased rewards for superior individual and corporate performance; and
- **Compensation should be correlated to individual as well as overall performance.** With respect to Variable Pay, compensating based on the individual's contribution to achieving the Company's objectives and generating its profits, with a long-term perspective and in accordance with the individual's role and contribution to the Company.

3. **Process and Elements of Compensation**

The Compensation Committee shall first determine the appropriate level of total compensation for each Executive, including the appropriate allocation among the different elements and components of the compensation package, based on the principles set forth in this Policy. In setting compensation of an Executive, the Compensation Committee and the Board of Directors shall consider, among other things, the following factors:

- the educational, professional experience and accomplishments of the Executive;
- his or her position, responsibilities and prior compensation arrangements. This includes additional compensation for such additional duties and positions in Radware which go beyond the Executive's capacity according to his or her employment agreement;
- compensation for comparably situated executives;
- the Executive's past performance and expected contribution to our future growth and profitability;
- existing and previous employment agreements with the Executive;
- the relation between the compensation of the Executive and that of other employees in Radware; and
- any requirements prescribed by applicable law (including, for purposes of this Policy, applicable securities laws and stock exchange regulations) from time to time.

We will aim to provide fair and equitable compensation for our Executives by using various compensation elements and instruments, including base salary; benefits and perquisites; cash bonuses and commissions; equity-based compensation; and retirement or termination of service arrangements.

4. Overall Compensation - Ratio between Fixed and Variable Pay

In setting compensation of an Executive, we will attempt to balance the mix of Fixed Pay (i.e., base salary, benefits and perquisites) and Variable Pay in order to, among other things, appropriately incentivize Executives to meet Radware's goals while considering, among others, Radware's risk management policies. To that end, the table below reflects the ratio between Fixed and Variable Pay that we target under this Policy, measured on an annual basis:

	Range for Fixed Pay* out of the Total Compensation	Range for Variable Pay out of the Total Compensation**
CEO	15-40%	60-85%
Non-Sales Executives	30-60%	40-70%
Sales Executives	10-50%	50-90%

(*) For purposes hereof, consists of base salary only.

(**) The variable component in regard of the equity-based compensation reflects the value at the date of grant.

The ratios stated in the table above represent the optimal compensation mix desired by the Company and assuming that the bonus and/or commission milestones and targets are fully achieved. Accordingly, the actual ratio may vary based on performance in the relevant year.

5. Intra-Company Compensation Ratio

In the process of composing this Policy, we have examined the ratio between overall compensation of Executives and the average and median salaries of the other employees (including contractors and agency contractors), as well as the possible ramifications of such ratio on the work environment in Radware were examined in order to ensure, among others, that levels of executive compensation will not have a negative impact on the positive work relations in our company.

To that end, we will target a ratio where the overall compensation of each Executive, including the CEO, shall be no more than 30 times the average (and median) of the overall compensation for the other employees in such location.

B. Base Salary, Benefits and Perquisites

1. Base Salary

The base salary varies between Executives, and is individually determined according to, among others, the performance, educational background, prior business experience, aptitude, qualifications, role and the personal responsibilities of the Executive.

In addition, since a competitive base salary is essential to Radware's ability to attract and retain highly skilled professionals in the long term, we seek to establish base salary that is competitive with the base salaries paid to Executives of a peer group of companies. Accordingly, we will utilize as a reference comparative market data and practices.

For purposes of attracting and retaining high quality personnel, we may offer a signing bonus to a candidate for an executive position, which shall not exceed an amount of one annual base salary of the Executive.

2. Benefits and Perquisites

The following benefits and perquisites may be granted to any Executive in order, among other things, to comply with local legal requirements:

- Vacation of up to 24 days per annum;
- Sick days of up to 30 days per annum;
- Convalescence pay according to applicable law;
- Monthly contribution for a study fund, as allowed by applicable law and with reference to the practice in peer group companies;
- Radware shall contribute on behalf of the Executive to an insurance policy or a pension fund, or to a policy and a fund, as allowed by law and with reference to the practice in peer group companies;
- Radware shall contribute on behalf of the Executive to funds toward work disability insurance, as allowed by applicable law and with reference to the practice in peer group companies; and
- Life and health insurance.

For the sake of clarity, any Executives who are not based in Israel may receive other similar, comparable or customary benefits and perquisites as applicable in the relevant jurisdiction in which they are employed.

In addition, we may offer additional benefits and perquisites to the Executives, which will be comparable to customary industry practices, such as: company cellular phone benefits; company car benefits; refund of business related expenses; relocation expenses; insurances, etc.; provided however, that such additional benefits and perquisites shall be determined in accordance with our policies and procedures.

C. Cash Bonuses and Commissions

1. The Objective

A compensation in the form of cash bonus(es) and/or commissions is important in aligning Executives' compensation with Radware's objectives and business goals, such that both individual performance and overall company success are rewarded.

2. **Bonuses and Commissions**

Our policy is to allow annual bonus(es) and/or commissions upon the attainment of pre-set financial objectives and personal targets, pursuant to distinguishable terms for the following three Executives' populations:

CEO

- The annual bonus of our CEO will be based upon achievement of milestones and targets and the measurable results of the Company, as compared to our budget and/or work plans (including product roadmap or the like) for the relevant year.
- Such measurable criteria will initially be determined at the beginning of each fiscal year (or start of employment, as applicable) and may include (but is not limited to) any one or more of the following criteria: financial results of the Company, including profits and revenues; product releases; software quality; efficiency metrics; internal and external customer satisfaction; execution of projects, etc.
- A portion of up to 10% of the annual bonus may be based on the achievement and performance of individual key performance indicators (KPIs), as approved by the Compensation Committee and the Board.
- In any case, the total amount of the annual bonus for the CEO will not exceed 133% of the CEO's annual base salary.

Non-Sales Executives

- The annual bonus of the Non-Sales Executives will be based upon achievement of milestones and targets and the measurable results of the Company, as compared to our budget and/or work plan for the relevant year.
- Such measurable criteria will initially be determined at the beginning of each fiscal year (or start of employment, as applicable) and may include (but is not limited to) any one or more of the following criteria: financial results of the Company, including profits and revenues; product releases; software quality; efficiency metrics; internal and external customer satisfaction; execution of projects, etc.
- A portion of the annual bonus may be based on the achievement and performance of pre-determined individual KPIs.
- In any case, the total amount of the annual bonus for any Non-Sales Executive will not exceed the amount of one annual base salary of such Executive.

Sales Executives

- The annual bonus and/or commissions of the Sales Executives will be comprised from bonuses and commissions based upon achievement of targets of revenues and/or gross profit generated by the individual and/or his/her team or division and/or the Company, as initially determined at the beginning of each fiscal year (or start of employment, as applicable).

- In any case, the total amount of the annual bonus and commissions for any Sales Executive will not exceed the amount of four annual base salaries of such Executive.

3. Board's Discretion; Special Bonus

- Executives may receive a special bonus based on outstanding personal achievement as shall be approved by the Compensation Committee and the Board. Similarly, the Board may, in extraordinary conditions, reduce the bonus and commissions to which an Executive would otherwise be entitled. However, in both cases, such increase or decrease may be by no more than 20% of the bonus or commissions described above (as applicable) for any year.

4. Compensation Recovery ("Clawback")

- In the event of an accounting restatement, Radware shall be entitled to recover from any Executive bonus or commissions in the amount of the excess over what would have been paid under the accounting restatement, with a three-year look-back. The compensation recovery will not apply to former Executives of Radware.
- Notwithstanding the aforesaid, the compensation recovery will not be triggered in the event of a financial restatement required due to changes in the applicable financial reporting standards.
- Nothing in this Section 4 derogates from any other "clawback" or similar provisions regarding disgorging of profits imposed on Executives by virtue of applicable law or other Company practices.

D. Equity Based Compensation

1. The Objective

The equity based compensation for Radware's Executives is designed in a manner consistent with the underlying objectives determining the base salary and the annual bonus, its main objectives being to enhance the alignment between the Executives' interests with the long term interests of Radware and its shareholders, and to strengthen the retention and the motivation of Executives in the long term. In addition, since these equity based awards are structured to vest over several years, their incentive value to recipients is aligned with longer-term strategic plans.

2. General guidelines for the grant of awards

- The equity based compensation may be in a form of a mixture of various types of equity based instruments, which includes, without limitation, stock options and restricted stock units.

- The equity based compensation shall be granted from time to time and individually determined and awarded according to the performance, educational background, prior business experience, aptitude, qualifications, role and the personal responsibilities of the Executive.
- Equity based compensation for Radware's Executives shall vest over a minimum of three (3) years.
- The fair market value of the equity based compensation for the Executives will be determined according to acceptable valuation practices at the time of grant. Such fair market value shall not exceed the equivalent of five (5) annual salary for each Executive per year of vesting, on a linear basis.
- The vesting and/or the grant of such equity based compensation may be contingent upon the increase in the market price of Radware's ordinary shares.
- The Board may, following approval by the Compensation Committee, (1) extend the period of time for which an award is to remain exercisable as well as (2) make provisions with respect to the acceleration of the vesting period of any Executive's awards, including, without limitation, in connection with a corporate transaction involving a change of control.

E. Retirement and Termination of Service Arrangements

- Radware may provide an Executive a prior notice of termination of up to six (6) months, during which the Executive may be entitled to all or a portion of his or her compensation elements, and to the continuation of vesting of his options or other awards. Unless the Company decides to release the Executive from this obligation, the Executive will be required to continue performing all roles and responsibilities during the notice period.
- Radware may provide an additional adaptation or transition period during which the Executive will be entitled to up to six (6) months of continued base salary, benefits and perquisites. Additionally, the Board may, upon approval by the Compensation Committee, approve to extend the vesting of Executive's options or other awards during such period. In this regard, the Compensation Committee and Board of Directors shall take into consideration the Executive's term of employment, the Executive's compensation during employment with the Company, the Company's performance during such period, and the contribution of the Executive in achieving the Company's goals and the circumstances of termination.
- Radware may provide additional retirement and terminations benefits and payments as may be required by applicable law (e.g., mandatory severance pay under Israeli labor laws), or which will be comparable to customary market practices, including, without limitation, release of pension and provident funds and/or manager insurance policies contributed and accrued to the benefit of such Executive through the date of termination (or, if and when there is a shortfall in the amount of such funds, including in the case of resignation, supplementing such shortfall amount) to the Executive and/or any person designated by him or her.

F. Exculpation, Indemnification and Insurance

- Except as may be otherwise approved from time to time by the shareholders, Radware may exempt its Directors and Executives from the duty of care.
- Radware may indemnify the Directors and Executives to the fullest extent permitted by applicable law, for any liability and expense that may be imposed on them, as shall be provided in an indemnity agreement between such individuals and Radware.
- Radware will provide "Directors and Officers Insurance" for its Directors and Executives, with (i) aggregate coverage that will not exceed the higher of (A) US\$50 million and (B) 25% of its shareholders' equity and (ii) annual premium that shall not exceed the higher of (A) US\$700,000 and (B) 25% over the prior year's annual premium, unless otherwise determined by the shareholders from time to time.
- Radware may also purchase such D&O insurance with respect to specific events, such as public offerings, or with respect to periods of time following which the then existing insurance coverage ceases to apply, such as "run-off" coverage in connection with a change in control; provided that the premium therefor shall not exceed four (4) times the annual premium payable at such time for the D&O Insurance.

G. Non-Employee Directors Compensation

- The non-employee members of Radware's board may (and, in the case of statutory external directors, shall) be entitled to remuneration and refund of expenses according to the provisions of the Companies Regulations (Rules on Remuneration and Expenses of Outside Directors), 5760-2000, as amended by the Companies Regulations (Relief for Public Companies Traded in Stock Exchange Outside of Israel), 2000, as such regulations may be amended from time to time.
- It is hereby clarified that such non-employee directors may be granted equity based compensation which shall vest over a period of not less than three (3) years, and having a fair market value (determined according to acceptable valuation practices at the time of grant) not to exceed, with respect to each director, US\$450,000 per year of vesting, on a linear basis, subject to applicable law and regulations.

H. Miscellaneous

- This Policy was approved by the Company's shareholders on September 6, 2018 and thereafter an amendment thereto was approved by the Company's shareholders on October 24, 2019. This Policy will remain in effect for a period of three years through October 23, 2022. The Compensation Committee and the Board shall review and reassess the adequacy of this Policy from time to time, as required by the Companies Law.
- This Policy is designed solely for the benefit of Radware and none of the provisions thereof are intended to provide any rights or remedies to any person other than Radware. In particular, this Policy does not, and shall not be deemed to, grant any rights to the Company's directors and Executives to receive any elements of compensation set forth in this Policy. The elements of compensation to which a director or Executive will be entitled will be exclusively those that are determined and approved specifically in relation to him or her in accordance with the approval requirements of the Companies Law.

LIST OF SUBSIDIARIES

Name of Subsidiary	Place of Incorporation
Radware Inc.	New Jersey, United States
Radware UK Limited	United Kingdom
Radware France	France
Radware Srl	Italy
Radware GmbH	Germany
Nihon Radware KK	Japan
Radware Australia Pty. Ltd.	Australia
Radware Singapore Pte. Ltd.	Singapore
Radware Korea Ltd.	Korea
Radware Canada Inc.	Canada
Radware India Pvt. Ltd.	India
Kaalbi Technologies Private Ltd.	India
Radware China Ltd. 睿伟网络科技(上海)有限公司	China
Radware (Hong Kong) Limited	Hong Kong
Radyoos Media Ltd.*	Israel
Radware Canada Holdings Inc.	Canada
Radware Iberia, S.L.U.	Spain
Edgehawk Security Ltd.	Israel

* We currently hold 91% of the shares of this company which ceased its activities during 2017. All other listed subsidiaries are wholly owned.

CERTIFICATION OF THE CHIEF EXECUTIVE OFFICER
PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Roy Zisapel, certify that:

1. I have reviewed this annual report on Form 20-F of Radware 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(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the 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(s) 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 functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the 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: April 2, 2020

/s/ Roy Zisapel
Roy Zisapel
Chief Executive Officer
(Principal Executive Officer)

CERTIFICATION OF THE CHIEF FINANCIAL OFFICER
PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Doron Abramovitch, certify that:

1. I have reviewed this annual report on Form 20-F of Radware 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(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the 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(s) 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 functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the 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: April 2, 2020

/s/ Doron Abramovitch
Doron Abramovitch
Chief Financial Officer
(Principal Financial Officer)

**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 Radware Ltd. (the "Company") on Form 20-F for the year ended December 31, 2019 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Roy Zisapel, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. §1350, as adopted pursuant to §906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d), as applicable, 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 results of operations of the Company.

Date: April 2, 2020

/s/ Roy Zisapel
Roy Zisapel
Chief Executive Officer
(Principal Executive Officer)

**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 Radware Ltd. (the "Company") on Form 20-F for the year ended December 31, 2019 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Doron Abramovitch, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. §1350, as adopted pursuant to §906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d), as applicable, 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 results of operations of the Company.

Date: April 2, 2020

/s/ Doron Abramovitch
Doron Abramovitch
Chief Financial Officer
(Principal Financial Officer)

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the Registration Statement on Form S-8 (Commission File Numbers 333-12156, 333-13818, 333-105213, 333-114668, 333-135218, 333-161796, 333-166673, 333-166674, 333-193124, 333-212608, 333-218987, 333-224246 and 333-232641) pertaining to the 1997 Key Employee Share Incentive Plan, as amended, and the 2010 Employee Share Purchase Plan of Radware Ltd. of our reports dated April 2, 2020, with respect to the consolidated financial statements of Radware Ltd. and its subsidiaries and the effectiveness of internal control over financial reporting of Radware Ltd. and its subsidiaries, included in this Annual Report on Form 20-F for the year ended December 31, 2019.

Tel - Aviv, Israel
Date: April 2, 2020

/s/ KOST FORER GABBAY & KASIERER
KOST FORER GABBAY & KASIERER
A Member of Ernst & Young Global
