
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549**

FORM 20-F

REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR (g) OF THE SECURITIES EXCHANGE ACT OF 1934

OR

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

For the fiscal year ended December 31, 2019

OR

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

OR

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

Commission file number 001-36625



CYBERARK[®]

CYBERARK SOFTWARE LTD.

(Exact name of Registrant as specified in its charter)

Israel

(Jurisdiction of incorporation or organization)

9 Hapsagot St.

Park Ofer B, P.O. BOX 3143

Petach-Tikva 4951040, Israel

(Address of principal executive offices)

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Petach-Tikva 4951040, Israel

(Name, telephone, e-mail and/or facsimile number and address of company contact person)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Ordinary shares, par value NIS 0.01 per share	CYBR	The Nasdaq Stock Market LLC

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

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

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report: **As of December 31, 2019, the registrant had outstanding 38,043,516 ordinary shares, par value NIS 0.01 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.

Large accelerated filer Accelerated filer Non-accelerated filer
Emerging growth company

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards[†] provided pursuant to Section 13(a) of the Exchange Act.

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

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

U.S. GAAP International Financial Reporting Standards as issued by the
International Accounting Standards Board Other

If "Other" has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow.

Item 17 Item 18

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes No

CYBERARK SOFTWARE LTD.

FORM 20-F
ANNUAL REPORT FOR THE FISCAL YEAR ENDED DECEMBER 31, 2018

TABLE OF CONTENTS

Introduction		1
Special Note Regarding Forward-Looking Statements		1
PART I		
Item 1.	Identity of Directors, Senior Management and Advisers	2
Item 2.	Offer Statistics and Expected Timetable	2
Item 3.	Key Information	2
Item 4.	Information on the Company	33
Item 4A.	Unresolved Staff Comments	45
Item 5.	Operating and Financial Review and Prospects	45
Item 6.	Directors, Senior Management and Employees	64
Item 7.	Major Shareholders and Related Party Transactions	81
Item 8.	Financial Information	83
Item 9.	The Offer and Listing	84
Item 10.	Additional Information	84
Item 11.	Quantitative and Qualitative Disclosures About Market Risk	92
Item 12.	Description of Securities Other Than Equity Securities	93
PART II		
Item 13.	Defaults, Dividend Arrearages and Delinquencies	94
Item 14.	Material Modifications to the Rights of Security Holders and Use of Proceeds	94
Item 15.	Controls and Procedures	94
Item 16A.	Audit Committee Financial Expert	95
Item 16B.	Code of Ethics	95
Item 16C.	Principal Accountant Fees and Services	95
Item 16D.	Exemptions from the Listing Standards for Audit Committees	96
Item 16E.	Purchases of Equity Securities by the Issuer and Affiliated Purchasers	96
Item 16F.	Change in Registrant’s Certifying Accountant	96
Item 16G.	Corporate Governance	96
Item 16H.	Mine Safety Disclosure	96
PART III		
Item 17.	Financial Statements	96
Item 18.	Financial Statements	96
Item 19.	Exhibits	97

INTRODUCTION

In this annual report, the terms “CyberArk,” “we,” “us,” “our” and “the company” refer to CyberArk Software Ltd. and its subsidiaries.

This annual report includes statistical, market and industry data and forecasts, which we obtained from publicly available information and independent industry publications and reports that we believe to be reliable sources. These publicly available industry publications and reports generally state that they obtain their information from sources that they believe to be reliable, but they do not guarantee the accuracy or completeness of the information. Although we believe that these sources are reliable, we have not independently verified the information contained in such publications. Certain estimates and forecasts involve uncertainties and risks and are subject to change based on various factors, including those discussed under the headings “Special Note Regarding Forward-Looking Statements” and “Item 3.D Risk Factors” in this annual report.

Throughout this annual report, we refer to various trademarks, service marks and trade names that we use in our business. The “CyberArk” design logo is the property of CyberArk Software Ltd. CyberArk® is our registered trademark in the United States. We have several other trademarks, service marks and pending applications relating to our solutions. In particular, although we have omitted the “®” and “™” trademark designations in this annual report from each reference to our Privileged Access Security Solution, Enterprise Password Vault, Privileged Session Manager, Privileged Threat Analytics, CyberArk Privilege Cloud, Application Access Manager, Conjur, Endpoint Privilege Manager, On-Demand Privileges Manager, secure Digital Vault, Web Management Interface, Master Policy Engine and Discovery Engine, DNA, Alero and C³ Alliance, all rights to such names and trademarks are nevertheless reserved. Other trademarks and service marks appearing in this annual report are the property of their respective holders.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

In addition to historical facts, this annual report contains forward-looking statements within the meaning of Section 27A of the U.S. Securities Act of 1933, as amended, or the Securities Act, Section 21E of the U.S. Securities Exchange Act of 1934, as amended, or the Exchange Act, and the safe harbor provisions of the U.S. Private Securities Litigation Reform Act of 1995. These forward-looking statements are subject to risks and uncertainties, and include information about possible or assumed future results of our business, financial condition, results of operations, liquidity, plans and objectives. In some cases, you can identify forward-looking statements by terminology such as “believe,” “may,” “estimate,” “continue,” “anticipate,” “intend,” “should,” “plan,” “expect,” “predict,” “potential,” or the negative of these terms or other similar expressions. The forward-looking statements are based on our beliefs, assumptions and expectations of future performance. There are important factors that could cause our actual results, levels of activity, performance or achievements to differ materially from the results, levels of activity, performance or achievements expressed or implied by the forward-looking statements, including, but not limited to:

- the significant drivers of our future growth may be different from those we expect;
- we may be unsuccessful in our plans to leverage our global footprint in existing and new industry verticals to further expand our market share;
- our hybrid sales model may not generate the revenues we expect;
- we may be unable to achieve incremental sales to existing customers;
- our future operating and net profit margins may differ from our expectations;
- we may fail to find, complete, or fully integrate additional strategic acquisitions;
- we may experience unanticipated product vulnerabilities or cybersecurity breaches of our or our customers’ systems;
- we may be unable to hire, retain and motivate qualified personnel;
- we may experience greater than expected harm to our ability to generate future revenues from risks associated with our global sales and operations, such as changes in regulatory requirements, wide-spread viruses and epidemics like the recent novel coronavirus outbreak or fluctuations in currency exchange rates;
- we may be unsuccessful in expanding our sales and marketing efforts and we may be unable to expand our channel partnerships across existing and new geographies;
- we may be unsuccessful in our efforts to further diversify our product deployments and licensing options;
- we may not realize our plans to continue to invest in research and development, and our research and development efforts may not successfully enhance and develop existing and new on-premises and cloud-based products and services;
- we may be required to make more capital expenditures than we currently expect; and

- we may be unable to retain our “foreign private issuer” status or may be classified, for U.S. federal income tax purposes, as a “passive foreign investment company”.

In addition, you should consider the risks provided under “Item 3. Key Information—D. Risk Factors” in this annual report.

You should not rely upon forward-looking statements as predictions of future events. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee that future results, levels of activity, performance and events and circumstances reflected in the forward-looking statements will be achieved or will occur. Except as required by law, we undertake no obligation to update publicly any forward-looking statements for any reason after the date of this annual report, to conform these statements to actual results or to changes in our expectations.

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 set forth our selected consolidated financial data. You should read the following selected consolidated financial data in conjunction with “Item 5. Operating and Financial Review and Prospects” and our consolidated financial statements and related notes included elsewhere in this annual report. Historical results are not necessarily indicative of the results that may be expected in the future. Our financial statements have been prepared in accordance with U.S. Generally Accepted Accounting Principles, or U.S. GAAP.

The selected consolidated statements of operations data for each of the years in the three-year period ended December 31, 2019 and the consolidated balance sheet data as of December 31, 2018 and 2019 are derived from our audited consolidated financial statements appearing elsewhere in this annual report. The consolidated statements of operations data for the years ended December 31, 2015 and 2016 and the consolidated balance sheet data as of December 31, 2015, 2016 and 2017 are derived from our audited consolidated financial statements that are not included in this annual report.

	Year ended December 31,				
	2015(1)	2016(1)	2017(1)	2018	2019
	(in thousands except share and per share data)				
Consolidated Statements of Operations:					
Revenues:					
License	\$ 100,113	\$ 131,530	\$ 147,640	\$ 192,514	\$ 237,879
Maintenance and professional services	60,699	85,083	114,061	150,685	196,016
Total revenues	<u>160,812</u>	<u>216,613</u>	<u>261,701</u>	<u>343,199</u>	<u>433,895</u>
Cost of revenues:					
License	5,088	4,726	7,911	10,526	10,569
Maintenance and professional services	17,572	25,425	33,937	37,935	52,046
Total cost of revenues(2)	<u>22,660</u>	<u>30,151</u>	<u>41,848</u>	<u>48,461</u>	<u>62,615</u>
Gross profit	<u>138,152</u>	<u>186,462</u>	<u>219,853</u>	<u>294,738</u>	<u>371,280</u>
Operating expenses:					
Research and development(2)	21,734	34,614	42,389	57,112	72,520
Sales and marketing(2)	66,206	93,775	126,739	148,290	184,168
General and administrative(2)	16,990	22,117	30,399	42,044	52,308
Total operating expenses	<u>104,930</u>	<u>150,506</u>	<u>199,527</u>	<u>247,446</u>	<u>308,996</u>
Operating income	33,222	35,956	20,326	47,292	62,284
Financial income (expenses), net	<u>(1,479)</u>	<u>245</u>	<u>4,103</u>	<u>4,551</u>	<u>7,800</u>
Income before taxes on income	31,743	36,201	24,429	51,843	70,084
Taxes on income	<u>(5,949)</u>	<u>(8,077)</u>	<u>(8,414)</u>	<u>(4,771)</u>	<u>(7,020)</u>
Net income	<u>\$ 25,794</u>	<u>\$ 28,124</u>	<u>\$ 16,015</u>	<u>\$ 47,072</u>	<u>\$ 63,064</u>
Basic net income per ordinary share(3)	<u>\$ 0.80</u>	<u>\$ 0.83</u>	<u>\$ 0.46</u>	<u>\$ 1.30</u>	<u>\$ 1.68</u>
Diluted net income per ordinary share(3)	<u>\$ 0.73</u>	<u>\$ 0.78</u>	<u>\$ 0.44</u>	<u>\$ 1.27</u>	<u>\$ 1.62</u>
Weighted average number of ordinary shares used in computing basic net income per ordinary share(3)	<u>32,124,772</u>	<u>33,741,359</u>	<u>34,824,312</u>	<u>36,174,316</u>	<u>37,586,387</u>
Weighted average number of ordinary shares used in computing diluted net income per ordinary share(3)	<u>35,322,716</u>	<u>35,838,863</u>	<u>36,175,824</u>	<u>37,065,727</u>	<u>38,890,108</u>

	As of December 31,				
	2015(1)	2016(1)	2017(1)	2018	2019
	(in thousands)				
Consolidated Balance Sheet Data:					
Cash, cash equivalents, marketable securities and short-term bank deposits	\$ 238,252	\$ 295,475	\$ 330,340	\$ 451,244	\$ 1,119,250
Deferred revenue, current and long term	54,389	73,506	105,235	149,534	190,355
Working capital(4)	197,095	235,010	251,247	338,340	953,530
Total assets	334,424	403,031	502,576	673,620	1,405,166
Convertible senior notes, net	—	—	—	—	485,119
Total shareholders' equity	246,670	296,216	353,965	466,770	624,132

(1) On January 1, 2018, we adopted Accounting Standard Update (“ASU”) No. 2014-09, Revenue from Contracts with Customers Topic 606 (“ASC No. 606”) using the modified retrospective method. Results for reporting periods beginning after January 1, 2018 are presented under ASC No. 606, while prior period results are not adjusted and continue to be reported in accordance with historic accounting under Revenue Recognition Topic 605 (“ASC No. 605”).

(2) Includes share-based compensation expense as follows:

	Year ended December 31,				
	2015	2016	2017	2018	2019
	(in thousands)				
Cost of revenues	\$ 499	\$ 1,386	\$ 2,289	\$ 3,350	\$ 5,690
Research and development	1,507	4,660	6,110	7,922	10,960
Sales and marketing	2,214	5,765	8,642	12,708	20,976
General and administrative	2,829	5,724	8,196	11,984	17,891
Total share-based compensation expenses	\$ 7,049	\$ 17,535	\$ 25,237	\$ 35,964	\$ 55,517

(3) Basic and diluted net income per ordinary share is computed based on the weighted average number of ordinary shares outstanding during each period. For additional information, see note 15 to our consolidated financial statements included elsewhere in this annual report.

(4) We define working capital as total current assets minus total current liabilities.

Non-GAAP gross profit, non-GAAP operating income and non-GAAP net income are non-GAAP financial measures. We define non-GAAP gross profit, non-GAAP operating income and non-GAAP net income as gross profit, operating income and net income, respectively, which each exclude (i) share-based compensation expense and (ii) amortization of intangible assets related to acquisitions. Non-GAAP operating income also excludes (i) expenses related to the March 2015 public offering of ordinary shares by certain of our shareholders and to the June 2015 public offering of ordinary shares by us and certain of our shareholders, (ii) expenses related to acquisitions and (iii) expenses related to facility exit and transition costs. Non-GAAP net income also excludes (i) tax effects related to the non-GAAP adjustments set forth above, (iii) tax effects related to the impact to our deferred tax assets as a result of the U.S. Tax Cuts and Jobs Act 2017 (the "Tax Act"), (iii) intra-entity intellectual property transfer tax effects and (iv) amortization of debt discount and issuance costs. The following tables reconcile operating income and net income, the most directly comparable U.S. GAAP measures, to non-GAAP operating income and non-GAAP net income for the periods presented:

	Year ended December 31,				
	2015	2016	2017	2018	2019
	(in thousands)				
Reconciliation of Gross Profit to Non-GAAP Gross Profit:					
Gross profit	\$ 138,152	\$ 186,462	\$ 219,853	\$ 294,738	\$ 371,280
Share-based compensation – Maintenance and professional services	499	1,386	2,289	3,350	5,690
Amortization of intangible assets – License	359	1,420	4,213	5,563	5,029
Non-GAAP Gross profit	<u>\$ 139,010</u>	<u>\$ 189,268</u>	<u>\$ 226,355</u>	<u>\$ 303,651</u>	<u>\$ 381,999</u>
	Year ended December 31,				
	2015	2016	2017	2018	2019
	(in thousands)				
Reconciliation of Operating Income to Non-GAAP Operating Income:					
Operating income	\$ 33,222	\$ 35,956	\$ 20,326	\$ 47,292	\$ 62,284
Share-based compensation	7,049	17,535	25,237	35,964	55,517
Public offering related expenses	1,568	—	—	—	—
Acquisition related expenses	677	—	686	268	—
Amortization of intangible assets – Cost of revenues	359	1,420	4,213	5,563	5,029
Amortization of intangible assets – Research and development	749	1,913	—	—	—
Amortization of intangible assets – Sales and marketing	17	1,190	1,046	793	576
Facility exit and transition costs	—	—	342	580	—
Non-GAAP operating income	<u>\$ 43,641</u>	<u>\$ 58,014</u>	<u>\$ 51,850</u>	<u>\$ 90,460</u>	<u>\$ 123,406</u>
	Year ended December 31,				
	2015	2016	2017	2018	2019
	(in thousands)				
Reconciliation of Net Income to Non-GAAP Net Income:					
Net income	\$ 25,794	\$ 28,124	\$ 16,015	\$ 47,072	\$ 63,064
Share-based compensation	7,049	17,535	25,237	35,964	55,517
Public offering related expenses	1,568	—	—	—	—
Acquisition related expenses	677	—	686	268	—
Amortization of intangible assets – Cost of revenues	359	1,420	4,213	5,563	5,029
Amortization of intangible assets – Research and development	749	1,913	—	—	—
Amortization of intangible assets – Sales and marketing	17	1,190	1,046	793	576
Facility exit and transition costs	—	—	342	580	—
Amortization of debt discount and issuance costs	—	—	—	—	1,966
Taxes on income related to non-GAAP adjustments	(951)	(4,937)	(12,226)	(15,485)	(18,251)
Change in the U.S. federal tax rate	—	—	6,582	—	—
Intra-entity intellectual property transfer tax effect, net	—	—	—	1,768	—
Non-GAAP net income	<u>\$ 35,262</u>	<u>\$ 45,245</u>	<u>\$ 41,895</u>	<u>\$ 76,523</u>	<u>\$ 107,901</u>

For a description of how we use non-GAAP gross profit, non-GAAP operating income and non-GAAP net income to evaluate our business, see “Item 5. Operating and Financial Review and Prospects—Key Financial Metrics.” We believe that these non-GAAP financial measures are useful in evaluating our business because of varying available valuation methodologies, subjective assumptions and the variety of equity instruments that can impact a company’s non-cash expenses and because they exclude one-time cash expenditures that do not reflect the performance of our core business. We believe that providing non-GAAP gross profit and non-GAAP operating income that exclude, as appropriate, share-based compensation expenses, expenses relating to public offerings of our ordinary shares, expenses related to facility exit and transition costs, expenses related to acquisitions and amortization of intangible assets related to acquisitions, allows for more meaningful comparisons between our operating results from period to period. Share-based compensation expense has been, and will continue to be for the foreseeable future, a significant recurring expense in our business and an important part of the compensation we provide to employees. We also believe that non-GAAP net income which additionally excludes intra-entity intellectual property transfer tax effects, tax effects related to the impact to our deferred tax assets as a result of the Tax Act, the tax effects related to these non-GAAP adjustments and financial expenses with respect to amortization of debt discount and issuance costs allows for more meaningful comparison between our net income from period to period. We also believe that expenses related to the public offerings of our ordinary shares in March 2015 and June 2015, expenses related to our acquisitions, expenses related to facility exit and transition costs, amortization of intangible assets related to acquisitions, tax effects related to the impact to our deferred tax assets as a result of the Tax Act, intra-entity intellectual property transfer tax effects, tax effects related to the non-GAAP adjustments set forth above and amortization of debt discount and issuance costs do not reflect the performance of our core business and would impact period-to-period comparability.

Other companies, including companies in our industry, may calculate non-GAAP operating income and non-GAAP net income differently or not at all, which reduces their usefulness as a comparative measure. You should consider non-GAAP operating income and non-GAAP net income along with other financial performance measures, including operating income and net income, and our financial results presented in accordance with U.S. GAAP.

B. Capitalization and Indebtedness

Not applicable.

C. Reasons for the Offer and Use of Proceeds

Not applicable.

D. Risk Factors

Risks Related to Our Business and Our Industry

The IT security market is rapidly evolving within the increasingly challenging cyber threat landscape and the continuing use of hybrid on-premise and cloud-based environments. As a result of unanticipated market, industry or company developments our sales may not continue to grow at current rates or may decline, and our share price could decrease.

We operate in a rapidly evolving industry focused on securing organizations' IT systems and sensitive data. Our solutions focus on safeguarding privileged accounts, credentials, and secrets. Privileged accounts are those accounts within an organization that give users, applications, and machine identities the highest levels of access, or "privileged" access, to IT systems and infrastructure, industrial control systems, applications and data both on-premises and in cloud environments. While breaches of such privileged accounts have continued to gain media attention in recent years, IT security spending within enterprises is often concentrated on endpoint and network security products designed to stop threats from penetrating corporate networks. Organizations may allocate all or most of their IT security budgets to these products and may not adopt our solutions in addition to such products. Organizations are moving portions of their IT systems to be managed by third parties, primarily infrastructure, platform and application service providers, and may rely on such providers' internal security measures.

Further, security solutions such as ours, which are focused on disrupting cyber attacks by insiders and external perpetrators that have penetrated an organization's on-premise or cloud environment, represent a security layer designed to respond to advanced threats and more rigorous compliance standards and audit requirements. However, advanced cyber attackers are skilled at adapting to new technologies and developing new methods of gaining access to organizations' sensitive data. As our customers' technologies and business plans evolve and become more complex, we expect them to face new and increasingly sophisticated methods of attack. We face significant challenges in ensuring that our solutions effectively identify and respond to such attacks without disrupting the performance of our customers' IT systems. As a result, we must continually modify and improve our products, services, and licensing models in response to market and technology trends to ensure we are meeting market needs and continue providing valuable solutions that can be deployed in a variety of environments, including cloud and hybrid.

We cannot guarantee that we will be able to anticipate future market needs and opportunities or be able to develop or acquire product enhancements or new products to meet such needs or opportunities in a timely manner or at all. Even if we are able to anticipate, develop and commercially introduce new products such as CyberArk Privilege Cloud and CyberArk Alero, and ongoing enhancements to our existing products, there can be no assurance that such enhancements or new products will achieve widespread market acceptance. Delays in developing, completing or delivering new or enhanced products could cause our offerings to be less competitive, impair customer acceptance of our solutions and result in delayed or reduced revenue for our solutions.

In addition, any changes in compliance standards or audit requirements that reduce the priority for the types of controls, security, monitoring and analysis that our solutions provide would adversely impact demand for our solutions. It is therefore difficult to predict how large the market will be for our solutions. If our solutions are not viewed by organizations as necessary, or if customers do not recognize the benefit of our solutions as a critical layer of an effective security strategy, then our revenues may not continue to grow at their current rate or may decline, which could cause our share price to decrease in value.

Our quarterly results of operations may fluctuate for a variety of reasons, including our failure to close significant sales before the end of a particular quarter or unexpected changes in the sales volumes we expect across certain quarters, geographies or license models. We may, as a result, fail to meet publicly announced financial guidance or other expectations about our business, which could cause our ordinary shares to decline in value.

A meaningful portion of our quarterly revenues is generated through transactions of significant size, and purchases of our products and services often occur at the end of each quarter. We also experience quarterly and annual seasonality in our sales, demonstrated by increased sales in the third month of each quarter relative to the first two months and by the fourth quarter of the year being the largest quarter for sales. In addition, our sales cycle can be intensively competitive and last several quarters from proof of concept to the actual sale and delivery of our solutions to our customers. This sales cycle can be even longer, less predictable and more resource-intensive for larger sales, or with customers implementing complex digital transformation strategies or facing a complex set of compliance and user requirements that need to be met and confirmed during the sales cycle. Customers may also require additional prolonged contract negotiations, internal committee or executive approvals or seek to test our products for a longer trial period before they purchase our solutions. A failure to close a large transaction in a particular quarter may adversely impact our revenues in that quarter. Additionally, closing of an exceptionally large transaction in a certain quarter may increase our revenues in that quarter which may make it more difficult for us to meet growth rate expectations of our investors in subsequent quarters. Furthermore, even if we close a sale during a given quarter, we may be unable to recognize the revenues derived from such sale during the same period due to our revenue recognition policy. See “Item 5.A. Operating and Financial Review and Prospects—Operating Results—Application of Critical Accounting Policies and Estimates—Revenue Recognition.” As a result, the timing of closing sales cycles and the resulting revenue from such sales can be difficult to predict. In some cases, sales have occurred in quarters which were either earlier than, or subsequent to the quarters we anticipated them to close in and in some cases sale opportunities expected to close did not close at all.

We also offer new and existing customers multiple software pricing and delivery models including perpetual and term-based licenses, and software as a service (SaaS) subscriptions. We recognize revenue differently based on the type of license sold. Specifically, we recognize revenue from perpetual licenses and term-based licenses upon delivery, while our revenue from SaaS sales is recognized ratably over the period of the SaaS contract. This may cause trends in revenue recognition to lag those in sales, potentially causing us to fall short of investor expectations for revenue even while meeting periodic sales targets. Conversely, the impact of a decline in periodic sales may not be fully reflected in terms of revenue until future periods. We anticipate in the medium term that the majority of our software will continue to be sold as perpetual licenses; however, our strategy is to infuse more recurring revenue license models mainly from SaaS subscriptions, which could reduce our overall revenue growth rates, operating margins and cash flow in the short term due to the ratably revenue recognition. Also, as we introduce more SaaS solutions, existing customers may wish to transition to our SaaS solutions, making it more difficult to predict revenues. If new or current customers prefer our SaaS solutions at a greater rate than we anticipate, our software revenues may lag our expectations in the short term.

All of these factors impact our quarterly results and our ability to accurately predict them and may result in missing market expectations regarding our actual results. If our financial results for a particular period do not meet our guidance or if we reduce our guidance for future periods, the market price of our ordinary shares may decline.

In addition to fluctuations related to sales cycles and multiple licensing models set forth above, our results of operations may continue to vary as a result of a number of factors, many of which may be outside of our control or difficult to predict, including:

- our ability to attract new customers;
- our ability to retain existing customers by and through renewals of maintenance and subscription license agreements;
- The rate our customers fully deploy their purchased licenses, and our ability to sell additional licenses or new products to current customers;
- the ability of our service operation, performed independently or through our service providers, to keep pace with license sales to new and existing customers and to satisfy customer demands for consultancy and professional services;
- the amount and timing of our operating costs;
- our ability to successfully expand our business globally;

- the timing and success of new product and service introductions by us or our competitors or any other change in the competitive landscape of the information security market, including consolidation among our customers or competitors;
- increases or decreases in our expenses caused by fluctuations in foreign currency exchange rates or changes in taxes or other applicable regulations (See “—We are exposed to fluctuations in currency exchange rates, which could negatively affect our financial condition and results of operations”);
- introduction of new accounting pronouncements or changes in our accounting policies or practices;
- changes in our pricing policies or those of our competitors;
- changes in the growth rate of the information security market; and
- the size and discretionary nature of our prospective and existing customers’ IT budgets.

Any of these factors, individually or in the aggregate, may result in significant fluctuations in our financial and other operating results from period to period. These fluctuations could result in our failure to meet our operating plan or the expectations of investors or analysts for any given period. If we fail to meet such expectations for these or other reasons, the market price of our ordinary shares could decrease substantially.

Our reputation and business could be harmed based on real or perceived shortcomings, defects or vulnerabilities in our solutions or the provision of our services, or due to the failure of our customers, channel partners, managed security service providers, or subcontractors to correctly implement, manage and maintain our solutions, resulting in loss of existing or new customers, lawsuits or financial losses.

Security products and solutions are complex in design and deployment and may contain errors that are not capable of being remediated or detected until after their deployment. Any errors, defects, or misconfigurations could cause our products or services to not meet specifications, be vulnerable to security attacks or fail to secure networks and could negatively impact customer operations and harm our business and reputation. In particular, we may suffer significant adverse publicity and reputational harm, including a downgrade in our industry leadership position by industry analysts, if our solutions (or the services we provide in relation to our solutions) are associated, or are believed to be associated with, or fail to reasonably protect against, a significant breach or a breach at a high profile customer, managed service provider network, or third party system utilized by us as part of our cloud-based security solution.

In addition, our Endpoint Privilege Manager, CyberArk Privilege Cloud, and CyberArk Alero solutions are made available to our customers as SaaS. Providing SaaS involves storage and transmission of customers’ proprietary information related to their assets and users. Security breaches or product defects in our SaaS solutions could result in loss or alteration of this data, unauthorized access to multiple customers’ data and compromise of our networks or our customer’s networks secured by our SaaS solutions, which could result in significant liability for us.

Further, the third party data hosting facilities used for the provision of our SaaS solutions may experience damages, interruptions or other unanticipated problems that could result in disruptions in the provision of these solutions. Any disruptions or other performance problems with our SaaS solutions could harm our reputation and business, damage our customers’ businesses, subject us to potential liability, cause customers to terminate or not renew their subscriptions to our SaaS solutions and make it more challenging for us to retain existing customers and acquire new customers.

False detection of threats (referred to as “false positives”), while typical in our industry, may reduce perception of the reliability of our products and may therefore adversely impact market acceptance of our products. If our solutions restrict legitimate privileged access by authorized personnel to IT systems and applications by falsely identifying those users as attackers or otherwise unauthorized, our customers’ businesses could be harmed.

Our solutions not only reinforce but also rely on the common security concept of placing multiple layers of security controls throughout an IT system. The failure of our customers, channel partners, managed service providers or subcontractors to correctly implement and effectively manage and maintain our solutions (and the environments in which they are utilized), or to consistently implement and utilize generally accepted and comprehensive, multi-layered security measures and processes in customer networks, may lessen the efficacy of our solutions. Additionally, our customers or our channel partners may independently develop plug-ins or change existing plug-ins or APIs that we provided to them for interfacing purposes in an incorrect or insecure manner. Such failures or actions may lead to security breaches and data loss, which could result in a perception that our solutions failed. Further, our failure to provide our customers and channel partners with adequate services or inaccurate product documentation related to the use, implementation and maintenance of our solutions, could lead to claims against us.

An actual or perceived cyber attack, other security breach or theft of our customers' data, regardless of whether the breach or theft is attributable to the failure of our products, SaaS solutions or the services we provided in relation thereto, could adversely affect the market's perception of the efficacy of our solutions and our industry standing, cause current or potential customers to look to our competitors for alternatives to our solutions and subject us to lawsuits, indemnity claims and financial losses, as well as the expenditure of significant financial resources to analyze, correct or eliminate any vulnerabilities. In addition, provisions in our license agreements that attempt to limit our liabilities towards our customers, channel partners and relevant third parties may not withstand legal challenges, and certain liabilities may not be limited or capped. Additionally, any insurance coverage we may have may not adequately cover all claims asserted against us or may cover only a portion of such claims. An actual or perceived cyber attack could also cause us to suffer reputational harm, lose existing customers and potential new customers, or deter new and existing customers from purchasing or implementing our products.

If we are unable to acquire new customers or sell additional products and services to our existing customers, our future revenues and operating results will be harmed.

Our success and continued growth depend, in part, on our ability to continue to acquire a sufficient number of new customers. The number of customers that we add in a given period impacts both our short and long-term revenues. Similarly, a majority of our license revenues is generated from sales to existing customers. If we are unable to attract a sufficient number of new customers or fail to continue to sell new licenses and incremental licenses to our existing customers, we will likely be unable to generate revenue growth at desired rates. In addition, competition in the marketplace may lead us to acquire fewer new customers or result in us providing discounts and other commercial incentives to new or existing customers.

Although we continue to introduce and acquire new products, we derive and expect to continue to derive a substantial majority of our revenue from customers using our Core Privileged Access Security offering. Our inability to increase sales of our Core Privileged Access Security offering, including additional software licenses, associated maintenance and support and professional services, or a decline in prices of our Core Privileged Access Security offering would harm our business and operating results more seriously than if we derived significant revenues from a variety of different products.

In addition, we have several other products, including Application Access Manager, Endpoint Privilege Manager, CyberArk Privilege Cloud and CyberArk Alero that make up a smaller portion of our revenue. It is uncertain whether these products will increase their share of revenue generation or gain market acceptance or will compensate for loss of revenues due to any inability to increase sales of our Core Privileged Access Security offering.

We devote significant efforts to developing, marketing and selling additional licenses and associated maintenance and support to existing customers and rely on these efforts for a portion of our revenues, and to a lesser extent, renewing term-based license and SaaS agreements. These efforts require a significant investment in building and supporting customer relationships.

With our incremental focus on SaaS products, our sales, research and development, and support teams may have difficulties selling, supporting and maintaining multiple license models, including perpetual and SaaS, which may lead to lower software sales, longer sales cycles, customer dissatisfaction, lower renewal rates and a reduction in our ability to sell add-on business to customers or gain new customers. Further, as part of the natural lifecycle of our products, we may determine that certain products will be reaching their end of development or end of life and will no longer be supported or receive updates and security patches. Failure to effectively manage our product lifecycles could lead to existing customer dissatisfaction and contractual liabilities.

As we expand our market reach to gain new business, including expanding sales of our products to medium-sized commercial organizations and securing DevOps environments, we may experience difficulties in gaining traction and raising awareness among potential customers regarding the critical role that our solutions play in securing their organizations, or may face more competitive pressure in such markets. As a result, it may be difficult for us to add new customers to our customer base and to retain our existing customers.

Additional factors that impact our ability to acquire new customers or sell additional products and services to our existing customers include the consumption of their past purchases, perceived need for IT security, the size of our prospective and existing customers' IT budgets, the utility and efficacy of our existing and new offerings, whether proven or perceived, changes in our pricing or licensing model that may impact the size of new business transactions, a downgrade of our recognized industry leadership position by industry analysts and general economic conditions. These factors may have a material negative impact on future revenues and operating results.

We face intense competition from a wide variety of IT security vendors operating in different market segments and across diverse IT environments, which may challenge our ability to maintain or improve our competitive position or to meet our planned growth rates.

The IT security market in which we operate is characterized by intense competition, constant innovation, rapid adoption of different technological solutions and services, and evolving security threats. We compete with a multitude of companies that offer a broad array of IT security products that employ different approaches and delivery models to address these evolving threats.

Our current competitors include BeyondTrust Corporation, Broadcom Inc. (which acquired CA Technologies), One Identity LLC, and Thycotic Software Ltd., in the access and identity management market, some of which may offer solutions at lower price points. Further, we may face competition due to changes in the manner that organizations utilize IT assets and the security solutions applied to them, such as the provision of privileged account security functionalities as part of public cloud providers' infrastructure offerings, or cloud-based identity management solutions. Limited IT budgets may also result in competition with providers of other advanced threat protection solutions such as McAfee, LLC, Palo Alto Networks, Splunk Inc., and NortonLifeLock, Inc. (formerly known as Symantec Corporation acquired by Broadcom Inc.). We also may compete, to a certain extent, with vendors that offer products or services in adjacent or complementary markets to privileged access management, including identity management vendors and cloud platform providers such as Amazon Web Services, Google Cloud Platform, and Microsoft Azure. As the privileged access management market has matured significantly over the recent years, the entry barrier is now lower and it is easier for competitors to compete in the market. Some of our competitors are large companies and have wider technical and financial resources and broader customer bases used to bring competitive solutions to the market. These companies may already have existing relationships as an established vendor for other product offerings, and certain customers may prefer one single IT vendor for product security procurement rather than purchasing solely based on product performance. Such companies may use these advantages to offer products and services that are perceived to be as effective as ours at a lower price or for free as part of a larger product package or solely in consideration for maintenance and services fees, which could result in increased market pressure to offer our solutions and services at lower prices. They may also develop different products to compete with our current solutions and respond more quickly and effectively than we do to new or changing opportunities, technologies, standards or client requirements or enjoy stronger sales and service capabilities in certain regions. Additionally, niche vendors are developing and marketing lower cost solutions with limited privileged access management functionality that may impact our ability to maintain premium market pricing.

Our competitors may enjoy potential competitive advantages over us, such as:

- greater name recognition, a longer operating history and a larger customer base, notwithstanding the increased visibility of our brand in recent years since our initial public offering;
- larger sales and marketing budgets and resources;
- broader distribution and established relationships with channel partners, advisory firms and customers;
- increased effectiveness in protecting, detecting and responding to cyber attacks;
- greater or localized resources for customer support and provision of services;
- greater speed at which a solution can be deployed and implemented;
- greater resources to make acquisitions;

- larger intellectual property portfolios; and
- greater financial, technical and other resources.

Our current and potential competitors may also establish cooperative relationships among themselves or with third parties that may further enhance their resources and capabilities. Current or potential competitors have been acquired and consolidated or may be acquired by third parties with greater resources in the future. As a result of such acquisitions, our current or potential competitors may be able to adapt more quickly to new technologies and customer needs, devote greater resources to the promotion or sale of their products and services, initiate or withstand substantial price competition, take advantage of other opportunities more readily or develop and expand their product and service offerings more quickly than we do. Larger competitors with more diverse product offerings may reduce the price of products that compete with ours in order to promote the sale of other products or may bundle them with other products, which would lead to increased pricing pressure on our products and could cause the average sales prices for our products to decline. Similarly, we may also face increased competition following an acquisition of new lines of business that compete with providers of such technologies or from security vendors or other companies in adjacent markets extending their solutions into privilege access management. We may be at a competitive disadvantage to our privately-held competitors, as they may not face the same accounting, auditing and legal standards we do as a public company. Such privately-held competitors may face less public scrutiny than we do and may be less risk-averse than we are, and therefore may have greater operational flexibility.

Furthermore, an increasing number of independent industry analysts and researchers, regularly evaluate, compare and publish reviews regarding the functionality of IT security products, including ours. These reviews may significantly influence the market perception of our products, and our reputation and brand could be harmed if they publish negative reviews of our products or increasingly positive reviews of our competitors' products, or do not view us as a market leader.

In addition, other IT security technologies exist or could be developed in the future by current or future competitors, and our business could be materially and adversely affected if such technologies are widely adopted. We may not be able to successfully anticipate or adapt to changing technology or customer requirements on a timely basis, or at all. If we fail to keep up with technological changes or to convince our customers and potential customers of the value of our solutions even in light of new technologies, our business, results of operations and financial condition could be materially and adversely affected.

Our share price may be adversely affected if our investments in our business do not deliver anticipated growth and we are unable to increase our operating and net income margins or cash flow from operating activities.

As we invest in the growth of our business, we expect our operating and net income margins to decline compared to prior periods. During the year ended December 31, 2019, we did not experience a decline due to an increase in revenue at a rate that exceeded the increase in expenses; however, in future periods, we expect our operating and net income margins to decline, primarily because of investment in expanding our direct and indirect sales forces, marketing activities, professional services, support and research and development, and as a result our expenses are expected to grow faster than our revenue. Further, due to the increased number of customers and sales of our SaaS products, we anticipate an increase in costs of goods related to the hosting costs for our SaaS products which would cause our gross margins to decline. We expect that these invested costs will adversely impact our operating and net income margins as we may not be able to increase our revenue at a rate sufficient to offset the expected increase in our costs. From the year ended December 31, 2017 to the year ended December 31, 2019, our revenue grew from \$261.7 million to \$433.9 million, representing a compound annual growth rate of approximately 29%.

We expect the increased expenses will be generated mostly from expanding our sales and marketing personnel, where we will face a number of challenges in achieving our hiring goals. It takes time and resources to train and integrate new sales force members across our global operations. Costs associated with adding new personnel to our sales force are expensed before their positive impact on our sales is recognized, and even then, a significant portion of any revenues that they generate from maintenance and services are deferred over the delivery period of those services. In addition, our investments in the business, the mix of our revenues, contract payment terms, contract duration, and the seasonality of expenses, including cash taxes, may negatively impact our cash flow from operating activities. Our share price may be adversely affected even if we generate future growth in revenues, if we are unable to also increase each of the nominal amounts or margins for our operating, net income margin and or cash flow from operations at the same time, or if the growth rate generated is less than anticipated causing the operating, net income or cash flow from operating margins or nominal amounts to decline.

We may fail to fully execute, integrate, or realize the benefits expected from acquisitions, which may require significant management attention, disrupt our business, dilute shareholder value and adversely affect our results of operations.

As part of our business strategy and in order to remain competitive, we continue to evaluate acquiring or making investments in complementary companies, products or technologies. We may not be able to find suitable acquisition candidates or complete such acquisitions on favorable terms. We may incur significant expenses, divert employee and management time and attention from other business-related tasks and our organic strategy and incur other unanticipated complications while engaging with potential target companies where no transaction is eventually completed. If we do complete acquisitions, we may not ultimately strengthen our competitive position or achieve our goals or expected growth, and any acquisitions we complete could be viewed negatively by our customers, analysts and investors. In addition, if we are unsuccessful at integrating our acquisitions or the technologies associated with such acquisitions or fail to fully attain the expected benefits of these acquisitions, our revenues and results of operations could be adversely affected. Any integration process may require significant time and resources, and we may not be able to manage the process successfully and may experience a decline in our profitability as we incur expenses prior to fully realizing the benefits of the acquisition. We could expend significant cash and incur acquisition related costs and other unanticipated liabilities associated with the acquisition. We may not successfully evaluate or utilize the acquired technology or personnel, or accurately forecast the financial impact of an acquisition transaction, including accounting charges and tax liabilities. Further, the issuance of equity or securities convertible to equity to finance any such acquisitions could result in dilution to our shareholders and the issuance of debt could subject us to covenants or other restrictions that would impede our ability to manage our operations. We could become subject to legal claims following an acquisition or fail to accurately forecast the potential impact of any claims. Any of these issues could have a material adverse impact on our business and results of operations.

If our internal IT network system, or those of third parties associated with us, is compromised by cyber attackers or other data thieves, or by a critical system failure, our reputation, financial condition and operating results could be materially adversely affected.

Our solution and product offerings will not gain market share unless the marketplace is confident that we provide effective IT security protection. As we provide privileged account security products, we may be an attractive target for cyber attackers or other data thieves since a breach of our system could provide information regarding not only us, but potentially regarding the customers that our solutions protect. Further, we may be targeted by cyber terrorists because we are an Israeli company.

From time to time we encounter intrusion incidents and attempts, none of which to date has resulted in any material adverse impact to our business or operations. Any such future attacks could materially adversely affect our business or results of operations. In addition, as our market position continues to grow, specifically in the security industry, an increasing number of cyber attackers may focus on finding ways to penetrate our network systems, which might eventually affect our products and services. For example, third parties may attempt to fraudulently induce employees or customers into disclosing sensitive information such as user names, passwords or other information or otherwise compromise the security of our internal networks, electronic systems and/or physical facilities in order to gain access to our data or our customers' data.

Separately, we may be subject to information technology system failures or network disruptions caused by natural disasters, accidents, power disruptions, telecommunications failures, acts of terrorism, security breaches, wars, computer viruses, or other events or disruptions. System redundancy and other continuity measures may be ineffective or inadequate, and our business continuity and disaster recovery planning may not be sufficient for all eventualities. These events could adversely affect our operation, reputation, financial condition and operating results.

Additionally, cyber attacks against our company may also be caused by breaches by our contractors, business partners, vendors and other third parties associated with us, or due to human error by those acting on our behalf. We rely on third parties to operate critical functions of our business, including hosting our SaaS products and supporting our customer relationship management and financial operation services (provided by our Enterprise Resource Planning system). If these services are breached or become unavailable due to extended outages or interruptions or because they are no longer available on commercially reasonable terms, our expenses could increase, our ability to manage our operations could be interrupted and our processes for managing sales of our products and services and supporting our customers could be impaired until equivalent services, if available, are identified, obtained and integrated; all of which could materially harm our business.

If we experience a significant technology incident, such as a serious product vulnerability, security breach or a failure of a system that is critical for the operation of our business, it 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 business could suffer, and we may need to make significant further investments to protect data and infrastructure. Because we are in the computer security industry, an actual or perceived vulnerability, failure, disruption, or breach of our network or privileged account security in our systems also could adversely affect the market perception of our products and services, or of our expertise in this field, as well as perception of us among new and existing customers. Additionally, a significant security breach could subject us to potential liability, litigation and regulatory or other government action (See “—Regulatory data privacy concerns, evolving regulations of cloud computing, cross-border data transfer restrictions and other domestic or foreign regulations may limit the use and adoption of, or require modification of, our products and services, which could limit our ability to attract new customers or support our current customers, thus reducing our revenues, harming our operating results and adversely affecting our business”). We are unable to ensure that any limitations of liability provisions in our contracts with respect to our information security operations would be enforceable or adequate or would otherwise protect us from any liabilities or damages with respect to any particular claim, or that we would be able to adequately recover damages from third parties associated with us which were involved in a security incident. Additionally, any insurance coverage we may have may not adequately cover any of these claims asserted against us or any related damage, or may cover only a portion of such damages. If any of the foregoing were to occur, our business may suffer and our share price may be negatively impacted.

If we do not effectively expand, train and retain our sales and marketing personnel, we may be unable to acquire new customers or sell additional products and services to existing customers, and our business will suffer.

We depend significantly on our sales force to attract new customers and expand sales to existing customers. We generate approximately 35% of our revenues from direct sales and the remaining balance from indirect sales. As a result, our ability to grow our revenues depends in part on our success in recruiting, training and retaining sufficient numbers of sales personnel to support our growth. The number of our sales and marketing personnel increased from 541 as of December 31, 2018 to 656 as of December 31, 2019. We expect to continue to expand our sales and marketing personnel significantly and face a number of challenges in achieving our hiring and integration goals. There is intense competition for individuals with sales training and experience. In addition, the training and integration of a large number of sales and marketing personnel in a short time requires the allocation of significant internal resources. We invest significant time and resources in training new sales force personnel to understand our solutions and growth strategy. Based on our past experience, it takes an average of approximately six to nine months before a new sales force member operates at target performance levels. However, we may not be able to recruit at our anticipated rate or be unable to achieve or maintain our target performance levels with large numbers of new sales personnel as quickly as we have done in the past. Our failure to timely hire the sufficient number of qualified sales force members and train them to operate at target performance levels may materially and adversely impact our projected growth rate.

We are subject to a number of risks, including regulatory and public health risks, associated with global sales and operations, which could materially affect our business.

We are a global company subject to varied and complex laws, regulations and customs. The application of these laws and regulations to our business is often unclear and may at times conflict. Compliance with these laws and regulations may involve significant costs or require changes in our business practices that result in reduced revenue and profitability. Furthermore, business practices in the global markets that we serve may differ from those in the United States and may require us to include non-standard terms in customer contracts, such as extended payment or warranty terms. To the extent that we enter into customer contracts that include non-standard terms related to payment, warranties, or performance obligations, our results of operations may be adversely impacted. Further, there may be higher costs of doing business globally including costs incurred in maintaining office space, securing adequate staffing and localizing our contracts.

Additionally, our global sales and operations are subject to a number of risks, including the following:

- failure to fully comply with various, global data privacy laws (See “—Regulatory data privacy concerns, evolving regulations of cloud computing, cross-border data transfer restrictions and other domestic or foreign regulations may limit the use and adoption of, or require modification of, our products and services, which could limit our ability to attract new customers or support our current customers, thus reducing our revenues, harming our operating results and adversely affecting our business”);
- uncertainty of the economic, financial, regulatory, trade, tax and legal implications of the withdrawal of the U.K. from the European Union, or Brexit, and how this could affect our business, both globally and specifically in Europe. Our U.K. subsidiary is the main entity for sales into Europe. In 2019, the revenues generated by our U.K. subsidiary from the European Union countries (excluding the U.K.) accounted for 18% of our total global revenue. Our London office is also our European headquarters and third largest office globally. In particular, the withdrawal from the European Union by the U.K. could, among other potential outcomes, disrupt the free movement of goods, services and people between the U.K. and the European Union, create recruiting and retention risks for us, and significantly disrupt trade between the U.K. and the European Union and other countries, including by imposing greater taxes, restrictions and regulatory complexities on imports and exports between the U.K. and the European Union. These developments may also require us to modify our corporate structure for sales into the European Union which may result in increased operational and legal costs;
- fluctuations in exchange rates between the U.S. dollar and foreign currencies in markets where we do business (See “—We are exposed to fluctuations in currency exchange rates, which could negatively affect our financial condition and results of operations”);
- social, economic and political instability, terrorist attacks and security concerns in general, and any wide-spread viruses or epidemics, such as the recent novel coronavirus outbreak;
- greater difficulty in enforcing contracts and managing collections, as well as longer collection periods;
- compliance with anti-bribery laws, including, without limitation, compliance with the U.S. Foreign Corrupt Practices Act and the U.K. Bribery Act 2010;
- heightened risk of unfair or corrupt business practices in certain geographies and of improper or fraudulent sales arrangements by us or by our channel partners or service providers that may impact financial results and result in restatements of, or irregularities in, financial statements;
- risks associated with trade restrictions and foreign legal requirements, including any importation, certification, and localization of our platform that may be required in foreign countries;
- greater risk of unexpected changes in regulatory practices, tariffs, and tax laws and treaties (See “—Our business may be materially affected by changes to fiscal and tax policies. Potentially negative or unexpected tax consequences of these policies, or the uncertainty surrounding their potential effects, could adversely affect our results of operations and share price”);
- compliance with, and the uncertainty of, laws and regulations that apply to our areas of business, including corporate governance, anti-trust and competition, trade, import and export control, employee and third-party complaints, limitation of liability, conflicts of interest, securities regulations and other regulatory requirements affecting trade and investment;
- reduced or uncertain protection of intellectual property rights in some countries; and
- management communication and integration problems resulting from cultural and geographic dispersion.

These and other factors could harm our ability to generate future global revenues and, consequently, materially impact our business, results of operations and financial condition. Non-compliance could also result in fines, damages, or criminal sanctions against us, our officers or our employees, prohibitions on the conduct of our business, and damage to our reputation.

We rely on channel partners to generate a significant portion of our revenue, market our solutions and provide necessary services to our customers. If we fail to maintain successful relationships with our channel partners, or if our channel partners fail to perform, our ability to market, sell and distribute our solutions will be limited, and our business, financial position and results of operations will be harmed.

In addition to our direct sales force, we rely on our channel partners to market, sell, support and implement our solutions, particularly in Europe and the Asia Pacific and Japan regions. We expect that sales through our channel partners will continue to account for a significant percentage of our revenue. In the year ended December 31, 2019, we generated approximately 65% of our revenues from sales to channel partners such as distributors, systems integrators, value-added resellers and managed security service providers, and we expect that channel partners will represent a substantial portion of our revenues for the foreseeable future. Further, we cooperate with advisory firms in marketing our solutions and providing implementation services to our customers, in both direct and indirect sales. Our agreements with channel partners are non-exclusive, meaning our partners may offer customers IT security products from other companies, including products that compete with our solutions. If our channel partners do not effectively market and sell our solutions or choose to use greater efforts to market and sell their own products and services or the products and services of our competitors, our ability to grow our business will be adversely affected. Our channel partners may cease or de-emphasize the marketing of our solutions with limited or no notice and with little or no penalty. Further, new channel partners require training and may take several months or more to achieve productivity. The loss of key channel partners, the inability to replace them or the failure to recruit additional channel partners could materially and adversely affect our results of operations. Our reliance on channel partners could also subject us to lawsuits or reputational harm if, for example, a channel partner misrepresents the functionality of our solutions to customers, fails to appropriately implement our solutions or violates applicable laws, and may further result in termination of such partner's agreement and potentially curb future revenues associated with this channel partner. Our ability to grow revenues in the future will depend in part on our success in maintaining successful relationships with our channel partners and training our channel partners to independently sell and install our solutions. If we are unable to maintain our relationships with channel partners or otherwise develop and expand our indirect sales channel, or if our channel partners fail to perform, our business, financial position and results of operations could be adversely affected.

Failure by us, our service providers or our channel partners to maintain sufficient levels of customer support could have a material adverse effect on our business, financial condition and results of operations.

Our customers depend, in large part, on customer support and professional services delivered by us, our service providers or our channel partners to implement and roll out our solutions, and resolve issues relating to their use. Our customers typically purchase one or three years of software maintenance and support contracts as part of their initial purchase of a perpetual software license. In addition, subscription contracts for SaaS and term-based license are typically one or three years in duration. In order for us to maintain and improve our results of operations, it is important that our existing customers renew their maintenance and support agreements and subscription licenses, if applicable, when the contract term expires. Our maintenance renewal rate for each of the years ended December 31, 2018 and 2019 was approximately 90%. With the introduction of our newer SaaS based solutions, CyberArk Privilege Cloud and Alero, and in sales from Endpoint Privilege Manager delivered as SaaS, customer satisfaction will continue to be important. If we, our service providers or channel partners fail to provide adequate services that are responsive, satisfy our customers' expectations and resolve issues that they encounter with our solutions, including if we have difficulties supporting and maintaining multiple license models, then our customers may elect not to purchase or renew maintenance and support or subscription contracts and they may choose not to purchase additional products and services from us. Accordingly, our failure to provide satisfactory support or professional services or other customer dissatisfaction related to our products and services could lead our customers not to renew their agreements with us or renew on terms less favorable to us, and therefore have a material and adverse effect on our business and results of operations.

Even with our support and that of our service providers and channel partners, our customers are ultimately responsible for effectively using our solutions and ensuring that their IT staff and other relevant users are properly trained in the use of our products and complementary security products, methodologies and processes. Our failure or the failure of our service providers or channel partners to support and train our customers in the correct use of our solutions, or failure to effectively assist customers in installing our solutions and providing effective ongoing support, may result in an increase in the vulnerability of our customers' IT systems and sensitive data. Additionally, if our service providers or channel partners do not effectively provide support and professional services to the satisfaction of our customers, we may be required to provide support to such customers, which would require us to invest in additional personnel and expend significant time and resources. We may not be able to keep up with demand for our services and support, particularly if the sales of our solutions exceed our internal forecasts. To the extent that we, our service providers or our channel partners are unsuccessful in hiring, training and retaining adequate support resources, our ability and the ability of our service providers and channel partners to provide adequate and timely support and other services to our customers will be negatively impacted, and our customers' satisfaction with us and our products may be adversely affected. Accordingly, our failure to provide satisfactory maintenance and technical support services, whether directly or through our service providers and channel partners, could have a material and adverse effect on our business and results of operations.

Regulatory data privacy concerns, evolving regulations of cloud computing, cross-border data transfer restrictions and other domestic or foreign regulations may limit the use and adoption of, or require modification of, our products and services, which could limit our ability to attract new customers or support our current customers, thus reducing our revenues, harming our operating results and adversely affecting our business.

Regulation related to the provision of services on the internet is increasing, as federal, state and foreign governments continue to adopt new laws and regulations addressing cybersecurity, privacy, data protection and the collection, processing, storage and use of personal information.

We are subject to diverse laws and regulations relating to data privacy, including the California Consumer Privacy Act, or CCPA and, as a result of our presence in the European Union (EU), General Data Protection Regulations 2016/679, or GDPR which took effect on May 25, 2018. We and many of our customers are subject to GDPR, and related privacy legislation including the UK Data Protection Act 2018, and we are required to expend significant capital and other resources to ensure we are compliant with privacy legislation. Compliance with global data privacy laws including GDPR and certain associated contractual obligations may require changes in services, business practices, or internal systems resulting in increased costs, lower revenue, reduced efficiency, or greater difficulty in competing with firms which are not subject to GDPR or other data regulations. For example, GDPR imposes several stringent requirements for controllers and processors of personal data and increases our obligations including, for example, by requiring more robust disclosures to individuals, strengthening the individual data rights regime, shortening timelines for data breach notifications, requiring detailed internal policies and procedures and limiting retention periods. Ongoing compliance may require changes in services and business practices which may lead to the diversion of engineering resources from other projects. As a company that focuses on privilege access security, if we are unable to engineer products that meet our legal duties or help our customers meet their obligations under GDPR or other data regulations, we might experience reduced demand for our products or services. Claims that we have breached our contractual obligations, even if we are not found liable, could be expensive and time-consuming to defend and could result in adverse publicity that could harm our business.

GDPR also increases the scrutiny applied to transfers of personal data from within the EU to countries that are considered to lack an adequate level of data protection, such as the United States. There are currently a number of legal challenges to the validity of EU mechanisms for adequate data transfers (such as the Privacy Shield Framework and the standard contractual clauses). Our work could be impacted by changes in law as a result of a future review of these transfer mechanisms by European regulators and the European courts under GDPR. In addition, following Brexit, the U.K. will cease to be in the EU, and data flows from the EU to the U.K. may need additional safeguards, which could affect our operations in the U.K. and in the EU countries. These and other regulatory requirements around the privacy or cross-border transfer of personal data could restrict our ability to store and process data as part of our solutions, or, in some cases, impact our ability to offer our solutions or services in certain jurisdictions. After Brexit, the U.K. regulator is also empowered to impose fines of up to four percent of global turnover for the preceding financial year or £17.5 million, whichever is higher, for certain breaches of the UK Data Protection Act 2018.

In the EU, Directive 2002/58 on Privacy and Electronic Communications or the ePrivacy Directive, is also under reform and will be replaced by a new E-privacy Regulation once agreed. This is likely to impose stricter rules on business to business marketing throughout the EU, requiring fully informed and freely given consent before businesses can market to leads. Existing privacy-related laws and regulations in the United States and other countries are evolving and are subject to potentially differing interpretations, and various U.S. federal and state or other international legislative and regulatory bodies may expand or enact laws regarding privacy and data security-related matters.

In the U.S., the State of California enacted the CCPA, which became effective January 1, 2020, which imposes heightened transparency obligations and requirements to make available data collected about certain California residents and to provide them the ability to object to the sale of their personal data in certain instances. While many of the CCPA's requirements do not apply to some of the data we process, certain additional provisions may begin to apply from January 1, 2021, which may require additional steps to ensure compliance. Additionally, our customers may require us to undertake further steps to comply with the CCPA, or to assist with their compliance with it, further necessitating changes in services, business practices, or internal systems resulting in increased costs, lower revenue, reduced efficiency, or greater difficulty in competing with firms which are not subject to CCPA. If other states in the U.S. adopt similar laws or if a comprehensive federal data privacy law is enacted, we may expend considerable resources to meet these requirements.

If we or our service providers fail to comply with applicable data protection laws, we may be subject to litigation (including the new private right of action brought in by the CCPA), regulatory investigations, negative publicity, potential loss of business, enforcement notices and/or fines (which under GDPR can be up to four percent of global turnover for the preceding financial year or 20 million euros, whichever is higher as well as fines under the UK Data Protection Act 2018 and new fines introduced by the CCPA).

We are exposed to fluctuations in currency exchange rates, which could negatively affect our financial condition and results of operations.

Our functional and reporting currency is the U.S. dollar. In 2019, the majority of our revenues were denominated in U.S. dollars and the remainder primarily in euros and British pounds sterling. In 2019, the substantial majority of our cost of revenues and operating expenses were denominated in U.S. dollars and New Israeli Shekels (NIS) and the remainder primarily in euros and British pounds sterling. Our foreign currency-denominated expenses consist primarily of personnel, marketing programs, rent and other overhead costs. Since a significant portion of our expenses is incurred in NIS and is substantially greater than our revenues in NIS, any appreciation of the NIS relative to the U.S. dollar could materially adversely impact our operating income. In addition, since the portion of our revenues generated in euros and British pounds sterling is greater than our expenses incurred in euros and British pounds sterling, respectively, any depreciation of the euro or the British pounds sterling relative to the U.S. dollar would adversely impact our operating income. We estimate that a 10% strengthening or weakening in the value of the NIS against the U.S. dollar would have decreased or increased, respectively, our operating income by approximately \$7.8 million in 2019. We estimate that a 10% strengthening or weakening in the value of the euro against the U.S. dollar would have increased or decreased, respectively, our operating income by approximately \$2.7 million in 2019. We estimate that a 10% strengthening or weakening in the value of the British pounds sterling against the U.S. dollar would have increased or decreased, respectively, our operating income by approximately \$0.3 million in 2019. These estimates of the impact of fluctuations in currency exchange rates on our historic results of operations may be different from the impact of fluctuations in exchange rates on our future results of operations since the mix of currencies comprising our revenues and expenses may change. We evaluate periodically the various currencies to which we are exposed and take hedging measures to reduce the potential adverse impact from the appreciation or the depreciation of our non U.S. dollar-denominated operations, as appropriate. We expect that the majority of our revenues will continue to be generated in U.S. dollars with the balance primarily in euros and British pounds sterling for the foreseeable future and that a significant portion of our expenses will continue to be denominated in NIS, U.S. dollars, British pounds sterling and in euros. We cannot provide any assurances that our hedging activities will be successful in protecting us from adverse impacts from currency exchange rate fluctuations. In addition, we have monetary assets and liabilities that are denominated in non-U.S. dollar currencies. For example, starting January 1, 2019, in accordance with a new lease accounting standard, we are required to present a significant NIS linked liability related to our operational leases in Israel. As a result, significant exchange rate fluctuations could have a negative effect on our net income. See "Item 11—Quantitative and Qualitative Disclosures About Market Risk—Foreign Currency Risk."

If we are unable to hire, retain and motivate qualified personnel, our business will suffer.

Our future success depends, in part, on our ability to continue to attract and retain highly skilled personnel. Our inability to attract or retain qualified personnel or delays in hiring required personnel may seriously harm our business, financial condition and results of operations. Any of our employees may terminate their employment at any time. Competition for highly skilled personnel, specifically engineers for research and development positions, is often intense and results in increasing wages, especially in Israel, where we are headquartered and most of our research and development positions are located, and where several large multinational corporations have entered the market. We may struggle to retain employees, and due to our profile and market position, competitors actively seek to hire skilled personnel away from us. Furthermore, from time to time, we have been subject to allegations that employees we have hired from competitors may have been improperly solicited or divulged proprietary or other confidential information which could subject us to potential liability and litigation.

Our research and development efforts may not produce successful products or enhancements to our solutions that result in significant revenue or other benefits in the near future, if at all.

We expect to continue to dedicate significant financial and other resources to our research and development efforts in order to maintain our competitive position. For example, in 2019, we increased our dedicated research and development personnel by 22% compared to 2018. However, investing in research and development personnel, developing new products and enhancing existing products is expensive and time consuming. There is no assurance that such activities will successfully anticipate market needs and result in significant new marketable products or enhancements to our products, including SaaS solutions, design improvements, cost savings, revenues or other expected benefits. If we spend significant time and effort on research and development and are unable to generate an adequate return on our investment, we may not be able to compete effectively, and our business and results of operations may be materially and adversely affected.

Our investment in product enhancements or new products could fail to attain sufficient market acceptance for many reasons, including:

- delays in releasing product enhancements or new products;
- failure to accurately predict market demand and to supply products that meet this demand in a timely fashion;
- inability to interoperate effectively with the existing or newly introduced technologies, systems or applications of our existing and prospective customers;
- defects in our products, errors or failures of our solutions to secure and protect privileged accounts against existing and new types of attacks;
- negative publicity about the performance or effectiveness of our products;
- introduction or anticipated introduction of competing products by our competitors;
- installation, configuration or usage errors by our customers; and
- easing or changing of regulatory requirements related to security.

If we fail to anticipate market requirements or fail to develop and introduce product enhancements or new products to meet those needs in a timely manner, it could cause us to lose existing customers and prevent us from gaining new customers, which would significantly harm our business, financial condition and results of operations.

We currently offer customers multiple pricing and delivery models to buy our software, including perpetual licenses, term-based licenses and SaaS. Part of our strategy is to infuse our business with more SaaS solutions to create more recurring revenue. This may entail several risks which may adversely affect our operating results.

We sell our software predominantly as perpetual licenses and have begun to infuse our business with more SaaS solutions. We may face additional complications or risks with the delivery of SaaS solutions and associated subscription revenues, including the following:

- our revenues, operating profitability, net income and cash flow from operating activities may fluctuate as a result of the revenue mix from the different licensing and delivery models;
- if new or current customers prefer our SaaS solutions at a greater rate than we anticipate, our recognized software revenues may lag our expectations as a result of the ratable revenue recognition for SaaS revenue;
- the introduction of new SaaS solutions may result in (i) confusion among new or existing customers, prospects and partners; (ii) longer sales cycles or lost opportunities; and (iii) less predictable revenue;
- as we introduce more SaaS solutions, existing customers may wish to transition to our SaaS solutions, which may make it difficult to predict revenues and earnings;
- we rely on third parties to host our SaaS solutions. These services may be breached or become unavailable due to extended outages or interruptions or because they are no longer available on commercially reasonable terms. As a result, we may suffer reputational harm, our expenses could increase, our ability to manage our operations could be interrupted and our processes for managing sales of our products and services and supporting our customers could be impaired;
- we may face operational challenges supporting multiple pricing and delivery models;
- our research and development teams may find it difficult to deliver functionality across multiple code bases;
- our services and support teams may find it difficult to support multiple delivery models, which may lead to customer dissatisfaction, lower renewal rates and a reduction in our ability to sell add-on business to customers; and
- our sales force may struggle with selling multiple pricing, licensing and delivery models to customers, which may lead to increased turnover rates and lower headcount or impact sales cycles.

Prolonged economic uncertainties or downturns in certain regions or industries could materially adversely affect our business.

Our business depends on our current and prospective customers' ability and willingness to invest money in IT security, which in turn is dependent upon their overall economic health. Negative economic conditions in the global economy or certain regions such as the U.S. or Europe, including conditions resulting from financial and credit market fluctuations, could cause a decrease in corporate spending on information security software. Other matters that influence consumer confidence and spending, including wide-spread viruses and epidemics like the recent novel coronavirus outbreak, could also negatively affect our customers' spending on our products and services. In 2019, we generated 54% of our revenues from the United States, 30% of our revenues from Europe, the Middle East and Africa and 16% from the rest of the world, which includes countries from the Asia Pacific and Japan region, the Latin America region and Canada.

In addition, a significant portion of our revenue is generated from customers in the financial services industry, including banking and insurance. Negative economic conditions may cause customers generally, and in that industry in particular, to reduce their IT spending. Customers may delay or cancel IT projects, choose to focus on in-house development efforts or seek to lower their costs by renegotiating maintenance and support agreements. Additionally, customers or channel partners may be more likely to make late payments in worsening economic conditions which could lead to increased collection efforts and require us to incur additional associated costs to collect expected revenues. To the extent purchases of licenses for our software are perceived by customers and potential customers to be discretionary, our revenues may be disproportionately affected by delays or reductions in general IT spending. If the economic conditions of the general economy or industries in which we operate worsen from present levels, our results of operation could be adversely affected.

A portion of our revenues is generated by sales to government entities, which are subject to a number of challenges and risks, such as increased competitive pressures, administrative delays and additional approval requirements.

A portion of our revenues is generated by sales to U.S. and foreign federal, state and local governmental agency customers, and we may in the future increase sales to government entities. Selling to government entities can be highly competitive, expensive and time consuming, often requiring significant upfront time and expense without any assurance that we will complete a sale or imposing terms of sale which are less favorable than the prevailing market terms. Government demand and payment for our products and services may be impacted by public sector budgetary cycles and funding authorizations, with funding reductions, government shutdowns or delays adversely affecting public sector demand for our products. Additionally, for purchases by the U.S. government, the government may require certain products to be manufactured in the United States and other high cost manufacturing locations, and we may not manufacture all products in locations that meet the requirements of the U.S. government. Finally, some government entities require our products to be certified by industry-approved security agencies as a pre-condition of purchasing our products, such as the international Common Criteria certification by the National Information Association Partnership (NIAP), which we achieved in 2019. We have also initiated the process, and have begun incurring costs, to obtain authorization from the Federal Risk and Authorization Management Program, or FedRAMP, for certain SaaS products. The grant of such certifications depends on the then-current requirements of the certifying agency. We cannot be certain that any certificate will be granted or renewed or that we will be able to satisfy the technological and other requirements to maintain certifications. The loss of any of our product certificates, or the failure to obtain new ones, could cause us to suffer reputational harm, lose existing customers, or deter new and existing customers from purchasing our solutions, additional products or our services.

Our business and operations will be negatively affected if we fail to effectively manage our growth.

We have experienced significant growth in a relatively short period of time and intend to continue to grow our business. Our revenues grew from \$261.7 million in 2017 to \$433.9 million in 2019. In addition, the number of customers that we serve has grown significantly over the same period.

Our rapid growth has placed significant demands on our management, sales, operational and financial infrastructure, and our growth will continue to place significant demands on these resources. Our headcount has increased from 1,015 as of December 31, 2017 to 1,380 as of December 31, 2019. We plan to hire additional employees in 2020 across all areas of the organization. Additionally, we believe our corporate culture is a critical component of our growth and success. As we continue to add new employees, we may find it challenging to maintain our corporate culture and that may affect our ability to recruit and retain personnel.

Further, in order to manage our current and future growth effectively, we must continue to improve and expand our IT and financial infrastructure, operating and administrative systems and controls, as well as efficiently manage headcount, capital and processes. If we are not able to successfully scale or implement these improvements in a manner that keeps pace with our growth, or is timely and efficient, then our failure to do so may materially impact our projected growth rate.

Intellectual property claims may increase our costs or require us to cease selling certain products, which could adversely affect our financial condition and results of operations.

The IT security industry is characterized by the existence of a large number of relevant patents and frequent claims and litigations regarding patent and other intellectual property rights. Leading companies in the IT security industry have extensive patent portfolios. From time to time, third parties have asserted, and in the future may assert, their patent, copyright, trademark and other intellectual property rights against us, our channel partners or our customers. Furthermore, we may be subject to indemnification obligations with respect to third-party intellectual property rights pursuant to our agreements with our customers and channel partners. Such indemnification provisions are customary for our industry. Any claims of intellectual property infringement or misappropriation brought against us, our channel partners or our customers, even those without merit, could be expensive and time-consuming to defend, and divert management's attention. We cannot ensure that we will have the resources to defend against all such claims. Successful claims of infringement or misappropriation by a third-party against us or a third-party that we indemnify could prevent us from distributing certain products or performing certain services or could require us to pay substantial damages (including, for example, treble damages if we are found to have willfully infringed patents and increased statutory damages if we are found to have willfully infringed copyrights), royalties or other fees. Such claims also could require us to cease making, licensing or using solutions that are alleged to infringe or misappropriate the intellectual property of others, to expend additional development resources to attempt to redesign our products or services or otherwise to develop non-infringing technology, to enter into potentially unfavorable royalty or license agreements in order to obtain the right to use necessary technologies or intellectual property rights, and to indemnify our customers and channel partners (and parties associated with them). Even if third parties may offer a license to their technology, the terms of any offered license may not be acceptable, and the failure to obtain a license or the costs associated with any license could cause our business, results of operations or financial condition to be materially and adversely affected. Defending against claims of infringement or being deemed to be infringing the intellectual property rights of others could impair our ability to innovate, develop, distribute and sell our current and planned products and services. If we were to violate the intellectual property rights of others, our financial position may be adversely affected.

If our products fail to help our customers achieve and maintain compliance with certain government regulations and industry standards, our business and results of operations could be materially and adversely affected.

We generate a substantial portion of our revenues from our products and services which enable our customers to achieve and maintain compliance with certain government regulations and industry standards, and we expect that to continue for the foreseeable future. Governments and other customers may require our products to comply with certain privacy, security or other certifications and standards with respect to those solutions utilized by them as a control demonstrating compliance with government regulations and industry standards. We achieved the international Common Criteria certification by the National Information Association Partnership (NIAP) in 2019, and a new SOC 2 certification. Additionally, we have maintained the ISO 27001 annual certification since April 2017. We have also initiated the process, and have begun incurring costs, to obtain authorization from the Federal Risk and Authorization Management Program (FedRAMP), for certain SaaS products. However, we are unable to guarantee that we will achieve FedRAMP authorization in a timely matter, or at all, for any of our SaaS products. In the future, if our products are late in achieving or fail to achieve or maintain compliance with these certifications and standards, or our competitors achieve compliance with these certifications and standards, we may be disqualified from selling our products to such customers, or may otherwise be at a competitive disadvantage, either of which would harm our business, results of operations, and financial condition.

Additionally, these industry standards may change with little or no notice, including changes that could make them more or less onerous for businesses, including, without limitation, updates to the Common Criteria for Information Technology Security Evaluation (CC). In addition, governments may also adopt new laws or regulations, or make changes to existing laws or regulations, some of which may conflict with each other, that could impact whether our solutions enable our customers to maintain compliance with such laws or regulations. If we are unable to adapt our solutions to changing government regulations and industry standards in a timely manner, or if our solutions fail to expedite our customers' compliance initiatives, our customers may lose confidence in our products and could switch to products offered by our competitors. In addition, if government regulations and industry standards related to IT security are changed in a manner that makes them less onerous, our customers may view compliance as less critical to their businesses, and our customers may be less willing to purchase our products and services. In either case, our sales and financial results would suffer.

If our products do not effectively interoperate with our customers' existing or future IT infrastructures, installations could be delayed or cancelled, which could harm our business.

Our products must effectively interoperate with our customers' existing or future IT infrastructures, which often have different specifications, utilize multiple protocol standards, deploy products from multiple vendors and contain multiple generations of products that have been added over time. If we find errors in the existing software or defects in the hardware used in our customers' infrastructure or problematic network configurations or settings, we may have to modify our software so that our products will interoperate with our customers' infrastructure and business processes. In addition, to stay competitive within certain markets, we may be required to make software modifications in future releases to comply with new statutory or regulatory requirements. These issues could result in longer sales cycles for our products and order cancellations, either of which could adversely affect our business, results of operations and financial condition.

If we are unable to adequately protect our proprietary technology and intellectual property rights, our business could suffer substantial harm.

The success of our business depends on our ability to protect our proprietary technology, brands and other intellectual property and to enforce our rights in that intellectual property. We attempt to protect our intellectual property under patent, copyright, trademark and trade secret laws, and through a combination of confidentiality procedures, contractual provisions and other methods, all of which offer only limited protection.

As of December 31, 2019, we had 33 issued patents in the United States, and 72 pending U.S. patent applications. We also had 7 issued patents and 23 applications pending for examination in non-U.S. jurisdictions, all of which are counterparts of our U.S. patent applications. We expect to file additional patent applications in the future.

The process of obtaining patent protection is expensive and time-consuming, and we may not be able to complete all necessary or desirable patent applications at a reasonable cost or in a timely manner all the way to the successful issuance of a patent. We may choose not to seek patent protection for certain innovations and may choose not to pursue patent protection in certain jurisdictions. Furthermore, it is possible that our patent applications may not be approved, that the scope of our issued patents will be insufficient or not have the coverage originally sought, that our issued patents will not provide us with any competitive advantages, and that our patents and other intellectual property rights may be challenged by others or invalidated through administrative processes or litigation. Finally, issuance of a patent does not guarantee that we have an absolute right to practice the patented invention. Our policy is to require our employees (and our consultants and service providers that develop intellectual property included in our products) to execute written agreements in which they assign to us their rights in potential inventions and other intellectual property created within the scope of their employment (or, with respect to consultants and service providers, their engagement to develop such intellectual property), but we cannot be certain that we have adequately protected our rights in every such agreement or that we have executed an agreement with every such party. Finally, in order to benefit from the protection of patents and other intellectual property rights, we must monitor and detect infringement and pursue infringement claims in certain circumstances in relevant jurisdictions. Litigating claims related to the enforcement of intellectual property rights is very expensive and can be burdensome in terms of management time and resources. Any litigation related to intellectual rights or claims against us could result in loss or compromise of our intellectual property rights or could subject us to significant liabilities. As a result, we may not be able to obtain adequate protection or to effectively enforce our issued patents or other intellectual property rights.

In addition to patents, we rely on trade secret rights, copyrights and other rights to protect our unpatented proprietary intellectual property and technology. Unauthorized parties, including our employees, consultants, service providers or customers, may attempt to copy aspects of our products or obtain and use our trade secrets or other confidential information. We generally enter into confidentiality agreements with our employees, consultants, service providers, vendors, channel partners, subcontractors and customers, and generally limit access to and distribution of our proprietary information and proprietary technology through certain procedural safeguards. These agreements may not effectively prevent unauthorized use or disclosure of our intellectual property or technology and may not provide an adequate remedy in the event of unauthorized use or disclosure of our intellectual property or technology. We cannot be certain that the steps taken by us will prevent misappropriation of our intellectual property or technology or infringement of our intellectual property rights. In addition, the laws of some foreign countries where we sell our products do not protect intellectual property rights and technology to the same extent as the laws of the United States, and these countries may not enforce these laws as diligently as government agencies and private parties in the United States. If we are unable to protect our intellectual property, we may find ourselves at a competitive disadvantage to others who do not incur the additional expense, time and effort to create the innovative products nevertheless benefiting from such innovation due to misappropriation.

Our use of open source software, third-party software and other intellectual property may expose us to risks.

We license and integrate certain open source software components from third parties into our software, and we expect to continue to use open source software in the future. Some open source software licenses require users, who distribute or make available as a service open source software with their own software products, to add appropriate copyright notices, to publicly disclose all or part of the source code of the users' developed software or to make available any derivative works of the open source code on unfavorable terms or at no cost. Our efforts to use the open source software in a manner consistent with the relevant license terms that would not require us to disclose our proprietary code or license our proprietary software at no cost may not be successful. We may face claims by third parties 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 that was developed using such software, or we may face termination of such licenses if the author of the open source software asserts we are in breach of its license terms. In addition, if the license terms for the open source code change or the license is terminated, we may be forced to re-engineer our software or incur additional costs.

Further, some of our products and services include other software or intellectual property licensed from third parties, and we also use software and other intellectual property licensed from third parties for our own business operations. This exposes us to risks over which we may have little or no control. For example, a licensor may have difficulties keeping up with technological changes or may stop supporting the software or other intellectual property that it licenses to us. There can be no assurance that the licenses we use will be available on acceptable terms, if at all. In addition, a third party may assert that we or our customers are in breach of the terms of a license, which could, among other things, give such third party the right to terminate a license or seek damages from us, or both. Our inability to obtain or maintain certain licenses or other rights or to obtain or maintain such licenses or rights on favorable terms, 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, until equivalent technology can be identified, licensed or developed.

Our business may be materially affected by changes to fiscal and tax policies. Potentially negative or unexpected tax consequences of these policies, or the uncertainty surrounding their potential effects, could adversely affect our results of operations and share price.

As a multinational corporation, we are subject to income taxes, withholding taxes and indirect taxes in numerous jurisdictions worldwide. Significant judgment and management attention and resources are required in evaluating our tax positions and our worldwide provision for taxes. In the ordinary course of business, there are many activities and transactions for which the ultimate tax determination is uncertain. In addition, our tax obligations and effective tax rates could be adversely affected by changes in the relevant tax, accounting, and other laws, regulations, principles and interpretations. This may include recognizing tax losses or lower than anticipated earnings in jurisdictions where we have lower statutory rates and higher than anticipated earnings in jurisdictions where we have higher statutory rates, changes in foreign currency exchange rates, or changes in the valuation of our deferred tax assets and liabilities.

We may be audited in various jurisdictions, and such jurisdictions may assess additional taxes against us. If we experience unfavorable results from one or more such tax audits, there could be an adverse effect on our tax rate and therefore on our net income. The final determination of any tax audits or litigation could be materially different from our historical tax provisions and accruals, which could have a material adverse effect on our operating results or cash flows in the period or periods for which a determination is made. Additionally, we are subject to transfer pricing rules and regulations in various jurisdictions, including those relating to the flow of funds between us and our affiliates, which are designed to ensure that appropriate levels of income are reported in each jurisdiction in which we operate.

We rely significantly on revenues from maintenance and support contracts, which we recognize ratably over the terms of the associated contracts and, to a lesser extent, from professional services contracts, which we recognize as services are performed, and any downturns in sales of these contracts would not be immediately reflected in full in our quarterly operating results.

Maintenance and support and professional services revenues accounted for 45% of our total revenues in 2019. Sales of maintenance and support and professional services may decline or fluctuate as a result of a number of factors, including the number of product licenses we sell, the timing within the reported period those licenses are sold, our customers' level of satisfaction with our products and services, the prices of our products and services, the prices of products and services offered by our competitors or reductions in our customers' spending levels. If our sales of maintenance and support and professional services contracts decline, our revenues or revenue growth may decline, and our business will suffer. We recognize revenues from maintenance and support contracts ratably on a straight-line basis over the term of the related contracts which is typically one year and, to a lesser extent, three years, and from professional services as services are performed. As a result, a meaningful portion of the revenues we report each quarter results from the recognition of deferred revenues from maintenance and support and professional services contracts entered into during previous quarters. Consequently, a decline in the number or size of such contracts in any one quarter will not be fully reflected in revenues in that quarter but will negatively affect our revenues in future quarters. Accordingly, the effect of significant downturns in maintenance and support and professional services contracts would not be reflected in full in our results of operations until future periods.

We are subject to governmental trade, export and import controls that could subject us to liability in the event of non-compliance or impair our ability to compete in international markets.

Certain of our activities are subject to U.S., Israeli, and possibly other export control and economic sanctions laws and regulations, which may prohibit or restrict our ability to engage in business with certain countries and customers. For example, our products that incorporate encryption capabilities may be subject to certain licensing, reporting, or other requirements under U.S. and Israeli export controls. If the applicable U.S. or Israeli requirements regarding the export of encryption technology were to change or if we change the encryption functionality in our products, we may need to satisfy additional requirements or obtain specific permissions (licenses) in the United States or Israel in order to continue to export our products to the same range of customers and countries as we presently do. There can be no assurance that we will be able to satisfy such additional requirements or obtain specific licenses under these circumstances in either the United States or Israel. Furthermore, various other countries regulate the import of certain encryption products and technology, including import permitting and licensing requirements, and have enacted laws that could limit our ability to distribute our products or could limit our customers' ability to implement our products in those countries.

In addition, applicable export control and sanctions laws and regulations may impact our ability to sell our products, directly or indirectly through our channel partners, to countries or territories that are the target of comprehensive sanctions, or to prohibited parties. Despite our due diligence and, in the case of sanctionable activities by our channel partners, the contractual undertakings they have given us, any such export could result in legal exposure, including penalties and/or government investigations, as well as reputational harm. Any change in export or import regulations, economic sanctions or related legislation, shift in the enforcement or scope of existing regulations, or change in the countries, governments, persons or technologies targeted by such regulations, could result in decreased use of our products by, or in our decreased ability to export or sell our products to, existing or potential customers with international operations. Any decreased use of our products or limitation on our ability to export or sell our products and services would likely adversely affect our business, financial condition and results of operations.

In addition, in the future we may be subject to defense-related export controls. For example, currently our solutions are not subject to supervision under the Israeli Defense Export Control Law, 5767-2007, but if they were used for purposes that are classified as defense-related or if they fall under "dual-use goods and technology" as referred to below, we could become subject to such regulation. In particular, under the Israeli Defense Export Control Law, 5767-2007, an Israeli company may not conduct "defense marketing activity" without a defense marketing license from the Israeli Ministry of Defense (MOD) and may be required to obtain a specific license from the MOD for any export of defense related products and/or knowhow. The definition of defense marketing activity is broad and includes any marketing of "defense equipment," "defense knowhow" or "defense services" outside of Israel, which includes "dual-use goods and technology" (material and equipment intended in principle for civilian use and that can also be used for defensive purposes, such as our cybersecurity solutions) that is specified in the list of Goods and Dual-Use Technology annexed to the Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-Use Goods and Technologies, if intended for defense use only, or is specified under Israeli legislation. "Dual-use goods and technology" will be subject to control by the Ministry of Economy if intended for civilian use only. In December 2013, regulations under the Wassenaar Arrangement included for the first time a chapter on cyber-related matters, which chapter was last amended in December 2018. We believe that our products do not fall under this chapter; however, in the future we may become subject to this regulation or similar regulations, which would limit our sales and marketing activities and could therefore have an adverse effect on our results of operations. Similar issues could arise under the U.S. defense/military export controls under the Arms Export Control Act and the International Traffic in Arms Regulations. Accordingly, there can be no assurance whether our solutions would be impacted by any potential new regulations pertaining to cybersecurity products and services similar to those provided by us, and what impact potential new regulations would have on our sales or our costs relating to compliance.

Risks Related to Our Ordinary Shares

Our share price may be volatile, and our shareholders may lose all or part of their investment.

From January 2017 through January 2020, our ordinary shares have traded on the Nasdaq Global Select Market, or the Nasdaq at a price per share between a range of \$39.34 and \$148.74. In addition, the market price of our ordinary shares could be highly volatile and may fluctuate substantially as a result of many factors, some of which are beyond our control, including, but not limited to:

- actual or anticipated fluctuations in our results of operations and the results of other similar companies;
- variance in our financial performance from the expectations of market analysts;
- announcements by us or our competitors of significant business developments, changes in service provider relationships, acquisitions or expansion plans;
- changes in the prices of our products and services or in our pricing models;
- our involvement in litigation;
- our sale of ordinary shares or other securities in the future;
- market conditions in our industry;
- changes in key personnel;
- speculation in the press or the investment community;
- the trading volume of our ordinary shares;
- changes in the estimation of the future size and growth rate of our markets;
- any merger and acquisition activities; and
- general economic and market conditions.

The price of our ordinary shares could also be affected by possible sales of our ordinary shares by investors who view our Convertible Notes as a more attractive means of equity participation in our company, and by hedging and arbitrage trading activity that such investors may engage in.

In addition, the stock markets have experienced price and volume fluctuations. Broad market and industry factors may materially harm the market price of our ordinary shares, regardless of our operating performance. In the past, following periods of volatility in the market price of a company's securities, securities class action litigation has often been instituted against that company. If we were involved in any similar litigation, we could incur substantial costs and our management's attention and resources could be diverted, which could materially adversely affect our business.

If securities or industry analysts cease to publish research or publish inaccurate or unfavorable research reports about our business, our share price and trading volume could decline.

The trading price for our ordinary shares is affected by any research or reports that securities or industry analysts publish about us, our business or our industry. If one or more of the analysts who cover us or our business publish inaccurate or unfavorable research reports about us or our business, and in particular, if they downgrade their evaluations of our ordinary shares, the price of our ordinary shares would likely decline. If one or more of these analysts cease coverage of our company, we could lose visibility in the market for our ordinary shares, which in turn could cause our share price to decline. In addition, industry analysts often provide reviews of our offerings, as well as those of our competitors, and perception of our offerings in the marketplace may be significantly influenced by these reviews. If these reviews are negative, or less positive as compared to those of our competitors' products and professional services or compared to prior reviews of our offerings, our brand may be adversely affected.

Our business could be negatively affected as a result of the actions of activist shareholders, and such activism could impact the trading value of our securities.

In recent years, U.S. and non-U.S. companies listed on securities exchanges in the United States have been faced with governance-related demands from activist shareholders, unsolicited tender offers and proxy contests. Although as a foreign private issuer we are not subject to U.S. proxy rules, responding to any action of this type by activist shareholders could be costly and time-consuming, disrupting our operations and diverting the attention of management and our employees. Such activities could interfere with our ability to execute our strategic plans. In addition, a proxy contest for the election of directors at our annual meeting would require us to incur significant legal fees and proxy solicitation expenses and require significant time and attention by management and our board of directors. The perceived uncertainties due to such actions of activist shareholders also could affect the market price of our securities.

As a foreign private issuer whose ordinary shares are listed on Nasdaq, we may follow certain home country corporate governance practices instead of otherwise applicable SEC and Nasdaq requirements such as Regulation FD or U.S. proxy rules and exemption from filing certain Exchange Act reports. This may result in less protection than is accorded to investors under rules applicable to domestic U.S. issuers or limit the information available to our shareholders.

As a foreign private issuer whose ordinary shares are listed on Nasdaq, we are permitted to follow certain home country corporate governance practices instead of certain rules of Nasdaq. We currently follow Israeli home country practices with regard to the quorum requirement for shareholder meetings and the requirements relating to distribution of our annual report to shareholders. As permitted under the Israeli Companies Law, 5759-1999, or the Companies Law, our articles of association provide that the quorum for any meeting of shareholders shall be at least two shareholders present in person or by proxy who hold at least 25% of the voting power of our shares instead of 33 1/3% of our issued share capital (as prescribed by Nasdaq's rules). Further, as permitted by the Companies Law and in accordance with the generally accepted business practice in Israel, we do not distribute our annual report to shareholders but make it available through our public website. We may in the future elect to follow Israeli home country practices with regard to other matters such as director nomination procedures, separate executive sessions of independent directors and the requirement to obtain shareholder approval for certain dilutive events (such as for the establishment or amendment of certain equity-based compensation plans, issuances that will result in a change of control of the company, certain transactions other than a public offering involving issuances of a 20% or more interest in the company and certain acquisitions of the stock or assets of another company). Accordingly, our shareholders may not be afforded the same protection as provided under Nasdaq corporate governance rules. Following our home country governance practices as opposed to the requirements that would otherwise apply to a U.S. company listed on Nasdaq may provide less protection than is accorded to shareholders of domestic issuers. See "Item 16.G. Corporate Governance."

As a foreign private issuer, we are exempt from a number of requirements under U.S. securities laws that apply to public companies that are not foreign private issuers. In particular, we are exempt from the rules and regulations under the Exchange Act related to 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 annual, quarterly and current reports and financial statements with the SEC, as frequently or as promptly as domestic companies whose securities are registered under the Exchange Act. We are also exempt from the provisions of Regulation FD, which prohibits issuers from making selective disclosure of material nonpublic information. Even though we intend to comply voluntarily with Regulation FD, these exemptions and leniencies will reduce the frequency and scope of information and protections to which our shareholders are entitled as investors. For so long as we qualify as a foreign private issuer, we are not required to comply with the proxy rules applicable to U.S. domestic companies, although pursuant to the Companies Law, we disclose the annual compensation of our five most highly compensated office holders (as defined under the Companies Law) on an individual basis, including in this annual report. Because of these exemptions for foreign private issuers, our shareholders do not have the same information generally available to investors holding shares in public companies that are not foreign private issuers.

Our Convertible Notes may impact our financial results, result in the dilution of existing shareholders, create downward pressure on the price of our ordinary shares, and restrict our ability to take advantage of future opportunities.

In November 2019, we issued \$575.0 million aggregate principal amount of 0.00% Convertible Senior Notes due 2024, or the Convertible Notes. The sale of the Convertible Notes may affect our earnings per share figures, as accounting procedures may require that we include in our calculation of earnings per share the number of ordinary shares into which the Convertible Notes are convertible. The Convertible Notes may be converted, under the conditions and at the premium specified in the Convertible Notes, into cash and our ordinary shares, if any (subject to our right to pay cash in lieu of all or a portion of such shares). If our ordinary shares are issued to the holders of the Convertible Notes upon conversion, there will be dilution to our shareholders' equity and the market price of our ordinary shares may decrease due to the additional selling pressure in the market. Any downward pressure on the price of our ordinary shares caused by the sale or potential sale of ordinary shares issuable upon conversion of the Convertible Notes could also encourage short sales by third parties, creating additional downward pressure on our share price.

In addition, in connection with the pricing of the Convertible Notes, we entered into privately negotiated capped call transactions, or the Capped Call Transactions, with certain of the purchasers of the Convertible Notes. The Capped Call Transactions cover, collectively, the number of our ordinary shares underlying the Convertible Notes, subject to anti-dilution adjustments substantially similar to those applicable to the Convertible Notes. The cost of the Capped Call Transactions was approximately \$53.6 million. The Capped Call Transactions are expected generally to reduce the potential dilution to the ordinary shares upon any conversion of the Convertible Notes and/or offset any cash payments we are required to make in excess of the principal amount upon conversion of the Convertible Notes under certain events described in the Capped Call Transactions. We are subject to the risk that one or more of the counterparties to the Capped Call Transactions may default, or otherwise fail to perform, or may exercise certain rights to terminate, their obligations under the Capped Call Transactions. Our exposure will depend on many factors but, generally, our exposure will increase if the market price or the volatility of our common stock increases. Upon a default, a failure to perform or a termination of obligations by a counterparty to the Capped Call Transactions, we may suffer adverse tax consequences or experience more dilution than we currently anticipate with respect to our ordinary shares.

Furthermore, the indenture for the Convertible Notes will prohibit us from engaging in certain mergers or acquisitions unless, among other things, the surviving entity assumes our obligations under the Convertible Notes. These and other provisions in the indenture could deter or prevent a third party from acquiring us even when the acquisition may be favorable.

We currently anticipate that we will be able to rely on and to implement certain clarifications from the applicable Tax Authorities, with respect to the administration of our Israeli withholding tax obligations in relation to considerations to be paid to the holders of the Convertible Notes upon their future conversion and settlement. Unexpected failure to ultimately obtain such anticipated clarifications from the Israeli Tax Authorities could potentially result in increased Israeli withholding tax gross-up costs.

We may not have the ability to raise the funds necessary to settle conversions of the Convertible Notes, repurchase the Convertible Notes upon a fundamental change or repay the Convertible Notes in cash at their maturity, and our future debt may contain limitations on our ability to pay cash upon conversion or repurchase of the Convertible Notes.

Holders of the Convertible Notes will have the right under the indenture governing the Convertible Notes to require us to repurchase all or a portion of their Convertible Notes upon the occurrence of a fundamental change before the applicable maturity date, at a repurchase price equal to 100% of the principal amount of such Convertible Notes to be repurchased, plus accrued and unpaid interest, excluding the applicable fundamental change repurchase date, if any. Moreover, we will be required to repay the Convertible Notes in cash at their maturity, unless earlier converted, repurchased or redeemed. We may not have enough available cash or be able to obtain financing at the time we are required to make such repurchases of the Convertible Notes and/or repay the Convertible Notes upon maturity.

In addition, we have the right to elect to settle conversions of the Convertible Notes in cash. Although we entered into the Capped Call Transactions which are expected generally to offset any cash payments we are required to make in excess of the principal amount upon conversion of the Convertible Notes (subject to a cap), we may not ultimately receive such cash payments from the counterparties to the Capped Call Transactions in case of a default, a failure to perform or a termination of obligations by a relevant counterparty.

Our ability to repurchase or to pay cash upon conversion of Convertible Notes may be limited by law, regulatory authority or agreements governing our future indebtedness. Our failure to repurchase the Convertible Notes at a time when the repurchase is required by the indenture or to pay cash upon conversion of the Convertible Notes or at maturity as required by the indenture would constitute a default under the indenture. A default under the indenture or the fundamental change itself could also lead to a default under agreements governing our future indebtedness. If the payment of the related indebtedness were to be accelerated after any applicable notice or grace periods, we may not have sufficient funds to repay the indebtedness and repurchase the Convertible Notes or to pay cash upon conversion of the Convertible Notes or at maturity.

We may lose our foreign private issuer status, which would then require us to comply with the rules and regulations applicable to U.S. domestic issuers and cause us to incur significant legal, accounting and other expenses.

Since a majority of our voting securities are either directly or indirectly owned of record by residents of the United States, we would lose our foreign private issuer status if any of the following were to occur: (i) the majority of our executive officers or directors were U.S. citizens or residents, (ii) more than 50 percent of our assets were located in the United States, or (iii) our business was administered principally in the United States.

As part of our business strategy, we continue to organically globalize our business operations and evaluate acquiring or making investments in complementary companies, including companies predominately located in the United States. If we were to acquire a U.S. company in the future, it could put us at heightened risk of losing our foreign private issuer status. Although we have elected to comply with certain U.S. regulatory provisions, our loss of foreign private issuer status would make such provisions mandatory. The regulatory and compliance costs to us under U.S. securities laws as a U.S. domestic issuer may be significantly higher. We may also be required to modify certain of our policies to comply with good governance practices associated with U.S. domestic issuers. Such conversion and modifications will involve additional costs. In addition, we would lose our ability to rely on Nasdaq exemptions from certain corporate governance requirements that are available to foreign private issuers. As a result, we expect that a loss of foreign private issuer status would increase our legal and financial compliance costs. We also expect that if we were required to comply with the rules and regulations applicable to U.S. domestic issuers, it would make it more difficult and expensive for us to obtain director and officer liability insurance, and we could be required to accept reduced coverage or incur substantially higher costs to obtain coverage.

If we sell our ordinary shares in future financings, ordinary shareholders could experience immediate dilution and, as a result, the market price of our ordinary shares may decline.

We may from time to time issue additional ordinary shares at a discount from the current trading price of our ordinary shares. As a result, our ordinary shareholders would experience immediate dilution upon our issuance of any ordinary shares at such discount. In addition, as opportunities present themselves, we may enter into equity or debt financings or similar arrangements in the future, including the issuance of additional convertible debt securities, preferred shares or ordinary shares. If we issue ordinary shares or securities convertible into ordinary shares, holders of our ordinary shares could experience dilution.

If we are unable to satisfy the requirements of Sections 404(a) and 404(b) of the Sarbanes-Oxley Act of 2002 or if our internal control over financial reporting is not effective, investors may lose confidence in the accuracy and the completeness of our financial reports and the trading price of our ordinary shares may be negatively affected.

Pursuant to Section 404(a) of the Sarbanes-Oxley Act of 2002, or Sarbanes-Oxley Act, we are required to furnish a report by management on the effectiveness of our internal control over financial reporting. Additionally, pursuant to Section 404(b) of the Sarbanes-Oxley Act, we must include an auditor attestation on our internal control over financial reporting.

To maintain the effectiveness of our disclosure controls and procedures and our internal control over financial reporting, we expect that we will need to continue to enhance existing, and implement new, financial reporting and management systems, procedures and controls to manage our business effectively and support our growth in the future. The process of evaluating our internal control over financial reporting requires an investment of substantial time and resources, including by our Chief Financial Officer and other members of our senior management. As a result, this process may divert internal resources and take a significant amount of time and effort to complete. Additionally, as part of management assessments of the effectiveness of our internal control over financial reporting required by Section 404(a), our management may conclude that our internal control over financial reporting is not effective due to our failure to cure any identified material weakness or otherwise, which would require us to employ remedial actions to implement effective controls. If we identify material weaknesses in our internal control over financial reporting, if we are unable to comply with the requirements of Section 404(a) or 404(b) in a timely manner or to assert that our internal control over financial reporting is effective, or if our independent registered public accounting firm is unable to express an opinion or issues an adverse opinion in its attestation as to the effectiveness of our internal control over financial reporting required by Section 404(b), investors may lose confidence in the accuracy and completeness of our financial reports and the trading price of our ordinary shares could be negatively affected. We could also become subject to investigations by Nasdaq, the SEC or other regulatory authorities, which could require additional financial and management resources.

Irrespective of compliance with Sections 404(a) and 404(b), any failure of our internal control over financial reporting could have a material adverse effect on our stated results of operations and harm our reputation. In order to implement changes to our internal control over financial reporting triggered by a failure of those controls, we could experience higher than anticipated operating expenses, including higher independent auditor fees during and after the implementation of these changes.

As a public company we may become subject to further compliance obligations, which may strain our resources and divert management's attention.

Changing laws, regulations and standards in the United States relating to corporate governance and public disclosure and other matters may be implemented in the future, which may increase our legal and financial compliance costs, make some activities more time consuming and divert management's time and attention from revenue-generating activities to compliance activities. If our efforts to comply with new laws, regulations and standards differ from the activities intended by regulatory or governing bodies due to ambiguities related to practice, regulatory authorities may initiate legal proceedings against us and our business may be harmed. Being a publicly traded company in the United States and being subject to U.S. rules and regulations may make it more expensive for us to obtain directors and officers liability insurance, and we may be required to accept reduced coverage or incur substantially higher costs to obtain coverage. For example, during our last renewal, the cost of our directors and officers insurance policy premiums substantially increased in light of certain changes in the market for such policies. These factors could also make it more difficult for us to attract and retain qualified members of our board of directors, particularly to serve on our audit committee, and qualified executive officers. In accordance with the provisions of the Companies Law, approval of our directors and officers insurance is limited to the terms of our duly approved compensation policy, unless otherwise approved by our shareholders.

Our U.S. shareholders may suffer adverse tax consequences if we are classified as a "passive foreign investment company."

Generally, if for any taxable year, after the application of certain look-through rules, 75% or more of our gross income is passive income, or at least 50% of the average quarterly value of our assets (which may be measured in part by the market value of our ordinary shares, which is subject to change) are held for the production of, or produce, passive income (as defined in the relevant provisions of the Internal Revenue Code of 1986, as amended (the Code)), we would be characterized as a "passive foreign investment company," or PFIC, for U.S. federal income tax purposes under the Code. Based on our market capitalization and the nature of our income, assets, and business, we believe that we will not be classified as a PFIC for the taxable year that ended December 31, 2019. However, PFIC status is determined annually and requires 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 be considered a PFIC for any taxable year. If we are a PFIC for any taxable year during which a U.S. Holder (as defined in "Item 10.E. Taxation—Certain United States Federal Income Tax Consequences") holds our ordinary shares, certain adverse U.S. federal income tax consequences could apply to such U.S. Holder. Prospective U.S. Holders should consult their tax advisors regarding the potential application of the PFIC rules to them. See "Item 10.E. Taxation—Certain United States Federal Income Tax Consequences—Passive Foreign Investment Company Considerations."

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

If a U.S. person is treated as owning (directly, indirectly or constructively) at least 10% of the value or voting power of our ordinary shares, such person may be treated as a “U.S. shareholder” with respect to each controlled foreign corporation (CFC) in our group (if any). Under current law, if our group includes one or more U.S. subsidiaries (as has been the case for 2019), certain of our non-U.S. subsidiaries could be treated as CFCs regardless of whether or not we are treated as a CFC. A U.S. shareholder of a CFC may be required to report annually and include in its U.S. taxable income its pro rata share of such CFC’s “Subpart F income,” “global intangible low taxed income” and investments in U.S. property by CFCs, regardless of whether we make any distributions. An individual who is a U.S. shareholder with respect to a CFC generally would not be allowed certain tax deductions or foreign tax credits that would be allowed to a U.S. shareholder that is a U.S. corporation. Failure to comply with these reporting obligations may subject a U.S. shareholder to significant monetary penalties and may prevent the statute of limitations with respect to such U.S. shareholder’s U.S. federal income tax return for the year for which reporting was due from starting. We cannot provide any assurances that we will be able to assist holders of ordinary shares in determining whether any of our non U.S. subsidiaries is treated as a CFC or whether any holder of ordinary shares should be treated as a U.S. shareholder with respect to any such CFC or 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 very 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 are strongly advised to consult their own tax advisors regarding the potential application of these rules to their investment in our ordinary shares.

We do not intend to pay dividends on our ordinary shares for the foreseeable future so any returns will be limited to changes in the value of our ordinary shares.

We have never declared or paid any cash dividends on our ordinary shares. We currently anticipate that we will retain future earnings for the development, operation, and expansion of our business and do not anticipate declaring or paying any cash dividends for the foreseeable future. Any return to shareholders will therefore be limited to the increase, if any, of our share price, which may or may not occur.

Risks Relating to Our Incorporation and Location in Israel

Our headquarters, substantially all of our research and development activities and other significant operations are located in Israel and, therefore, our results may be adversely affected by political, economic and military instability in Israel.

Our headquarters and principal research and development facilities are located in Israel. In addition, a large number of our key employees and certain directors are residents of Israel. Accordingly, political, economic and military conditions in Israel may directly affect our business. Since the establishment of the State of Israel in 1948, a number of armed conflicts have taken place between Israel and its neighboring countries. In recent years, these have included hostilities between Israel and Hezbollah in Lebanon and Hamas in the Gaza strip, both of which resulted in rockets being fired into Israel causing casualties and disruption of economic activities. In addition, Israel faces threats from more distant neighbors, including, in particular, Iran. Our commercial insurance does not cover losses that may occur as a result of an event associated with the security situation in the Middle East. In addition, the Israeli government’s commitment to covering the reinstatement value of direct damages caused by terrorist attacks or acts of war, could be eliminated or may not be sufficient to compensate us fully for damages incurred. Any losses or damages by us could have a material adverse effect on our business. Any armed conflict involving Israel could adversely affect our operations and results of operations.

Further, our operations could be disrupted by the obligations of personnel to perform military service. As of December 31, 2019, we had 499 employees based in Israel, certain of which may be called upon to perform up to 54 days in each three-year period (and in the case of non-officer commanders or officers, up to 70 or 84 days, respectively, in each three-year period) of military reserve duty until they reach the age of 40 (and in some cases, depending on their specific military profession up to 45 or even 49 years of age) and, in certain emergency circumstances, may be called to immediate and unlimited active duty. Our operations could be disrupted by the absence of a significant number of employees related to military service, which could materially adversely affect our business and results of operations.

Several countries, principally in the Middle East, restrict doing business with Israel and Israeli companies, and additional countries may impose restrictions on doing business with Israel and Israeli companies whether as a result of hostilities in the region or otherwise. In addition, there have been increased efforts by activists to cause companies and consumers to boycott Israeli goods based on Israeli government policies. Such actions, particularly if they become more widespread, may adversely impact our ability to sell our products. Any hostilities involving Israel or any interruption or curtailment of trade between Israel and its present trading partners, or a significant downturn in the economic or financial condition of Israel, could adversely affect our business, financial condition and results of operations. We may also be targeted by cyber terrorists specifically because we are an Israeli company.

Israel is experiencing a level of unprecedented political instability. The Israeli government has been in a transitional phase since December 2018, when the Israeli Parliament, or the Knesset, first resolved to dissolve itself and call for new general elections. During the last twelve months, Israel held general elections three times – in April and September of 2019 and in March of 2020. The Knesset, has not passed a budget for the year 2020, and certain government ministries, which may be critical to the operation of our business, are without necessary resources and may not receive sufficient funding moving forward. In the event that the current political stalemate is not resolved during 2020, our ability to conduct our business effectively may be adversely affected.

The tax benefits that are available to us require us to continue to meet various conditions and may be terminated or reduced in the future, which could increase our costs and taxes.

We were granted Approved Enterprise status under the Israeli Law for the Encouragement of Capital Investments, 5719-1959, or the Investment Law. We elected the alternative benefits program, pursuant to which income derived from the Approved Enterprise program is tax-exempt for two years and enjoys a reduced tax rate of 10.0% to 25.0% for up to a total of eight years, subject to an adjustment based on the percentage of foreign investors' ownership. We were also eligible for certain tax benefits provided to Benefited Enterprises under the Investment Law. In March 2013, we notified the Israel Tax Authority that we apply the new tax Preferred Enterprise regime under the Investment Law instead of our Approved Enterprise and Benefited Enterprise. Accordingly, we are eligible for certain tax benefits provided to Preferred Enterprises under the Investment Law. If we do not meet the conditions stipulated in the Investment Law and the regulations promulgated thereunder, as amended, for the Preferred Enterprise, any of the associated tax benefits may be canceled, and we would be required to repay the amount of such benefits, in whole or in part, including interest and CPI linkage (or other monetary penalties). Starting from 2017, we are eligible for the Technological Preferred Enterprise regime, a sub-category of the Preferred Enterprise regime, which grants enhanced tax benefits to enterprises with significant research and development activities. Further, in the future these tax benefits may be reduced or discontinued. If these tax benefits are reduced, cancelled or discontinued, our Israeli taxable income would be subject to regular Israeli corporate tax rates which would harm our financial condition and results of operation. Additionally, if we increase our activities outside of Israel through acquisitions, for example, our expanded activities might not be eligible for inclusion under future Israeli tax benefit regimes. See "Item 5. Operating and Financial Review and Prospects—Operating Results—Israeli Tax Considerations and Government Programs—Law for the Encouragement of Capital Investments, 5719-1959."

We may become subject to claims for remuneration or royalties for assigned service invention rights by our employees.

We enter into assignment-of-invention agreements with our employees pursuant to which such individuals agree to assign to us all rights to any inventions created in the scope of their employment or engagement with us. A significant portion of our intellectual property has been developed by our employees during the course of their employment by us. Under the Israeli Patent Law, 5727-1967, inventions conceived by an employee during the scope of his or her employment with a company are regarded as “service inventions” which belong to the employer, absent a specific agreement between the employee and employer giving the employee service invention rights. Although our employees have agreed to assign to us service invention rights, as a result of uncertainty under Israeli law with respect to service invention rights and the efficacy of related waivers, including with respect to remuneration and its extent, we may face claims demanding remuneration in consideration for assigned inventions. As a consequence of such claims, we could be required to pay additional remuneration or royalties to our current and/or former employees, or be forced to litigate such claims, which could negatively affect our business.

Provisions of Israeli law and our articles of association may delay, prevent or otherwise impede a merger with or an acquisition of us, even when the terms of such a transaction are favorable to us and our shareholders.

Our articles of association contain certain provisions that may delay or prevent a change of control. These provisions include that our directors (other than external directors, if applicable) are elected on a staggered basis, and therefore a potential acquirer cannot readily replace our entire board of directors at a single annual general shareholder meeting. In addition, Israeli corporate law regulates acquisitions of shares through tender offers and mergers, requires special approvals for transactions involving directors, officers or significant shareholders and regulates other matters that may be relevant to such types of transactions. See “Item 10.B. Articles of Association—Acquisitions under Israeli Law” for additional information.

Furthermore, Israeli tax considerations may make potential transactions unappealing to us or to our shareholders whose country of residence does not have a tax treaty with Israel exempting such shareholders from Israeli tax. For example, Israeli tax law does not recognize tax-free share exchanges to the same extent as U.S. tax law. With respect to mergers involving an exchange of shares, Israeli tax law allows for tax deferral in certain circumstances but makes the deferral contingent on the fulfillment of a number of conditions, including, in some cases, a holding period of two years from the date of the transaction during which sales and dispositions of shares of the participating companies are subject to certain restrictions. Moreover, with respect to certain share swap transactions, the tax deferral is limited in time, and when such time expires, the tax becomes payable even if no disposition of the shares has occurred. These provisions of Israeli law and our articles of association could have the effect of delaying or preventing a change in control in us and may make it more difficult for a third-party to acquire us, even if doing so would be beneficial to our shareholders, and may limit the price that investors may be willing to pay in the future for our ordinary shares.

It may be difficult to enforce a judgment of a U.S. court against us, our officers and directors or the Israeli auditors named in this annual report in Israel or the United States, to assert U.S. securities laws claims in Israel or to serve process on our officers and directors and these auditors.

We are incorporated in Israel. The majority of our directors and executive officers, and the Israeli auditors listed in this annual report reside outside of the United States, and most of our assets and most of the assets of these persons are located outside of the United States. Therefore, a judgment obtained against us, or any of these persons, including a judgment based on the civil liability provisions of the U.S. federal securities laws, may not be collectible in the United States and may not be enforced by an Israeli court. It also may be difficult for our shareholders to effect service of process on these persons in the United States or 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 reasoning that Israel is not the most appropriate forum in which to bring such a claim. In addition, even if an Israeli court agrees to hear a claim, it may determine that Israeli law and not U.S. law is applicable to the claim. If U.S. law is found to be applicable, the content of applicable U.S. law must be proven as a fact by expert witnesses, which can be a time consuming and costly process. Certain matters of the procedure will also be governed by Israeli law. There is little binding case law in Israel that addresses the matters described above. As a result of the difficulty associated with enforcing a judgment against us in Israel, our shareholders may not be able to collect any damages awarded by either a U.S. or foreign court.

The rights and responsibilities of our shareholder are, and will continue to be, governed by Israeli law which differs in some material respects from the rights and responsibilities of shareholders of U.S. corporations.

The rights and responsibilities of the holders of our ordinary shares are governed by our articles of association and by Israeli law. These rights and responsibilities differ in some material respects from the rights and responsibilities of shareholders in U.S. corporations. In particular, a shareholder of an Israeli company has a duty to act in good faith and in a customary manner in exercising its rights and performing its obligations towards the company and other shareholders, and to refrain from abusing its power in the company, including, among other things, in voting at a general meeting of shareholders on matters such as amendments to a company's articles of association, increases in a company's authorized share capital, mergers and acquisitions and related party transactions requiring shareholder approval. In addition, shareholders have a general duty to refrain from discriminating against other shareholders and a shareholder who is aware that it possesses the power to determine the outcome of a shareholder vote or to appoint or prevent the appointment of a director or chief executive officer in the company has a duty of fairness toward the company with regard to such vote or appointment. There is limited case law available to assist us in understanding the nature of this duty or the implications of these provisions. These provisions may be interpreted to impose additional obligations and liabilities on holders of our ordinary shares that are not typically imposed on shareholders of U.S. corporations. See "Item 6.C. Board Practices — Approval of Related Party Transactions under Israeli Law—Fiduciary Duties of Directors and Executive Officers."

ITEM 4. INFORMATION ON THE COMPANY

A. History and Development of the Company

Our History

CyberArk Software Ltd. was founded in 1999 with the vision of protecting high-value business data and pioneered our Digital Vault technology, which is the foundation of our primary platform. That same year, we began offering our first product, the Sensitive Information Management Solution (previously called the Sensitive Document Vault), which provided a secure platform for our customers' employees to share sensitive files. We believe our early innovation in vaulting technology enabled us to evolve into a company that provides a comprehensive security solution built for privileged access management. In 2005, we introduced our Privileged Access Security Solution, which has become our leading offering and reflects our emphasis on protecting privileged access across an organization. In September 2014, we listed our ordinary shares on Nasdaq. In 2015, we acquired Viewfinity, Inc., a provider of Windows least privilege management and application control software, as well as Cybertinel Ltd., a cybersecurity company specializing in cyber threat detection technology. In May 2017, we acquired Conjur Inc., a provider of DevOps security software, and in March 2018, we acquired Vaultive, Ltd., a cloud security provider. Based on our continued innovation, today we are the leader in privileged access management, a critical layer of IT security to protect data, infrastructure and assets across the enterprise, in the cloud and throughout the DevOps pipeline.

We are a company limited by shares organized under the laws of the State of Israel. We are registered with the Israeli Registrar of Companies. Our registration number is 51-229164-2. Our principal executive offices are located at 9 Hapsagot St., Park Ofer B, POB 3143, Petach-Tikva, 4951040, Israel, and our telephone number is +972 (3) 918-0000. Our website address is www.cyberark.com. Information contained on, or that can be accessed through, our website is not part of this annual report and is not incorporated by reference herein. We have included our website address in this annual report solely for informational purposes. Our SEC filings are available to you on the SEC's website at <http://www.sec.gov>. This site contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. The information on that website is not part of this annual report and is not incorporated by reference herein. Our agent for service of process in the United States is CyberArk Software, Inc., located at 60 Wells Avenue, Newton, MA 02459, and our telephone number is (617) 965-1544.

Principal Capital Expenditures

Our cash capital expenditures for fiscal years 2017, 2018 and 2019 amounted to \$6.8 million, \$8.6 million and \$7.0 million, respectively. Capital expenditures consist primarily of investments in leasehold improvements for our office space and the purchase of furniture, computers and related equipment. We anticipate our capital expenditures in fiscal year 2020 to not exceed 2% of revenue. We anticipate our capital expenditures in 2020 will be financed with cash on hand and cash provided by operating activities.

B. Business Overview

We are the global leader in privileged access management, a critical layer of IT security to protect data, infrastructure and assets across the enterprise, in the cloud and throughout the DevOps pipeline. Our software solutions are focused on protecting privileged accounts, credentials and secrets used by human and machine identities, which are consistently sought-after by cyber attackers to accomplish their goals. Privileged accounts and secrets are pervasive and act as the “keys to the IT kingdom,” providing complete access to, and control of, IT infrastructure, applications, DevOps tools, and critical business data, whether located on-premises or in the cloud. In the hands of an external attacker or malicious insider, privileged credentials allow attackers to take control of and disrupt an organization’s infrastructure and applications, steal confidential information and commit financial fraud. Our comprehensive solutions proactively protect credentials, isolate and monitor sessions, detect and respond to privileged threats, provide secrets management for commercial off the shelf applications and applications built using DevOps methodologies, and secure privileged access on the endpoint. Our customers use our innovative solutions to introduce a critical security layer to protect against, detect and respond to cyber attacks before they strike vital systems, compromise sensitive data and disrupt business operations.

Organizations worldwide are experiencing an unprecedented increase in the sophistication, scale and frequency of cyber attacks. The challenge this presents is intensified by digital transformation initiatives and cloud migration strategies, which companies are implementing to differentiate themselves from the competition and drive down costs. This in turn is driving the growing adoption of modern technologies such as cloud computing, container and micro-service-based cloud native application architectures leveraging DevOps methodologies, and Robotic Process Automation. Although these technologies deliver tremendous business benefits, they have resulted in increasingly complex and distributed IT environments with a significantly larger attack surface. Organizations have historically relied upon perimeter-based threat protection solutions such as network and web security tools as the predominant defense against cyber attacks, yet these traditional solutions have a limited ability to stop today’s advanced threats. Many organizations are still in the early stages of adapting their security strategies to address this new threat environment and are evolving their approaches based on the assumption that their network perimeter has been or will be breached. They are therefore increasingly implementing privileged access management for human and machine identities as a critical layer of protection to disrupt attacks against their on-premises and cloud-based assets before they result in the loss of confidential information or other serious damage. Regulators are also mandating rigorous compliance with new laws that call for heavy fines for not protecting the security and privacy of customer’s personally identifiable information.

We believe that the implementation of a privileged access management solution is the most critical component of an effective security strategy. Privileged accounts, credentials and secrets represent some of the most vulnerable aspects of an organization’s IT infrastructure and application stack since they are used by human and non-human users to access an organization’s most sensitive systems and data. Privileged accounts are used by system administrators, third-party remote vendors, Software as a Service (SaaS) administrators, DevOps teams and business users, and they exist in nearly every connected device, server, hypervisor, container, operating system, database, application and endpoint. Credentials and secrets are also used by machine identities for application to application interactions such as IT management, security, DevOps, and Robotic Process Automation software. Due to the broad access and control they provide, privileged access exploitation is a critical stage of the cyber attack lifecycle. The typical cyber attack involves an attacker effecting an initial breach to steal credentials, moving laterally through the IT infrastructure to identify valuable targets, escalating privileges to access target systems, and exfiltrating, or stealing, the desired information.

Our solutions can be deployed in traditional on-premises data centers, public, private or hybrid cloud environments. Our innovative software solutions are the result of 20 years of research and expertise, combined with valuable knowledge we have gained from working with our diverse population of customers and from our acquisitions of Viewfinity, Cybertinel, Conjur, and Vaultive.

The CyberArk Privileged Access Security solution provides the most comprehensive approach to securing privileged credentials on-premises and in the cloud, from every endpoint and application, and throughout the DevOps pipeline. The Core Privileged Access Security offering provides risk-based credential protection, session isolation and monitoring to detect and prevent attacks involving privileged access. This solution can be extended with least privilege control for Linux, Unix, and Windows servers as well as domain control protection. CyberArk also provides application credential and DevOps secrets management with Application Access Manager and protection of privilege on endpoints with Endpoint Privilege Manager. CyberArk supports standard deployment methodologies (on-premises, hybrid, and in the cloud) with perpetual, term-based and subscription licensing options.

CyberArk also has the industry's most complete SaaS portfolio for privileged access management with CyberArk Privilege Cloud, Endpoint Privilege Manager, and Alero. CyberArk Privilege Cloud securely stores, rotates, and isolates credentials used by human and machine identities and offers comprehensive session management. Endpoint Privilege Manager is available for on-premises and SaaS deployments. Alero is a new SaaS based solution that CyberArk introduced in 2019 to secure privileged remote vendor access.

Our solution complements cloud, Robotic Process Automation, IT management, and security and solutions provided by other vendors in two significant ways: first, by securing privileged access used by these solutions and second, through the sharing of valuable information between the solutions, for improved detection, protection and response in the event of a cyber attack.

In April 2016, we announced the launch of the C³ Alliance, CyberArk's global technology partner program, which brings together enterprise software, IT, Security and cloud providers to build on the power of privileged access security to better protect customers from cyber threats. The program establishes a product integration foundation with our C³ Alliance technology partners for the benefit of our mutual customers. We launched the CyberArk Marketplace in April 2018 to provide a trusted platform for customers to easily find and deploy integrations from the C³ Alliance, partners, and community members.

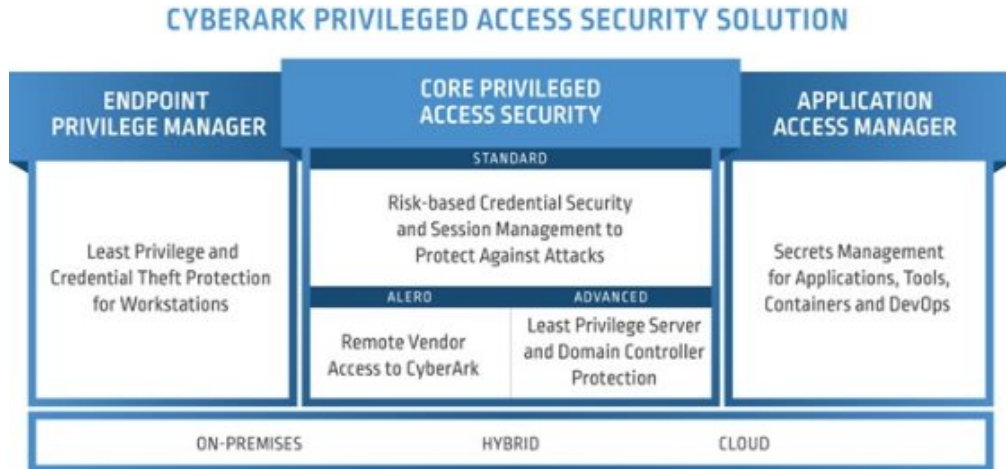
As of December 31, 2019, we had more than 5,300 customers, including more than 50% of the Fortune 500 companies and more than 35% of the Global 2000 companies. We define a customer to include a distinct entity, division or business unit of a company. Our customers include leading organizations in a diverse set of industries, including financial services, manufacturing, insurance, healthcare, energy and utilities, transportation, retail, technology and telecommunications, as well as government agencies. We sell our solutions through a high touch hybrid model that includes direct sales, channel sales, managed security service providers, as well as advisory firm partners. This provides us with significant opportunities to grow our current customer base. Further, the relationships developed with our channel and advisory firms allow us to benefit from their global reach and maintain close relationships with our customers. Additionally, we continue to enhance our product offerings and go-to-market strategy by establishing technology alliances within the IT infrastructure and security vendor ecosystem.

Industry Background

The growth of privileged access management market is driven by three primary drivers. The first is the need for organizations to defend themselves against sophisticated attacks. Organized crime, malicious insiders and nation states exploit unsecured privileged access to carry out their attacks. The 2019 Verizon Data Breach Report found that privilege misuse was a top three pattern in breaches in financial services and insurance, healthcare, manufacturing, public administration, and retail. The second driver relates to digital transformation. The digitization of business creates a larger digital landscape full of opportunities for engagement, but also greater exposure to threats. New digital technologies require expanding privileged access for both humans and machines that needs to be secured. Hybrid and multi-cloud adoption drive the need for centralized solutions that help secure privileged access enterprise-wide. The third driver is compliance. Industry regulations such as Sarbanes Oxley (SOX), Payment Card Industry Data Security Standard (PCI), SWIFT Customer Security Controls Framework, Health Insurance Portability and Accountability Act (HIPAA), General Data Protection Regulation (GDPR), and security frameworks such as National Institute of Standards (NIST) and the Center for Internet Security (CIS) all have stringent requirements to uphold strong privileged access management security controls to maintain data privacy and sovereignty.

Our Solutions

Our solutions secure organizations' high-value data and critical IT assets by providing proactive protection against external and internal cyber threats and enabling real-time detection and neutralization of attacks involving privileged access.



Our solutions consist of Core Privileged Access Security for risk-based credential security and session management with advanced add-on options for least privilege server and domain controller protection. Customers can also purchase Application Access Manager for secrets management for commercial off-the-shelf and custom applications, including cloud-native applications built using DevOps tools. Application Access Manager is a new offering introduced in early 2019 that combines the former Application Identity Manager and Conjur Enterprise. Conjur continues to be available to developers as open source software. CyberArk offers least privilege and credential theft protection for Windows and Mac workstations with Endpoint Privilege Manager. CyberArk Alero provides Zero Trust access, biometric multi-factor authentication and just-in-time provisioning and is delivered as a SaaS solution. We also offer over 200 certified joint solutions with leading cloud, security, and IT management providers via our C³ Alliance program.

Core Privileged Access Security

CyberArk's Core Privileged Access Security offering includes risk-based credential security and session management to protect against attacks involving privileged access. This offering includes CyberArk's industry leading vault for credential protection; session management; and analytics to detect and proactively respond to privileged access threats. We began selling these three products together as Core Privileged Access Security starting in January 2018. CyberArk's Core Privileged Access Security solution can be deployed in an on-premises data center, in a hybrid cloud or a public cloud environment either as a perpetual or as a subscription term based license. In addition, Core Privilege Access Security is available as a SaaS solution with the CyberArk Privilege Cloud. CyberArk Privilege Cloud is ideal for commercial and smaller enterprise customers who are implementing privileged access management projects and includes credential protection and session management.

The Core Privileged Access Security solution secures and rotates passwords, credentials, and SSH keys to prevent the malicious use of privileged access by external attackers and malicious insiders. The solution manages, secures, and automatically rotates privileged credentials based on an organization's security policies; and enforces granular access controls and workflows to protect who can access which credentials and when. Automated processes reduce the time it takes to manually track and update privileged credentials to meet audit and compliance standards.

The solution also secures, isolates, controls and monitors privileged user sessions to critical Unix, Linux, and Windows-based systems, databases, virtual machines, network devices, mainframes, websites, SaaS applications, cloud platforms, DevOps tools and more. It provides a single-access control point, helps prevent malware from jumping to a target system through the isolation of end users, and records every keystroke and mouse click for continuous monitoring. Detailed session recordings and the ability to search, locate, and alert on sensitive events without having to filter through logs simplifies compliance audits and accelerates forensic investigations. Real-time monitoring helps provide continuous protection for privileged access as well as automatic suspension and termination of privileged sessions if any activity presents a high-level of risk to the organization.

Native access to supported targets simplifies adoption by end users while enabling organizations to maintain a strong security posture. With the acquisition of Vaultive in March 2018 and the launch of Privileged Session Manager for Cloud in October 2018, CyberArk now offers native access for web-based applications, including support for leading cloud platforms, PaaS providers, SaaS, and social media applications. Along with Privileged Session Manager for Cloud, the solution also supports native access for Windows users via any RDP client application and Linux/Users through an SSH client such as PuTTY.

Lastly, the Core Privileged Access Security offering enables organizations to detect, alert and respond to anomalous privileged activity indicating an in-progress attack. The solution collects a targeted set of data from multiple sources, including the CyberArk Digital Vault, SIEM and the network. A combination of machine learning, behavioral analysis, and statistical and deterministic algorithms enables organizations to detect indications of compromise early in the attack lifecycle by identifying malicious privileged access activity across on-premises and cloud environments.

The Core Privileged Access Security offering can be extended to secure least privilege on Linux, Unix, and Windows servers, protect domain controllers, and secure remote privileged access.

Least Privilege Server Protection. The CyberArk Core Privileged Access Security offering allows privileged users to use administrative commands from their native Linux/Unix and Windows sessions while eliminating unneeded root access or admin rights. This solution provides unified and correlated logging of all super user activity linking it to a personal username while providing the freedom needed to perform job functions. Granular access control is enforced while continuously monitoring all administrative commands executed by super users based on their role and task.

Domain Controller Protection. CyberArk offers an ultra-light weight Windows agent that performs network behavior analytics to detect a range of potential threats including suspected credential theft, lateral movement and privilege escalation on domain controllers. It provides the ability to enforce granular controls for least privilege and application control on domain controllers and to detect a variety of in-progress Kerberos attacks including Golden Ticket, Overpass-the-Hash and Privilege Attribute Certificate (PAC) manipulation.

Secure Remote Vendor Access to CyberArk Core Privileged Access Security with CyberArk Alero. CyberArk Alero combines Zero Trust access, biometric multi-factor authentication and just-in-time provisioning into one SaaS-based solution. Alero ensures that remote vendors only access what they need by fully integrating with CyberArk Core Privileged Access Security for full audit, recording and remediation capabilities. Alero is designed to provide fast, easy and secure privileged access to remote vendors who need access to critical internal systems. By not requiring VPNs, agents or passwords, Alero removes operational overhead for administrators and makes organizations more secure.

Application Access Manager

CyberArk Application Access Manager is designed to provide comprehensive privileged access, credential, and secrets management for widely used application types and non-human identities. Application Access Manager enables organizations to avoid the need to store privilege credentials, passwords, keys, etc., within applications and instead easily and securely access the required credentials from the CyberArk Vault. To simplify the usage of Application Access Manager, CyberArk offers the widest eco-system of validated application integrations for securing privileged access.

For securing commercial off-the-shelf solutions, Application Access Manager can be used to provide and manage the credentials that third-party tools and solutions such as security tools, RPA, automation tools, IT management, etc. need to complete their jobs. Securing application credentials for popular commercial off-the-shelf applications is available via CyberArk Privilege Cloud.

For cloud-native applications built using DevOps methodologies – Application Access Manager provides a secrets management solution tailored specifically to the unique requirements of native-cloud and DevOps environments. The solution integrates with a wide range of DevOps tools such as Ansible, Jenkins, Puppet; PaaS/Container orchestration platforms such as Red Hat OpenShift, Pivotal Cloud Foundry, and Kubernetes, whether running on-premises, hybrid or on multiple cloud platforms. To better meet the needs of the developer community securing credentials used by applications in cloud-native and DevOps environments, an open source version of Application Access Manager is available as Conjur Open Source at www.conjur.org.

Additionally, for internally developed traditional applications, Application Access Manager can be used to protect business-system data and simplify operations by eliminating hardcoded credentials from internally developed applications and scripts. The solution supports a broad range of application environments and platforms, including application servers, Java, .Net, scripting running on a variety of platforms and operating systems including Unix/Linux, Windows and OS.

Endpoint Protection

Endpoint Privilege Manager. CyberArk Endpoint Privilege Manager secures privileges on the endpoint (Windows servers, Windows desktops and Mac desktops) and helps contain attacks early in their lifecycle. It enables revocation of local administrator rights, while minimizing impact on user productivity, by seamlessly elevating privileges for authorized applications or tasks. Application control, with automatic policy creation, allows organizations to prevent malicious applications from executing, and runs unknown applications in a restricted mode. This, combined with credential theft protection, helps prevent malware such as ransomware from gaining a foothold and contains attacks on the endpoint. CyberArk Endpoint Privilege Manager is available through on-premises and SaaS deployments.

Our Services

Maintenance and Support

Our customers typically purchase one year or, to a lesser extent, three years, of software maintenance and support, in conjunction with their initial purchase of perpetual licenses for our products. Thereafter, they can renew such maintenance and support for additional one or three-year periods. These two alternative maintenance and support periods are common in the software industry. Customers pay for each alternative in full at the beginning of their terms. The substantial majority of our contracts sold are for a one-year term. For example, for the years 2017 through 2019 approximately 80% of the renewal contracts were for a one-year term.

Our global customer support organization has expertise in our software and how it interacts with complex IT environments. When sales are made to customers directly, we typically also provide any necessary maintenance and support pursuant to a maintenance and support contract directly with the customer. We typically provide all levels of support directly to our customers. However, when sales are made through channels, the channel partner may provide the first and second level support, and we typically provide third level support if the issue cannot be resolved by the channel partner.

Our maintenance and support program provides customers the right to software bug repairs, the latest system enhancements and updates on an if-and-when available basis during the maintenance period, and access to our technical support services. Our technical support services are provided via our online support center, which enables customers to submit new support queries and monitor the status of open and past queries. Our online support system also provides customers with access to our CyberArk Knowledge Base, an online user-driven information repository that provides customers the ability to address their own queries. Additionally, we offer email and telephone support during business hours to customers that purchase a standard support package and 24/7 availability to customers that purchase our 24/7 support package.

Professional Services

Our products are designed to allow customers to download, install and deploy them on their own or with training and professional assistance. CyberArk solutions are highly configurable and many customers will select either one of our many trained channel partners or our CyberArk Security Services team to provide expert professional services. Our Security Services team can be contracted to assist customers in planning, installing and configuring our solution to meet the needs of their security and IT environment, and provide technical account management services. Our Security Services team provides ongoing consulting services regarding best practices in privileged access management, and recommended ways to implement our solutions to meet specific customer requirements. Additionally, they share best practices associated with privileged access security to educate customers and partners on such best practices through virtual classroom, live face-to-face, or self-paced classes.

Our Technology

Our comprehensive solutions rely on a set of proprietary technologies that provide a high level of security, scalability and reliability. The core technologies included in our solutions are as follows.

Shared Technology Platform. Our shared technology platform is the foundation of the CyberArk Privileged Access Security Solution and includes our secure Digital Vault, Web Management Interface, Master Policy Engine and Discovery Engine. Our Digital Vault is an encrypted server that only responds to preset vault protocols to promote security throughout an organization's network. CyberArk solutions use the Digital Vault to safely store, audit and manage passwords, privileged credentials and secrets, policy information and privileged account session data. Our proprietary vault protocol technology enables distributed deployments across global networks for central management and auditing while providing enterprise-wide global coverage. Our Web Management Interface provides a single, user-friendly interface for customers to set, manage and monitor privileged access security policies across an entire organization in a matter of minutes while allowing for granular level exceptions to meet the organization's specific operational needs. Organizations can also leverage REST APIs to automate privileged access security tasks and quickly integrate CyberArk solutions with existing security, operations and DevOps tools. Our Master Policy Engine and Discovery Engine enable organizations to understand the scope of privileged access risk and help ensure that all privileged activity is accounted for by automatically discovering new privileged accounts or changes to existing accounts.

Secure Digital Vault Technology. Our proprietary Digital Vault technology provides a highly secure, isolated environment, independent of other software, and is engineered with multiple layers of security. Our Digital Vault provides a data encryption mechanism that eliminates the need for encryption key management by the end user, while each object in our Digital Vault is encrypted with its own unique encryption key. To ensure security throughout the network, our Digital Vault communicates within an organization's network and over the internet through a proprietary and highly protected Vault Protocol, enabling an organization to implement the centrally managed Privileged Access Security Solution with products located in multiple datacenters and geographic locations. Our Digital Vault provides an additional level of protection by preventing the vault administrator from accessing or discovering protected data stored within it. In addition, our Digital Vault database is embedded, isolated and self-managed as part of our Digital Vault software, thereby blocking database administrator access to our Digital Vault database to further eliminate threats. Our Privileged Access Security Solution's additional products use the highly secured Digital Vault to safely store, audit and manage passwords, privileged credentials, policy information and privileged access session data.

Sophisticated Threat Analytics Algorithms. Our team of cyber experts and development engineers has developed proprietary algorithms that are at the core of our privileged analytics and threat detection solution. These algorithms were developed using our deep understanding of cybersecurity and cyber attack techniques, together with over a decade of rich experience in analyzing privileged access activities. Our solution uses these proprietary algorithms to construct a behavioral profile for privileged users within an organization and continuously updates the profile based on normal changes in behavior. Once a behavioral profile is established, the threat analytics algorithms provide the ability to look for deviations from that profile in order to identify anomalies in user behavior. It then scores each individual anomaly and determines the level of threat based on the correlation of such anomalous events. Additionally, agents can be deployed to analyze and to detect Kerberos-based attacks against domain controllers in real-time. These attacks are particularly dangerous since they enable attackers to gain unrestricted access and control to the entire IT infrastructure. Alerts with full details of the incident, including the probability of malicious intent, can be raised immediately, allowing an organization's incident response team to review the potential threat and take action when necessary.

Strong Application Authentication and Credential Management. The Application Access Manager architecture allows an organization to eliminate hard-coded application credentials, such as passwords and encryption keys, from applications and scripts. Our secure, proprietary technology permits authentication of an application during run-time, based on any combination of the application's signature, executable path or IP address, and operating system user. Following application authentication, the authenticated application uses a secure application programming interface, or API, to request privileged account credentials during run-time and, based on the application permissions in our Privileged Access Security Solution, up-to-date credentials are provided to the application. To ensure business continuity, and high availability and performance even within complex and distributed network environments, our advanced product architecture provides a secure local credentials cache on the application server, eliminating the dependency on network availability and traffic during a run-time application credential request. Our proprietary architecture provides even higher value in application server environments, allowing an organization to eliminate application credentials without the need to perform any code changes or impacting application availability.

Privileged Session Recording and Controls. Our innovative privileged session recording and control mechanisms provide the ability to isolate an organization's IT systems from end-user desktops, while monitoring and recording the privileged session activities. Our proprietary architecture provides a highly secure, proxy-based solution that does not require agent installation on the target systems and provides a single-access control point to the target systems. The architecture blocks direct communication between an end-user's desktop and a target system, thus preventing potential malware on the desktop from infiltrating the target system. This architecture further ensures that privileged credentials will remain protected and will not be exposed to the end-user or reach the desktop. CyberArk session monitoring solutions support native connectivity to Windows and other graphical platforms via native RDP tools, and Linux/Unix using native SSH tools. Additionally, following the acquisition of Vaultive the solution provides native access to SaaS applications, cloud consoles, DevOps tools, social media platforms and more. Native access not only streamlines the connection process and workflow, but more importantly it unifies and enforces organizational security policy across disparate targets. Comprehensive recording capabilities provide the ability to record every keystroke and mouse click on the privileged session, and also provide DVR-like recordings with search, locate and alert capabilities. Risk scoring can be applied to each recorded session, automating the review of all privileged sessions and enabling auditors to prioritize and deprioritize workloads based on risk.

Strong Endpoint Security. Following the acquisition of Viewfinity, Inc. in 2015, we began offering endpoint agent technology, which provides policy-based privilege management, application control and credential theft protection capabilities. The agent is able to detect privileged commands, and application installation or invocation on the endpoint, and to validate whether it is permissible by the organization's security policy, otherwise blocking the operation or allowing it to run in a restricted mode (via application whitelisting, blacklisting and greylisting). Having users operate in a least privilege mode together with our agent-based technology effectively reduces the attack surface that attackers or malware can exploit. The solution leverages third party threat and reputation information to enrich the policy and black-list definitions to further strengthen controls and block bad or malicious applications based on such security intelligence.

Secure Remote Vendor Access. The cloud-based, multifactor authentication provided with Alero leverages the biometric capabilities from smartphones which in turn allows authorized remote vendors simple just-in-time secure privileged access. Once authenticated, all privileged sessions are automatically recorded for full audit and monitored in real-time. Alero integrates Zero Trust access, biometric multi-factor authentication, just-in-time provisioning and full integration with CyberArk Core Privileged Access Security for full visibility and audit for administrators, into one single SaaS solution.

Our Customers

As of December 31, 2019, we had more than 5,300 customers, including more than 50% of the Fortune 500 companies and more than 35% of the Global 2000 companies. Our customers include leading organizations in a diverse set of industries, including financial services, manufacturing, insurance, healthcare, energy and utilities, transportation, retail, technology and telecommunications, as well as government agencies.

Our business is not dependent on any particular customer. No customer or channel partner accounted for more than 10% of our revenues in the last three years. Our diverse global footprint is evidenced by the fact that in 2019, we generated 53.9% of our revenues from customers in the United States, 29.9% from the EMEA region and 16.2% from the rest of the world, including countries in North and South America other than the United States and countries in the Asia Pacific region.

Sales and Marketing

Sales

We believe that our hybrid sales model, which combines the leverage of high touch, channel sales with the account control of direct sales, has played an important role in the growth of our customer base to date. We maintain a highly trained sales force that is responsible for developing and closing new business, the management of relationships with our channel partners and the support and expansion of relationships with existing customers. Our sales organization is organized by geographic regions, consisting of the Americas, EMEA and Asia Pacific and Japan regions. As of December 31, 2019, our global network of channel partners consisted of more than 400 resellers, distributors and managed service providers. Our channel partners generally complement our sales efforts by helping identify potential sales targets, maintaining relationships with certain customers and introducing new products to existing customers and offering post-sale professional services and technical support. In 2019, we generated approximately 35% of our revenues from direct sales from our field offices located throughout the world. Approximately 45% of our sales in the United States are direct while the substantial majority of our sales in the EMEA and APJ regions and the rest of the world are through channel partners. We work with many global systems integration partners and several leading regional security value added resellers, such as Optiv Security Inc., Computacenter PLC, Orange S.A. Business Services (Orange Cyberdefense), Atos, M.Tech, , Netpoleon Solutions, and Edvance. These companies were each among our top 15 channel partners in 2018 and 2019 by revenues and we have derived a meaningful amount of revenues from sales to each of them during the last two years. Further, we work with advisory firms such as Deloitte, KPMG and Accenture in marketing our solutions and providing implementation services to our customers. We also have a joint business relationship contract with PricewaterhouseCoopers LLP in which we may engage in co-marketing and associated co-delivery of solutions and implementation services.

Our sales cycle varies by size of the customer, the number of products purchased and the complexity of the customer's IT infrastructure, ranging from several weeks for incremental sales to existing customers to many months for sales to new customers or large deployments. We also typically experience seasonality in our sales, particularly demonstrated by increased sales in the last month of a quarter and the last quarter of the year. To support our broadly dispersed global channel and customer base, as of December 31, 2019, we had sales personnel in 37 countries. We plan to continue investing in our sales organization to support both the growth of our channel partners and our direct sales organization.

Marketing

Our marketing strategy is focused on building our brand strength, communicating the benefits of our solutions, developing leads and increasing sales to existing customers. We market ourselves as the global leader in privileged access management, a critical layer of IT security to protect data, infrastructure and assets across the enterprise, in the cloud and throughout the DevOps pipeline. We execute our strategy by leveraging a combination of internal marketing professionals and a network of channel partners to communicate the value proposition and differentiation for our products, generating qualified leads for our sales force and channel partners. Our marketing efforts also include public relations in multiple regions and extensive content development available through our website. We are focused on ongoing thought-leadership campaigns to reinforce our positioning as the privileged access management leader. Our marketing team is expanding its efforts by investing in analytics-driven lead development, stronger global coordination, quick response to current events and proactive and consistent communication with market analysts.

Research and Development

Continued investment in research and development is critical to our business. Our research and development efforts are focused primarily on improving and continuing to enhance existing products and services, as well as developing new products, features and functionality to meet market needs. We believe the timely development of new products and capabilities is essential to maintaining our competitive position. We regularly release new versions of our software which incorporate new features and enhancements to existing ones. We also maintain a dedicated CyberArk Labs team that researches reported advanced cyber attacks, the attackers' techniques and post-exploit methods that lead to new security development initiatives for our products, and provides thought-leadership on new product capabilities and targeted attack mitigation.

As of December 31, 2019, we had 349 employees focused on research and development. We conduct our research and development activities primarily in Israel. We believe this provides us with access to world class engineering talent. Our research and development expenses were \$42.4 million, \$57.1 million, and \$72.5 million in 2017, 2018 and 2019, respectively.

Intellectual Property

We rely on a combination of patent, trademark, copyright and trade secret laws, confidentiality procedures and contractual provisions to protect our technology and the related intellectual property.

As of December 31, 2019, we had 33 issued patents in the United States, and 72 pending U.S. patent applications. We also had 7 issued patents and 23 applications pending for examination in non-U.S. jurisdictions, all of which are counterparts of our U.S. patent applications.

The inventions for which we have sought patent protection relate to current and future elements of our products and technology. The following list of products identifies some of those with patent-protected features but other products may also be protected by one or more patents: Digital Vault, Discovery & Audit tool, Privileged Threat Analytics, Privileged Session Manager, Endpoint Privilege Manager and Application Access Manager.

We generally enter into confidentiality agreements with our employees, consultants, service providers, resellers and customers and generally limit internal and external access to, and distribution of, our proprietary information and proprietary technology through certain procedural safeguards. These agreements and measures may not effectively prevent unauthorized use or disclosure of our intellectual property or technology and may not provide an adequate remedy in the event of unauthorized use or disclosure of our intellectual property or technology.

Our industry is characterized by the existence of a large number of relevant patents and frequent claims and related litigation regarding patent and other intellectual property rights. In particular, leading companies in the security industry have extensive patent portfolios. As our market position continues to grow, we believe that competitors will be more likely to try to develop products that are similar to ours and that may infringe our proprietary rights. It may also be more likely that competitors or third parties will claim that our products infringe their proprietary rights. From time to time, third parties have asserted and may assert their patent, copyright, trademark and other intellectual property rights against us, our channel partners, users or customers, whom our standard license and other agreements may obligate us to indemnify against such claims under certain circumstances. Successful claims of infringement or misappropriation by a third party could prevent us from developing, distributing, licensing, using certain products, performing certain services or could require us to pay substantial damages (including, for example, treble damages if we are found to have willfully infringed patents and increased statutory damages if we are found to have willfully infringed copyrights), royalties or other fees. Such claims also could require us to expend additional development resources to attempt to redesign our products or services or otherwise to develop non-infringing technology; enter into potentially unfavorable royalty or license agreements in order to obtain the right to use necessary technologies or intellectual property rights; and to indemnify our customers and partners (and parties associated with them). Even if third parties may offer a license to their technology, the terms of any offered license may not be acceptable, and the failure to obtain a license or the costs associated with any license could cause our business, results of operations or financial condition to be materially and adversely affected.

Competition

The IT security market in which we operate is characterized by intense competition, constant innovation, rapid adoption of different technological solutions and services, and evolving security threats. We compete with a multitude of companies that offer a broad array of IT security products that employ different approaches and delivery models to address these evolving threats.

Our current competitors include BeyondTrust Corporation, Broadcom Inc. (which acquired CA Technologies), One Identity LLC, and Thycotic Software Ltd., in the access and identity management market, some of which may offer solutions at lower price points. Further, we may face competition due to changes in the manner that organizations utilize IT assets and the security solutions applied to them, such as the provision of privileged account security functionalities as part of public cloud providers' infrastructure offerings, or cloud-based identity management solutions. Limited IT budgets may also result in competition with providers of other advanced threat protection solutions such as McAfee, LLC, Palo Alto Networks, Splunk Inc., and NortonLifeLock, Inc. (formerly known as Symantec Corporation acquired by Broadcom Inc.). We also may compete, to a certain extent, with vendors that offer products or services in adjacent or complementary markets to privileged access management, including identity management vendors and cloud platform providers such as Amazon Web Services, Google Cloud Platform, and Microsoft Azure.

The principal competitive factors in our market include:

- the breadth and completeness of a security solution;
- reliability and effectiveness in protecting, detecting and responding to cyber attacks;

- analytics and accountability at an individual user level;
- ability of customers to achieve and maintain compliance with compliance standards and audit requirements;
- strength of sale and marketing efforts, including advisory firms and channel partner relationships;
- global reach and customer base;
- scalability and ease of integration with an organization’s existing IT infrastructure and security investments;
- brand awareness and reputation;
- innovation and thought leadership;
- quality of customer support and professional services;
- speed at which a solution can be deployed and implemented; and
- price of a solution and cost of maintenance and professional services.

We believe we compete favorably with our competitors on the basis of these factors. However, some of our current competitors may enjoy potential competitive advantages, such as greater name recognition, longer operating history, larger market share, larger existing user base and greater financial, technical and other resources.

Properties

Our corporate headquarters are located in Petach Tikva, Israel in an office consisting of approximately 139,100 square feet to which we moved in September 2017. The current lease expires in June 2022 with an extension option for two successive one year periods. Our U.S. headquarters are located in Newton, Massachusetts in an office consisting of approximately 32,463 square feet. The lease expires in June 2026 with an extension options for the entire premises through 2034. We maintain additional offices in the U.K. and Singapore along with certain regional sales offices in France, Germany, Australia, Japan, Italy, Netherlands, Spain, Denmark, Poland, India, Kiev and Turkey. We believe that our facilities are sufficient to meet our current needs and that if we require additional space to accommodate our growth, we will be able to obtain additional facilities on commercially reasonable terms.

Internal Cybersecurity

As we offer privileged access management solutions and services, we are sensitive to potential cyber attacks that may result in unauthorized access to our information and potentially that of our customers. We are also aware that, being an Israeli company, we may be targeted by cyber terrorists and state actors. Any actual or perceived breach of our networks, systems or data may have an adverse impact on the market perception of our solutions and services and may expose us to potential liability.

For more information regarding the risks involved with cybersecurity, see “Item 1A. Risk Factors—Our reputation and business could be harmed based on real or perceived shortcomings, defects or vulnerabilities in our solutions or the provision of our services, or due to the failure of our customers, channel partners, managed security service providers, or subcontractors to correctly implement, manage and maintain our solutions, resulting in loss of existing or new customers, lawsuits or financial losses” and “—If our internal IT network system, or those of third parties, is compromised by cyber attackers or other data thieves, or by a critical system failure, our reputation, financial condition and operating results could be materially adversely affected.”

We are focused on continuously implementing and maintaining technologies and solutions to assist in the prevention of potential cyber attacks, as well as protective measures and contingency plans in the event of an actual attack. We maintain cybersecurity risk management policies and procedures, including internal controls, audits and disclosure protocols for handling and responding to cybersecurity events. These policies and procedures include internal notifications and engagements and, as necessary, cooperation with law enforcement. Our controls are designed to limit and monitor access to our systems, networks and data, prevent inappropriate or unauthorized access or modification, and monitor for threats or vulnerability. We conduct periodic trainings for our employees, including on phishing, malware and other cybersecurity risks and we have mechanisms in place designed to promote rapid internal reporting of potential or actual cybersecurity breaches.

We have also made significant investments in technical and organizational measures to establish and manage compliance with laws and regulations governing our data protection activities (such as GDPR), which enhance our data protection and cybersecurity. Furthermore, we monitor cybersecurity risks, certifications or assessments at our third-party cloud infrastructure providers and other IT service providers and reevaluate those contractual relationships as appropriate.

The audit committee of our board periodically reviews our cybersecurity risks and controls with senior management, keeping our board informed of key issues. We periodically review and modify our cybersecurity risk management policies and procedures to reflect changes in technology, the regulatory environment, industry and security practices and other business needs.

Government Regulations

For information regarding the material effects of government regulations, see “—Industry Background” above, “Item 3. Key Information—D. Risk Factors—Regulatory data privacy concerns, evolving regulations of cloud computing, cross-border data transfer restrictions and other domestic or foreign regulations may limit the use and adoption of, or require modification of, our products and services, which could limit our ability to attract new customers or support our current customers, thus reducing our revenues, harming our operating results and adversely affecting our business,” “—Our business may be materially affected by changes to fiscal and tax policies. Potentially negative or unexpected tax consequences of these policies, or the uncertainty surrounding their potential effects, could adversely affect our results of operations and share price,” “—We are subject to governmental trade, export and import controls that could subject us to liability in the event of non-compliance or impair our ability to compete in international markets and “The tax benefits that are available to us require us to continue to meet various conditions and may be terminated or reduced in the future, which could increase our costs and taxes,” and “Item 5. Operating and Financial Review and Prospects—Operating Results—Israeli Tax Considerations and Government Programs.”

Legal Proceedings

See “Item 8.A. Financial Information—Consolidated Financial Statements and Other Financial Information—Legal Proceedings.”

C. Organizational Structure

The legal name of our company is CyberArk Software Ltd. and we are organized under the laws of the State of Israel.

The following table sets forth our key subsidiaries all of which are 100% owned directly or indirectly by CyberArk Software Ltd.:

<u>Name of Subsidiary</u>	<u>Place of Incorporation</u>
CyberArk Software, Inc.	Delaware, United States
CyberArk Software (UK) Limited	United Kingdom
CyberArk Software (Singapore) PTE. LTD.	Singapore
CyberArk Software (DACH) GmbH	Germany
CyberArk Software Italy S.r.l.	Italy
CyberArk Software (France) SARL	France
CyberArk Software (Netherlands) B.V.	Netherlands
CyberArk Software (Australia) Pty Ltd.	Australia
CyberArk Software (Japan) K.K.	Japan
CyberArk Software Canada Inc.	Canada
CyberArk USA Engineering, LP	Delaware, United States
CyberArk Software (Spain), S.L.	Spain

D. Property, Plant and Equipment

See “Item 4.B.—Business Overview—Property” for a discussion of property, plant and equipment.

ITEM 4A. UNRESOLVED STAFF COMMENTS

Not applicable.

ITEM 5. OPERATING AND FINANCIAL REVIEW AND PROSPECTS

For discussion related to our financial condition, changes in financial condition, and the results of operations for the year ended December 31, 2017 and comparison of the years ended December 31, 2017 and 2018, see “Item 5. Operating and Financial Review and Prospects” in our annual report on Form 20-F for the fiscal year ended December 31, 2018 filed with the SEC on March 14, 2019.

Company Overview

We are a global leader in privileged access management, a critical layer of IT security to protect data, infrastructure and assets across the enterprise, in the cloud and throughout the DevOps pipeline. Our software solutions are focused on protecting privileged accounts, credentials and secrets, which are consistently sought-after by cyber attackers to accomplish their goals. Privileged accounts are pervasive and act as the “keys to the IT kingdom” providing complete access to, and control of, IT infrastructure (whether located on-premises or in the cloud), applications, DevOps tools, and critical business data. In the hands of an external attacker or malicious insider, privileged credentials allow attackers to take control of and disrupt an organization’s IT environment and industrial control systems, steal confidential information and commit financial fraud. Our comprehensive solutions provide risk-based credential and session management to detect and protect against attacks involving privileged access, secure secrets used by applications, and enforce privileged access security on the endpoint. Our customers use our innovative solutions to introduce a critical security layer to protect against, detect and respond to cyber attacks before they strike vital systems, compromise sensitive data and disrupt business operations.

We derive our revenues from licensing our cybersecurity software, selling maintenance and support contracts, and providing professional services to the extent requested by customers. Our license revenues consist primarily of revenues from sales of our Core Privileged Access Security Solution, Endpoint Privilege Manager and Application Access Manager. Our customers typically purchase one year and, to a lesser extent, three years, of maintenance and support in conjunction with their initial purchase of perpetual licenses for our products. Thereafter, they can renew such maintenance and support for additional one or three-year periods. Selling our SaaS solutions is also a growing part of our business.

We have experienced significant growth over the last several years, as evidenced by a compound annual growth rate in revenues of 28.8% from 2017 to 2019. We have also increased our number of employees and subcontractors from 1,015 as of December 31, 2017 to 1,380 as of December 31, 2019. We intend to continue to execute on our strategy of growing our business to meet the needs of our customers and to pursue opportunities in new and existing verticals, geographies and products. We intend to continue to invest in the development of our sales and marketing teams, with a particular focus on expanding our channel partnerships, targeting new customers, creating technology partnerships and solidifying relationships with existing customers.

We also plan to continue to invest in research and development in order to continue to develop technology to protect modern enterprises from privileged access security risk from hybrid to cloud-native environments.

During the years ended December 31, 2017, 2018 and 2019, our revenues were \$261.7million, \$343.2 million and \$433.9 million, respectively, representing year-over-year growth of 31.1% and 26.4% in 2018 and 2019, respectively, and with maintenance and professional services comprising 43.9% and 45.2% of our revenues in 2018 and 2019, respectively. Our net income for the years ended December 31, 2017, 2018 and 2019 was \$16.0 million, \$47.1 million and \$63.1 million, respectively.

Key Financial Metrics

We monitor several key financial metrics to help us evaluate growth trends, establish budgets, measure the effectiveness of our sales and marketing efforts and assess operational efficiencies. The key financial metrics that we monitor are as follows:

	Year ended December 31,		
	2017	2018	2019
	(in thousands)		
Revenues	\$ 261,701	\$ 343,199	\$ 433,895
Gross profit	219,853	294,738	371,280
Non-GAAP gross profit(1)	226,355	303,651	381,999
Operating income	20,326	47,292	62,284
Non-GAAP operating income(1)	51,850	90,460	123,406
Net income	16,015	47,072	63,064
Non-GAAP net income(1)	41,895	76,523	107,901
Net cash provided by operating activities	80,737	130,125	141,710
Total deferred revenues (as of period-end)	105,235	149,534	190,355

(1) For a reconciliation of non-GAAP gross profit, non-GAAP operating income to operating income and of non-GAAP net income to net income, the most directly comparable GAAP measures, see “Item 3.A. Selected Financial Data.”

Revenues. We derive our revenues primarily from licensing our cybersecurity software, selling maintenance and support contracts, and providing professional services to the extent requested by customers. We review our revenues generally to assess the overall health of our business and our license revenues in particular to assess the adoption of our software and our growth in the markets we serve.

We consider our license revenues to be particularly important in assessing our results of operations because license fees impact both our short-term and long-term revenues. License purchases, whether by new customers or due to expansion by existing customers, impact our revenues favorably in the short-term because we recognize a large portion of license fees immediately upon delivery. License purchases further contribute significantly to our revenues in the long term because the size of our maintenance and support contracts is directly related to our licenses revenues, but revenues from maintenance and support contracts are recognized on a straight-line basis over the term of the related contract. This fact, coupled with the high renewal rate for our maintenance and support contracts, means that a meaningful portion of the revenues we report each period are recognized from deferred revenues generated by maintenance and support contracts entered into during previous quarters.

The amount that a customer pays for a license can vary from a few thousand dollars to many millions of dollars depending on its scope. We generally license our products on a price per user or price per server basis; however, our license agreements with a small number of our largest customers do not contain any limit on the number of users or servers in recognition of the size of the overall agreement. We also license certain of our products based on the number of concurrent sessions monitored or endpoints secured. As a result, we do not track, and are unable to track, the amount of license revenues we generate on per user or per server basis. We do, however, maintain internal price guidelines for different size transactions and, since our cost of license revenues is negligible, we generate incremental profit from every license. Although we are focused on growing our customer base, our revenues are a function of both the size of initial sales to new customers and the size of upsells or cross sells to existing customers. We seek to increase the number of large transactions that we enter into because they better leverage our operating expense base, and particularly our sales and marketing expenses, and also generate larger maintenance and support contracts to drive future revenues and margins.

Because the size of our maintenance and support contracts is directly related to our licenses revenues and because the rates that we charge for professional services fluctuate very little, the drivers of changes in these sources of revenues have to date been volume-based. Historically, there has been little fluctuation in price when we renew a contract for maintenance and support or for professional services. While the demand for professional services is expected to increase as our customers and license base grow, we expect that our channel partners will increase the amount of such services that they provide. Therefore, while we expect an increase in the dollar amount of our professional services revenue, we do not expect our professional services revenues to increase materially as a percentage of total revenues.

See “—Components of Statements of Operations—Revenues” for more information.

Non-GAAP Gross Profit, non-GAAP Operating Income and Non-GAAP Net Income. Non-GAAP gross profit, Non-GAAP operating income and non-GAAP net income are non-GAAP financial measures. We define non-GAAP gross profit, non-GAAP operating income and non-GAAP net income as gross profit, operating income and net income, respectively, which each exclude (i) share-based compensation expense and (ii) amortization of intangible assets related to acquisitions. Non-GAAP operating income also excludes (i) expenses related to acquisitions, and (ii) expenses related to facility exit and transitions costs. Non-GAAP net income also excludes (i) tax effects related to the non-GAAP adjustments set forth above, (ii) tax effects related to the impact to our deferred tax assets as a result of the Tax Act, (iii) intra-entity intellectual property transfer tax effects and (iv) amortization of debt discount and issuance costs.

We believe that providing non-GAAP gross profit, non-GAAP operating income and non-GAAP net income that exclude, as appropriate, share-based compensation expense, expenses related to acquisitions, amortization of intangible assets related to acquisitions, facility exit and transition costs, the tax effects related to these non-GAAP adjustments, intra-entity intellectual property transfer tax effects, non-cash interest expense related to the amortization of debt discount and issuance costs and the tax effects related to the impact to our deferred tax assets as a result of the Tax Act allows for more meaningful comparisons between our financial results from period to period. Share-based compensation expense has been, and will continue to be a significant recurring expense in our business and an important part of the compensation we provide to employees for the foreseeable future. Share-based compensation expense has varying available valuation methodologies, subjective assumptions and a variety of equity instruments that can impact a company’s non-cash expense. We also believe that expenses related to our acquisitions, amortization of intangible assets related to acquisitions, facility exit and transitions costs, intra-entity intellectual property transfer tax effects, non-cash interest expense related to the amortization of debt discount and issuance costs, tax effects related to the impact to our deferred tax assets as a result of the Tax Act and the tax effects related to the non-GAAP adjustments set forth above do not reflect the performance of our core business and would impact period-to-period comparability. Each of our non-GAAP financial measures is an important tool for financial and operational decision making and for evaluating our own financial results over different periods of time. In particular, these financial measures reflect our operating expenses, the largest of which is currently sales and marketing. Accordingly, we assess the effectiveness of our sales and marketing efforts in part by considering whether increases in such expenditures are reflected in increased revenues and increased non-GAAP operating income and non-GAAP net income. The material factors driving changes in these financial measures are discussed under the subheading “—Comparison of Period to Period Results of Operations.” as well as under “Item 3.A. Selected Financial Data.”

Net Cash Provided by Operating Activities. We monitor net cash provided by operating activities as a measure of our overall business performance. Our net cash provided by operating activities is driven in large part by net income and from up-front payments for maintenance and support contracts and, to a lesser extent, professional services. Monitoring net cash provided by operating activities enables us to analyze our financial performance as it includes our deferred revenues and removes the non-cash effects of certain items such as depreciation, amortization and share-based compensation expense as well as deferred commission expenses, thereby allowing us to better understand and manage the cash needs of our business. The material factors driving changes in our net cash provided by operating activities are discussed under “—Liquidity and Capital Resources.”

Total Deferred Revenues. Our total deferred revenues consist of amounts that have been collected but that have not yet been recognized as revenues because they do not meet the applicable criteria. The substantial portion of our deferred revenues consists of the unrecognized portion of upfront payments associated with maintenance and support contracts. We monitor our total deferred revenues because they represent a significant portion of revenues to be recognized in future periods. Substantially all of the increase in our total deferred revenues has been from growth in our maintenance and support contracts which, in turn, is driven by growth of our license revenues. The material factors driving changes in our license revenues are discussed under “—Comparison of Period to Period Results of Operations.”

A. Operating Results

The following discussion and analysis should be read in conjunction with the section titled “Item 3.A. Selected Financial Data” of this annual report and our consolidated financial statements and the related notes contained elsewhere in this annual report. This discussion and analysis may contain forward-looking statements based upon current expectations that involve risks and uncertainties. Our actual results may differ materially from those anticipated in these forward-looking statements as a result of various factors, including those set forth in “Item 3.D. Risk Factors” of this annual report. Our financial statements have been prepared in accordance with U.S. GAAP.

Components of Statements of Operations

Revenues

Our revenues consist of the following:

- License Revenues.** License revenues include perpetual and term-based licenses as well as the ratable portion from SaaS during the reported period. License revenues are generated primarily from sales of our Privileged Access Security, Application Access Manager and Endpoint Privilege Manager solutions. The substantial majority of our license revenues has been from sales of our Privileged Access Security solution. Customers can purchase our standard Core Privileged Access Security solution which provides risk-based credential security and session management with advanced add-on options for least privilege server protection and domain controller protection. Customers can also purchase Application Access Manager for secrets management for all application types, including DevOps, and Endpoint Privilege Manager for least privilege and credential theft protection for workstations. The standard Core Privileged Access Security solution is licensed per privileged user; the add-on advanced options for least privilege server protection and domain controller protection are licensed by target system. Endpoint Privilege Manager is also licensed by system. Application Access Manager has two different licensing approaches based on deployment model. The first model is licensed by agent for mission-critical applications like application servers that require the highest levels of performance and availability. The second model is agentless for more dynamic cloud native applications; for this model, Application Access Manager is licensed by calling system for smaller configurations and is licensed by site/region for larger installations.
- Maintenance and Professional Services Revenues.** Maintenance revenues are generated from maintenance and support contracts purchased by our customers in order to gain access to the latest software enhancements and updates on an ‘if and when available’ basis and to telephone and email technical support. We also offer professional services focused on both deployment and training of our customers to fully leverage the use of our products.

Geographic Breakdown of Revenues

The United States is our biggest market, with the balance of our revenues generated from the EMEA region and the rest of the world, which includes Canada, Central and South America, and the Asia Pacific and Japan region. The following table sets forth the geographic breakdown of our revenues by region for the periods indicated:

	Year ended December 31,					
	2017		2018		2019	
	Amount	% of Revenues	Amount	% of Revenues	Amount	% of Revenues
	(in thousands)					
United States	\$ 145,453	55.6%	\$ 187,704	54.7%	\$ 233,945	53.9%
EMEA	81,778	31.2%	112,086	32.7%	129,730	29.9%
Rest of World	34,470	13.2%	43,409	12.6%	70,220	16.2%
Total revenues	\$ 261,701	100.0%	\$ 343,199	100.0%	\$ 433,895	100.0%

Cost of Revenues

Our total cost of revenues consists of the following:

- *Cost of License Revenues.* Cost of license revenues consists primarily of amortization of intangible assets, costs incurred by third-party software vendors, hosting costs and shipping costs associated with delivery of our software. We expect the absolute cost of license revenues to increase as our license revenues increase.
- *Cost of Maintenance and Professional Services Revenues.* Cost of maintenance and professional services revenues primarily consists of personnel costs for our global customer support and professional services organization. Such costs consist of salaries, benefits, bonuses, share-based compensation and subcontractors' fees. We expect the absolute cost of maintenance and professional services revenues to increase as our customer base grows and as we hire additional professional services and technical support personnel.

Gross Profit and Gross Margin

Gross profit is total revenues less total cost of revenues. Gross margin is gross profit expressed as a percentage of total revenues. Our gross margin has historically fluctuated slightly from period to period as a result of changes in the mix of license revenues and maintenance and professional services revenues and we expect this pattern to continue.

Operating Expenses

Our operating expenses are classified into three categories: research and development, sales and marketing and general and administrative. For each category, the largest component is personnel costs, which consists of salaries, employee benefits (including commissions and bonuses) and share-based compensation expense. Operating expenses also include allocated overhead costs for facilities as well as depreciation and amortization. Allocated costs for facilities primarily consist of rent and office maintenance and utilities. We expect personnel and all allocated costs to continue to increase in absolute dollars as we hire new employees and add facilities to continue to grow our business.

Research and Development. Research and development expenses consist primarily of personnel costs attributable to our research and development personnel and consultants as well as allocated overhead costs and software and related expenses. We continue to expect that our research and development expenses will continue to increase in absolute dollars and at least in line with our revenue growth rate as we continue to grow our research and development headcount to further strengthen our technology platform and invest in the development of both existing and new products.

Sales and Marketing. Sales and marketing expenses are the largest component of our operating expenses and consist primarily of personnel costs, including variable compensation, as well as marketing and business development costs, travel expenses, allocated overhead costs and depreciation and amortization of intangibles assets. We expect that sales and marketing expenses will continue to increase in absolute dollars and at least in line with our revenue growth rate as we plan to expand our sales and marketing efforts globally. We continue to expect sales and marketing expenses will remain our largest category of operating expenses.

General and Administrative. General and administrative expenses consist primarily of personnel costs for our executive, finance, human resources, legal and administrative personnel. General and administrative expenses also include external legal, accounting and other professional service fees. We continue to expect that general and administrative expense will increase in dollars and at least in line with our revenue growth rate as we grow and expand our operations and operate as a public company, including higher corporate insurance, investor relations and accounting expenses, and the additional costs relating to our ongoing regulatory compliance efforts.

Financial Income (Expenses), Net

Financial income (expenses), net consists of mainly interest income, foreign currency exchange gains or losses, amortization of debt discount and issuance costs and foreign exchange forward transactions expenses. Interest income consists of interest earned on our cash, cash equivalents, short and long-term bank deposits and marketable securities. We expect interest income to vary depending on our average investment balances and market interest rates during each reporting period. Foreign currency exchange changes reflect gains or losses related to transactions denominated in currencies other than the U.S. dollar.

Taxes on Income

The ordinary corporate tax rate in Israel was 24.0% for 2017 and 23.0% for 2018 and 2019.

As discussed in greater detail below under “Israeli Tax Considerations and Government Programs”, we have been entitled for various tax benefits under the Investment Law. Under the Investment Law, our tax rate to be paid with respect to our eligible Israeli taxable income under these benefits programs is 12.0%.

Under the Investment Law and other Israeli legislation, we are entitled to certain additional tax benefits, including accelerated deduction of research and development expenses, accelerated depreciation and amortization rates for tax purposes on certain intangible assets and deduction of public offering expenses in three equal annual installments.

Our non-Israeli subsidiaries are taxed according to the tax laws in their respective jurisdictions of residency. Due to our multi-jurisdictional operations, we apply significant judgment to determine our consolidated income tax position.

Comparison of Period to Period Results of Operations

The following table sets forth our results of operations in dollars and as a percentage of revenues for the periods indicated:

	Year ended December 31,					
	2017(1)		2018		2019	
	Amount	% of Revenues	Amount	% of Revenues	Amount	% of Revenues
(\$ in thousands)						
Revenues:						
License	\$ 147,640	56.4%	\$ 192,514	56.1%	\$ 237,879	54.8%
Maintenance and professional services	114,061	43.6	150,685	43.9	196,016	45.2
Total revenues	261,701	100.0	343,199	100.0	433,895	100.0%
Cost of revenues:						
License	7,911	3.0	10,526	3.1	10,569	2.4
Maintenance and professional services	33,937	13.0	37,935	11.0	52,046	12.0
Total cost of revenues	41,848	16.0	48,461	14.1	62,615	14.4
Gross profit	219,853	84.0	294,738	85.9	371,280	85.6
Operating expenses:						
Research and development	42,389	16.2	57,112	16.6	72,520	16.7
Sales and marketing	126,739	48.4	148,290	43.2	184,168	42.4
General and administrative	30,399	11.6	42,044	12.3	52,308	12.1
Total operating expenses	199,527	76.2	247,446	72.1	308,996	71.2
Operating income	20,326	7.8	47,292	13.8	62,284	14.4
Financial income, net	4,103	1.5	4,551	1.3	7,800	1.8
Income before taxes on income	24,429	9.3	51,843	15.1	70,084	16.2
Taxes on income	(8,414)	(3.2)	(4,771)	(1.4)	(7,020)	(1.6)
Net income	\$ 16,015	6.1%	\$ 47,072	13.7%	\$ 63,064	14.6%

- (1) On January 1, 2018, we adopted ASC No. 606 using the modified retrospective method. Results for reporting periods beginning after January 1, 2018 are presented under ASC No. 606, while prior period results are not adjusted and continue to be reported in accordance with historic accounting under ASC No. 605.

Year Ended December 31, 2018 Compared to Year Ended December 31, 2019

Revenues

	Year ended December 31,					
	2018		2019		Change	
	Amount	% of Revenues	Amount	% of Revenues	Amount	%
(\$ in thousands)						
Revenues:						
License	\$ 192,514	56.1%	\$ 237,879	54.8%	\$ 45,365	23.6%
Maintenance and professional services	150,685	43.9	196,016	45.2	45,331	30.1
Total revenues	\$ 343,199	100.0%	\$ 433,895	100.0%	\$ 90,696	26.4%

Revenues increased by \$90.7 million, or 26.4%, from \$343.2 million in 2018 to \$433.9 million in 2019. This increase was due to increased sales of our solutions driving growth in both our license revenues and our maintenance and professional services revenues. The largest increase in revenue occurred in the United States, where revenues increased by \$46.2 million, while the increase in EMEA and the rest of the world was \$17.7 million and \$26.8 million, respectively. The significant increase in total revenues primarily resulted from a higher volume of transactions, including large transactions of greater than \$1.0 million each that together accounted for \$63.5 million. Multiple large transactions or even a single large transaction in a specific period could materially impact relative growth rates among our different regions for a particular period. We increased our number of customers from approximately 4,450 as of December 31, 2018 to more than 5,300 as of December 31, 2019.

License revenues increased by \$45.4 million, or 23.6%, from \$192.5 million in 2018 to \$237.9 million in 2019. In 2019, approximately 65% of license revenues were generated from sales to existing customers. Substantially all of the license revenue growth resulted from increased sales of our Core Privileged Access Security as well as strong growth from Application Access Manager.

Maintenance and professional services revenues increased by \$45.3 million, or 30.1%, from \$150.7 million in 2018 to \$196.0 million in 2019. Maintenance revenues increased by \$35.7 million from \$124.0 million in 2018 to \$159.7 million in 2019, with renewals accounting for approximately \$17.6 million and initial maintenance contracts for approximately \$18.1 million, respectively, of this increase. Professional services revenues increased by \$9.6 million from \$26.7 million in 2018 to \$36.3 million in 2019, primarily due to the provision of more services to customers.

Cost of Revenues and Gross Profit

	Year ended December 31,					
	2018		2019		Change	
	Amount	% of Revenues	Amount	% of Revenues	Amount	%
(\$ in thousands)						
Cost of revenues:						
License	\$ 10,526	3.1%	\$ 10,569	2.4%	\$ 43	0.4%
Maintenance and professional services	37,935	11.0	52,046	12.0	14,111	37.2%
Total cost of revenues	\$ 48,461	14.1%	\$ 62,615	14.4%	\$ 14,154	29.2%
Gross profit	\$ 294,738	85.9%	\$ 371,280	85.6%	\$ 76,542	26.0%

Cost of license revenues increased from \$10.5 million in 2018 to \$10.6 million in 2019. While we experienced an increase of \$0.6 million of costs associated with increase in license revenues, it was offset by a decrease of \$0.5 million from amortization of intangible assets.

Cost of maintenance and professional services revenues increased by \$14.1 million, or 37.2%, from \$37.9 million in 2018 to \$52.0 million in 2019. The increase in cost of maintenance and professional services revenues was driven primarily by a \$7.5 million increase in personnel costs and related expenses and a \$6.4 million increase in the use of third party consultants for services rendered. Our technical support and professional services headcount grew from 214 at the end of 2018 to 253 at the end of 2019.

Gross profit increased by approximately \$76.6 million, or 26.0%, from \$294.7 million in 2018 to \$371.3 million in 2019. Gross margins decreased from 85.9% in 2018 to 85.6% in 2019. This was driven by the use of third party contractors, which have lower margin contribution, for services rendered.

Operating Expenses

	Year ended December 31,					
	2018		2019		Change	
	Amount	% of Revenues	Amount	% of Revenues	Amount	%
(\$ in thousands)						
Operating expenses:						
Research and development	\$ 57,112	16.6%	\$ 72,520	16.7%	\$ 15,408	27.0%
Sales and marketing	148,290	43.2	184,168	42.4	35,878	24.2
General and administrative	42,044	12.3	52,308	12.1	10,264	24.4
Total operating expenses	\$ 247,446	72.1%	\$ 308,996	71.2%	\$ 61,550	24.9%

Research and Development. Research and development expenses increased by \$15.4 million, or 27.0%, from \$57.1 million in 2018 to \$72.5 million in 2019. This increase was primarily attributable to a \$10.8 million increase in personnel costs and related expenses, as we increased our research and development team headcount from 287 at the end of 2018 to 349 at the end of 2019 to support continued investment in our future product and service offerings. The increase was also attributable to a \$1.3 million increase in the use of third party consultants, to a \$1.3 million increase in software and related expenses and to a \$0.6 million increase related to overhead costs.

Sales and Marketing. Sales and marketing expenses increased by \$35.9 million, or 24.2%, from \$148.3 million in 2018 to \$184.2 million in 2019. This increase was primarily attributable to a \$29.5 million increase in personnel costs and related expenses due to increased headcount in all regions to expand our sales and marketing organization. The increase was also attributable to a \$3.9 million increase in expenses related to our marketing programs and a \$1.5 million increase in travel and related expenses. Our sales and marketing headcount grew from 541 at the end of 2018 to 656 at the end of 2019.

General and Administrative. General and administrative expenses increased by \$10.3 million, or 24.4%, from \$42.0 million in 2018 to \$52.3 million in 2019. This increase was primarily attributable to an increase of \$9.2 million in personnel costs and related expenses due to increased headcount coupled with a \$0.6 million increase in services fees due to external legal counsels, accounting, insurance and patent litigation. Our general and administrative headcount grew from 104 at the end of 2018 to 122 at the end of 2019.

Financial Income (Expenses), Net. Financial income, net changed by \$3.2 million from \$4.6 million of income in 2018 to \$7.8 million of income in 2019. This change resulted primarily from an increase of \$5.1 million in interest income from investments in marketable securities and short and long-term bank deposits offset by a \$2.0 million non-cash interest expense related to the amortization of debt discount and issuance costs.

Taxes on Income. Taxes on income increased from \$4.8 million in 2018 to \$7.0 million in 2019. Our effective tax rate was 9.2% in 2018 and 10.0% in 2019. The higher effective tax rate in 2019 in comparison to 2018 was mainly attributed to an increase in accruals for uncertain tax positions and tax impact related to share-based compensation offset by tax consequences of an intra-entity intellectual property transfer in 2018.

Application of Critical Accounting Policies and Estimates

Our accounting policies and their effect on our financial condition and results of operations are more fully described in our consolidated financial statements included elsewhere in this annual report. We have prepared our financial statements in conformity with U.S. GAAP, which requires management to make estimates and assumptions that in certain circumstances affect the reported amounts of assets and liabilities, revenues and expenses and disclosure of contingent assets and liabilities. These estimates are prepared using our best judgment, after considering past and current events and economic conditions. While management believes the factors evaluated provide a meaningful basis for establishing and applying sound accounting policies, management cannot guarantee that the estimates will always be consistent with actual results. In addition, certain information relied upon by us in preparing such estimates includes internally generated financial and operating information, external market information, when available, and when necessary, information obtained from consultations with third-parties. Actual results could differ from these estimates and could have a material adverse effect on our reported results. See “Item 3.D. Risk Factors” for a discussion of the possible risks which may affect these estimates.

We believe that the accounting policies discussed below are critical to our financial results and to the understanding of our past and future performance, as these policies relate to the more significant areas involving management's estimates and assumptions. We consider an accounting estimate to be critical if: (1) it requires us to make assumptions because information was not available at the time or it included matters that were highly uncertain at the time we were making our estimate; and (2) changes in the estimate could have a material impact on our financial condition or results of operations.

Revenue Recognition

We primarily generate revenues from licensing the rights to use our software products, maintenance and professional services. License revenues include perpetual and term-based licenses, as well as the ratable portion of sales of SaaS. We sell our products through our direct sales force and indirectly through resellers. Payment is typically due within 30 to 90 calendar days of the invoice date.

We recognize revenues in accordance with ASC No. 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 enter into contracts that can include combinations of products and services, which are generally capable of being distinct and accounted for as separate performance obligations and may include an option to provide professional services. The license is distinct as the customer can derive the economic benefit of the software without any professional services, updates or technical support.

The transaction price is determined based on the consideration to which we will be entitled in exchange for transferring goods or services to the customer. We do not grant a right of return to our customers.

In instances of contracts where revenue recognition differs from the timing of invoicing, we determined that those contracts generally do not include a significant financing component. The primary purpose of the invoicing terms is to provide customers with simplified and predictable ways of purchasing our products and services, not to receive or provide financing. We use the practical expedient and do not assess the existence of a significant financing component when the difference between payment and revenue recognition is a year or less.

We record unbilled receivables from contracts when the revenue recognized exceeds the amount billed to the customer.

We allocate the transaction price to each performance obligation based on its relative standalone selling price. For maintenance, we determine the standalone selling prices based on the price at which we separately sell a renewal contract. For professional services, we determine the standalone selling prices based on the prices at which we separately sell those services. For software licenses, we determine the standalone selling prices by taking into account available information such as historical selling prices, contract value, geographic location, and our price list and discount policy.

Software license revenues, perpetual or term based, are recognized at the point of time when the license is made available for download by the customer. Maintenance and SaaS revenues are recognized ratably, on a straight-line basis over the term of the related contract, which is generally one to three years. Professional services revenues consist mostly of time and material services that are recognized as the services are performed.

Contract liabilities consist of deferred revenue and include unearned amounts received under maintenance and support contracts, professional services and amounts received from customers for licenses that do not meet the revenue recognition criteria as of the balance sheet date. Deferred revenues are recognized as (or when) we perform under the contract.

Transaction price allocated to remaining performance obligations represents non-cancelable contracts that have not yet been recognized, which includes deferred revenues and amounts not yet received that will be recognized as revenue in future periods.

Deferred Contract Costs

We pay sales commissions primarily to sales and marketing and certain management personnel based on their attainment of certain predetermined sales goals. Sales commissions are considered incremental and recoverable costs of obtaining a contract with a customer. Sales commissions paid for initial contracts, which are not commensurate with sales commissions paid for renewal contracts, are capitalized and amortized over an expected period of benefit. Based on our technology, customer contracts and other factors, we have determined the expected period of benefit to be approximately five years. Sales commissions for initial contracts, which are commensurate with sales commissions paid for renewal contracts, are capitalized and amortized correspondingly to the recognized revenue of the related initial contracts. Sales commissions for renewal contracts are capitalized and amortized on a straight-line basis over the related contractual renewal period. Amortization expense of these costs are substantially included in sales and marketing expenses.

Derivative instruments

ASC No. 815, "Derivative and Hedging", requires companies to recognize all of their derivative instruments as either assets or liabilities on the balance sheet at fair value.

For those derivative instruments that are designated and qualify as hedging instruments, a company must designate the hedging instrument, based upon the exposure being hedged, as a fair value hedge, cash flow hedge or a hedge of a net investment in a foreign operation.

As a result of adopting new accounting guidance discussed in "Recently adopted accounting pronouncements", beginning January 1, 2019, gains and losses on the derivatives instruments that are designated and qualify as a cash flow hedge are recorded in accumulated other comprehensive income (loss) and reclassified into earnings in the same accounting period in which the designated forecasted transaction or hedged item affects earnings. Prior to January 1, 2019, cash flow hedge ineffectiveness was separately measured and reported immediately in earnings.

To hedge against the risk of changes in cash flows resulting from foreign currency salary payments during the year, we have instituted a foreign currency cash flow hedging program. We hedge a portion of our forecasted expenses denominated in NIS. These forward and option contracts are designated as cash flow hedges, as defined by ASC 815, and are all effective, as their critical terms match underlying transactions being hedged.

In addition to the derivatives that are designated as hedges as discussed above, we also enter into certain foreign exchange forward transactions to economically hedge certain account receivables in Euros and GBP. Gains and losses related to such derivative instruments are recorded in financial income, net.

Share-Based Compensation

We account for share-based compensation in accordance with ASC No. 718, "Compensation - Stock Compensation" ("ASC No. 718"). ASC No. 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 award is recognized as an expense over the requisite service periods, which is generally the vesting period of the respective award, on a straight-line basis when the only condition to vesting is continued service. If vesting is subject to a performance condition, recognition is based on the implicit service period of the award. Expense for awards with performance conditions is estimated and adjusted on a quarterly basis based upon the assessment of the probability that the performance condition will be met.

We selected the Black-Scholes-Merton option-pricing model as the most appropriate fair value method for our option awards. The fair value of restricted stock units ("RSU") and performance stock units ("PSU") is based on the closing market value of the underlying shares at the date of grant.

The option-pricing model requires a number of assumptions, of which the most significant are the expected share price volatility and the expected option term. We recognize forfeitures of equity-based awards as they occur.

Goodwill and other Intangible Assets

Goodwill and certain other purchased intangible assets have been recorded in our financial statements as a result of acquisitions. Goodwill represents excess of the purchase price in a business combination over the fair value of identifiable tangible and intangible assets acquired. Goodwill is not amortized, but rather is subject to an impairment test.

ASC No. 350, "Intangible—Goodwill and other" requires goodwill to be tested for impairment at least annually and, in certain circumstances, between annual tests. The accounting guidance gives the option to perform a qualitative assessment to determine whether further impairment testing is necessary. The qualitative assessment considers events and circumstances that might indicate that a reporting unit's fair value is less than its carrying amount. If it is determined, as a result of the qualitative assessment, that it is more likely than not that the fair value of a reporting unit is less than its carrying amount, a quantitative test is performed. We operate as one reporting unit. Therefore, goodwill is tested for impairment by comparing the fair value of the reporting unit with its carrying value. We elect to perform an annual impairment test of goodwill as of October 1 of each year, or more frequently if impairment indicators are present.

For the years ended December 31, 2017, 2018 and 2019, no impairment losses were identified.

Purchased intangible assets with finite lives are carried at cost, less accumulated amortization. Amortization is computed over the estimated useful lives of the respective assets which range from two to eleven years. Acquired customer relationship and backlog are amortized over their estimated useful lives in proportion to the economic benefits realized. Other intangible assets consisting primarily of technology that is amortized over its estimated useful life on a straight-line basis.

Convertible Senior Notes

We account for our convertible senior notes in accordance with ASC 470-20 "Debt with Conversion and Other Options". We allocated the principal amount of the convertible senior notes between its liability and equity component. The liability component at issuance is recognized at fair value, based on the fair value of a similar instrument of similar credit rating and maturity that does not have a conversion feature. The equity component is based on the excess of the principal amount of the convertible senior notes over the fair value of the liability component and is recorded in additional paid-in capital. The equity component, net of issuance costs and deferred tax effects is presented within additional paid-in-capital and is not remeasured as long as it continues to meet the conditions for equity classification. We allocated the total issuance costs incurred to the liability and equity components of the convertible senior notes based on the same proportions as the proceeds from the notes.

Issuance costs attributable to the liability and equity components were \$12.9 million and \$2.0 million, respectively. Issuance costs attributable to the liability are netted against the principal balance and will be amortized to interest expense using the effective interest method over the contractual term of the notes. The effective interest rate of the liability component of the notes is 3.50%. This interest rate was based on our credit risk rating using software industry rating methodology.

Issuance costs attributable to the equity component are netted with the equity component in additional paid-in capital.

Income Taxes

We account for income taxes in accordance with ASC No. 740-10, "Income Taxes" ("ASC No. 740-10"). ASC No. 740-10 prescribes the use of the asset and liability method whereby deferred tax asset and liability account balances are determined based on temporary 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 some portion or all of the deferred tax assets will not be realized.

We establish reserves for uncertain tax positions based on the evaluation of whether or not our uncertain tax position is "more likely than not" to be sustained upon examination based on our technical merits. We record interest and penalties pertaining to our uncertain tax positions in the financial statements as income tax expense.

Legal Contingencies

From time to time we may be subject to legal proceedings and claims arising in the ordinary course of our business. Such matters are subject to many uncertainties and outcomes are not predictable with assurance. We accrue for contingencies when the loss is probable and we can reasonably estimate the amount of any such loss. We are currently not a party to any material litigation and are not aware of any pending or threatened material legal or administrative proceedings against us. Regardless of the outcome, litigation can have an adverse impact on us because of defense and settlement costs, diversion of management resources and other factors.

Israeli Tax Considerations and Government Programs

The following is a brief summary of the material Israeli tax laws applicable to us, and certain Israeli Government programs that benefit us. To the extent that the discussion is based on new tax legislation that has not yet been subject to judicial or administrative interpretation, we cannot assure you that the appropriate tax authorities or the courts will accept the views expressed in this discussion. The discussion below is subject to change, including due to amendments under Israeli law or changes to the applicable judicial or administrative interpretations of Israeli law, which could affect the tax consequences described below.

General Corporate Tax Structure in Israel

Ordinary taxable income is subject to a corporate tax rate as follows: 2017 – 24% and 2018 onwards – 23%. However, the effective tax rate payable by a company that derives income from an Approved Enterprise, a Benefited Enterprise or a Preferred Enterprise (as discussed below) may be considerably less. Capital gains derived by an Israeli company are generally subject to tax at the prevailing ordinary corporate tax rate.

Tax Benefits for Research and Development

Israeli tax law allows, under certain conditions, a tax deduction for research and development expenditures, including capital expenditures, for the year in which they are incurred if:

- the expenditures are approved by the relevant Israeli government ministry, determined by the field of research;
- the research and development is for the promotion or development of the company; and
- the research and development is carried out by or on behalf of the company seeking the deduction.

However, the amount of such deductible expenses shall be reduced by the sum of any funds received through government grants for the finance of such scientific research and development projects. Expenditures not so approved are deductible over a three-year period from the first year that the expenditures were made if the research or development is for the promotion or development of the company.

Law for the Encouragement of Industry (Taxes), 5729-1969

The Law for the Encouragement of Industry (Taxes), 5729-1969, generally referred to as the Industry Encouragement Law, provides several tax benefits for “Industrial Companies”.

The Industry Encouragement Law defines an “Industrial Company” as an Israeli resident company which was incorporated in Israel, of which 90% or more of its income in any tax year, other than income from certain government loans, is derived from an “Industrial Enterprise” owned by it and located in Israel or in the “Area”, in accordance with the definition in the section 3a of the Israeli Income Tax Ordinance (New Version) 1961, or the Ordinance. An “Industrial Enterprise” is defined as an enterprise whose principal activity in a given tax year is industrial production.

The following tax benefits, among others, are available to Industrial Companies:

- deduction of the cost of purchased know-how, patents and rights to use a patent and know-how which are used for the development or promotion of the Industrial Enterprise, over an eight-year period commencing on the year in which such rights were first exercised;
- under limited conditions, an election to file consolidated tax returns together with Israeli Industrial Companies controlled by it; and
- expenses related to a public offering of shares in a stock exchange are deductible in equal amounts over three years commencing on the year of offering.

Eligibility for benefits under the Industry Encouragement Law is not contingent upon the approval of any governmental authority. We believe that we qualify as an Industrial Company within the meaning of the Industry Encouragement Law. The Israel Tax Authority may determine that we do not qualify as an Industrial Company, which could entail our loss of the benefits that relate to this status. There can be no assurance that we will continue to qualify as an Industrial Company or that the benefits described above will be available in the future.

Law for the Encouragement of Capital Investments, 5719-1959

The Law for the Encouragement of Capital Investments, 5719-1959, generally referred to as the Investment Law, provides certain incentives for capital investments in production facilities (or other eligible assets) by “Industrial Enterprises” (as defined under the Investment Law).

The Investment Law was significantly amended effective April 1, 2005, or the 2005 Amendment, further amended as of January 1, 2011, or the 2011 Amendment, and further amended as of January 1, 2017, or the 2017 Amendment. Pursuant to the 2005 Amendment, tax benefits granted in accordance with the provisions of the Investment Law prior to its revision by the 2005 Amendment remain in force but any benefits granted subsequently are subject to the provisions of the 2005 Amendment. Similarly, the 2011 Amendment introduced new benefits to replace those granted in accordance with the provisions of the Investment Law in effect prior to the 2011 Amendment. However, companies entitled to benefits under the Investment Law as in effect prior to January 1, 2011 were entitled to choose to continue to enjoy such benefits, provided that certain conditions are met, or elect instead, irrevocably, to forego such benefits and have the benefits of the 2011 Amendment apply. The 2017 Amendment introduces new benefits for Technological Enterprises which meet certain conditions, alongside the existing tax benefits.

Tax Benefits Prior to the 2005 Amendment

An investment program that is implemented in accordance with the provisions of the Investment Law prior to the 2005 Amendment, referred to as an “Approved Enterprise”, is entitled to certain benefits. A company that wished to receive benefits as an Approved Enterprise must have received approval from the Israeli Authority for Investments and Development of the Industry and Economy, or the Investment Center. Each certificate of approval for an Approved Enterprise relates to a specific investment program, delineated both by the financial scope of the investment, including sources of funds, and by the physical characteristics of the facility or other assets.

The tax benefits available under any certificate of approval relate only to taxable income attributable to the specific program and are contingent upon meeting the criteria set out in such certificate. Income derived from activity that is not integral to the activity of the Approved Enterprise will not enjoy tax benefits.

The tax benefits under the alternative benefits track include an exemption from corporate tax on undistributed income which was generated from an Approved Enterprise for between two and ten years from the first year of taxable income, depending on the geographic location of the Approved Enterprise facility within Israel, and the taxation of income generated from an Approved Enterprise at 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, as detailed below.

In addition, a company that has an Approved Enterprise program is eligible for further tax benefits if it qualifies as a Foreign Investors’ Company, or a FIC, which is a company with a level of foreign investment, as defined in the Investment Law, of more than 25%.

If a company elects the alternative benefits track and subsequently distributes a dividend out of income derived by its Approved Enterprise during the tax exemption period it will be subject to corporate tax in respect of the amount of the distributed dividend (grossed-up to reflect the pre-tax income that it would have had to earn in order to distribute the dividend) at the corporate tax rate which would have been otherwise applicable if such income had not been tax-exempted under the alternative benefits track. This rate generally ranges from 10% to 25%, depending on the level of foreign investment in the company in each year, as mentioned above. In addition, dividends paid out of income attributed to an Approved Enterprise (or out of dividends received from a company whose income is attributed to an Approved Enterprise) are generally subject to withholding tax at source at the rate of 15% 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). The 15% tax rate is limited to dividends and distributions out of income derived during the benefits period and actually paid at any time up to 12 years thereafter. After this period, the withholding tax is applied at a rate of up to 30%, or at the lower rate under 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). In the case of a FIC, the 12-year limitation on reduced withholding tax on dividends does not apply.

The benefits available to an Approved Enterprise are subject to the continued fulfillment of conditions stipulated in the Investment Law and its regulations and the criteria in the specific certificate of approval, as described above. If a company does not meet these conditions, it would be required to refund the amount of tax benefits, adjusted to the Israeli consumer price index, and interest, or other monetary penalties.

Tax Benefits Subsequent to the 2005 Amendment

The 2005 Amendment applies to new investment programs commencing after 2004, but does not apply to investment programs approved prior to April 1, 2005. The 2005 Amendment provides that terms and benefits included in any certificate of approval that was granted before the 2005 Amendment became effective (April 1, 2005) will remain subject to the provisions of the Investment Law as in effect on the date of such approval. Pursuant to the 2005 Amendment, the Investment Center will continue to grant Approved Enterprise status to qualifying investments. The 2005 Amendment, however, limits the scope of enterprises that may be approved by the Investment Center by setting criteria for the approval of a facility as an Approved Enterprise, such as provisions generally requiring that at least 25% of the Approved Enterprise's income be derived from exports.

Tax benefits are available under the 2005 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 14 million in 2012 (such export criteria will further be increased in the future by 1.4% per annum).

A company qualifying for tax benefits under the 2005 Amendment which pays a dividend out of income derived by its Benefited Enterprise during the tax exemption period will be subject to corporate tax in respect of the amount of the dividend distributed (grossed-up to reflect the pre-tax income that it would have had to earn in order to distribute the dividend) at the corporate tax rate which would have otherwise been applicable. Dividends paid out of income attributed to a Benefited Enterprise (or out of dividends received from a company whose income is attributed to a Benefited Enterprise) are generally subject to withholding tax at source at the rate of 15% or at a 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). The reduced rate of 15% is limited to dividends and distributions out of income attributed to a Beneficiary Enterprise during the benefits period and actually paid at any time up to 12 years thereafter except with respect to a FIC, in which case the 12-year limit does not apply.

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

Tax Benefits under the 2011 Amendment

The 2011 Amendment introduced new benefits for income generated by a "Preferred Company" through its "Preferred Enterprise" (as such terms are defined in the Investment Law) as of January 1, 2011. The definition of a Preferred Company includes a company incorporated in Israel that is not wholly owned by a governmental entity, and that has, among other things, Preferred Enterprise status and is controlled and managed from Israel. Pursuant to the 2011 Amendment, a Preferred Company is entitled to a reduced corporate tax rate of 15% with respect to its preferred income derived by its Preferred Enterprise in 2011 and 2012, unless the Preferred Enterprise is located in a development zone A, in which case the rate will be 10%. Such corporate tax rate was reduced from 15% and 10%, respectively, to 12.5% and 7%, respectively in 2013, and then increased to 16% and 9%, respectively, in 2014 until 2016. Pursuant to the 2017 Amendment, in 2017 and thereafter, the corporate tax rate for Preferred Enterprise which is located in development zone A was decreased to 7.5%, while the reduced corporate tax rate for other development zones remains 16%. Income derived by a Preferred Company from a 'Special Preferred Enterprise' (as such term is defined in the Investment Law) could be entitled, under certain conditions and limitations, to further reduced tax rates.

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). In 2017-2019, dividends paid out of preferred income attributed to a Special Preferred Enterprise, directly to a foreign parent company, are subject to withholding tax at source at the rate of 5% (temporary provisions).

The 2011 Amendment also provided transitional provisions to address companies already enjoying existing tax benefits under the Investment Law. These transitional provisions provide, among other things, that unless an irrevocable request is made to apply the provisions of the Investment Law as amended in 2011 with respect to income to be derived as of January 1, 2011: (i) the terms and benefits included in any certificate of approval that was granted to an Approved Enterprise which chose to receive grants before the 2011 Amendment became effective will remain subject to the provisions of the Investment Law as in effect on the date of such approval, and subject to certain other conditions; (ii) the terms and benefits included in any certificate of approval that was granted to an Approved Enterprise which had participated in an alternative benefits track before the 2011 Amendment became effective will remain subject to the provisions of the Investment Law as in effect on the date of such approval, provided that certain conditions are met; and (iii) a Benefited Enterprise can elect to continue to benefit from the benefits provided to it before the 2011 Amendment became effective, provided that certain conditions are met.

From time to time, the Israeli Government has discussed reducing the benefits available to companies under the Investment Law. The termination or substantial reduction of any of the benefits available under the Investment Law could materially increase our tax liabilities.

We applied the new benefits under the 2011 Amendment instead of the benefits provided to our Approved Enterprise and Benefited Enterprise as of 2013 tax year onwards through 2016 tax year.

New Tax Benefits under the 2017 Amendment.

The 2017 Amendment was enacted as part of the Economic Efficiency Law 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 Investment 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” which is generally generated by “Benefitted Intangible Assets”, as defined in the Investment Law. The tax rate is further reduced to 7.5% for a Preferred Technology Enterprise and/or for its segment 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 Investment 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 Investment 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 such 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 adopted it since 2017 onwards.

Recently Issued Accounting Pronouncements

See Note 2(aa) and Note 2(ab) to our consolidated financial statements included elsewhere in this annual report for information regarding recent accounting standards issued.

B. Liquidity and Capital Resources

We fund our operations with cash generated from operating activities. We have also raised capital through issuing convertible senior notes, the sale of equity securities in public offerings and to a lesser extent, through exercised options. Our primary current uses of our cash are ongoing operating expenses and capital expenditures.

As of December 31, 2019, we had \$1.1 billion of cash, cash equivalents, short-term bank deposits and marketable securities. This compared with cash, cash equivalents, short-term bank deposits and marketable securities of \$451.2 million as of December 31, 2018. We believe that our existing cash, cash equivalents, marketable securities and short-term bank deposits will be sufficient to fund our operations and capital expenditures for at least the next 12 months. Our future capital requirements will depend on many factors, including our rate of revenue growth, the expansion of our sales and marketing activities, the timing and extent of spending to support product development efforts and expansion into new geographic locations, the timing of introductions of new software products and enhancements to existing software products and the continuing market acceptance of our software offerings.

The following table presents the major components of net cash flows for the periods presented:

	Year Ended December 31,	
	2018	2019
	(\$ in thousands)	
Net cash provided by operating activities	\$ 130,125	\$ 141,710
Net cash used in investing activities	(48,743)	(143,222)
Net cash provided by financing activities	17,980	532,042

A substantial source of our net cash provided by operating activities is our deferred revenues, which is included on our consolidated balance sheet as a liability. The majority of our deferred revenues consist of the unrecognized portion of upfront payments associated with maintenance and professional services, with the remainder consisting of payments for licenses that could not yet be recognized. We assess our liquidity, in part, through an analysis of our short term and long term deferred revenues that have not yet been recognized as revenues together with our other sources of liquidity. Deferred revenues for licenses are recognized when all applicable revenue criteria are met. Revenues from maintenance and support contracts are recognized ratably on a straight line basis over the term of the related contract which is typically one year and, to a lesser extent, three years, and from professional services as services are performed. Thus, since we frequently recognize revenues in subsequent periods to when certain payments may be received, an increase in deferred revenues adds to the liquidity of our operations.

Net Cash Provided by Operating Activities

Our cash flows historically have reflected our net income coupled with changes in our non-cash working capital. During the year ended December 31, 2019, operating activities provided \$141.7 million in cash as a result of \$63.1 million of net income, adjusted by \$55.5 million of non-cash charges related to share-based compensation expense, \$10.6 million related to depreciation and amortization expenses, a \$5.0 million net change from other long-term assets and liabilities and a net change of \$14.5 million in non-cash working capital, offset by a \$7.0 million increase in deferred tax assets.

The change of \$14.5 million in non-cash working capital was due to a \$26.1 million increase in short term deferred revenues, an increase of \$7.3 million in employees and payroll accruals, an increase of \$1.6 million in trade payables and an increase of \$5.1 million in other current liabilities, offset by an increase of \$1.1 million in other current assets and an increase of \$24.5 million in trade receivables.

During the year ended December 31, 2018, operating activities provided \$130.1 million in cash as a result of \$47.1 million of net income, adjusted by \$36.0 million of non-cash charges related to share-based compensation expenses, \$10.1 million related to depreciation and amortization expenses, a \$6.1 million net increase from other long-term assets and liabilities and change of \$37.9 million in non-cash working capital, offset by a \$7.1 million increase in deferred tax assets.

The change of \$37.9 million in non-cash working capital was due to a \$28.9 million increase in short term deferred revenues, an increase of \$6.9 million in employees and payroll accruals and a net decrease of \$5.2 million in other current assets, offset by an increase of \$3.1 million in trade receivables.

During the year ended December 31, 2018 and 2019, our days' sales outstanding, or DSO, was 52 days and 66 days, respectively. The increase of the DSO was due to short and long-term unbilled receivables from contracts that the revenue recognized exceeded the amount billed.

Net Cash Used in Investing Activities

Investing activities have consisted primarily of investment in, and proceeds from, short-term and long-term deposits, investment in, and proceeds from marketable securities, acquisitions and purchase of property and equipment.

Net cash used in investing activities was \$48.7 million and \$143.2 million for the years ended December 31, 2018 and 2019, respectively.

The increase of \$94.5 million in net cash used in investing activities in 2019 was due to a net increase of \$114.5 million in investments in short and long term deposits and marketable securities, offset by a decrease of \$18.4 million in payments for business acquisitions, net of cash acquired and by a decrease of \$1.6 million in capital expenditures.

The decrease of \$46.3 million in net cash used in investing activities in 2018 was due to a net decrease of \$25.3 million in investments in short and long term deposits and marketable securities and a decrease of \$22.9 million in payments for business acquisitions, net of cash acquired, offset by capital expenditures of \$1.9 million.

Net Cash Provided by Financing Activities

Our financing activities have consisted of proceeds from the exercise of share options, proceeds from the issuance of convertible senior notes net of issuance costs, purchase of capped calls and proceeds from withholding tax related to employee stock plans.

Net cash provided by financing activities was \$18.0 million and \$532.0 million for the years ended December 31, 2018 and 2019, respectively.

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

We conduct our research and development activities primarily in Israel. As of December 31, 2019, our research and development department included 349 employees and contractors. In 2019, research and development costs accounted for 16.7% of our total revenues.

We employ a strategy of seeking patent protection for some of our technologies. As of December 31, 2019, we have obtained 40 issued patents for certain of our technologies in various jurisdictions, including the United States and have 95 pending patent applications that were filed in various jurisdictions, including the United States. No patent or patent application is material to the overall conduct of our business.

For a description of our research and development policies, see "Item 4.B. Business Overview—Research and Development."

D. Trend Information

Other than as disclosed elsewhere in this annual report, we are not aware of any trends, uncertainties, demands, commitments or events since January 1, 2019 that are reasonably likely to have a material adverse effect on our net revenue, income, profitability, liquidity or capital resources, or that caused the disclosed financial information to be not necessarily indicative of future operating results or financial condition.

E. Off-Balance Sheet Arrangements

We do not currently engage in off-balance sheet financing arrangements. In addition, we do not have any interest in entities referred to as variable interest entities, which includes special purposes entities and other structured finance entities.

F. Contractual Obligations

The following summarizes our contractual obligations as of December 31, 2019:

	<u>Total</u>	<u>Less than 1 year</u>	<u>1 – 3 years</u>	<u>3 – 5 years</u>	<u>More than 5 years</u>
Operating lease obligations(1)	\$ 27,293	\$ 6,292	\$ 11,918	\$ 8,496	\$ 587
Uncertain tax obligations(2)	3,728	—	—	—	—
Severance pay(3)	6,751	—	—	—	—
0.00% Convertible Senior Notes due 2024(4)	575,000	—	—	575,000	—
Total	<u>\$ 612,772</u>	<u>\$ 6,292</u>	<u>\$ 11,918</u>	<u>\$ 583,496</u>	<u>\$ 587</u>

- (1) Operating lease obligations consist of our contractual rental expenses under operating leases of facilities and certain motor vehicles.
- (2) Consists of accruals for certain income tax positions under ASC 740 that are paid upon settlement, and for which we are unable to reasonably estimate the ultimate amount and timing of settlement. See Note 13(l) to our consolidated financial statements included elsewhere in this annual report for further information regarding our liability under ASC 740. Payment of these obligations would result from settlements with tax authorities. Due to the difficulty in determining the timing of resolution of audits, these obligations are only presented in their total amount.
- (3) Severance pay relates to accrued severance obligations to our Israeli employees as required under Israeli labor laws. These obligations are payable only upon the termination, retirement or death of the respective employee and may be reduced if the employee's termination is voluntary. These obligations are partially funded through accounts maintained with financial institutions and recognized as an asset on our balance sheet. As of December 31, 2019 \$2.4 million is unfunded. See Note 2(l) to our consolidated financial statements included elsewhere in this report for further information.
- (4) For additional information, see Note 11 to our consolidated financial statements included elsewhere in this annual report.

ITEM 6. DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES

A. Directors and Senior Management

The following table sets forth the name, age and position of each member of our senior management as of March 5, 2020:

Name	Age	Position
<i>Senior Management</i>		
Ehud (Udi) Mokady	51	Chairman of the Board and Chief Executive Officer and Founder
Joshua Siegel	56	Chief Financial Officer
Chen Bitan	50	General Manager Israel, Chief Product Officer
Matthew Cohen	44	Chief Revenue Officer
Donna Rahav	41	General Counsel and Compliance Officer
<i>Directors</i>		
Gadi Tirosch(1)(3)(4)	53	Lead Independent Director
Ron Gutler(1)(2)(3)(4)	62	Director
Kim Perdikou(1)(2)(3)(4)	62	Director
David Schaeffer(4)	63	Director
Amnon Shoshani(2)(4)	56	Director
François Auque(4)	63	Director

- (1) Member of our compensation committee.
- (2) Member of our audit committee.
- (3) Member of our nominating and governance committee.
- (4) Independent director under the rules of Nasdaq.

Senior Management

Ehud (Udi) Mokady is one of our founders and serves as our Chief Executive Officer since 2005 and as chairman of the board since June 2016. He previously served as our President from 2005 to 2016 and as our Chief Operating Officer from 1999 to 2005. Mr. Mokady has also served as a member of our board since November 2004. Mr. Mokady served as a member of the board of directors of Demisto, Inc. commencing in January 2018 until its acquisition by Palo Alto Networks, Inc. in March 2019. From 1997 to 1999, Mr. Mokady served as general counsel at Tadiran Spectralink Ltd., a producer of secure wireless communication systems. From 1986 to 1989, Mr. Mokady served in a military intelligence unit in the Israel Defense Forces. Mr. Mokady was honored by a panel of independent judges with the New England EY Entrepreneur Of The Year™ 2014 Award in the Technology Security category. Mr. Mokady holds a Bachelor of Laws (LL.B.) from Hebrew University in Jerusalem, Israel and a Master of Science Management (MSM) from Boston University in Massachusetts.

Joshua Siegel has served as our Chief Financial Officer since May 2011. Prior to joining CyberArk, Mr. Siegel served as Chief Financial Officer for Voltaire Ltd., a provider of InfiniBand and Ethernet connectivity solutions, from December 2005 to February 2011, and as Director of Finance and then Vice President of Finance from April 2002 to December 2005. Voltaire completed an initial public offering and listing on Nasdaq in 2007 and was acquired by Mellanox Technologies, Ltd. in 2011. From 2000 to 2002, he was Vice President of Finance at KereniX Networks Ltd., a terabit routing and transport system company. From 1995 to 2000, Mr. Siegel served in various positions at Lucent Technologies Networks Ltd. (formerly Lannet Ltd.). From 1990 to 1995, he served in various positions at SLM Corporation (Sallie Mae—Student Loan Marketing Association). Mr. Siegel holds a Bachelor of Arts in economics and an MBA with a concentration in finance from the University of Michigan in Ann Arbor.

Chen Bitan has served as the general manager of our Israeli headquarters, and as chief product officer since January 2020. He previously served as our General Manager of EMEA, Asia Pacific and Japan since 2005 and as Head of Research & Development since 1999. From March 1998 to April 1999, Mr. Bitan worked as Project Manager for Amdocs Software Ltd., leading the development of billing and customer care systems for telecommunications providers. From 1995 to 1998, he worked for Magic Software Enterprises Ltd. as Research and Development Group Manager leading the development of their 4GL products for the Asia Pacific market. From 1988 to 1995, Mr. Bitan served in a software engineering unit in the Israel Defense Forces (IDF) in various research and development roles, finally leading the programming education department as Department Manager at the Computer Studies Academy (Mamram). Mr. Bitan holds a Bachelor of Science in computer science and political science from Bar-Ilan University in Ramat-Gan, Israel.

Matthew Cohen has served as our Chief Revenue Officer since December 2019. Prior to joining CyberArk, Mr. Cohen held several leadership positions in PTC Inc. (Nasdaq: PTC). His most recent position was Executive Vice President of Field Operations, from February 2018 to November 2019, where he led the go to market strategy and all Sales, Commercial Marketing, Customer Success, Services, and Partner functions. Prior to that he was Executive Vice President, Customer Success and Partners from July 2016 to February 2018, Executive Vice President, Global Services from April 2014 through July 2016, and Divisional Vice President, Global Services from October 2013 to March 2014. Before that, Mr. Cohen held various positions in the company's Global Services group. Mr. Cohen holds a Bachelor of Arts in Psychology from Harvard University.

Donna Rahav has served as our General Counsel and Compliance Officer since March 2014 and previously served as Corporate Secretary from April 2014 until December 2019. Prior to joining CyberArk, Ms. Rahav served as Deputy General Counsel at Allot Communications Ltd. (Nasdaq and TASE: ALLT), a global provider of bandwidth management solutions, from 2011 to 2014. From 2009 to 2011 she served as Legal Counsel at Alvarion Ltd. (Nasdaq and TASE: ALVR), and from 2008 to 2009 she served in similar capacity at MediaMind Technologies, Inc. (formerly Eyeblander, Inc.; Nasdaq: MDMD). Prior to that, from 2005 to 2006 she was an associate at an Israeli law firm specializing in technology transactions. Ms. Rahav holds a Bachelor of Laws from Tel Aviv University in Israel, and a Master of Laws from Tel Aviv University in collaboration with University of California, Berkeley, an executive program focused on corporate and commercial law.

Directors

Gadi Tirosh has served as a member of our board of directors since June 2011, as chairman of the board between July 2013 and June 2016 and as lead independent director since July 2016. Since 2018, Mr. Tirosh has served as Venture Partner at Jerusalem Venture Partners, an Israeli venture capital firm that focuses, among other things, on cybersecurity companies and operates the JVP Cyber Labs incubator. From 2005 to 2018, he served as Managing Partner at Jerusalem Venture Partners. From 1999 to 2005, he served as Corporate Vice President of Product Marketing and as a member of the executive committee for NDS Group Ltd. (Nasdaq: NNDS) later acquired by Cisco Systems, Inc. a provider of end-to-end software solutions to the pay-television industry, including content protection and video security. Mr. Tirosh holds a Bachelor of Science in computer science and mathematics and an Executive MBA from the Hebrew University in Jerusalem, Israel.

Ron Gutler has served as a member of our board of directors since July 2014 and served as an external director under the Companies Law between July 2014 and May 2016. Between June 2018 and November 2019 Mr. Gutler served as the Chairman of the Board of Psagot Market Making. Between 2014 and 2019 Mr. Gutler served as a director of Hapoalim Securities USA (HSU). Between August 2012 and January 2018, Mr. Gutler served as chairman of the board of the College of Management Academic Studies in Israel. Between May 2002 and February 2013, Mr. Gutler served as the Chairman of NICE Systems Ltd., a public company specializing in voice recording, data security, and surveillance. Between 2000 and 2011, Mr. Gutler served as the Chairman of G.J.E. 121 Promoting Investment Ltd., a real estate company. Between 2000 and 2002, Mr. Gutler managed the Blue Border Horizon Fund, a global macro fund. Mr. Gutler is a former Managing Director and a Partner of Bankers Trust Company, which is currently part of Deutsche Bank. He also established and headed the Israeli office of Bankers Trust. Mr. Gutler is currently a director of Wix.com Ltd. (Nasdaq: WIX), Fiverr International Ltd. (NYSE: FVRR), Psagot Investment House and Psagot Securities . Mr. Gutler holds a Bachelor of Arts in economics and international relations and an MBA, both from the Hebrew University in Jerusalem, Israel.

Kim Perdikou has served as a member of our board of directors since July 2014 and served as an external director under the Companies Law between July 2014 and May 2016. Ms. Perdikou serves as Chairman of REBBL Inc., since June 2014, a private beverage company delivering taste, function and nutrition. Ms. Perdikou serves as Chairman of @Company, a private startup Internet Protocol company based in Silicon Valley, from December 2019. Ms. Perdikou serves on the board of Trunomi, Ltd. a private fintech startup, based in Bermuda, from June 2018. From 2010 to August 2013, Ms. Perdikou served as the Executive Vice President for the Office of the Chief Executive Officer at Juniper Networks, Inc. Before that she served as the Executive Vice President and General Manager of Infrastructure Products Group and as Chief Information Officer at Juniper Networks, Inc. from 2006 to 2010 and from August 2000 to January 2006, respectively. Ms. Perdikou served in leadership positions at Women.com, Readers Digest, Knight Ridder, and Dun & Bradstreet. Ms. Perdikou holds a Bachelor of Science degree in computing science with operational research from Paisley University (now the West of Scotland University) in Paisley, Scotland, a Post-Graduate degree in education from Jordanhill College in Glasgow, Scotland and a Master's of Science in information systems from Pace University in New York, United States.

David Schaeffer has served as a member of our board of directors since May 2014. Mr. Schaeffer has served as the Chairman, Chief Executive Officer and President of Cogent Communications, Inc. (Nasdaq: CCOI), an internet service provider based in the United States that is listed on Nasdaq, since he founded the company in August 1999. Mr. Schaeffer was the founder of Pathnet, Inc., a broadband telecommunications provider, where he served as Chief Executive Officer from 1995 until 1997 and as Chairman from 1997 until 1999. Mr. Schaeffer holds a Bachelor of Science in physics from the University of Maryland, the United States.

Amnon Shoshani has served as a member of our board of directors since November 2009. Since February 1995, Mr. Shoshani has served as the Founder and Managing Partner of Cabaret Holdings Ltd. and, since March 1999, he has also served as Managing Partner of Cabaret Holdings Ltd, Cyber ark's founding investor, Cabaret Security Ltd. and of Cabaret and ArbaOne Inc ventures activities where he had a lead role in managing the group's portfolio companies. Within that role, since 2018, Mr. Shoshani has served as the President and Chairman of the Board of Smartech, a company that provides game changing technologies to the industrial world. Between 2005 and 2018, he served as CEO and Chairman of the Board of Smartech. From 1994 to April 2005, Mr. Shoshani owned a Tel Aviv boutique law firm engaged in entrepreneurship, traditional industries and high tech, which he founded. Mr. Shoshani holds an LL.B. from Tel Aviv University, Israel.

François Auque has served as a member of our board of directors since February 2019. Mr. Auque serves as the chairman of the Audit and Risk Committee of Rexel SA from May 2019, after being an observer on this board from October 2018. Mr. Auque is a partner at InfraVia Capital Partners, a Private Equity firm based in Paris. Mr. Auque served as the General Partner and Chairman of the Investment Committee of Airbus Ventures, the venture capital arm of Airbus between 2016 and 2018. From 2000 to 2016, Mr. Auque headed the Airbus space division as a member of Airbus Group's Executive Committee. Between 1991 and 2000, Mr. Auque served as Chief Financial Officer of Aerospatiale (then Aerospatiale-Matra), one of the three founding firms of the European Aeronautic Defense and Space Company (EADS), Europe's largest aerospace company (currently Airbus). Mr. Auque holds a Master's in Finance from Ecole des Hautes Etudes Commerciales in Paris, France, a Bachelor of Arts in Public Administration from the Paris Institute of Political Studies in Paris, France, and is a graduate in economics from Ecole Nationale d'Administration in Paris, France.

B. Compensation

Compensation of Directors and Senior Management

The aggregate compensation expensed, including share-based compensation and other compensation expensed by us and our subsidiaries, with respect to the year ended December 31, 2019, to our directors and senior management that served at any time during the year ended December 31, 2019 was \$20.1 million. This amount includes approximately \$0.9 million set aside or accrued to provide pension, severance, retirement, or similar benefits.

The table below sets forth the compensation earned by our five most highly compensated office holders (as defined in the Companies Law and described under "Board Practices— Disclosure of Compensation of Senior Management" below) 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, and any benefits or perquisites such as car, phone and social benefits, as well as any undertaking to provide such compensation in the future.

Summary Compensation Table

Name and Principal Position(2)	Information Regarding the Covered Executive(1)			
	Base Salary	Benefits and Perquisites (3)	Variable Compensation (4)	Equity-Based Compensation (5)
Ehud (Udi) Mokady, Chairman of the Board & CEO	\$ 390,000	\$ 317,285	\$ 700,000	\$ 7,561,604
Joshua Siegel, Chief Financial Officer	352,274	131,728	400,000	3,193,952
Ronen (Ron) Zoran, Former Chief Revenue Officer	325,000	156,738	381,708	1,127,222
Marianne Budnik, Chief Marketing Officer	270,000	109,675	154,104	1,347,729
Chen Bitan, General Manager Israel, Chief Product Officer	281,574	137,644	250,000	1,061,745

- (1) In accordance with Israeli law, all amounts reported in the table are in terms of cost to our company, as recorded in our financial statements for the year ended December 31, 2019.
- (2) All current officers listed in the table are full-time employees. Cash compensation amounts denominated in currencies other than the U.S. dollar were converted into U.S. dollars at the average conversion rate for the year ended December 31, 2019.
- (3) 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 each executive, payments, contributions and/or allocations for savings funds, pension, severance, vacation, car or car allowance, medical insurances and benefits, risk insurances (such as life, disability and accident insurances), convalescence pay, payments for social security, tax gross-up payments and other benefits and perquisites consistent with our guidelines, regardless of whether such amounts have actually been paid to the executive.
- (4) Amounts reported in this column refer to Variable Compensation such as earned commission, incentive and earned or paid bonus as recorded in our financial statements for the year ended December 31, 2019.
- (5) Amounts reported in this column represent the expense recorded in our financial statements for the year ended December 31, 2019 with respect to equity-based compensation, reflecting also equity awards made in previous years which have vested during the current year. Assumptions and key variables used in the calculation of such amounts are described in paragraph c of Note 12 to our audited consolidated financial statements, which are included in this annual report.

Employment Agreements with Executive Officers

We have entered into written employment agreements with all of our executive officers. Most of these agreements contain provisions regarding non-competition and all of these agreements contain provisions regarding confidentiality of information and ownership of inventions. The non-competition provision applies for a period that is generally 12 months following termination of employment. The enforceability of covenants not to compete in Israel, the United States and the United Kingdom is subject to limitations. In addition, we are required to provide one to six months' notice prior to terminating the employment of our executive officers, other than in the case of a termination for cause.

Directors' Service Contracts

Other than with respect to Ehud (Udi) Mokady, our Chairman of the Board and Chief Executive Officer, there are no arrangements or understandings between us, on the one hand, and any of our directors, on the other hand, providing for benefits upon termination of their service as directors of our company, except that directors are permitted to exercise vested options for one year following the termination of their service. In July 2019, our shareholders approved certain changes to the compensation framework for each of our non-executive directors, specifically by implementing a fixed annual fee and predetermined values of initial and recurring annual equity grants of RSUs.

Equity Incentive Plans

2014 Share Incentive Plan

The 2014 Share Incentive Plan, or the 2014 SIP, was adopted by our board of directors and became effective on June 10, 2014. The 2014 SIP was approved by our shareholders on July 10, 2014. The 2014 SIP provides for the grant of options, restricted shares, restricted share units and other share-based awards to our employees, directors, officers, consultants, advisors and any other person providing services to us or our affiliates, under varying tax regimes. The maximum aggregate number of shares that may be issued pursuant to awards under this 2014 SIP is the sum of (a) 422,000 shares plus (b) an increase of 1,220,054 shares as of January 1, 2015 plus (c) on January 1 of each calendar year commencing in 2016, a number of shares equal to the lesser of: (i) an amount determined by our board of directors, if so determined prior to the January 1 of the calendar year in which the increase will occur, (ii) 4% of the total number of shares outstanding on December 31 of the immediately preceding calendar year, and (iii) 4,000,000 shares. Additionally, any share underlying an award that is cancelled or terminated or forfeited for any reason without having been exercised will automatically be available for grant under the 2014 SIP. As of December 31, 2019, 2,843,102 ordinary shares underlying share-based awards were outstanding under the 2014 SIP and 817,511 ordinary shares were reserved for future grant under the 2014 SIP. On January 1, 2020, the aggregate number of ordinary shares reserved for issuance under the 2014 SIP was increased by 950,000 shares. Either our board, or a committee established by our board, administers the 2014 SIP, and the board may, at any time, suspend, terminate, modify, or amend the 2014 SIP retroactively or prospectively.

The board or the committee may grant awards intended to qualify as an incentive stock option, non-qualified stock option, Israeli Income Tax Ordinance Section 102 award, Section 3(9) award, or other designations under other regimes. Other than with respect to incentive stock options, governed by the specific exercise price provisions of the 2014 SIP, the exercise price of any award will be determined by the committee or the board (as applicable). Unless otherwise stated in the applicable award agreement, option awards under the 2014 SIP expire ten years after their grant date. Upon termination of the employment or service of a grantee, any unvested awards will be forfeited on the termination date. Upon termination by reason of death, disability or retirement, all of the grantee's vested awards may be exercised at any time within one year after such death or disability or within three months following retirement. Upon termination for "cause" (as defined in the 2014 SIP), all awards granted to such grantee (whether vested or not) will be forfeited on the termination date. Upon termination for any other reason all vested and exercisable awards at the time of termination may, unless earlier terminated in accordance with their terms, be exercised within up to three months after the termination date (or such different period as the committee will prescribe).

The committee and the board may grant restricted shares under the 2014 SIP. If a grantee's employment or service to the company or any affiliate thereof terminates for any reason prior to the vesting of such grantee's restricted shares, any unvested shares will be forfeited by such grantee. The committee and the board may also grant restricted share units, performance share units, and other awards under the 2014 SIP, including shares, cash, cash and shares, other share units, share appreciation rights, and/or the opportunity to purchase our shares in connection with our public offerings.

In order to comply with the provisions of Section 102, all awards to Israeli grantees must be held in trust for the benefit of the relevant grantee for the requisite period prescribed by the Ordinance.

Upon a “Change in Control” event (as defined in the 2014 SIP), any award then outstanding will be assumed or substituted by us or the successor corporation or by any affiliate thereof, as determined by the committee. Regardless of whether or not awards are assumed or substituted, the committee may: (1) provide for grantees to have the right to exercise their awards or otherwise for the accelerated vesting of the unvested underlying shares, under such terms as the committee will determine, including the cancellation of all unexercised awards (whether vested or unvested) upon or immediately prior to the closing of the Change in Control; and/or (2) provide for the cancellation of each outstanding and unexercised award at or immediately prior to the closing of the Change in Control, and payment to the grantees of an amount in cash, our shares, the acquirer or of a corporation or other business entity which is a party to the Change in Control or other property, as determined by the committee to be fair in the circumstances, and subject to such terms and conditions as determined by the committee.

Awards under the 2014 SIP are not transferable other than by will or by the laws of descent and distribution or to a grantee’s designated beneficiary, unless, in the case of awards other than incentive stock options, otherwise determined by our committee or under the 2014 SIP. Awards may be granted from time to time pursuant to the 2014 SIP, within a period of ten years from the effective date of the 2014 SIP, which period may be extended by our board.

2011 Share Incentive Plan

The 2011 Share Incentive Plan, or the 2011 SIP, was adopted by our board of directors and became effective on July 14, 2011. The 2011 SIP was approved by our shareholders on December 20, 2011. Any share underlying an award that is cancelled or terminated or forfeited for any reason without having been exercised will automatically be available for grant under the 2014 SIP. As of December 31, 2019, 32,655 options to purchase ordinary shares remained outstanding under the 2011 SIP. No new awards may be granted under the 2011 SIP.

Either our board or a committee established by our board administers the 2011 SIP. Option awards to purchase our ordinary shares that were granted under the 2011 SIP are designated in the applicable award agreement as an incentive stock option, non-qualified stock option, Section 102 award (with such designation to include the relevant tax track), Section 3(i) award, or other designations under other regimes. All awards granted under the 2011 SIP have vested. Upon termination by reason of death, disability or retirement, all of the grantee’s vested options may be exercised at any time within one year after such death or disability or within three months following retirement. Upon termination for cause (as defined in the 2011 SIP), all options granted to such grantee (whether vested or not) are forfeited on the termination date. Upon termination for any other reason all vested and exercisable options at the time of termination may, unless earlier terminated in accordance with their terms, be exercised within up to 90 days after the termination date.

In the event of certain merger or sale events (as specified in the 2011 SIP), any award then outstanding will be assumed or an equivalent award will be substituted by such successor corporation under substantially the same terms as such award. If such awards are not assumed or substituted by an equivalent award, then the committee may (i) provide for grantees to have the right to exercise their awards or otherwise for the acceleration of vesting of such awards, under such terms and conditions as the committee will determine; and/or (ii) provide for the cancellation of each outstanding award at the closing of such transaction, and payment to the grantees of an amount in cash as determined by the committee to be fair in the circumstances, and subject to such terms and conditions as determined by the committee.

Awards under the 2011 SIP are not transferable other than by will or by the laws of descent and distribution, unless otherwise determined by the board or under the 2011 SIP, and generally expire ten years following the grant date. The 2011 SIP will terminate on the tenth anniversary of the effective date, other than with respect to those awards outstanding under the 2011 SIP at the time of termination.

2001 Stock Option Plan

The 2001 Stock Option Plan, or the 2001 SOP was adopted by our board of directors and became effective on March 27, 2001. The 2001 SOP was approved by our shareholders on March 22, 2002. If an option granted under the 2001 SOP expires or terminates for any reason without having been exercised in full, the unpurchased shares subject to such option will be available for subsequent grants under the 2014 SIP. As of December 31, 2019, a total of 400 options to purchase ordinary shares remained outstanding under the 2001 SOP. The 2001 SOP terminated on March 27, 2011, other than with respect to those awards outstanding under the 2001 SOP at the time of such termination. No new awards may be granted under the 2001 SOP.

The 2001 SOP are administered by a committee appointed by the board, which may amend outstanding option agreements with the affected grantee's consent. Pursuant to the May 30, 2013 board resolution, the respective term of the options that were granted by us to certain employees of the company and of our UK subsidiary was extended from 10 years to 15 years.

The terms of the options granted under the 2001 SOP are generally set forth in the applicable award agreement; however, an incentive stock option may be exercised for at least three months following termination of a grantee's employment (or for one year following a termination due to the grantee's death or disability).

Awards under the 2001 SOP are generally not transferable other than by will or by the laws of descent and distribution, unless otherwise determined by the board.

C. Board Practices

Board of Directors

Under the Companies Law, 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 or to management. Our executive officers are responsible for our day-to-day management and have individual responsibilities established by our board of directors. Our Chief Executive Officer is appointed by, and serves at the discretion of, our board of directors, subject to the employment agreement that we have entered into with him. All other executive officers are also appointed by our board of directors, and are subject to the terms of any applicable employment agreements that we may enter into with them.

We comply with the rule of Nasdaq that requires a majority of our directors to be independent as defined under Nasdaq corporate governance rules. Our board of directors has determined that all of our directors, other than our Chief Executive Officer, are independent under such rules. Under our articles of association, our directors serve for a period of three years pursuant to the staggered board provisions of our articles of association. Under our articles of association, our board of directors must consist of at least four and not more than nine directors. Our board of directors currently consists of seven directors. Our Chairman of the Board is Ehud (Udi) Mokady, also serves as our Chief Executive Officer. Under the Companies Law, a chairman of the board of directors of a public company may also serve as the chief executive officer of such company if his appointment is ratified and approved by the company's shareholders, and which term will be valid for a period not exceeding three years from the date of such shareholder approval. In July of 2019, our shareholders ratified and approved Mr. Mokady's appointment as both Chairman of the Board and Chief Executive Officer, and therefore such appointment will remain valid until 2022.

Pursuant to our articles of association, our directors are divided into three classes with staggered three-year terms. Each class of directors consists, as nearly as possible, of one-third of the total number of directors constituting the entire board of directors. At each annual general meeting of our shareholders, the election or re-election of directors following the expiration of the term of office of the directors of that class of directors is for a term of office that expires on the third annual general meeting following such election or re-election, such that at each annual general meeting, the term of office of only one class of directors will expire. Each director will hold office until the annual general meeting of our shareholders in which his or her term expires, unless he or she is removed by a vote of 65% of the total voting power of our shareholders at a general meeting of our shareholders or upon the occurrence of certain events, in accordance with the Companies Law and our articles of association.

Our directors are divided among the three classes as follows:

(i) the Class I directors are Ehud (Udi) Mokady and David Schaeffer, and their term expires at the annual general meeting of shareholders to be held in 2021 at the time their successors are elected and qualified;

(ii) the Class II directors are Gadi Tirosh and Amnon Shoshani, and their term expires at the annual general meeting of shareholders to be held in 2022 at the time their successors are elected and qualified; and

(iii) the Class III directors are Ron Gutler, Kim Perdikou and François Auque, and their term expires at the annual general meeting of shareholders to be held in 2020 at the time their successors are elected and qualified.

In addition, our articles of association allow our board of directors to appoint directors, create new directorships or fill vacancies on our board of directors up to the maximum number of directors permitted under our articles of association. In case of an appointment by our board of directors to fill a vacancy on our board of directors due to a director no longer serving, the term of office shall be equal to the remaining period of the term of office of the director(s) whose office(s) have been vacated, and in case of a new appointment where the number of directors serving is less than the maximum number stated in our articles of association, our board of directors shall determine at the time of appointment the class to which the new director shall be assigned.

Under the Companies Law and our articles of association, nominations for directors may be made by any shareholder(s) holding together at least 1% of our outstanding voting power. However, any such shareholder may make such a nomination only if a written notice of such shareholder's intent to make such nomination has been timely and duly given to our Secretary (or, if we have no Secretary, our Chief Executive Officer), as set forth in our articles of association. Any such notice must include certain information regarding the proposing shareholder and the proposed director nominee, the consent of the proposed director nominee(s) to serve as our director(s) if elected and a declaration signed by the proposed director nominee(s) as required by under the Companies Law and that all of the information that is required to be provided to us in connection with such election under the Companies Law and under our articles of association has been provided.

Under the Companies Law, our board of directors must determine the minimum number of directors who are required to have accounting and financial expertise. A director with accounting and financial expertise is a director who, due to his or her education, experience and skills, possesses an expertise in, and an understanding of, financial and accounting matters and financial statements, such that he or she is able to understand the financial statements of the company and initiate a discussion about the presentation of financial data.

In determining the number of directors required to have such expertise, a 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 the minimum number of directors of our company who are required to have accounting and financial expertise is one.

External Directors

Under the Companies Law, companies incorporated under the laws of the State of Israel that are public companies, including companies with shares listed on Nasdaq, are required to appoint at least two external directors.

Pursuant to regulations enacted under the Companies Law, the board of directors of a public company whose shares are listed on certain non-Israeli stock exchanges, including Nasdaq, that do not have a controlling shareholder (as such term is defined in the Companies Law), may, subject to certain conditions, elect to "opt-out" of the requirements of the Companies Law regarding the election of external directors and to the composition of the audit committee and compensation committee, provided that the company complies with the requirements as to director independence and audit committee and compensation committee composition applicable to companies that are incorporated in the jurisdiction in which its stock exchange is located. In May 2016, our board of directors elected to opt-out of the Companies Law requirements to appoint external directors and related Companies Law rules concerning the composition of the audit committee and compensation committee.

The foregoing exemptions will continue to be available to us so long as: (i) we do not have a "controlling shareholder" (as such term is defined under the Companies Law), (ii) our shares are traded on a U.S. stock exchange, including Nasdaq, and (iii) we comply with Nasdaq listing rules applicable to domestic U.S. companies. If in the future we were to have a controlling shareholder, we would again be required to comply with the requirements relating to external directors and composition of the audit committee and compensation committee.

Under the Securities Law 1968-5728, or the Securities Law, and the Companies Law, the term "controlling shareholder" means a shareholder with the ability to direct the activities of the company, other than by virtue of being an office holder. A shareholder is presumed to be a controlling shareholder if the shareholder holds 50% or more of the voting rights in a company or has the right to appoint the majority of the directors of the company or its general manager. For the purpose of approving transactions with controlling shareholders, the term "controlling shareholder" also includes any shareholder that holds 25% or more of the voting rights of the company if no other shareholder holds more than 50% of the voting rights in the company.

Lead Independent Director

Mr. Mokady has been our CEO since 2005, and following approval by our shareholders at the June 2016 and July 2019 annual shareholder meetings, has held that post in addition to serving as our Chairman, for the maximum period permitted under the Companies Law. As approved by our shareholders at the July 2019 annual shareholder meeting, for so long as the positions of the Chief Executive Officer and Chairman of the Board are combined, the non-executive board members will select a Lead Independent Director from among the independent directors of the board, who has served a minimum of one year as a director. If at any meeting of the board the Lead Independent Director is not present, as the Lead Independent Director for the purpose and duration of such meeting will act, in the following order, the Chairman of the Audit Committee, Chairman of the Compensation Committee, or an independent member of the board appointed by a majority of the independent members of the board present. Mr. Tirosh has been our Lead Independent Director since June 2016. The authorities and responsibilities of the Lead Independent Director include, but are not limited to, the following:

- providing leadership to the board of directors if circumstances arise in which the role of the Chairman of the Board may be, or may be perceived to be, in conflict, and responding to any reported conflicts of interest, or potential conflicts of interest, arising for any director;
- presiding as chairman of meetings of the board of directors at which the Chairman of the Board is not present, including executive sessions of the independent members of the board of directors;
- serving as liaison between the Chairman of the Board and the independent members of the Board;
- approving meeting agendas for the board of directors;
- approving information sent to the board of directors;
- approving meeting schedules to assure that there is sufficient time for discussion of all agenda items;
- having the authority to call meetings of the independent members of the board;
- ensuring that he or she is available for consultation and direct communication with shareholders, as appropriate;
- recommending that the board of directors retain consultants or advisers that report directly to the board;
- conferring with the Chairman of the Board on important board of directors matters and ensuring the board of directors focuses on key issues and tasks facing the company; and
- performing such other duties as the board of directors may from time to time delegate to assist the board of directors in the fulfillment of its duties.

Audit Committee

Under the Companies Law, the board of directors of a public company must appoint an audit committee. Our audit committee consists of three independent directors, Ron Gutler (Chairperson), Kim Perdikou, and Amnon Shoshani.

Audit Committee Composition

Under Nasdaq corporate governance rules, we are required to maintain an audit committee consisting of at least three independent directors, each of whom is financially literate and one of whom has accounting or related financial management expertise.

All members of our audit committee meet the requirements for financial literacy under the applicable rules and regulations of the SEC and Nasdaq corporate governance rules. Our board of directors has determined that Ron Gutler and Kim Perdikou are audit committee financial experts as defined by SEC rules and have the requisite financial experience as defined by Nasdaq corporate governance rules.

Each of the members of the audit committee is “independent” as such term is defined in Rule 10A-3(b)(1) under the Exchange Act, which is different from the general test for independence of board members and members of other committees.

Audit Committee Role

Our board of directors has an audit committee charter that sets forth the responsibilities of the audit committee consistent with the rules of the SEC and the listing requirements of Nasdaq, as well as the requirements for such committee under the Companies Law. The responsibilities of the audit committee under the audit committee charter include, among others, the following:

- overseeing of our accounting and financial reporting process and the audits of our financial statements, the effectiveness of our internal control over financial reporting and making such reports as may be required of an audit committee under the rules and regulations promulgated under the Exchange Act;
- retaining and terminating our independent registered public accounting firm subject to the approval of our board of directors and, in the case of retention, of our shareholders and recommending the terms of audit and non-audit services provided by the independent registered public accounting firm for pre-approval by our board of directors and related fees and terms;
- establishing systems of internal control over financial reporting, including communication and implementation thereof and the assessment of the internal controls in accordance with the Sarbanes-Oxley Act, and any attestation by the independent registered public accounting firm;
- determining whether there are deficiencies in the business management practices of our company, including in consultation with our internal auditor or the independent registered public accounting firm, and making recommendations to the board of directors to improve such practices;
- determining whether to approve certain related party transactions (see “Item 6.C. Board Practices —Approval of Related Party Transactions under Israeli Law”);
- recommending to the board of directors the retention and termination of our internal auditor, and determining the internal auditor's fees and other terms of engagement, in accordance with the Companies Law;
- approving the working plan proposed by the internal auditor and reviewing and discussing the work of the internal auditor on a quarterly basis;
- establishing procedures for the handling of employees’ complaints as to the deficiencies in the management of our business and the protection to be provided to such employees; and
- performing such other duties consistent with the audit committee charter, our governing documents, stock exchange rules and applicable law that may be requested by the board of directors from time to time, including discussing guidelines and policies to govern the process by which the company undertakes risk assessment and management in sensitive areas.

Compensation Committee

Under the Companies Law, the board of directors of any public company must appoint a compensation committee. Our compensation committee consists of three independent directors, Kim Perdikou (Chairperson), Gadi Tirosh and Ron Gutler.

Compensation Committee Composition

Under Nasdaq corporate governance rules, we are required to maintain a compensation committee consisting of at least two independent directors. Each of the members of the compensation committee is “independent” as such term is defined in Rule 10C-1(b)(1) under the Exchange Act, which is different from the general test for independence of board members and members of other committees.

Compensation Policy pursuant to the Israeli Companies Law

The duties of the compensation committee include the recommendation to the company's board of directors of a policy regarding the terms of engagement of office holders, as such term is defined under the Companies Law, to which we refer as a compensation policy. That compensation policy must be adopted by the company's board of directors, after considering the recommendations of the compensation committee, and must be brought for approval by the company's shareholders at least once every three years, which approval requires a Special Approval for Compensation (as defined below under "—Approval of Related Party Transactions under Israeli Law—Disclosure of Personal Interests of an Office Holder and Approval of Certain Transactions").

Under special circumstances, the board of directors may approve the compensation policy despite the objection of the shareholders on the condition that the compensation committee and then the board of directors decide, on the basis of detailed grounds and after discussing again the compensation policy, that approval of the compensation policy, despite the objection of the meeting of shareholders, is for the benefit of the company.

The compensation policy must serve as the basis for decisions concerning the financial terms of employment or engagement of office holders, including exculpation, insurance, indemnification or any monetary payment, obligation of payment or other benefit in respect of employment or engagement. The compensation policy must be determined and later re-evaluated according to certain factors, including the advancement of the company's objectives, business plan and its long-term strategy and creation of appropriate incentives for office holders, while considering, among other things, the company's risk management policy, the size and the nature of its operations and with respect to variable compensation, the contribution of the office holder towards the achievement of the company's long-term goals and the maximization of its profits, all with a long-term objective and according to the position of the office holder. The compensation policy must include certain principles, such as: a link between variable compensation and long-term performance, which variable compensation shall, other than with respect to office holders who report to the CEO, be primarily based on measurable criteria; the relationship between variable and fixed compensation; and the minimum holding or vesting period for variable, equity-based compensation. The compensation committee is responsible for (a) recommending the compensation policy to a company's board of directors for its approval (and subsequent approval by our shareholders) and (b) duties related to the compensation policy and to the compensation of company's office holders (as described below). Accordingly, following the recommendation and approval of our compensation committee and Board, our shareholders approved our compensation policy at the July 2019 annual general meeting.

Compensation Committee Role

Our board of directors has adopted a compensation committee charter that sets forth the responsibilities of the compensation committee. The responsibilities of the committee set forth in its charter and the Companies Law include, among others, the following:

- recommending to the board of directors for its approval a compensation policy and subsequently reviewing it from time to time, assessing its implementation and recommending periodic updates, whether a new compensation policy should be adopted or an existing compensation policy should continue in effect;
- reviewing, evaluating and making recommendations regarding the terms of office, compensation and benefits for our office holders, including the non-employee directors, taking into account our compensation policy;
- exempting certain compensation arrangements from the requirement to obtain shareholder approval under the Companies Law (including with respect to the Chief Executive Officer); and
- reviewing and granting equity-based awards pursuant to our equity incentive plans to the extent such authority is delegated to the compensation committee by our board of directors and the reserving of additional shares for issuance thereunder.

Under our compensation policy, which was approved by our shareholders in July 2019, the compensation committee is responsible for the general administration of the policy.

Nominating and Governance Committee

Our nominating and governance committee consists of three independent directors, Gadi Tirosh (Chairperson), Kim Perdikou and Ron Gutler.

Nominating and Governance Committee Role

Our board of directors has a nominating and governance committee charter that sets forth the responsibilities of the nominating and governance committee, which include:

- overseeing and assisting our board of directors in reviewing and recommending nominees for election as directors and as members of the committees of the board of directors;
- establishing procedures for, and administering the performance of the members of our board and its committees;
- evaluating and making recommendations to our board of directors regarding the termination of membership of directors;
- reviewing, evaluating and making recommendations regarding management succession and development;
- reviewing and making recommendations to our board of directors regarding board member qualifications, composition and structure and the nature and duties of the committees and qualifications of committee members; and
- establishing and maintaining effective corporate governance policies and practices, including, but not limited to, developing and recommending to our board of directors a set of corporate governance guidelines applicable to our company.

Disclosure of Compensation of Executive Officers

For so long as we qualify as a foreign private issuer, we are not required to comply with the proxy rules applicable to U.S. domestic companies, including the requirement applicable to certain domestic issuers that do not qualify as emerging growth companies to disclose on an individual, rather than an aggregate basis, the compensation of our named executive officers as defined in Item 402 of Regulation S-K. Nevertheless, the Companies Law requires that we disclose the annual compensation of our five most highly compensated office holders (as defined under the Companies Law) on an individual basis. Under the Companies Law regulations, this disclosure is required to be included in the annual proxy statement for our annual meeting of shareholders each year, which we will furnish to the SEC under cover of a Report of Foreign Private Issuer on Form 6-K. Because of that disclosure requirement under Israeli law, we are also including such information in this annual report, pursuant to the disclosure requirements of Form 20-F.

For additional information, see “Item 6.B. Compensation—Compensation of Directors and Senior Management”

Compensation of Directors

Under the Companies Law, compensation of directors requires the approval described below under “Approval of Related Party Transactions under Israeli Law - Disclosure of Personal Interests of an Office Holder and Approval of Certain Transactions.”

The directors are also entitled to be paid reasonable travel, hotel and other expenses expended by them in attending board meetings and performing their functions as directors of the company, all of which is to be determined by the board of directors.

For additional information, see “Item 6.B. Compensation—Compensation of Directors and Senior Management.”

Internal Auditor

Under the Companies Law, the board of directors of an Israeli public company must appoint an internal auditor recommended by the audit committee. An internal auditor may not be:

- a person (or a relative of a person) who holds more than 5% of the company's outstanding shares or voting rights;
- a person (or a relative of a person) who has the power to appoint a director or the general manager of the company;
- an office holder (including a director) of the company (or a relative thereof); or
- a member of the company's independent accounting firm, or anyone on his or her behalf.

The role of the internal auditor is to examine, among other things, our compliance with applicable law and orderly business procedures. The audit committee is required to oversee the activities and to assess the performance of the internal auditor as well as to review the internal auditor's work plan. Chaikin, Cohen, Rubin & Co. serves as our internal auditor.

Approval of Related Party Transactions under Israeli Law

Fiduciary Duties of Directors and Office Holders

The Companies Law codifies the fiduciary duties that office holders owe to a company. The term "office holder" is defined under the Companies Law as a general manager, chief business manager, deputy general manager, vice general manager, any other person assuming the responsibilities of any of these positions (regardless of that person's title), a director and any other manager directly subordinate to the general manager.

An office holder's fiduciary duties consist of a duty of care and a duty of loyalty. 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 loyalty requires that an office holder act in good faith and in the best interests of the company.

The duty of care includes a duty to use reasonable means to obtain:

- information on the advisability of a given action brought for his or her approval or performed by virtue of his or her position; and
- all other important information pertaining to any such action.

The duty of loyalty includes a duty to:

- refrain from any conflict of interest between the performance of his or her duties to the company and his or her duties or personal affairs;
- refrain from any action which competes with the company's business;
- refrain from exploiting any business opportunity of the company in order 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 received as a result of his or her position as an office holder.

We may approve an act specified above that would otherwise constitute a breach of the duty of loyalty of an office holder, provided, that the office holder acted in good faith, the act or its approval does not harm the company, and the office holder discloses his or her personal interest, including any related material information or document, a sufficient time before the approval of such act. Any such approval is subject to the terms of the Companies Law, setting forth, among other things, the organs of the company entitled to provide such approval, and the methods of obtaining such approval.

Disclosure of Personal Interests of an Office Holder and Approval of Certain Transactions

The Companies Law requires that an office holder promptly disclose to the board of directors any personal interest that he or she may be aware of and all related material information or documents concerning any existing or proposed transaction with the company. An interested office holder's disclosure must be made promptly and in any event no later than the first meeting of the board of directors in which the transaction is considered.

Under the Companies Law, a “personal interest” includes an interest of any person in an act or transaction of a company, including a personal interest of such person’s relative or of a corporate body in which such person or a relative of such person is a 5% or greater shareholder, director or general manager, or in which he or she has the right to appoint at least one director or the general manager, but excluding a personal interest stemming from one’s ownership of shares in the company. A personal interest furthermore includes the personal interest of a person for whom the office holder holds a voting proxy or the personal interest of the office holder with respect to his or her vote on behalf of a person for whom he or she holds a proxy even if such shareholder has no personal interest in the matter. An office holder is not, however, obliged to disclose a personal interest if it derives solely from the personal interest of his or her relative in a transaction that is not considered an extraordinary transaction. Under the Companies Law, an extraordinary transaction is defined as any of the following:

- a transaction other than in the ordinary course of business;
- a transaction that is not on market terms; or
- a transaction that may have a material impact on a company’s profitability, assets or liabilities.

If it is determined that an office holder has a personal interest in a transaction, approval by the board of directors (and, in certain circumstances, of its applicable committee) is required for the transaction, unless the company’s articles of association provide for a different method of approval. Further, so long as an office holder has disclosed his or her personal interest in a transaction and acted in good faith and the transaction or action does not harm the company’s best interests, the board of directors may approve an action by the office holder that would otherwise be deemed a breach of duty of loyalty.

The compensation of, or an undertaking to indemnify or insure, an office holder requires approval first by the company’s compensation committee, then by the company’s board of directors, and, if such compensation arrangement or an undertaking to indemnify or insure is that of a director, the approval of the shareholders by an ordinary majority. If such compensation arrangement or an undertaking to indemnify or insure is inconsistent with the company’s stated compensation policy then such arrangement is subject to the approval of a majority vote of the shares present and voting at a shareholders meeting, provided that either, which we refer to as the Special Approval for Compensation:

- (a) such majority includes at least a majority of the shares held by all shareholders who do not have a personal interest in such compensation arrangement and are not controlling shareholders, excluding abstentions; or
- (b) the total number of shares of shareholders who do not have a personal interest in the compensation arrangement and who vote against the arrangement does not exceed 2% of the company’s aggregate voting rights.

Generally, a person 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 such a meeting or vote on that matter unless the chairman of the relevant committee or board of directors (as applicable) determines that he or she should be present in order to present the transaction that is subject to approval, in which case such person may do so but may not vote on the matter. If a majority of the members of the audit committee or the board of directors (as applicable) has a personal interest in the approval of a transaction, then all directors may participate in discussions of the audit committee or the board of directors (as applicable) on such transaction and the voting on approval thereof. However, in the event that a majority of the members of the board has a personal interest in a transaction, shareholder approval is also required for such transaction.

Disclosure of Personal Interests of Controlling Shareholders and Approval of Certain Transactions

We currently do not have a controlling shareholder. If in the future we would have a controlling shareholder, disclosure requirements regarding personal interests will apply and shareholder approval (meeting a special majority requirement) will be required with respect to transactions specified in the Companies Law involving the controlling shareholder, parties having certain relationships with the controlling shareholder and certain other specific transactions. In such cases, the votes of a controlling shareholder and certain parties associated with it would be excluded for purposes of special majority voting requirements. Additionally, the Companies Law provides a different, broader definition of a controlling shareholder with respect to the provisions pertaining to the approval of related party transactions.

Shareholder Duties

Pursuant to the Companies Law, a shareholder has a duty to act in good faith and in a customary manner toward the company and other shareholders and to refrain from abusing his or her power in the company, including, among other things, in voting at a general meeting and at shareholder class meetings with respect to the following matters:

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

In addition, a shareholder also has a general duty to refrain from discriminating against other shareholders.

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

Exculpation, Insurance and Indemnification of Directors and Officers

Under the Companies Law, a company may not exculpate an office holder from liability for a breach of the duty of loyalty. An Israeli company may exculpate an office holder in advance from liability to the company, in whole or in part, for damages caused to the company as a result of a breach of duty of care but only if a provision authorizing such exculpation is included in its articles of association. Our articles of association include such a provision. The company may not exculpate in advance a director from liability arising out of a prohibited dividend or distribution to shareholders.

Under the Companies Law and the Securities Law, a company may indemnify an office holder in respect of the following liabilities, payments and expenses incurred for acts performed by him or her as an office holder, either pursuant to an undertaking made in advance of an event or following an event, provided its articles of association include a provision authorizing such indemnification:

- a monetary liability incurred by or imposed on him or her in favor of another person pursuant to a judgment, including a settlement or arbitrator's award approved by a court. However, if an undertaking to indemnify an office holder with respect to such liability is provided in advance, then such undertaking must be limited to certain events which, in the opinion of the board of directors, can be foreseen based on the company's activities when the undertaking to indemnify is given, and to an amount or according to criteria determined by the board of directors as reasonable under the circumstances, and such undertaking shall detail the foreseen events and described above amount or criteria;
- reasonable litigation expenses, including reasonable attorneys' fees, incurred by the office holder (1) as a result of an investigation or proceeding instituted against him or her by an authority authorized to conduct such investigation or proceeding, provided that (i) no indictment was filed against such office holder as a result of such investigation or proceeding; and (ii) no financial liability was imposed upon him or her as a substitute for the criminal proceeding as a result of such investigation or proceeding or, if such financial liability was imposed, it was imposed with respect to an offense that does not require proof of criminal intent; or (2) in connection with a monetary sanction or liability imposed on him or her in favor of an injured party in certain Administrative proceedings;
- expenses incurred by an office holder in connection with Administrative proceedings instituted against such office holder, or certain compensation payments made to an injured party imposed on an office holder by Administrative proceedings, including reasonable litigation expenses and reasonable attorneys' fees; and
- reasonable litigation expenses, including attorneys' fees, incurred by the office holder or imposed by a court in proceedings instituted against him or her by the company, on its behalf, or by a third party, or in connection with criminal proceedings in which the office holder was acquitted, or as a result of a conviction for an offense that does not require proof of criminal intent.

Under the Companies Law and the Securities Law, a company may insure an office holder against the following liabilities incurred for acts performed by him or her as an office holder if and to the extent provided in the company's articles of association:

- a breach of duty of care to the company or to a third party, to the extent such a breach arises out of the negligent conduct of the office holder;
- a breach of the duty of loyalty to the company, provided that the office holder acted in good faith and had a reasonable basis to believe that the act would not harm the company;
- a monetary liability imposed on the office holder in favor of a third party;
- a monetary liability imposed on the office holder in favor of an injured party in certain Administrative proceedings; and
- expenses incurred by an office holder in connection with certain Administrative proceedings, including reasonable litigation expenses and reasonable attorneys' fees.

Under the Companies Law, a company may not indemnify, exculpate or insure an office holder against any of the following:

- a breach of the duty of loyalty, except for indemnification and insurance for a breach of the duty of loyalty to the company to the extent that the office holder acted in good faith and had a reasonable basis to believe that the act would not prejudice the company;
- a breach of duty of care committed intentionally or recklessly, excluding a breach arising out of the negligent conduct of the office holder;
- an act or omission committed with intent to derive illegal personal benefit; or
- a civil or criminal fine, monetary sanction or forfeit levied against the office holder.

Under the Companies Law, exculpation, indemnification and insurance of office holders in a public company must be approved by the compensation committee and the board of directors and, with respect to certain office holders or under certain circumstances, also by the shareholders. See "Item 6.C. Board Practices—Approval of Related Party Transactions under Israeli Law."

We have entered into indemnification agreements with our office holders to exculpate, indemnify and insure our office holders to the fullest extent permitted or to be permitted by our articles of association and applicable law (including without limitation), the Companies Law, the Securities Law and the Israeli Restrictive Trade Practices Law, 5758-1988. We have obtained director and officer liability insurance for the benefit of our office holders and intend to continue to maintain such insurance as deemed adequate and to the extent permitted by the Companies Law.

D. Employees

As of December 31, 2019, we had 1,380 employees and subcontractors with 499 located in Israel, 498 in the United States, 104 in the United Kingdom and 279 across 35 other countries. The following table shows the breakdown of our global workforce of employees and subcontractors by category of activity as of the dates indicated:

Department	As of December 31,		
	2017	2018	2019
Sales and marketing	491	541	656
Research and development	250	287	349
Services and support	188	214	253
General and administrative	86	104	122
Total	1,015	1,146	1,380

With respect to our Israeli employees, Israeli labor laws govern the length of the workday, minimum wages for employees, procedures for hiring and dismissing employees, determination of severance pay, annual leave, sick days, advance notice of termination of employment, equal opportunity and anti-discrimination laws and other conditions of employment. Subject to certain exceptions, Israeli law generally requires severance pay upon the retirement, death or dismissal of an employee, and requires us and our employees to make payments to the National Insurance Institute, which is similar to the U.S. Social Security Administration. Our Israeli employees have pension plans that comply with the applicable Israeli legal requirements and we make monthly contributions to severance pay funds for all Israeli employees, which cover potential severance pay obligations.

Extension orders issued by the Israeli Ministry of Economy and Industry (formerly the Israeli Ministry of Industry, Trade and Labor) apply to our employees in Israel and affect matters such as, living adjustments to salaries, length of working hours and week, recuperation pay, travel expenses, and pension rights. We have never experienced labor-related work stoppages or strikes and believe that our relations with our employees are satisfactory.

All our employment agreements are governed by local labor laws. None of our employees work under any collective bargaining agreements, except for our employees in Italy who work under the national collective bargaining agreement for trade and commerce sector (*CCNL Commercio*) which affects matters such as length of working, annual holidays entitlement, sick leave, travel expenses and pension rights, and our employees in France who work under the collective bargaining agreement for offices of technical studies, offices of consulting engineers and consulting firms (*SYNTEC CBA*), and our employees in Spain who work under the collective bargaining agreement for the sale of Metal of the Region of Madrid or the collective bargaining agreement for the sale of Metal of the province of Barcelona, depending on their location.

E. Share Ownership

For information regarding the share ownership of our directors and senior management, please refer to “Item 6.B. Compensation” and “Item 7.A. Major Shareholders.”

ITEM 7. MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS

A. Major Shareholders

The following table sets forth information with respect to the beneficial ownership of our shares as of January 31, 2020 by:

- each person or entity known by us to own beneficially 5% or more of our outstanding shares;
- each of our directors and senior management individually; and
- all of our senior management and directors as a group.

The beneficial ownership of ordinary shares is determined in accordance with the rules of the SEC and generally includes any ordinary shares over which a person exercises sole or shared voting or investment power, or the right to receive the economic benefit of ownership. For purposes of the table below, we deem shares subject to equity-based awards that are currently exercisable or exercisable within 60 days of January 31, 2020, to be outstanding and to be beneficially owned by the person holding the equity-based awards for the purposes of computing the percentage ownership of that person but we do not treat them as outstanding for the purpose of computing the percentage ownership of any other person. The percentage of shares beneficially owned is based on 38,123,659 ordinary shares outstanding as of January 31, 2020.

As of January 31, 2020, we had 10 holders of record of our ordinary shares in the United States, including Cede & Co., the nominee of The Depository Trust Company. These shareholders held in the aggregate 38,119,892 of our outstanding ordinary shares, or 99.9% of our outstanding ordinary shares as of January 31, 2020. The number of record holders in the United States is not representative of the number of beneficial holders nor is it representative of where such beneficial holders are resident since many of these ordinary shares were held by brokers or other nominees.

All of our shareholders, including the shareholders listed below, have the same voting rights attached to their ordinary shares. See “Item 10.B. Memorandum and Articles of Association.” None of our principal shareholders or our directors and senior management have different or special voting rights with respect to their ordinary shares. Unless otherwise noted below, each shareholder’s address is CyberArk Software Ltd. 9 Hapsagot St., Park Ofer B, POB 3143, Petach-Tikva, 4951040, Israel.

A description of any material relationship that our principal shareholders have had with us or any of our predecessors or affiliates since January 1, 2019 is included under “Item 7.B. Related Party Transactions.”

Name of Beneficial Owner	Shares Beneficially Owned Number	%
<i>Principal Shareholders</i>		
<i>Senior Management and Directors</i>		
Ehud (Udi) Mokady(1)	*	*
Joshua Siegel	*	*
Chen Bitan	*	*
Matthew Cohen	*	*
Donna Rahav	*	*
Gadi Tirosh	*	*
Ron Gutler	*	*
Kim Perdikou	*	*
David Schaeffer	*	*
Amnon Shoshani	*	*
François Auque	*	*
All senior management and directors as a group (11 persons)	570,770	1.5%

* Less than 1%.

(1) Mr. Mokady’s shares include 3,000 shares held in trust for family members over which Mr. Mokady is the beneficial owner.

Significant Changes

Based on a Schedule 13G/A filed with the SEC on February 13, 2020, as of December 31, 2019, Morgan Stanley and certain of its affiliates and subsidiaries no longer beneficially owned more than 5% of our ordinary shares.

B. Related Party Transactions

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

The following is a description of material transactions, or series of related material transactions, since January 1, 2019, to which we were or will be a party and in which the other parties included or will include our directors, executive officers, holders of more than 10% of our voting securities or any member of the immediate family of any of the foregoing persons.

Registration Rights

Our investor rights agreement entitles our shareholders to certain registration rights. None of our shareholder are currently entitled to registration rights.

Agreements with Directors and Officers

Employment and Related Agreements. We have entered into written employment agreements with each of our officers. These agreements provide for notice periods of varying duration for termination of the agreement by us or by the relevant executive officer, during which time the officer will continue to receive base salary and benefits. These agreements also contain customary provisions regarding confidentiality of information and ownership of inventions.

Equity Awards. Since our inception we have granted options to purchase, and restricted share units underlying, our ordinary shares to our officers and certain of our directors. Such award agreements contain acceleration provisions upon certain merger, acquisition, or change of control transactions. We describe our option plans under “Item 6.B. Compensation—Equity Incentive Plans” and the equity-based compensation received by certain of our senior managers in “Item 6.B. Compensation—Compensation of Directors and Senior Management.” If the relationship between us and a senior manager, or a director, is terminated, except for cause (as defined in the various option plan agreements), all options that are vested will remain exercisable for ninety days after such termination in the case of our executive officers, or one year in the case of our directors.

Exculpation, Indemnification and Insurance. Our articles of association permit us to exculpate, indemnify and insure certain of our office holders to the fullest extent permitted by Israeli law. We have entered into agreements with certain of our office holders, including our directors, exculpating them from a breach of their duty of care to us to the fullest extent permitted by law and undertaking to indemnify them to the fullest extent permitted by law, subject to certain exceptions, including with respect to liabilities resulting from our initial public offering to the extent that these liabilities are not covered by insurance. See “Item 6.C. Board Practices—Exculpation, Insurance and Indemnification of Directors and Officers.”

C. Interests of Experts and Counsel

Not applicable.

ITEM 8. FINANCIAL INFORMATION

A. Consolidated Statements and Other Financial Information

Consolidated Financial Statements

We have appended as part of this annual report our consolidated financial statements starting at page F-1.

Legal Proceedings

From time to time we may be subject to legal proceedings and claims arising in the ordinary course of business. We are currently not a party to any material litigation and we are not aware of any pending or threatened material legal or administrative proceedings against us. Regardless of the outcome, litigation can have an adverse impact on us because of defense and settlement costs, diversion of management resources and other factors.

Dividend Policy

We have never declared or paid any cash dividends on our ordinary shares. We do not anticipate paying any cash dividends in the foreseeable future. We currently intend to retain future earnings, if any, to finance operations and expand our business. Our board of directors has sole discretion whether to pay dividends. If our board of directors decides to pay dividends, the form, frequency and amount will depend upon our future operations and earnings, capital requirements and surplus, general financial condition, contractual restrictions and other factors that our directors may deem relevant. The distribution of dividends may also be limited by Israeli law, which permits the distribution of dividends only out of retained earnings or otherwise upon the permission of an Israeli court.

B. Significant Changes

No significant changes have occurred since December 31, 2019, except as otherwise disclosed in this annual report.

ITEM 9. THE OFFER AND LISTING

A. Offer and Listing Details

Our ordinary shares are quoted on Nasdaq under the symbol “CYBR.”

B. Plan of Distribution

Not applicable.

C. Markets

See “—Listing Details” above.

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

A copy of our amended and restated articles of association is attached as Exhibit 1.1 to this annual report on Form 20-F. The information called for by this Item is set forth in Exhibit 2.3 to this annual report on Form 20-F and is incorporated by reference into this annual report on Form 20-F.

C. Material Contracts

For a description of the registration rights that we granted under our Fourth Amended Investor Rights Agreement, please refer to “Item 7.B. Related Party Transaction—Registration Rights.”

For a description of our leases, see Item 4.B.—Business Overview—Properties.

For a description of our issuance of convertible notes, see Note 11 to our consolidated financial statements included within this annual report.

D. Exchange Controls

In 1998, Israeli currency control regulations were liberalized significantly, so that Israeli residents generally may freely deal in foreign currency and foreign assets, and non-residents may freely deal in Israeli currency and Israeli assets. There are currently no Israeli currency control restrictions on remittances of dividends on the ordinary shares or the proceeds from the sale of the shares provided that all taxes were paid or withheld; however, legislation remains in effect pursuant to which currency controls can be imposed by administrative action at any time.

Non-residents of Israel may freely hold and trade our securities. Neither our articles of association nor the laws of the State of Israel restrict in any way the ownership or voting of ordinary shares by non-residents, except that such restrictions may exist with respect to citizens of countries which are in a state of war with Israel. Israeli residents are allowed to purchase our ordinary shares.

E. Taxation

Certain Israeli Tax Consequences

The following description is not intended to constitute a complete analysis of all tax consequences relating to the acquisition, ownership and disposition of our ordinary shares. You should consult your tax advisor concerning the tax consequences of your particular situation, as well as any tax consequences that may arise under the laws of any state, local, foreign or other taxing jurisdiction. This summary does not discuss all of 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 such investors include residents of Israel or traders in securities who are subject to special tax regimes not covered in this discussion. Some parts of this discussion are based on tax legislation which has not been subject to judicial or administrative interpretation. The discussion should not be construed as legal or professional tax advice and does not cover all possible tax considerations.

Capital Gains

Capital gain tax is imposed on the disposal of capital assets by an Israeli resident, and on the disposal of such assets by a non-Israel resident if those assets are either (i) located in Israel, (ii) are shares or a right to a share in an Israeli resident corporation, or (iii) represent, directly or indirectly, rights to assets located in Israel, unless a tax treaty in force between Israel and the seller's country of residence provides otherwise. The Ordinance distinguishes between "Real Capital Gain" and the "Inflationary Surplus". Real Capital Gain is the excess of the total capital gain over Inflationary Surplus computed generally on the basis of the increase in the Israeli Consumer Price Index ("CPI") between the date of purchase and the date of disposal.

The Real Capital Gain accrued by individuals on the sale of our ordinary shares (that were purchased after January 1, 2012, whether listed on a stock exchange or not) will be taxed at the rate of 25%. However, if such shareholder is a "Controlling Shareholder" (i.e., a person who holds, directly or indirectly, alone or together with such person's relative or another person who collaborates with such person on a permanent basis, 10% or more of one of the Israeli resident company's means of control) at the time of sale or at any time during the preceding twelve (12) months period and/or claims a deduction for interest and linkage differences expenses in connection with the purchase and holding of such shares, such gain will be taxed at the rate of 30%.

The Real Capital Gain derived by corporations will generally be subject to the ordinary corporate tax (23% in 2018 and thereafter).

An individual shareholder dealing in securities, or to whom such income is otherwise taxable as ordinary business income are taxed in Israel at their marginal tax rates applicable to business income (up to 47% in 2019).

Capital Gains Taxes Applicable to Non-Israeli Resident Shareholders

A non-Israeli resident who derives capital gains from the sale of shares in an Israeli resident company that were purchased after the company was listed for trading on a stock exchange outside of Israel should generally be exempt from Israeli tax so long as the shares were not held through a permanent establishment that the non-resident maintains in Israel and that such shareholders are not subject to the Israeli Income Tax Law (Inflationary Adjustments) 5745-1985. However, non-Israeli corporations will not be entitled to the foregoing exemption if Israeli residents: (i) have a controlling interest of more than 25% in such non-Israeli corporation or (ii) are the beneficiaries of, or are entitled to, 25% or more of the revenues or profits of such non-Israeli corporation, whether directly or indirectly. Such exemption is not applicable to a person whose gains from selling or otherwise disposing of the shares are deemed to be a business income.

Additionally, a sale of shares by a non-Israeli resident (either an individual or a corporation) may be exempt from Israeli capital gains tax under the provisions of an applicable tax treaty. For example, under the Convention between the United States and the Government of the State of Israel with respect to income taxes (the "United States-Israel Tax Treaty"), the disposition of shares by a shareholder who (i) is a U.S. resident (for purposes of the treaty), (ii) holds the shares as a capital asset, and (iii) is entitled to claim the benefits afforded to such person by the treaty, is generally exempt from Israeli capital gains tax. Such exemption will not apply if: (i) the capital gain arising from the disposition can be attributed to a permanent establishment of the shareholder which is maintained in Israel; (ii) the shareholder holds, directly or indirectly, shares representing 10% or more of the voting capital during any part of the 12-month period preceding such sale, exchange or disposition, subject to certain conditions; (iii) such U.S. resident is an individual and was present in Israel for a period or periods aggregating to 183 days or more during the relevant taxable year; (iv) the capital gain arising from such sale, exchange or disposition is attributed to real estate located in Israel; or (v) the shareholder is a U.S. resident (for purposes of the U.S.-Israel Treaty) and deemed a dealer or otherwise is deemed to have business income from such sale, exchange or disposition of the shares attributed to a permanent establishment in Israel. In such case, the sale, exchange or disposition of our ordinary shares would be subject to Israeli tax, to the extent applicable; however, under the United States-Israel Tax Treaty, a 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 under U.S. law applicable to foreign tax credits. The United States-Israel Tax Treaty does not relate to tax credits against U.S. state or local taxes.

In some instances where our shareholders may be liable for Israeli tax on the sale of their ordinary shares, the payment of the consideration may be subject to the withholding of Israeli tax at source. Shareholders may be required to demonstrate that they are exempt from tax on their capital gains in order to avoid withholding at source at the time of sale. Specifically, in transactions involving a sale of all of the shares of an Israeli resident company, in the form of a merger or otherwise, the Israel Tax Authority may require from shareholders who are not liable for Israeli tax to sign declarations in forms specified by this authority or to apply for and obtain a specific withholding tax certificate of exemption from the Israel Tax Authority to confirm their status as non-Israeli resident, and, in the absence of such declarations or exemptions, may require the purchaser of the shares to withhold taxes at source.

Taxation of Non-Israeli Shareholders on Receipt of Dividends

Non-Israeli residents (either an individual or a corporation) are generally subject to Israeli income tax on the receipt of dividends paid on our ordinary shares at the rate of 25%, unless relief is provided in a treaty between Israel and the shareholder's country of residence. With respect to a person who is a "Controlling Shareholder" at the time of receiving the dividend or on any time during the preceding twelve months, the applicable tax rate is 30%. A "Controlling Shareholder" is generally a person who alone or together with such person's relative or another person who collaborates with such person on a permanent basis, holds, directly or indirectly, at least 10% of any of the "means of control" of the corporation. "Means of control" generally include the right to vote, receive profits, nominate a director or an executive officer, receive assets upon liquidation, or order someone who holds any of the aforesaid rights how to act, regardless of the source of such right. Such dividends paid to non-Israeli residents are generally subject to Israeli withholding tax at a rate of 25% so long as the shares are registered with a Nominee Company (whether the recipient is a Controlling Shareholder or not), unless a reduced tax rate is provided under an applicable tax treaty, provided that a certificate from the Israel Tax Authority allowing for a reduced withholding tax rate is obtained in advance. However, a distribution of dividends to non-Israeli residents is subject to withholding tax at source at a rate of 15% if the dividend is distributed from income attributed to an Approved Enterprise or generally 20% if the dividend is distributed from income attributed to a Preferred Enterprise (including Technological Preferred Enterprise based on which the Company is taxed as from 2017), unless a reduced tax rate is provided under 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). Under the United States-Israel Tax Treaty, the maximum rate of tax withheld at source in Israel on dividends paid to a holder of our ordinary shares who is a U.S. resident (for purposes of the United States-Israel Tax Treaty) is 25%. However, the maximum rate of withholding tax on dividends, not generated from an Approved Enterprise or Benefited Enterprise, that are paid to a United States corporation holding 10% or more of the outstanding voting capital throughout the tax year in which the dividend is distributed as well as during the previous tax year, is 12.5%, provided that no more than 25% of the gross income for such preceding year consists of certain types of dividends and interest. Notwithstanding the foregoing, a distribution of dividends to non-Israeli residents is subject to withholding tax at source at a rate of 15% if the dividend is distributed from income attributed to an Approved Enterprise or for such U.S. corporation shareholder, provided that the condition related to our gross income for the previous year (as set forth in the previous sentence) is met. The aforementioned rates under the United States-Israel Tax Treaty will not apply if the dividend income was attributed to a permanent establishment that the U.S. resident maintains in Israel. U.S. residents who are subject to Israeli withholding tax on a dividend may be entitled to a credit or deduction for United States federal income tax purposes in the amount of the taxes withheld, subject to detailed rules contained in U.S. tax legislation. We cannot assure you that in the event we declare a dividend we will designate the income out of which the dividend is paid in a manner that will reduce shareholders' tax liability.

If the dividend is attributable partly to income derived from an Approved Enterprise, Benefited Enterprise or Preferred Enterprise, and partly to other sources of income, the withholding rate will be a blended rate reflecting the relative portions of the two types of income. U.S. residents who are subject to Israeli withholding tax on a dividend may be entitled to a credit or deduction for United States federal income tax purposes in the amount of the taxes withheld, subject to detailed rules contained in U.S. tax legislation. As indicated above, application for this reduced tax rate requires appropriate documentation presented to and specific instruction received from the Israel Tax Authority.

A non-Israeli resident who receives dividends from which tax was duly withheld is generally exempt from the obligation to file tax returns in Israel with respect to such income, provided that (i) such income was not generated from business conducted in Israel by the taxpayer; (ii) the taxpayer has no other taxable sources of income in Israel with respect to which a tax return is required to be filed, and (iii) the taxpayer is not liable to Excess Tax (as further explained below).

Payers of dividends on our shares, including the Israeli stockbroker effectuating the transaction, or the financial institution through which the securities are held, are generally required, subject to any of the foregoing exemptions, reduced tax rates and the demonstration of foreign residence of the shareholder, to withhold tax upon the distribution of dividend at the rate of 25%, so long as the shares are registered with a nominee company.

Excess Tax

Individuals who are subject to tax in Israel (whether any such individual is an Israeli resident or non-Israeli resident) are also subject to an additional tax at a rate of 3% on annual income exceeding a certain threshold (NIS 649,560 for 2019) which amount is linked to the annual change in the Israeli consumer price index, including, but not limited to, dividends, interest and capital gain.

Estate and Gift Tax

Israeli law presently does not impose estate or gift taxes.

Certain United States Federal Income Tax Consequences

The following is a description of certain United States federal income tax consequences relating to the acquisition, ownership and disposition of our ordinary shares by a U.S. Holder (as defined below). This description addresses only the United States federal income tax consequences to U.S. Holders that hold such ordinary shares as capital assets within the meaning of Section 1221 of the Internal Revenue Code of 1986, as amended (the "Code"). This description does not address tax considerations applicable to U.S. Holders that may be subject to special tax rules, including, without limitation:

- banks, financial institutions or insurance companies;
- real estate investment trusts, regulated investment companies or grantor trusts;
- brokers, dealers or traders in securities, commodities or currencies;
- tax-exempt entities, accounts or organizations, including an "individual retirement account" or "Roth IRA" as defined in Section 408 or 408A of the Code, respectively;
- certain former citizens or long-term residents of the United States;
- persons that receive our ordinary shares as compensation for the performance of services;
- persons that hold our ordinary shares as part of a "hedging," "integrated" or "conversion" transaction or as a position in a "straddle" for United States federal income tax purposes;
- persons subject to special tax accounting rules as a result of any item of gross income with respect to the ordinary shares being taken into account in an applicable financial statement;
- partnerships (including entities or arrangements classified as partnerships for United States federal income tax purposes) or other pass-through entities or arrangements, or indirect holders that hold our ordinary shares through such an entity or arrangement;
- S corporations;

- holders whose “functional currency” is not the U.S. dollar; or
- holders that own directly, indirectly or through attribution 10.0% or more of the voting power or value of our shares.

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

This description is based on the Code, existing, proposed and temporary United States Treasury Regulations and judicial and administrative interpretations thereof, in each case as in effect and available on the date hereof. All of the foregoing is subject to change, which change could apply retroactively and could affect the tax consequences described below. There can be no assurances that the U.S. Internal Revenue Service, or IRS, will not take a different position concerning the tax consequences of the ownership and disposition of our ordinary shares or that such a position would not be sustained. Holders should consult their tax advisors concerning the U.S. federal, state, local and foreign tax consequences of acquiring, owning and disposing of our ordinary shares in their particular circumstances.

For purposes of this description, a “U.S. Holder” is a beneficial owner of our ordinary shares that, for United States federal income tax purposes, is:

- a citizen or individual resident of the United States;
- a corporation (or other entity treated as a corporation for United States federal income tax purposes) created or organized in or under the laws of the United States or any state thereof, including the District of Columbia;
- an estate the income of which is subject to United States federal income taxation regardless of its source; or
- a trust if such trust has validly elected to be treated as a United States person for United States federal income tax purposes or if (1) a court within the United States is able to exercise primary supervision over its administration and (2) one or more United States persons have the authority to control all of the substantial decisions of such trust.

If a partnership (or any other entity or arrangement treated as a partnership for United States federal income tax purposes) holds our ordinary shares, the tax treatment of 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 the particular United States federal income tax consequences of acquiring, owning and disposing of our ordinary shares in its particular circumstance.

You should consult your tax advisor with respect to the United States federal, state, local and foreign tax consequences of acquiring, owning and disposing of our ordinary shares.

Distributions

Subject to the discussion below under “Passive Foreign Investment Company Considerations,” the gross amount of any distribution made to you with respect to our ordinary shares before reduction for any Israeli taxes withheld therefrom, other than certain distributions, if any, of our ordinary shares distributed pro rata to all our shareholders, generally will be includible in your income as dividend income on the date on which the dividends are actually or constructively received, to the extent such distribution is paid out of our current or accumulated earnings and profits as determined under United States federal income tax principles. To the extent that the amount of any distribution by us exceeds our current and accumulated earnings and profits as determined under United States federal income tax principles, it will be treated first as a tax-free return of your adjusted tax basis in our ordinary shares and thereafter as capital gain. However, we do not expect to maintain calculations of our earnings and profits under United States federal income tax principles. Therefore, you should expect that the entire amount of any distribution generally will be reported as dividend income to you. Subject to applicable limitations, dividends paid to certain non-corporate U.S. Holders may qualify for the preferential rates of taxation with respect to dividends on ordinary shares if certain requirements, including stock holding period requirements, are satisfied by the recipient and we are eligible for the benefits of the United States-Israel Tax Treaty. However, such dividends will not be eligible for the dividends received deduction generally allowed to corporate U.S. Holders.

Subject to certain conditions and limitations, Israeli tax withheld on dividends may be, at your election, either deducted from your taxable income or credited against your United States federal income tax liability. Dividends paid to you with respect to our ordinary shares will generally be treated as foreign source income, which may be relevant in calculating your foreign tax credit limitation. However, for periods in which we are a “United States-owned foreign corporation,” a portion of dividends (generally attributable to earnings and profits from sources within the United States) paid by us may be treated as U.S. source solely for purposes of the foreign tax credit. We would be treated as a United States-owned foreign corporation if 50% or more of the total value or total voting power of our stock is owned, directly, indirectly or by attribution, by United States persons. To the extent any portion of our dividends is treated as U.S. source income pursuant to this rule, the ability of a U.S. Holder to claim a foreign tax credit for any Israeli withholding taxes payable in respect of our dividends may be limited. A U.S. Holder entitled to benefits under the United States-Israel Tax Treaty may, however, elect to treat any dividends as foreign source income for foreign tax credit purposes if the dividend income is separated from other income items for purposes of calculating the U.S. Holder’s foreign tax credit. U.S. Holders should consult their tax advisors about the impact of, and any exception available to, the special sourcing rule described in this paragraph, and the desirability of making, and the method of making, such an election.

The limitation on foreign taxes eligible for credit is calculated separately with respect to specific classes of income. For this purpose, dividends that we distribute generally should constitute “passive category income” for this purpose. A foreign tax credit for foreign taxes imposed on distributions may be denied if you do not satisfy certain minimum holding period requirements. The rules relating to the determination of the foreign tax credit are complex, and you should consult your tax advisor to determine whether and to what extent you will be entitled to this credit.

Sale, Exchange or Other Taxable Disposition of Ordinary Shares

Subject to the discussion below under “Passive Foreign Investment Company Considerations,” you generally will recognize gain or loss on the sale, exchange or other taxable disposition of our ordinary shares equal to the difference between the amount realized on such sale, exchange or other taxable disposition and your adjusted tax basis in our ordinary shares, and such gain or loss will be capital gain or loss. The adjusted tax basis in an ordinary share generally will be equal to the cost of such ordinary share. If you are a non-corporate U.S. Holder, capital gain from the sale, exchange or other taxable disposition of ordinary shares is generally eligible for a preferential rate of taxation applicable to capital gains, if your holding period for such ordinary shares exceeds one year (i.e., such gain is long-term capital gain). The deductibility of capital losses for United States federal income tax purposes is subject to limitations under the Code. Any such gain or loss that a U.S. Holder recognizes generally will be treated as U.S. source income or loss for foreign tax credit limitation purposes.

Passive Foreign Investment Company Considerations

If we were to be classified as a “passive foreign investment company,” or PFIC, in any taxable year, a U.S. Holder would be subject to special rules generally intended to reduce or eliminate any benefits from the deferral of U.S. federal income tax that a U.S. Holder could derive from investing in a non-U.S. company that does not distribute all of its earnings on a current basis.

A non-U.S. corporation will be classified as a PFIC for federal income tax purposes in any taxable year in which, after applying certain look-through rules with respect to the income and assets of subsidiaries, either:

- at least 75% of its gross income is “passive income”; or
- at least 50% of the average quarterly value of its total gross assets (which may be measured in part by the market value of our ordinary shares, which is subject to change) is attributable to assets that produce “passive income” or are held for the production of passive income.

Passive income for this purpose generally includes dividends, interest, royalties, rents, gains from commodities and securities transactions and the excess of gains over losses from the disposition of assets which produce passive income. If a non-U.S. corporation owns directly or indirectly at least 25% by value of the stock of another corporation, the non-U.S. corporation is treated for purposes of the PFIC tests as owning its proportionate share of the assets of the other corporation and as receiving directly its proportionate share of the other corporation’s income. 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.

Based on our market capitalization and the nature of our income, assets and business, we believe that we should not be classified as a PFIC for the taxable year that ended December 31, 2019. However, PFIC status is determined annually and requires 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 be considered a PFIC for any taxable year.

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 below 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.”

If we are considered a PFIC for any taxable year during which a U.S. Holder holds (or, as discussed in the previous paragraph, is deemed to hold) its ordinary shares, such holder will be subject to adverse U.S. federal income tax rules. In general, if a U.S. Holder disposes of shares of a PFIC (including an indirect disposition or a constructive disposition of shares of a “lower-tier PFIC”), gain recognized or deemed recognized by such holder would be allocated ratably over such holder’s holding period for the shares. The amounts allocated to the taxable year of disposition and to years before the entity became a PFIC, if any, would be treated as ordinary income.

The amount allocated to each other taxable year would be subject to tax at the highest rate in effect for such taxable year for individuals or corporations, as appropriate, and an interest charge would be imposed on the tax attributable to such allocated amounts. Further, any distribution in respect of shares of a PFIC (or a distribution by a lower-tier PFIC to its shareholders that is deemed to be received by a U.S. Holder) in excess of 125% of the average of the annual distributions on such shares received or deemed to be received during the preceding three years or the U.S. Holder’s holding period, whichever is shorter, would be subject to taxation in the manner described above. In addition, dividend distributions made to you will not qualify for the preferential rates of taxation applicable to long-term capital gains discussed above under “Distributions.”

Where a company that is a PFIC meets certain reporting requirements, a U.S. Holder can avoid certain adverse PFIC consequences described above by making a “qualified electing fund”, or QEF, election to be taxed currently on its proportionate share of the PFIC’s ordinary income and net capital gains. However, we do not intend to prepare or provide the information that would enable U.S. Holders to make a qualified electing fund election.

If we are a PFIC and our ordinary shares are “regularly traded” on a “qualified exchange,” a U.S. Holder may make a mark-to-market election with respect to our ordinary shares (but generally, not the shares of any lower-tier PFICs), which may help mitigate the adverse tax consequences resulting from our PFIC status (but generally, not that of any lower-tier PFICs). Shares will be treated as “regularly traded” in any calendar year in which more than a de minimis quantity of the ordinary shares are traded on a qualified exchange on at least 15 days during each calendar quarter (subject to the rule that trades that have as one of their principal purposes the meeting of the trading requirement are disregarded). Nasdaq is a qualified exchange for this purpose and, consequently, if our ordinary shares are regularly traded, the mark-to-market election will be available to a U.S. Holder; however, there can be no assurance that trading volumes will be sufficient to permit a mark-to-market election. In addition, because a mark-to-market election with respect to us generally does not apply to any equity interests in “lower-tier PFICs” that we own, a U.S. Holder generally will continue to be subject to the PFIC rules with respect to its indirect interest in any investments held by us that are treated as equity interests in a PFIC for U.S. federal income tax purposes.

If a U.S. Holder makes the mark-to-market election, for each year in which we are a PFIC, the holder will generally include as ordinary income the excess, if any, of the fair market value of ordinary shares at the end of the taxable year over their adjusted tax basis, and will be permitted an ordinary loss in respect of the excess, if any, of the adjusted tax basis of our ordinary shares over their fair market value at the end of the taxable year (but only to the extent of the net amount of previously included income as a result of the mark-to-market election). A U.S. Holder that makes a valid mark-to-market election will not include mark-to-market gain or loss in income for any taxable year that we are not classified as a PFIC (although cessation of our status as a PFIC will not terminate the mark-to-market election). Thus, if we are classified as a PFIC in a taxable year after a year in which we are not classified as a PFIC, the U.S. Holder’s original election (unless revoked or terminated) continues to apply and the U.S. Holder must include any mark-to-market gain or loss in such year. If a U.S. Holder makes the election, the holder’s tax basis in our ordinary shares will be adjusted to reflect any such income or loss amounts. Any gain recognized on a sale or other disposition of our ordinary shares will be treated as ordinary income. Any losses recognized on a sale or other disposition of our ordinary shares will be treated as ordinary loss to the extent of any net mark-to-market gains for prior years. U.S. Holders should consult their tax advisors regarding the availability and consequences of making a mark-to-market election in their particular circumstances. In particular, U.S. Holders should consider carefully the impact of a mark-to-market election with respect to our ordinary shares if we have “lower-tier PFICs” for which such election is not available. Once made, the mark-to-market election cannot be revoked without the consent of the IRS unless our ordinary shares cease to be “regularly traded.”

If a U.S. Holder owns ordinary shares during any year in which we are a PFIC, the U.S. Holder generally will be required to file an IRS Form 8621 (Information Return by a Shareholder of a Passive Foreign Investment Company or Qualified Electing Fund) with respect to the company (regardless of whether a QEF or mark-to-market election is made), generally with the U.S. Holder's federal income tax return for that year. If our company were a PFIC for a given taxable year, then you should consult your tax advisor concerning your annual filing requirements.

U.S. Holders should consult their tax advisors regarding whether we are a PFIC and the potential application of the PFIC rules.

Medicare Tax

Certain U.S. Holders that are individuals, estates or trusts are subject to a 3.8% tax on all or a portion of their "net investment income," which may include all or a portion of their dividend income and net gains from the disposition of ordinary shares. Each U.S. Holder that is an individual, estate or trust is urged to consult its tax advisors regarding the applicability of the Medicare tax to its income and gains in respect of its investment in our ordinary shares.

Backup Withholding Tax and Information Reporting Requirements

United States backup withholding tax and information reporting requirements may apply to certain payments to certain holders of stock. Information reporting generally will apply to payments of dividends on, and to proceeds from the sale or redemption of, our ordinary shares made within the United States, or by a United States payor or United States middleman, to a holder of our ordinary shares, other than an exempt recipient (including a payee that is not a United States person that provides an appropriate certification and certain other persons). A payor will be required to withhold backup withholding tax from any payments of dividends on, or the proceeds from the sale or redemption of, ordinary shares within the United States, or by a United States payor or United States middleman, to a holder, other than an exempt recipient, if such holder fails to furnish its correct taxpayer identification number or otherwise fails to comply with, or establish an exemption from, such backup withholding tax requirements. Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules may be allowed as a credit against the beneficial owner's United States federal income tax liability, if any, and any excess amounts withheld under the backup withholding rules may be refunded, provided that the required information is timely furnished to the IRS.

Foreign Asset Reporting

Certain U.S. Holders who are individuals or certain other non-corporate entities may be required to report information relating to an interest in our ordinary shares, subject to certain exceptions (including an exception for shares held in accounts maintained by U.S. financial institutions) by filing IRS Form 8938 (Statement of Specified Foreign Financial Assets) with their federal income tax return. U.S. Holders are urged to consult their tax advisors regarding their information reporting obligations, if any, with respect to their ownership and disposition of our ordinary shares.

The above description is not intended to constitute a complete analysis of all tax consequences relating to acquisition, ownership and disposition of our ordinary shares. You should consult your tax advisor concerning the tax consequences of your particular situation.

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 that are applicable to foreign private issuers, and under those requirements file reports with the SEC. Those other reports or other information may be inspected without charge at the locations described above. As a foreign private issuer, we are exempt from the rules under the Exchange Act related to the furnishing and content of proxy statements, and our officers, directors and principal shareholders will be exempt from reporting under 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 annual, quarterly and current reports and financial statements with the SEC as frequently or as promptly as United States companies whose securities are registered under the Exchange Act. However, we will file with the SEC, within 120 days after the end of each subsequent fiscal year, or such applicable time as required by the SEC, an annual report on Form 20-F containing financial statements audited by an independent registered public accounting firm, and will submit to the SEC reports on Form 6-K containing unaudited quarterly financial information.

Our filings with the SEC are also available to the public through the SEC's website at <http://www.sec.gov>. This site contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC. The information on that website is not part of this annual report and is not incorporated by reference herein.

I. Subsidiary Information

Not applicable.

ITEM 11. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to a variety of risks, including foreign currency exchange fluctuations, changes in interest rates and inflation. We regularly assess currency, interest rate and inflation risks to minimize any adverse effects on our business as a result of those factors.

Foreign Currency Risk

Our results of operations and cash flows are affected by fluctuations due to changes in foreign currency exchange rates. In 2019, the majority of our revenues were denominated in U.S. dollars and the remainder in other currencies, primarily euros and British pounds sterling. In 2019, the majority of our cost of revenues and operating expenses were denominated in U.S. dollars and NIS and the remainder in other currencies, primarily euros and British pounds sterling. Our foreign currency-denominated expenses consist primarily of personnel, marketing programs, rent and other overhead costs. Since a significant portion of our expenses is incurred in NIS and is substantially greater than our revenues in NIS, any appreciation of the NIS relative to the U.S. dollar could materially adversely impact our operating income. In addition, since the portion of our revenues generated in euros and British pounds sterling is greater than our expenses incurred in euros and British pounds sterling, respectively, any depreciation of the euro or British pounds sterling relative to the U.S. dollar would adversely impact our operating income.

The following table presents information about the changes in the exchange rates of the NIS against the U.S. dollar:

Period	Change in Average Exchange Rate of the NIS Against the U.S. dollar (%)
2019	(0.9)
2018	(0.1)
2017	(6.3)

The figures above represent the change in the average exchange rate in the given period compared to the average exchange rate in the immediately preceding period. Negative figures represent depreciation of the U.S. dollar compared to the NIS. A 10% strengthening or weakening in the value of the NIS against the U.S. dollar would have decreased or increased, respectively, our operating income by approximately \$7.8 million in 2019. We estimate that a 10% strengthening or weakening in the value of the euro against the U.S. dollar would have increased or decreased, respectively, our operating income by approximately \$2.7 million in 2019. We estimate that a 10% strengthening or weakening in the value of the British pounds sterling against the U.S. dollar would have increased or decreased, respectively, our operating income by approximately \$0.3 million in 2019. These estimates of the impact of fluctuations in currency exchange rates on our historic results of operations may be different from the impact of fluctuations in exchange rates on our future results of operations since the mix of currencies comprising our revenues and expenses may change.

For purposes of our consolidated financial statements, monetary assets and liabilities in local currency are translated at the rate of exchange to the U.S. dollar on the balance sheet date and local currency revenues and expenses are translated at the exchange rate at the date of the transaction or the average exchange rate during the reporting period.

In addition, starting January 1, 2019, in accordance with a new lease accounting standard, we are required to present a significant NIS linked liability related to our operational leases in Israel.

To protect against the increase in value of forecasted foreign currency cash flow resulting from expenses paid in NIS during the year, we have instituted a foreign currency cash flow hedging program. We hedge portions of the anticipated payroll of our Israeli employees in NIS for a period of one to twelve months with forward contracts and other derivative instruments. In addition, from time to time we enter into foreign exchange forward transactions to economically hedge a portion of account receivables in Euros and British pounds sterling. We do not use derivative financial instruments for speculative or trading purposes.

Interest Rate Risk

The primary objectives of our investment activities are to preserve principal, support liquidity requirements, and maximize income without significantly increasing risk. Our investments are subject to market risk due to changes in interest rates, which may affect our interest income and fair market value of our investments.

To minimize this risk, we maintain our portfolio of cash, cash equivalents and short and long-term investments in a variety of securities, including money market funds, U.S. government and agency securities, and corporate debt securities. We do not believe that a 10% increase or decrease in interest rates would have a material impact on our operating results, cash flows or the fair value of our portfolio.

Other Market Risks

We do not believe that we have any material exposure to inflationary risks.

In November 2019, we issued \$575.0 million aggregate principal amount of 0.00% Convertible Senior Notes due 2024. We carry these instruments at face value less unamortized discount and unamortized issuance costs on our consolidated balance sheets. As these instruments have no interest rate, we have no financial or economic interest exposure associated with changes in interest rates. However, the fair value of these instruments fluctuates when interest rates change, and additionally when the market price of our common stock fluctuates. The change in fair value does not impact our financial position, cash flows or result of operation due to the fixed nature of the debt obligation.

ITEM 12. DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES

Not applicable.

PART II

ITEM 13. DEFAULTS, DIVIDEND ARREARAGES AND DELINQUENCIES

None.

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

None.

ITEM 15. CONTROLS AND PROCEDURES

Disclosure controls and procedures

Our Chief Executive Officer and Chief Financial Officer, after evaluating the effectiveness of our disclosure controls and procedures (as defined in Rule 13a-15(e) and 15d-15(e) of the Exchange Act) as of December 31, 2019, have concluded that, based on such evaluation, as of such date, our disclosure controls and procedures were effective such that information required to be disclosed by us in reports that we file or submit under the Exchange Act is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, to allow timely decisions regarding required disclosure and is recorded, processed, summarized and reported within the time periods specified by the SEC's rules and forms.

Management annual report on internal control over financial reporting and attestation report of the 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 as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. 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 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 the financial statements.

Our management assessed the effectiveness of internal control over financial reporting as of December 31, 2019 based on the criteria established in "Internal Control-Integrated Framework (2013)" published by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this assessment, management has concluded that our internal control over financial reporting was effective as of December 31, 2019.

Our independent registered public accounting firm, Kost Forer Gabbay & Kasierer, a member of Ernst & Young Global, has audited the consolidated financial statements included in this annual report on Form 20-F, and as part of its audit, has issued its audit report on the effectiveness of our internal control over financial reporting as of December 31, 2019. The report of Kost Forer Gabbay & Kasierer is included with our consolidated financial statements included elsewhere in this annual report and is incorporated herein by reference.

Changes in internal control over financial reporting

There were no changes in our internal control over financial reporting (as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) that occurred during the period covered by this annual report that have materially affected, or that 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 Ron Gutler and Kim Perdikou are audit committee financial experts as defined by the SEC rules, have the requisite financial experience as defined by Nasdaq corporate governance rules and are “independent” as such term is defined in Rule 10A-3(b)(1) under the Exchange Act.

ITEM 16B. CODE OF ETHICS

We have adopted a corporate code of business conduct applicable to our executive officers, directors and all other employees. A copy of the code of conduct is made available to every employee of CyberArk Software Ltd. and all of its subsidiaries, and is also available to investors and members of the public on our website at <http://investors.cyberark.com> or by contacting our investor relations department. The corporate code of business conduct includes our code of ethics which is applicable to our chief executive officer, our chief financial officer and all other senior financial officers. Pursuant to Item 16B of Form 20-F, if a waiver or amendment of the code of conduct (including the code of ethics) applies to our chief executive officer, chief financial officer or other persons performing similar functions and relates to standards promoting any of the values described in Item 16B(b) of Form 20-F, we will disclose such waiver or amendment on our website within five business days following the date of amendment or waiver in accordance with the requirements of Instruction 4 to such Item 16B. We granted no waivers under our code in 2019.

ITEM 16C. PRINCIPAL ACCOUNTANT FEES AND SERVICES**Principal Accountant Fees and Services**

We have recorded the following fees for professional services rendered by Kost Forer Gabbay & Kasierer, a member of Ernst & Young Global, an independent registered public accounting firm, for the years ended December 31, 2018 and 2019:

	<u>2018</u>	<u>2019</u>
	<u>(in thousands)</u>	
Audit Fees	\$ 559	\$ 852
Audit-Related Fees	240	75
Tax Fees	227	332
All Other Fees	-	115
Total	<u>\$ 1,026</u>	<u>\$ 1,374</u>

“Audit fees” include fees for the audit of our annual financial statements. This category also includes services that generally the independent accountant provides, such as consents and assistance with and review of documents filed with the SEC as well as certain fees related to the audit in connection with our issuance of convertible senior notes in November 2019.

“Audit-related fees” include fees for assurance and related services that are reasonably related to the performance of the audit and are not reported under audit fees. These fees primarily include accounting consultations regarding the accounting treatment of matters that occur in the regular course of business, implications of new accounting pronouncements and other accounting issues that occur from time to time.

“Tax fees” include fees for professional services rendered by our independent registered public accounting firm for tax compliance and tax advice on actual or contemplated transactions.

“All other fees” include fees for services rendered by our independent registered public accounting firm with respect to government incentives, IT risk assessment, and other matters.

Our audit committee has adopted a pre-approval policy for the engagement of our independent accountant to perform certain audit and non-audit services. Pursuant to this policy, which is designed to assure that such engagements do not impair the independence of our auditors, the audit committee pre-approves each type of audit, audit-related, tax and other permitted service. The audit committee has delegated the pre-approval authority with respect to audit, audit-related, tax and permitted non-audit services up to a maximum of \$25,000 to its chairperson and may in the future delegate such authority to one or more additional members of the audit committee, provided that all decisions by that member to pre-approve any such services must be subsequently reported, for informational purposes only, to the full audit committee. All audit and non-audit services provided by our auditors in 2019 were approved in accordance with our policy.

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

Not applicable.

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

Not applicable.

ITEM 16F. CHANGE IN REGISTRANT'S CERTIFYING ACCOUNTANT

Not applicable.

ITEM 16G. CORPORATE GOVERNANCE

As a foreign private issuer, we are permitted to comply with Israeli corporate governance practices instead of certain of Nasdaq Listing Rules, provided that we disclose those Nasdaq Listing Rules with which we do not comply and the equivalent Israeli requirements that we follow instead. We currently rely on this "foreign private issuer exemption" as follows:

Quorum requirement. As permitted under the Companies Law, pursuant to our articles of association, 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 25% of the voting power of our shares (and, with respect to an adjourned meeting, generally one or more shareholders who hold or represent any number of shares), instead of 33 1/3% of the issued share capital provided under Nasdaq Listing Rule 5260(c).

Distribution of Annual and Interim Reports. Unlike Nasdaq Listing Rule 5250(d), which requires listed issuers to make annual reports on Form 20-F available to shareholders in one of a number of specific manners, Israeli law does not require us to distribute such reports directly to shareholders, and the generally accepted business practice in Israel is not to distribute such reports to shareholders but to make such reports available through a public website. In addition, we will make our annual report on Form 20-F containing audited financial statements available to our shareholders at our offices (in addition to a public website). Otherwise, we comply with Nasdaq corporate governance rules requiring that listed companies have a majority of independent directors and maintain audit, compensation and nominating committees composed entirely of independent directors.

ITEM 16H. MINE SAFETY DISCLOSURE

Not applicable.

PART III

ITEM 17. FINANCIAL STATEMENTS

Not applicable.

ITEM 18. FINANCIAL STATEMENTS

See pages F-2 through F-47 of this annual report.

ITEM 19. EXHIBITS

The following are filed as exhibits hereto:

INDEX OF EXHIBITS

Exhibit No.	Description
1.1	Amended and Restated Articles of Association of the Registrant (incorporated by reference to Exhibit 1.1 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2017)
2.1	Specimen share certificate (incorporated by reference to Exhibit 4.1 to the Registrant's Registration Statement on Form F-1, as amended (Registration No. 333-196991))
2.2	Fourth Amended Investor Rights Agreement, dated July 10, 2014, by and among the Registrant and the other parties thereto (incorporated by reference to Exhibit 10.1 to the Registrant's Registration Statement on Form F-1, as amended (Registration No. 333-196991))
2.3	Description of the Registrant's Securities Registered Pursuant to Section 12 of the Securities Exchange Act of 1934.
2.4	Indenture between CyberArk Software Ltd. And U.S. Bank National Association, as trustee, for the 0% Convertible Senior Notes due 2024 (incorporated by reference to Exhibit 4.1 to the Registrant's Report of Foreign Private Issuer on Form 6-K filed with the SEC on November 18, 2019)
2.5	Form of 0% Convertible Senior Note due 2024 (incorporated by reference to Exhibit 4.2 to the Registrant's Report of Foreign Private Issuer on Form 6-K filed with the SEC on November 18, 2019)
4.1	Form of Indemnification Agreement (incorporated by reference to Exhibit 10.2 to the Registrant's Registration Statement on Form F-1, as amended (Registration No. 333-196991))
4.2	Office Lease Agreement, dated October 28, 2013, between Cyber-Ark Software, Inc. and Wells 60 Realty LLC (incorporated by reference to Exhibit 10.4 to the Registrant's Registration Statement on Form F-1, as amended (Registration No. 333-196991))
4.3	First Amendment of Lease, dated October 23, 2014, between Cyber-Ark Software, Inc. and Wells 60 Realty LLC (incorporated by reference to Exhibit 10.6 to the Registrant's Registration Statement on Form F-1, as amended (Registration No. 333-202329))
4.4	Letter Agreement, dated June 28, 2018 between CyberArk Software, Inc. and Wells 60 Realty LLC (incorporated by reference to Exhibit 4.4 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2018)
4.5	Summary of Office Lease Agreement, dated February 26, 2015, between the Registrant and Azorei Mallal Industries Ltd., as amended from time to time
4.6	Second Amendment of Lease, dated February 27, 2018 between CyberArk Software, Inc. and Wells 60 Realty LLC (incorporated by reference to Exhibit 4.4 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2017)
4.7	2001 Stock Option Plan (incorporated by reference to Exhibit 10.5 to the Registrant's Registration Statement on Form F-1, as amended (Registration No. 333-196991))
4.10	2011 Share Incentive Plan (incorporated by reference to Exhibit 10.8 to the Registrant's Registration Statement on Form F-1, as amended (Registration No. 333-196991))
4.11	CyberArk Software Ltd. 2014 Share Incentive Plan, as amended (incorporated by reference to Exhibit 4.10 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2015)
4.12	CyberArk Executive Compensation Policy (incorporated by reference to Appendix A of Exhibit 99.1 to the Registrant's Report of Foreign Private Issuer on Form 6-K filed with the SEC on May 21, 2019)
4.13	Letter Agreement, dated as of November 13, 2019 between Morgan Stanley & Co. LLC and the Company regarding the Base Capped Call Transaction (incorporated by reference to Exhibit 10.1 to the Registrant's Report of Foreign Private Issuer on Form 6-K filed with the SEC on November 18, 2019)
4.14	Letter Agreement, dated as of November 13, 2019 between Goldman Sachs & Co. LLC and the Company regarding the Base Capped Call Transaction (incorporated by reference to Exhibit 10.2 to the Registrant's Report of Foreign Private Issuer on Form 6-K filed with the SEC on November 18, 2019)
4.15	Letter Agreement, dated as of November 13, 2019 between Barclays Bank PLC and the Company regarding the Base Capped Call Transaction (incorporated by reference to Exhibit 10.3 to the Registrant's Report of Foreign Private Issuer on Form 6-K filed with the SEC on November 18, 2019)
4.16	Letter Agreement, dated as of November 13, 2019 between Nomura Global Financial Products Inc. and the Company regarding the Base Capped Call Transaction (incorporated by reference to Exhibit 10.4 to the Registrant's Report of Foreign Private Issuer on Form 6-K filed with the SEC

Exhibit No. **Description**

[on November 18, 2019\)](#)

[4.17](#) [Letter Agreement, dated as of November 14, 2019 between Morgan Stanley & Co. LLC and the Company regarding the Additional Capped Call Transaction \(incorporated by reference to Exhibit 10.5 to the Registrant's Report of Foreign Private Issuer on Form 6-K filed with the SEC on November 18, 2019\)](#)

Exhibit No.	Description
4.18	Letter Agreement, dated as of November 14, 2019 between Goldman Sachs & Co. LLC and the Company regarding the Additional Capped Call Transaction (incorporated by reference to Exhibit 10.6 to the Registrant's Report of Foreign Private Issuer on Form 6-K filed with the SEC on November 18, 2019)
4.19	Letter Agreement, dated as of November 14, 2019 between Barclays Bank PLC and the Company regarding the Additional Capped Call Transaction (incorporated by reference to Exhibit 10.7 to the Registrant's Report of Foreign Private Issuer on Form 6-K filed with the SEC on November 18, 2019)
4.20	Letter Agreement, dated as of November 14, 2019 between Nomura Global Financial Products Inc. and the Company regarding the Additional Capped Call Transaction (incorporated by reference to Exhibit 10.8 to the Registrant's Report of Foreign Private Issuer on Form 6-K filed with the SEC on November 18, 2019)
8.1	List of subsidiaries of the Registrant (filed herewith)
12.1	Certification of Principal Executive Officer required by Rule 13a-14(a) and Rule 15d-14(a) (Section 302 Certifications) (filed herewith)
12.2	Certification of Principal Financial Officer required by Rule 13a-14(a) and Rule 15d-14(a) (Section 302 Certifications) (filed herewith)
13.1	Certification of Principal Executive Officer required by Rule 13a-14(b) and Rule 15d-14(b) (Section 906 Certifications), furnished herewith
13.2	Certification of Principal Financial Officer required by Rule 13a-14(b) and Rule 15d-14(b) (Section 906 Certifications), furnished herewith
15.1	Consent of Kost Forer Gabbay & Kasierer (a member of Ernst & Young Global)
101.INS	iXBRL Document
101.SCH	iXBRL Taxonomy Extension Schema Document
101.CAL	iXBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	iXBRL Taxonomy Definition Linkbase Document
101.LAB	iXBRL Taxonomy Extension Label Linkbase Document
101.PRE	iXBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File (the cover page iXBRL tags are embedded within the Inline iXBRL document)

∞ English summary of original Hebrew document

SIGNATURES

The registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this annual report on its behalf.

CyberArk Software Ltd.

Date: March 5, 2020

By: /s/ Ehud Mokady

Ehud Mokady
Chairman of the Board &
Chief Executive Officer

CYBERARK SOFTWARE LTD.
CONSOLIDATED FINANCIAL STATEMENTS
AS OF DECEMBER 31, 2019
INDEX

	<u>Page</u>
<u>Reports of Independent Registered Public Accounting Firm</u>	F-2 - F-4
<u>Consolidated Balance Sheets</u>	F-5 - F-6
<u>Consolidated Statements of Comprehensive Income</u>	F-7
<u>Statements of Shareholders' Equity</u>	F-8
<u>Consolidated Statements of Cash Flows</u>	F-9 - F-10
<u>Notes to Consolidated Financial Statements</u>	F-11 - F-47



Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of CyberArk Software Ltd.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of CyberArk Software Ltd. (the Company) as of December 31, 2018 and 2019, the related consolidated statements of comprehensive income, 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, 2018 and 2019, 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 March 5, 2020 expressed an unqualified opinion thereon.

Adoption of ASU No. 2014-09

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 Matters

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

Revenue recognition

Description of the Matter As explained in Note 2 to the consolidated financial statements, the Company generates revenues mainly from licensing the rights to use its software products, maintenance and professional services. The Company enters into contracts with customers that include combinations of products and services, which are generally distinct and recorded as separate performance obligations. The transaction price is then allocated to the distinct performance obligations based on a relative standalone selling price basis and revenue is recognized when control of the distinct performance obligation is transferred. For example, license revenue is recognized at a point in time, while maintenance and professional services revenue is recognized over time.

Auditing the Company's recognition of revenue was complex and involved a high degree of auditor judgment due to the effort to evaluate 1) the identification and determination of whether products and services are considered distinct performance obligations that should be accounted for separately versus together, such as software licenses and related services, 2) the determination of stand-alone selling prices for each distinct performance obligation and 3) the pattern of delivery (i.e., timing of when revenue is recognized) for each distinct performance obligation.



How We Addressed the Matter in Our Audit

We obtained an understanding, evaluated the design and tested the operating effectiveness of internal controls related to the identification of distinct performance obligations, determination of stand-alone selling prices for each distinct performance obligation and the pattern of delivery of revenue recognition. Our audit procedures also included, among others, selecting a sample of customer contracts and reading contract source documents for each selection, including the executed contract and purchase order and evaluating the appropriateness of management's application of significant accounting policies on the contracts. We tested management's identification of significant terms for completeness, including the identification and determination of distinct performance obligations. We also evaluated the reasonableness of management's estimate of stand-alone selling prices for products and services and tested the mathematical accuracy of management's calculations of revenue and the associated timing of revenue recognition.

Accounting for the Issuance of Convertible Senior Notes

Description of the Matter

As explained in Note 11 to the consolidated financial statements, in November 2019, the Company issued \$575 million of 0% coupon rate convertible senior notes due November 2024 (the "Notes"). Concurrent with the issuance of the Notes, the Company entered into capped call transactions that are exercisable upon conversion of the Notes. In accounting for the issuance of the Notes, management allocated the total proceeds into liability and equity components. The carrying amount of the liability component was calculated by estimating the fair value of the Notes if there were no associated convertible features. The carrying amount of the equity component, representing the conversion option was determined by deducting the fair value of the liability component from the principal amount of the Notes. The valuation model used in determining the fair value of the liability component for the Notes includes assumptions subject to management's judgement, including the synthetic credit rating.

Auditing management's evaluation of the transaction was complex and required a high degree of auditor judgement and audit effort due to the inherent complexity in assessing the accounting for the Notes and related capped call transactions. This required an assessment of the valuation of the fair value of the liability component of the Notes, which included evaluation of assumptions subject to management's judgement in determining the borrowing rate.

How We Addressed the Matter in Our Audit

We obtained an understanding, evaluated the design and tested the operating effectiveness of internal controls in respect of the Company's Notes and related capped call transactions, including controls over the initial recognition and measurement of the Notes and recording of the associated liability and equity components. To test the initial accounting for the Notes and related capped call transactions, our procedures included, among others, inspection of the underlying agreements and testing management's evaluation and application of the relevant accounting guidance. We also involved our valuation specialists to evaluate the Company's determination of the fair value of the liability component of the Notes. We tested the appropriateness of the methodology, evaluated the reasonableness of the underlying assumptions used to determine the borrowing rate, such as the Company's synthetic credit rating, and performed an independent calculation of the carrying amounts attributable to the liability and equity components. Additionally, we tested the source information underlying the valuation assumptions and inputs used to determine the fair value and the mathematical accuracy of the calculation. We also evaluated the Company's disclosures regarding the issuance of the Notes and capped call transactions included in Note 11.

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

We have served as the Company's auditor since 2000.
Tel-Aviv, Israel
March 5, 2020



Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of CyberArk Software Ltd.

Opinion on Internal Control Over Financial Reporting

We have audited CyberArk Software Ltd.'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) (the COSO criteria). In our opinion, CyberArk Software Ltd. (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, 2018 and 2019, the related consolidated statements of comprehensive income, 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 March 5, 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 Annual 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
March 5, 2020

CONSOLIDATED BALANCE SHEETS

U.S. dollars in thousands (except share and per share data and unless otherwise indicated)

	December 31,	
	2018	2019
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	\$ 260,636	\$ 792,363
Short-term bank deposits	106,399	140,067
Marketable securities	59,948	132,412
Trade receivables (net of allowance for doubtful debt of \$38 and \$67 at December 31, 2018 and 2019, respectively)	48,431	72,953
Prepaid expenses and other current assets	6,349	8,406
Total current assets	481,763	1,146,201
LONG-TERM ASSETS:		
Marketable securities	24,261	54,408
Property and equipment, net	15,120	16,472
Intangible assets, net	14,732	9,143
Goodwill	82,400	82,400
Other long-term assets	31,863	72,091
Deferred tax assets	23,481	24,451
Total long-term assets	191,857	258,965
TOTAL ASSETS	\$ 673,620	\$ 1,405,166

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 and unless otherwise indicated)

	December 31,	
	2018	2019
LIABILITIES AND SHAREHOLDERS' EQUITY		
CURRENT LIABILITIES:		
Trade payables	\$ 4,924	\$ 5,675
Employees and payroll accruals	32,853	41,345
Accrued expenses and other current liabilities	13,271	27,132
Deferred revenues	92,375	118,519
Total current liabilities	143,423	192,671
LONG-TERM LIABILITIES:		
Convertible senior notes, net	-	485,119
Deferred revenues	57,159	71,836
Other long-term liabilities	6,268	31,408
Total long-term liabilities	63,427	588,363
TOTAL LIABILITIES	206,850	781,034
COMMITMENTS AND CONTINGENCIES		
SHAREHOLDERS' EQUITY:		
Ordinary shares of NIS 0.01 par value – Authorized: 250,000,000 shares at December 31, 2018 and 2019; Issued and outstanding: 36,838,523 shares and 38,043,516 shares at December 31, 2018 and 2019, respectively	95	99
Additional paid-in capital	303,900	396,437
Accumulated other comprehensive income (loss)	(939)	818
Retained earnings	163,714	226,778
Total shareholders' equity	466,770	624,132
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	\$ 673,620	\$ 1,405,166

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

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

U.S. dollars in thousands (except per share data and unless otherwise indicated)

	Year ended December 31,		
	2017	2018	2019
Revenues:			
License	\$ 147,640	\$ 192,514	\$ 237,879
Maintenance and professional services	114,061	150,685	196,016
	<u>261,701</u>	<u>343,199</u>	<u>433,895</u>
Cost of revenues:			
License	7,911	10,526	10,569
Maintenance and professional services	33,937	37,935	52,046
	<u>41,848</u>	<u>48,461</u>	<u>62,615</u>
Gross profit	<u>219,853</u>	<u>294,738</u>	<u>371,280</u>
Operating expenses:			
Research and development	42,389	57,112	72,520
Sales and marketing	126,739	148,290	184,168
General and administrative	30,399	42,044	52,308
Total operating expenses	<u>199,527</u>	<u>247,446</u>	<u>308,996</u>
Operating income	20,326	47,292	62,284
Financial income, net	4,103	4,551	7,800
Income before taxes on income	24,429	51,843	70,084
Taxes on income	(8,414)	(4,771)	(7,020)
Net income	<u>\$ 16,015</u>	<u>\$ 47,072</u>	<u>\$ 63,064</u>
Basic net income per ordinary share	<u>\$ 0.46</u>	<u>\$ 1.30</u>	<u>\$ 1.68</u>
Diluted net income per ordinary share	<u>\$ 0.44</u>	<u>\$ 1.27</u>	<u>\$ 1.62</u>
Other comprehensive income (loss)			
Change in unrealized income (losses) on marketable securities:			
Unrealized income (loss) arising during the year	(29)	(43)	777
	<u>(29)</u>	<u>(43)</u>	<u>777</u>
Change in unrealized gain (loss) on cash flow hedges:			
Unrealized gain (loss) arising during the year	1,470	(2,469)	1,538
Loss (gain) reclassified into earnings	(1,159)	1,466	(558)
	<u>311</u>	<u>(1,003)</u>	<u>980</u>
Other comprehensive income (loss), net of taxes of \$(41), \$143 and \$(240) for 2017, 2018 and 2019, respectively	<u>282</u>	<u>(1,046)</u>	<u>1,757</u>
Total comprehensive income	<u>\$ 16,297</u>	<u>\$ 46,026</u>	<u>\$ 64,821</u>

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

STATEMENTS OF SHAREHOLDERS' EQUITY

U.S. dollars in thousands (except share data and unless otherwise indicated)

	Ordinary shares		Additional paid-in capital	Accumulated other comprehensive income (loss)	Retained earnings	Total shareholders' equity
	Shares	Amount				
Balance as of January 1, 2017	34,250,590	\$ 88	\$ 221,609	\$ (175)	\$ 74,694	\$ 296,216
Cumulative effect adjustment resulting from adoption of new accounting pronouncements	-	-	376	-	13,184	13,560
Exercise of options and vested RSUs granted to employees	1,024,298	3	2,621	-	-	2,624
Other comprehensive income, net of tax	-	-	-	282	-	282
Share-based compensation	-	-	25,268	-	-	25,268
Net income	-	-	-	-	16,015	16,015
Balance as of December 31, 2017	<u>35,274,888</u>	<u>\$ 91</u>	<u>\$ 249,874</u>	<u>\$ 107</u>	<u>\$ 103,893</u>	<u>\$ 353,965</u>
Cumulative effect adjustment resulting from adoption of new accounting pronouncements (see Note 2aa)	-	-	-	-	12,749	12,749
Exercise of options and vested RSUs granted to employees	1,563,635	4	18,035	-	-	18,039
Other comprehensive loss, net of tax	-	-	-	(1,046)	-	(1,046)
Share-based compensation	-	-	35,991	-	-	35,991
Net income	-	-	-	-	47,072	47,072
Balance as of December 31, 2018	<u>36,838,523</u>	<u>\$ 95</u>	<u>\$ 303,900</u>	<u>\$ (939)</u>	<u>\$ 163,714</u>	<u>\$ 466,770</u>
Exercise of options and vested RSUs granted to employees	1,204,993	4	24,543	-	-	24,547
Equity component of convertible senior notes, net of tax	-	-	65,932	-	-	65,932
Purchase of capped calls	-	-	(53,648)	-	-	(53,648)
Other comprehensive income, net of tax	-	-	-	1,757	-	1,757
Share-based compensation	-	-	55,710	-	-	55,710
Net income	-	-	-	-	63,064	63,064
Balance as of December 31, 2019	<u>38,043,516</u>	<u>\$ 99</u>	<u>\$ 396,437</u>	<u>\$ 818</u>	<u>\$ 226,778</u>	<u>\$ 624,132</u>

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

CONSOLIDATED STATEMENTS OF CASH FLOWS

U.S. dollars in thousands (except per share data and unless otherwise indicated)

	Year ended December 31,		
	2017	2018	2019
Cash flows from operating activities:			
Net income	\$ 16,015	\$ 47,072	\$ 63,064
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	7,856	10,078	10,646
Share-based compensation	25,237	35,964	55,517
Amortization of premium (accretion of discount) on marketable securities	382	293	(47)
Deferred income taxes, net	5,856	(7,056)	(6,974)
Amortization of debt discount and issuance costs	-	-	1,966
Increase in trade receivables	(11,631)	(3,116)	(24,522)
Increase in prepaid expenses and other current and long-term assets	(3,638)	(11,893)	(14,321)
Increase (decrease) in trade payables	(1,288)	1,955	1,571
Increase in short-term and long-term deferred revenues	31,729	47,818	40,821
Increase in employees and payroll accruals	6,316	6,896	7,337
Increase in accrued expenses and other current and long-term liabilities	3,903	2,114	6,652
Net cash provided by operating activities	<u>80,737</u>	<u>130,125</u>	<u>141,710</u>
Cash flows from investing activities:			
Proceeds from (investment in) short-term and long-term deposits	(20,661)	1,600	(33,961)
Investment in marketable securities	(43,604)	(61,118)	(165,714)
Proceeds from maturities of marketable securities	17,355	37,838	63,489
Purchase of property and equipment	(6,757)	(8,613)	(7,036)
Payments for business acquisitions, net of cash acquired (Schedule A)	(41,329)	(18,450)	-
Net cash used in investing activities	<u>(94,996)</u>	<u>(48,743)</u>	<u>(143,222)</u>
Cash flows from financing activities:			
Proceeds from withholding tax related to employee stock plans	-	-	1,155
Proceeds from exercise of stock options	2,624	17,980	24,428
Proceeds from the issuance of convertible senior notes, net of issuance costs	-	-	560,107
Purchase of capped calls	-	-	(53,648)
Net cash provided by financing activities	<u>2,624</u>	<u>17,980</u>	<u>532,042</u>
Increase (decrease) in cash, cash equivalents and restricted cash	(11,635)	99,362	530,530
Cash, cash equivalents and restricted cash at the beginning of the year	<u>174,156</u>	<u>162,521</u>	<u>261,883</u>
Cash, cash equivalents and restricted cash at the end of the year	<u>\$ 162,521</u>	<u>\$ 261,883</u>	<u>\$ 792,413</u>
Non-cash activities:			
Lease liabilities arising from obtaining right-of-use-assets	\$ -	\$ -	\$ 27,926
Non-cash purchase of property and equipment	<u>\$ 981</u>	<u>\$ 1,613</u>	<u>\$ 960</u>

CONSOLIDATED STATEMENTS OF CASH FLOWS
U.S. dollars in thousands (except per share data and unless otherwise indicated)
Supplemental disclosure of cash flow activities:

Cash paid during the year for taxes, net	\$	3,371	\$	6,375	\$	10,548
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Reconciliation of cash, cash equivalents and restricted cash:

Cash and cash equivalents	\$	161,261	\$	260,636	\$	792,363
Restricted cash included in short-term bank deposits		316		-		-
Restricted cash included in other long-term assets		944		1,247		50
Total cash, cash equivalent and restricted cash	\$	162,521	\$	261,883	\$	792,413

Schedule A - Payments for businesses acquired (See note 1b.)

Fair value of assets acquired and liabilities assumed at the date of Conjur's acquisition was as follows:

	Year ended December 31, 2017
Working capital, net (excluding \$379 of cash and cash equivalents acquired)	\$ (451)
Property and equipment	12
Goodwill	34,072
Other intangible assets	6,888
Deferred taxes, net	808
	\$ 41,329

Fair value of assets acquired and liabilities assumed at the date of Vaultive's acquisition was as follows:

	Year ended December 31, 2018
Working capital, net (excluding \$21 of cash and cash equivalents acquired)	\$ (996)
Property and equipment	83
Goodwill	13,183
Other intangible assets	5,424
Deferred taxes, net	756
	\$ 18,450

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 and unless otherwise indicated)

NOTE 1: GENERAL

- a. CyberArk Software Ltd. (together with its subsidiaries, the "Company") is an Israeli company that develops, markets and sells software-based security solutions and services. The Company's solutions and services enable organizations to safeguard and monitor their privileged accounts, which are those accounts within an organization that have access to the organization's high value assets and are located across its IT infrastructure. The Company's software provides customers with the ability to protect, detect, monitor and control access to privileged accounts in order to break the lifecycle of a targeted cyber-attack before it can cause damage to an organization.
- b. In May 2017, the Company acquired all of the share capital of Conjur, Inc. ("Conjur") for total gross consideration of \$41,708. Conjur is a provider of DevOps security software. The Company expensed the related acquisition costs of \$686 in general and administrative expenses.

In March 2018, the Company acquired all of the share capital of Vaultive, Ltd. ("Vaultive") for total gross consideration of \$18,471. Vaultive specializes in privileged account security in cloud environments. The Company expensed the related acquisition costs of \$268 in general and administrative expenses.

NOTE 2: SIGNIFICANT ACCOUNTING POLICIES

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

- a. Use of estimates:

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates, judgments and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. Such management estimates and assumptions are related, but not limited to contingent liabilities, income tax uncertainties, deferred taxes, share-based compensation, value of intangible assets and goodwill, fair value of the liability component of the convertible senior notes, as well as the determination of standalone selling prices in revenue transactions with multiple performance obligations and the estimated period of benefit for deferred contract costs. The Company's management believes that the estimates, judgment and assumptions used are reasonable based upon information available at the time they 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 revenues and expenses during the reporting periods. Actual results could differ from those estimates.

- b. Principles of consolidation:

The consolidated financial statements include the financial statements of CyberArk Software Ltd. and its wholly-owned subsidiaries. All intercompany transactions and balances have been eliminated upon consolidation.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data and unless otherwise indicated)

NOTE 2: SIGNIFICANT ACCOUNTING POLICIES (Cont.)

c. Financial statements in U.S. dollars:

A majority of the Company's revenues are generated in U.S. dollars. In addition, the equity investments were in U.S. dollars and a substantial portion of the Company's costs are incurred in U.S. dollars. The Company's management believes that the U.S. dollar is the currency of the primary economic environment in which the Company and each of its subsidiaries operates. Thus, the functional and reporting currency of the Company is the U.S. dollar.

Accordingly, monetary accounts maintained in currencies other than the U.S. dollar are re-measured into U.S. dollars in accordance with Accounting Standard Codification ("ASC") No. 830 "Foreign Currency Matters." All transaction gains and losses of the re-measured monetary balance sheet items are reflected in the statement of comprehensive income as financial income or expenses, as appropriate.

d. Cash and cash equivalents:

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

e. Short-term bank deposits:

Short-term bank deposits are deposits with maturities of up to one year. As of December 31, 2018 and 2019, the Company's bank deposits are denominated in U.S. dollars and New Israeli Shekels ("NIS") and bear yearly interest at weighted average rates of 2.92% and 2.27%, respectively. Short-term bank deposits are presented at their cost, including accrued interest.

f. Investments in marketable securities:

The Company accounts for investments in debt marketable securities in accordance with ASC No. 320, "Investments - Debt and Equity Securities." The Company's management determines the appropriate classification of its investments in marketable securities at the time of purchase and re-evaluates such determinations at each balance sheet date. The Company classifies all of its marketable securities as available-for-sale. Available-for-sale securities are carried at fair value, with the unrealized gains and losses, net of tax, reported in accumulated other comprehensive income (loss) in shareholders' equity. Realized gains and losses on sale of marketable securities are included in financial income, net and are derived using the specific identification method for determining the cost of securities sold. The amortized cost of marketable securities is adjusted for amortization of premiums and accretion of discounts to maturity. Such amortization together with interest on securities is included in financial income, net.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data and unless otherwise indicated)

NOTE 2: SIGNIFICANT ACCOUNTING POLICIES (Cont.)

The Company's securities are reviewed for impairment in accordance with ASC No. 320-10-35. If such assets are considered to be impaired, the impairment charge is recognized in earnings when a decline in the fair value of its investments below the cost basis is judged to be Other-Than-Temporary Impairment (OTTI). 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. Based on the above factors, the Company concluded that unrealized losses on its available-for-sale securities for the years ended December 31, 2017, 2018 and 2019 were not OTTI.

g. Property and equipment:

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, software and related equipment	16 – 33
Office furniture and equipment	7 – 20
Leasehold improvements	Over the shorter of the related lease period or the life of the asset

h. Long-lived assets:

The long-lived assets of the Company are reviewed for impairment in accordance with ASC No. 360, "Property, Plant and Equipment", whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. The 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. During the years ended December 31, 2017, 2018 and 2019, no impairment losses have been identified.

i. Business combination:

The Company accounts for its business acquisitions in accordance with ASC No. 805, "Business Combinations." The Company uses its best estimates and assumptions as part of the purchase price allocation process to value assets acquired and liabilities assumed at the business combination date. The total purchase price allocated to the tangible and intangible assets acquired is assigned based on the fair values as of the date of the acquisition. Goodwill generated from the business combinations is primarily attributable to synergies between the Company and acquired companies' respective products and services. Acquisition-related expenses are recognized separately from the business combination and are expensed as incurred.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data and unless otherwise indicated)

NOTE 2: SIGNIFICANT ACCOUNTING POLICIES (Cont.)

j. Goodwill and other intangible assets:

Goodwill and certain other purchased intangible assets have been recorded in the Company's financial statements as a result of acquisitions. Goodwill represents excess of the purchase price in a business combination over the fair value of identifiable tangible and intangible assets acquired. Goodwill is not amortized, but rather is subject to an impairment test.

ASC No. 350, "Intangible—Goodwill and other" requires goodwill to be tested for impairment at least annually and, in certain circumstances, between annual tests. The accounting guidance gives the option to perform a qualitative assessment to determine whether further impairment testing is necessary. The qualitative assessment considers events and circumstances that might indicate that a reporting unit's fair value is less than its carrying amount. If it is determined, as a result of the qualitative assessment, that it is more likely than not that the fair value of a reporting unit is less than its carrying amount, a quantitative test is performed. The Company operates as one reporting unit. Therefore, goodwill is tested for impairment by comparing the fair value of the reporting unit with its carrying value. The Company elects to perform an annual impairment test of goodwill as of October 1 of each year, or more frequently if impairment indicators are present.

For the years ended December 31, 2017, 2018 and 2019, no impairment losses were identified.

Purchased intangible assets with finite lives are carried at cost, less accumulated amortization. Amortization is computed over the estimated useful lives of the respective assets, which range from two to eleven years. Acquired customer relationship and backlog are amortized over their estimated useful lives in proportion to the economic benefits realized. Other intangible assets, consisting primarily of technology, are amortized over their estimated useful lives on a straight-line basis.

k. Derivative instruments:

ASC No. 815, "Derivative and Hedging," requires companies to recognize all of their derivative instruments as either assets or liabilities on the balance sheet at fair value.

For those derivative instruments that are designated and qualify as hedging instruments, a company must designate the hedging instrument, based upon the exposure being hedged, as a fair value hedge, cash flow hedge or a hedge of a net investment in a foreign operation.

As a result of adopting new accounting guidance discussed in Note 2, "Recently adopted accounting standards", beginning January 1, 2019, gains and losses on the derivatives instruments that are designated and qualify as a cash flow hedge are recorded in accumulated other comprehensive income (loss) and reclassified into earnings in the same accounting period in which the designated forecasted transaction or hedged item affects earnings. Prior to January 1, 2019, cash flow hedge ineffectiveness was separately measured and reported immediately in earnings. Cash flow hedge ineffectiveness was immaterial during 2017 and 2018.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data and unless otherwise indicated)

NOTE 2: SIGNIFICANT ACCOUNTING POLICIES (Cont.)

To hedge against the risk of changes in cash flows resulting from foreign currency salary payments during the year, the Company instituted a foreign currency cash flow hedging program. The Company hedges portions of its forecasted expenses denominated in NIS. These forward and option contracts are designated as cash flow hedges, as defined by ASC No. 815, and are all effective, as their critical terms match underlying transactions being hedged.

As of December 31, 2018 and 2019, the amount recorded in accumulated other comprehensive income (loss) from the Company's currency forward and option transactions was \$(727), net of tax of \$(99) and \$254, net of tax of \$35, respectively.

At December 31, 2019, the notional amounts of foreign exchange forward contracts into which the Company entered were \$16,855. The foreign exchange forward contracts will expire by June 2020.

The fair value of derivative instruments assets balances as of December 31, 2018 and 2019, totaled \$10 and \$288, respectively.

The fair value of derivative instruments liabilities balances as of December 31, 2018 and 2019, totaled \$836 and \$0, respectively.

In addition to the derivatives that are designated as hedges as discussed above, the Company enters into certain foreign exchange forward transactions to economically hedge certain account receivables in Euros and Great British Pound. Gains and losses related to such derivative instruments are recorded in financial income, net.

As of December 31, 2019, the notional amounts of foreign exchange forward contracts into which the Company entered were \$17,648. The foreign exchange forward contracts will expire by October 2020. The fair value of derivative instruments assets balances as of December 31, 2018 and 2019, totaled \$1,004 and \$514, respectively. The fair value of derivative instruments liabilities balances as of December 31, 2018 and 2019 totaled \$0 and \$134, respectively.

For the years ended December 31, 2017, 2018 and 2019, the Company recorded financial income, net from hedging transactions of \$(796), \$977 and \$515, respectively.

1. Severance pay:

The Israeli Severance Pay Law, 1963 ("Severance Pay Law"), specifies that employees are entitled to severance payment, following the termination of their employment. Under the Severance Pay Law, the severance payment is calculated as one month salary for each year of employment, or a portion thereof.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data and unless otherwise indicated)

NOTE 2: SIGNIFICANT ACCOUNTING POLICIES (Cont.)

The majority of the Company's liability for severance pay is covered by the provisions of Section 14 of the Severance Pay Law ("Section 14"). Under Section 14, employees are entitled to monthly deposits, at a rate of 8.33% of their monthly salary, made on behalf of the employee with insurance companies. Payments in accordance with Section 14 release the Company from any future severance payments in respect of those employees. As a result, the Company does not recognize any liability for severance pay due to these employees and the deposits under Section 14 are not recorded as an asset in the Company's balance sheet.

For the Company's employees in Israel who are not subject to Section 14, the Company calculated the liability for severance pay pursuant to the Severance Pay Law based on the most recent salary of these employees multiplied by the number of years of employment as of the balance sheet date. The Company's liability for these employees is fully provided for via monthly deposits with severance pay funds, insurance policies and accruals. The value of these deposits recorded as an asset on the Company's balance sheet under other long-term assets as of December 31, 2018 and 2019 is 3,579 and 4,313, respectively. The amount of accrued severance payable recorded as a liability on the Company's balance sheet under long-term liabilities as of December 31, 2018 and 2019 is 5,597 and 6,751, respectively.

Severance expense for the years ended December 31, 2017, 2018 and 2019, amounted to \$2,707, \$3,326 and \$4,035, respectively.

m. U.S. defined contribution plan:

The U.S. subsidiary has a 401(k) defined contribution plan covering certain full time and part time employees in the U.S. who meet certain eligibility requirements, excluding leased employees and contractors. All eligible employees may elect to contribute up to an annual maximum, of the lesser of 100% of their annual compensation to the plan through salary deferrals, subject to Internal Revenue Service limits, but not greater than \$19 per year (for certain employees over 50 years of age the maximum contribution is \$25 per year).

The U.S. subsidiary matches amounts equal to 100% of the first 3% of the employee's compensation that they contribute to the defined contribution plan and 50% of the next 2% of their compensation that they contribute to the defined contribution plan with a limit of \$11.2 per year per employee. For the years ended December 31, 2017, 2018 and 2019, the U.S. subsidiary recorded expenses for matching contributions of \$1,677, \$2,171 and \$2,697, respectively.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data and unless otherwise indicated)

NOTE 2: SIGNIFICANT ACCOUNTING POLICIES (Cont.)

n. Convertible senior notes:

The Company accounts for its convertible senior notes in accordance with ASC 470-20 "Debt with Conversion and Other Options". The Company allocated the principal amount of the convertible senior notes between its liability and equity component. The liability component at issuance is recognized at fair value, based on the fair value of a similar instrument of similar credit rating and maturity that does not have a conversion feature. The equity component is based on the excess of the principal amount of the convertible senior notes over the fair value of the liability component and is recorded in additional paid-in capital. The equity component, net of issuance costs and deferred tax effects is presented within additional paid-in-capital and is not remeasured as long as it continues to meet the conditions for equity classification. The Company allocated the total issuance costs incurred to the liability and equity components of the convertible senior notes based on the same proportions as the proceeds from the notes.

Issuance costs attributable to the liability and equity components were \$12.9 million and \$2.0 million, respectively. Issuance costs attributable to the liability are netted against the principal balance and will be amortized to interest expense using the effective interest method over the contractual term of the notes. The effective interest rate of the liability component of the notes is 3.50%. This interest rate was based on Company's credit risk rating using software industry rating methodology.

Issuance costs attributable to the equity component are netted with the equity component in additional paid-in capital.

o. Revenue recognition:

The Company substantially generates revenues from licensing the rights to use its software products, maintenance and professional services. License revenues include perpetual and term-based licenses, as well as the ratable portion of sales of software as a service ("SaaS"). The Company sells its products through its direct sales force and indirectly through resellers. Payment is typically due within 30 to 90 calendar days of the invoice date.

The Company recognizes revenues in accordance with ASC No. 606, "Revenue from Contracts with Customers" ("ASC No. 606"). 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 enters into contracts that can include combinations of products and services, which are generally capable of being distinct and accounted for as separate performance obligations and may include an option to provide products or services. The license is distinct as the customer can derive the economic benefit of the software without any professional services, updates or technical support.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data and unless otherwise indicated)

NOTE 2: SIGNIFICANT ACCOUNTING POLICIES (Cont.)

The transaction price is determined based on the consideration to which the Company will be entitled in exchange for transferring goods or services to the customer. The Company does not grant a right of return to its customers.

In instances of contracts where revenue recognition differs from the timing of invoicing, the Company generally determined that those contracts do not include a significant financing component. The primary purpose of the invoicing terms is to provide customers with simplified and predictable ways of purchasing the Company's products and services, not to receive or provide financing. The Company uses the practical expedient and does not assess the existence of a significant financing component when the difference between payment and revenue recognition is a year or less.

The Company records unbilled receivables from contracts when the revenue recognized exceeds the amount billed to the customer. As of December 31, 2019, \$5,526 long-term unbilled receivables are included in other long-term assets.

The Company allocates the transaction price to each performance obligation based on its relative standalone selling price. For maintenance, the Company determines the standalone selling price based on the price at which the Company separately sells a renewal contract. For professional services, the Company determines the standalone selling prices based on the prices at which the Company separately sells those services. For software licenses, the Company determines the standalone selling prices by taking into account available information such as historical selling prices, contract value, geographic location, and the Company's price list and discount policy.

Software license revenues, perpetual or term based, are recognized at the point of time when the license is made available for download by the customer. Maintenance and SaaS revenues are recognized ratably, on a straight-line basis over the term of the related contract, which is generally one to three years. Professional services revenues consist mostly of time and material services that are recognized as the services are performed.

The following table presents the Company's revenue by category:

	December 31,	
	2018	2019
License	\$ 192,514	\$ 237,879
Maintenance and support	123,986	159,730
Professional services	26,699	36,286
	<u>\$ 343,199</u>	<u>\$ 433,895</u>

For Additional information regarding disaggregated revenues, please refer to Note 16 below

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data and unless otherwise indicated)

NOTE 2: SIGNIFICANT ACCOUNTING POLICIES (Cont.)

Contract liabilities consist of deferred revenue and include unearned amounts received under maintenance and support contracts, professional services and amounts received from customers for licenses that do not meet the revenue recognition criteria as of the balance sheet date. Deferred revenues are recognized as (or when) the Company performs under the contract. During the year ended December 31, 2019, the Company recognized \$87,926 that were included in the deferred revenues balance as of December 31, 2018.

Remaining Performance Obligations:

Transaction price allocated to remaining performance obligations represents non-cancelable contracts that have not yet been recognized, which includes deferred revenues and amounts not yet received that will be recognized as revenue in future periods.

The aggregate amount of the transaction price allocated to remaining performance obligations was \$293 million as of December 31, 2019. The Company expects to recognize approximately 55% in 2020 from remaining performance obligations as of December 31, 2019 and the remainder thereafter.

p. Deferred contract costs:

The Company pays sales commissions primarily to sales and marketing and certain management personnel based on their attainment of certain predetermined sales goals. Sales commissions are considered incremental and recoverable costs of obtaining a contract with a customer. Sales commissions paid for initial contracts, which are not commensurate with sales commissions paid for renewal contracts, are capitalized and amortized over an expected period of benefit. Based on its technology, customer contracts and other factors, the Company has determined the expected period of benefit to be approximately five years. Sales commissions for initial contracts, which are commensurate with sales commissions paid for renewal contracts, are capitalized and amortized correspondingly to the recognized revenue of the related initial contracts. Sales commissions for renewal contracts are capitalized and amortized on a straight-line basis over the related contractual renewal period. Amortization expense of these costs are substantially included in sales and marketing expenses.

For the year ended December 31, 2018 and 2019, the amortization of deferred contract costs was \$27,807 and \$33,853, respectively.

As of December 31, 2018 and 2019, the Company presented deferred contract costs from contracts which are less than 12 months of \$389 and \$1,014 in prepaid expenses and other current assets, respectively, and deferred contract costs in respect of contracts which are greater than 12 months of \$25,595 and \$37,074 in other long-term assets, respectively.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data and unless otherwise indicated)

NOTE 2: SIGNIFICANT ACCOUNTING POLICIES (Cont.)

q. Leases:

On January 1, 2019, the Company adopted ASU No. 2016-02, Leases (ASC 842). 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. The Company also elected the practical expedient to not separate lease and non-lease components for its leases.

ROU assets represent the right to use an underlying asset for the lease term and lease liabilities represent the obligation to make minimum lease payments arising from the lease. 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 at lease commencement date based on the discounted present value of minimum lease payments over the lease term. 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. Certain leases include options to extend or terminate the lease. 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 is considered unless it is reasonably certain that the Company will not exercise the option.

Payments under our lease arrangements are primarily fixed, however, certain lease agreements contain variable payments, which are expensed as incurred and not included in the operating lease right-of-use assets and liabilities. Variable lease payments are primarily comprised of payments affected by common area maintenance and utility charges. The Company subleases certain office spaces to third-parties. Sublease income is recognized over the term of the agreement.

r. Research and development costs:

Research and development costs are charged to the statements of comprehensive income 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 model and the point at which the product is ready for general release, have been insignificant. Therefore, all research and development costs are expensed as incurred.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data and unless otherwise indicated)

NOTE 2: SIGNIFICANT ACCOUNTING POLICIES (Cont.)

s. Internal use software:

The Company capitalizes qualifying costs incurred during the application development stage related to software developed for internal-use. These costs are capitalized based on qualifying criteria. Such costs are amortized over the software's estimated life of three to five years. Costs incurred to develop software applications consist of (a) certain external direct costs of materials and services incurred in developing or obtaining internal-use computer software, and (b) payroll and payroll-related costs for employees who are directly associated with, and who devote time to, the development or implementation of the software. Capitalized internal-use software costs are included in property and equipment, net in the consolidated balance sheet.

t. Marketing expenses:

Marketing expenses consist primarily of marketing campaigns and tradeshows. Marketing expenses are charged to the statement of comprehensive income, as incurred. Marketing expenses for the years ended December 31, 2017, 2018 and 2019, amounted to \$14,106, \$16,171 and \$20,055, respectively.

u. Share-based compensation:

The Company accounts for share-based compensation in accordance with ASC No. 718, "Compensation - Stock Compensation" ("ASC No. 718"). ASC No. 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 award is recognized as an expense over the requisite service periods, which is generally the vesting period of the respective award, on a straight-line basis when the only condition to vesting is continued service. If vesting is subject to a performance condition, recognition is based on the implicit service period of the award. Expense for awards with performance conditions is estimated and adjusted on a quarterly basis based upon the assessment of the probability that the performance condition will be met.

The Company has selected the Black-Scholes-Merton option-pricing model as the most appropriate fair value method for its option awards. The fair value of restricted stock units ("RSU") and performance stock units ("PSU") is based on the closing market value of the underlying shares at the date of grant.

The option-pricing model requires a number of assumptions, of which the most significant are the expected share price volatility and the expected option term. The company recognize forfeitures of equity-based awards as they occur.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data and unless otherwise indicated)

NOTE 2: SIGNIFICANT ACCOUNTING POLICIES (Cont.)

v. Income taxes:

The Company accounts for income taxes in accordance with ASC No. 740-10, "Income Taxes" ("ASC No. 740-10"). ASC No. 740-10 prescribes the use of the asset and liability method whereby deferred tax asset and liability account balances are determined based on temporary 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 some portion or all of the deferred tax assets will not be realized.

The Company established reserves for uncertain tax positions based on the evaluation of whether or not the Company's uncertain tax position is "more likely than not" to be sustained upon examination based on its technical merits. The Company records interest and penalties pertaining to its uncertain tax positions in the financial statements as income tax expense.

w. Basic and diluted net income per share:

Basic net income per ordinary share is computed by dividing net income for each reporting period by the weighted-average number of ordinary shares outstanding during each year. Diluted net income per ordinary share is computed by dividing net income for each reporting period by the weighted average number of ordinary shares outstanding during the period, plus dilutive potential ordinary shares considered outstanding during the period, in accordance with ASC No. 260-10 "Earnings Per Share".

x. 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 changes resulting from investments by, or distributions to, shareholders.

y. Concentration of credit risks:

Financial instruments that potentially subject the Company to concentrations of credit risk consist principally of cash and cash equivalents, short-term bank deposits, marketable securities, trade receivables, severance pay funds and derivative instruments.

The majority of the Company's cash and cash equivalents and short-term bank deposits are invested with major banks in Israel and the United States. Such investments in the United States are primarily in excess of insured limits and are not insured in other jurisdictions. Generally, these investments may be redeemed upon demand and the Company believes that the financial institutions that hold the Company's cash deposits are financially sound and, accordingly, bear minimal risk.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data and unless otherwise indicated)

NOTE 2: SIGNIFICANT ACCOUNTING POLICIES (Cont.)

The Company's marketable securities consist of investments, which are highly rated by credit agencies, in government, corporate and government sponsored enterprises debentures. The Company's investment policy limits the amount that the Company may invest in any one type of investment or issuer, in order to reduce credit risk concentrations.

The trade receivables of the Company are mainly derived from sales to a diverse set of customers located primarily in the United States, Europe and Asia. The Company performs ongoing credit evaluations of its customers and, to date, has not experienced any significant losses.

The Company has entered into forward contracts with major banks in Israel to protect against the risk of changes in exchange rates. The derivative instruments hedge a portion of the Company's non-dollar currency exposure.

z. Fair value of financial instruments:

The estimated fair value of financial instruments has been determined by the Company using available market information and valuation methodologies. Considerable judgment is required in estimating fair values. Accordingly, the estimates may not be indicative of the amounts the Company could realize in a current market exchange.

The following methods and assumptions were used by the Company in estimating the fair value of their financial instruments:

The carrying values of cash and cash equivalents, short-term bank deposits, trade receivables, prepaid expenses and other current assets, trade payables, employees and payroll accruals and accrued expenses and other current liabilities approximate their fair values due to the short-term maturities of these instruments.

The Company applies ASC No. 820, "Fair Value Measurements and Disclosures" ("ASC No. 820"), with respect to fair value measurements of all financial assets and liabilities.

The fair value of foreign currency contracts (used for hedging purposes) is estimated by obtaining current quotes from banks and third party valuations.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data and unless otherwise indicated)

NOTE 2: SIGNIFICANT ACCOUNTING POLICIES (Cont.)

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 at the measurement date. 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:

- Level 1 - Inputs are unadjusted quoted prices in active markets for identical assets or liabilities that can be accessed at the measurement date.
- Level 2 - Inputs are quoted prices for similar assets and liabilities in active markets or inputs that are observable for the assets or liabilities, either directly or indirectly through market corroboration, for substantially the full term of the financial instruments.
- Level 3 - Inputs are unobservable inputs based on the Company's own assumptions used to measure assets and liabilities at fair value. The inputs require significant management judgment or estimation.

The fair value hierarchy also requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value.

In accordance with ASC No. 820, the Company measures its foreign currency derivative instruments, at fair value using the market approach valuation technique. Foreign currency derivative contracts as detailed in note 2.k are classified within Level 2 value hierarchy, as the valuation inputs are based on quoted prices and market observable data of similar instruments.

aa. Recently adopted accounting standards:

In May 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2014-09, Revenue from Contracts with Customers Topic 606, an updated standard on revenue recognition and issued subsequent amendments to the initial guidance in March 2016, April 2016, May 2016 and December 2016 within ASU 2016-08, 2016-10, 2016-12 and 2016-20, respectively. The core principle of the new standard is for companies to recognize revenue to depict the transfer of goods and services to customers in amounts that reflect the consideration to which the company expects to be entitled in exchange for those goods and services. In addition, the new standard requires expanded disclosures. The Company adopted the standard effective January 1, 2018 using the modified retrospective method. Results from reporting periods beginning after January 1, 2018 are presented under ASC No. 606, while prior period amounts have not been adjusted and continue to be reported in accordance with the historic accounting under Revenue Recognition Topic 605 ("ASC No. 605").

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data and unless otherwise indicated)

NOTE 2: SIGNIFICANT ACCOUNTING POLICIES (Cont.)

The most significant impact of the new standard relates to the way the Company accounts for term license arrangements and costs to obtain customer contracts. Specifically, under ASC No. 605, the Company recognizes both the term license and maintenance revenues ratably over the contract period whereas under the current revenue standard, term license revenues are recognized upfront, upon delivery, and the associated maintenance revenues are recognized over the contract period. In addition, the Company also implemented the guidance in ASC No. 340-40, "Other Assets and Deferred Costs." Under the historic accounting policy, sales commissions were expensed as incurred. The current standard requires the capitalization of all incremental costs that the Company incurs to obtain a contract with a customer that it would not have incurred if the contract had not been obtained, provided the Company expects to recover the costs. For further information see Notes 2.o and 2.p.

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 balance sheets, and are not comparative.

The standard had a material impact on the Company's consolidated balance sheets which resulted in the recognition of ROU assets and lease liabilities of \$26.0 million and \$26.7 million, respectively, on January 1, 2019, which included reclassifying deferred rent and rent prepayments as components of the ROU assets. The standard did not have a material impact on the Company's consolidated statements of comprehensive income.

In August 2017, the FASB issued ASU 2017-12, "Targeted Improvements to Accounting for Hedging Activities." The standard better aligns an entity's hedging activities and financial reporting for hedging relationships through changes to both the designation and measurement guidance for qualifying hedging relationships and the presentation of hedge results in the financial statements. The standard prospectively made hedge accounting easier to apply to hedging activities and also enhances disclosure requirements for how hedge transactions are reflected in the financial statements when hedge accounting is elected. The standard is effective for fiscal years beginning after December 15, 2018, with early adoption permitted. The Company adopted the standard beginning January 1, 2019. The standard did not have a material impact on the consolidated financial statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data and unless otherwise indicated)

NOTE 2: SIGNIFICANT ACCOUNTING POLICIES (Cont.)

ab. Recently issued accounting standards:

In June 2016, the FASB Issued ASU 2016-13, Financial Instruments—Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments. The new standard requires financial assets measured at amortized cost to be presented at the net amount expected to be collected, through an allowance for credit losses that is deducted from the amortized cost basis. The standard is effective for fiscal years beginning after December 15, 2019, with early adoption permitted and will be applied on a modified retrospective basis. The Company's analysis and evaluation of the new standard and its potential impact on its consolidated financial statements will continue through its effective date in the first quarter of 2020.

In January 2017, the FASB issued ASU 2017-04, Simplifying the Test for Goodwill Impairment (Topic 350). This standard eliminates Step 2 from the goodwill impairment test, instead requiring an entity to recognize a goodwill impairment charge for the amount by which the goodwill carrying amount exceeds the reporting unit's fair value. This guidance is effective for interim and annual goodwill impairment tests in fiscal years beginning after December 15, 2019 with early adoption permitted. This guidance must be applied on a prospective basis. The Company does not expect the adoption of this guidance to have a material impact on its consolidated financial statements.

In August 2018, the FASB issued ASU 2018-15, "Intangibles – Goodwill and Other – Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract." The new standard requires a customer in a cloud computing arrangement (i.e., hosting arrangement) that is a service contract to follow the internal-use software guidance in Accounting Standards Codification 350-40 to determine which implementation costs to capitalize as assets or expense as incurred. The new standard also requires presenting the capitalized implementation costs and their related amortization and cash flows on the financial statements consistent with the prepaid amounts and fees related to the associated cloud computing arrangement. Capitalized implementation costs will be required to be amortized over the term of the arrangement, beginning when the module or component of the cloud computing arrangement that is a service contract is ready for its intended use. The standard will be effective for the Company beginning January 1, 2020, with early adoption permitted. Entities can choose to adopt the new guidance prospectively or retrospectively. The Company does not expect the adoption of this guidance to have a material impact on its consolidated financial statements.

ac. Reclassification

Certain comparative figures have been reclassified to conform to the current year presentation.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data and unless otherwise indicated)

NOTE 3: MARKETABLE SECURITIES

The following tables summarize the amortized cost, unrealized gains and losses, and fair value of available-for-sale marketable securities as of December 31, 2018 and 2019:

	December 31, 2018			
	Amortized cost	Gross unrealized losses*)	Gross unrealized gains	Fair value
Corporate debentures	\$ 77,758	\$ (228)	\$ 8	\$ 77,538
U.S. agencies debentures	6,692	(23)	2	6,671
Total	\$ 84,450	\$ (251)	\$ 10	\$ 84,209

*) Out of the unrealized losses, an amount of \$149 has been in a continuous unrealized loss position for twelve months or longer.

	December 31, 2019			
	Amortized cost	Gross unrealized losses*)	Gross unrealized gains	Fair value
Corporate debentures	\$ 104,952	\$ (21)	\$ 651	\$ 105,582
U.S. agencies debentures	81,227	(10)	21	81,238
Total	\$ 186,179	\$ (31)	\$ 672	\$ 186,820

*) Out of the unrealized losses, an amount of \$5 has been in a continuous unrealized loss position for twelve months or longer.

The following table summarizes the amortized cost and fair value of available-for-sale marketable securities as of December 31, 2018 and 2019, by contractual years-to maturity:

	December 31,			
	2018		2019	
	Amortized cost	Fair value	Amortized cost	Fair value
Due within one year	\$ 60,062	\$ 59,948	\$ 132,321	\$ 132,412
Due between one and four years	24,388	24,261	53,858	54,408
	\$ 84,450	\$ 84,209	\$ 186,179	\$ 186,820

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data and unless otherwise indicated)

NOTE 4: PREPAID EXPENSES AND OTHER CURRENT ASSETS

	December 31,	
	2018	2019
Prepaid expenses	\$ 2,879	\$ 5,002
Hedging transaction assets	1,014	802
Government authorities	1,452	1,162
Deferred commissions and other current assets	1,004	1,440
	<u>\$ 6,349</u>	<u>\$ 8,406</u>

NOTE 5: PROPERTY AND EQUIPMENT, NET

The composition of property and equipment is as follows:

	December 31,	
	2018	2019
Cost:		
Computers, software and related equipment *)	\$ 12,976	\$ 17,470
Leasehold improvements	6,148	6,775
Office furniture and equipment	4,213	4,369
	<u>23,337</u>	<u>28,614</u>
Less - accumulated depreciation	<u>8,217</u>	<u>12,142</u>
Depreciated cost	<u>\$ 15,120</u>	<u>\$ 16,472</u>

*) For the years ended December 31, 2018 and 2019, the Company capitalized \$1,391 and \$2,397 including \$27 and \$193 of share-based compensation costs, relating to its internal use software development, respectively.

Depreciation expense amounted to \$2,597, \$3,722 and \$5,057 for the years ended December 31, 2017, 2018 and 2019, respectively.

NOTE 6: GOODWILL AND OTHER INTANGIBLE ASSETS, NET

Changes in the carrying amount of goodwill:

	December 31,	
	2018	2019
Balance as of beginning of the year	\$ 69,217	\$ 82,400
Goodwill acquired	13,183	-
Closing balance	<u>\$ 82,400</u>	<u>\$ 82,400</u>

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data and unless otherwise indicated)

NOTE 6: GOODWILL AND OTHER INTANGIBLE ASSETS, NET (Cont.)

The composition of intangible assets is as follows:

	December 31,	
	2018	2019
Original amount:		
Technology	\$ 26,141	\$ 26,141
Customer relationships	5,120	5,120
Other	664	664
	<u>31,925</u>	<u>31,925</u>
Less - accumulated amortization	<u>17,193</u>	<u>22,782</u>
Intangible assets, net	<u>\$ 14,732</u>	<u>\$ 9,143</u>

Amortization expense amounted to \$5,259, \$6,356 and \$5,589 for the years ended December 31, 2017, 2018, and 2019, respectively.

The estimated future amortization expense of intangible assets as of December 31, 2019 is as follows:

2020	3,821
2021	2,740
2022	1,808
2023	390
2024	128
Thereafter	256
	<u>\$ 9,143</u>

NOTE 7: ACCRUED EXPENSES AND OTHER CURRENT LIABILITIES

	December 31,	
	2018	2019
Government authorities	\$ 6,057	\$ 11,890
Accrued expenses	4,562	5,455
Unrecognized tax benefits	1,816	3,728
Lease liability, current	-	5,925
Hedging transaction liabilities	836	134
	<u>\$ 13,271</u>	<u>\$ 27,132</u>

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data and unless otherwise indicated)

NOTE 8: COMMITMENTS AND CONTINGENT LIABILITIES

a. Legal contingencies:

From time to time, the Company becomes involved in legal proceedings or is subject to claims arising in its ordinary course of business. Such matters are generally subject to many uncertainties and outcomes are not predictable with assurance. The Company accrues for contingencies when the loss is probable and it can reasonably estimate the amount of any such loss. The Company is currently not a party to any material legal or administrative proceedings and is not aware of any material pending or threatened material legal or administrative proceedings against the Company.

b. Pledges and bank guarantees:

The Company pledged a bank deposit of \$1,335, mainly in respect of an office lease agreement. This balance is presented as part of other long-term assets.

The Company obtained bank guarantees of \$1,352, primarily in connection with an office lease agreement.

NOTE 9: LEASES

The Company entered into operating leases primarily for offices. The leases have remaining lease terms of up to 6.5 years, some of which may include options to extend the leases for up to an additional 8 years.

The components of operating lease costs were as follows:

	Year ended December 31, 2019
Operating lease cost	\$ 5,897
Short-term lease cost	733
Variable lease cost	1,014
Sublease income	(279)
Total net lease costs	<u>\$ 7,365</u>

Supplemental balance sheet information related to operating leases is as follows:

	As of December 31, 2019
Operating lease ROU assets	\$ 22,484
Operating lease liabilities, current	\$ 5,925
Operating lease liabilities, long-term	\$ 18,579
Weighted average remaining lease term (in years)	4.8
Weighted average discount rate	1.7%

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data and unless otherwise indicated)

NOTE 9: LEASES (Cont.)

Minimum lease payments for the Company's ROU assets over the remaining lease periods as of December 31, 2019, are as follows:

	As of December 31, 2019
2020	\$ 5,973
2021	5,644
2022	5,501
2023	4,695
2024	3,119
Thereafter	587
Total undiscounted lease payments	\$ 25,519
Less: imputed interest	(1,015)
Present value of lease liabilities	<u>\$ 24,504</u>

As of December 31, 2019, the Company has an additional operating lease commitment of \$1.8 million for an extension to the offices in Israel, which has not yet commenced. The operating lease commitment will commence on April 1, 2020, with a lease term of approximately four years.

NOTE 10: FAIR VALUE MEASUREMENTS

The following tables present the fair value of money market funds and marketable securities for the years ended December 31, 2018 and 2019:

	December 31,					
	2018			2019		
	Level 1	Level 2	Total	Level 1	Level 2	Total
Cash equivalents:						
Money market funds	\$ 335	\$ -	\$ 335	\$ 213,494	\$ -	\$ 213,494
U.S. agencies debentures	-	-	-	-	25,058	25,058
Marketable securities:						
Corporate debentures	-	77,538	77,538	-	105,582	105,582
U.S. agencies debentures	-	6,671	6,671	-	81,238	81,238
Total assets measured at fair value	<u>\$ 335</u>	<u>\$ 84,209</u>	<u>\$ 84,544</u>	<u>\$ 213,494</u>	<u>\$ 211,878</u>	<u>\$ 425,372</u>

As of December 31, 2019, the estimated fair value of the Company's convertible senior notes, as further described in Note 11, was \$594.3 million. The fair value was determined based on the closing trading price of the convertible senior notes as of the last day of trading for the period. The fair value of the convertible senior notes is primarily affected by the trading price of the Company's common stock and market interest rates. The fair value of the convertible senior notes is considered a Level 2 measurement as they are not actively traded.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data and unless otherwise indicated)

NOTE 11: CONVERTIBLE SENIOR NOTES, NET

a. Convertible senior notes, net

In November 2019, the Company issued \$500 million aggregate principal amount, 0% coupon rate, of convertible senior notes due 2024 and an additional \$75 million aggregate principal amount of such notes pursuant to the exercise in full of the over-allotment option of the initial purchasers (collectively, "Convertible Notes").

The Convertible Notes are convertible based upon an initial conversion rate of 6.3478 of the Company's ordinary shares, par value NIS 0.01 per share per \$1 principal amount of Convertible Notes (equivalent to a conversion price of approximately \$157.53 per ordinary share). The conversion rate will be subject to adjustment upon the occurrence of certain specified events. The Convertible Notes are senior unsecured obligations of the Company.

The Convertible Notes will mature on November 15, 2024 (the "Maturity Date"), unless earlier repurchased, redeemed or converted. Prior to May 15, 2024, a holder may convert all or a portion of its Convertible Notes only under the following circumstances:

- (1) During any calendar quarter commencing after the calendar quarter ending on March 31, 2020 (and only during such calendar quarter), if the last reported sale price of the Company's ordinary shares for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on, and including, the last trading day of the immediately preceding calendar quarter is greater than or equal to 130% of the conversion price on each applicable trading day;
- (2) During the five business day period after any 10 consecutive trading day period ("measurement period") in which the trading price, determined pursuant to the terms of the Convertible Notes, per \$1 principal amount of Convertible Notes for each trading day of the measurement period was less than 98% of the product of the last reported sale price of the ordinary shares and the conversion rate on each such trading day;
- (3) If the Company calls such Convertible Notes for redemption in certain circumstances, at any time prior to the close of business on the third scheduled trading day immediately preceding the redemption date; or
- (4) Upon the occurrence of specified corporate events.

On or after May 15, 2024 until the close of business on the third scheduled trading day immediately preceding the Maturity Date, a holder may convert its Convertible Notes at any time, regardless of the foregoing circumstances.

Upon conversion, the Company can pay or deliver cash, ordinary shares or a combination of cash and ordinary shares, at the Company's election.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data and unless otherwise indicated)

NOTE 11: CONVERTIBLE SENIOR NOTES, NET (Cont.)

The Company may not redeem the notes prior to November 15, 2022, except in the event of certain tax law changes. The Company may, at any time and from time to time, redeem for cash all or any portion of the notes, at the Company's option, on or after November 15, 2022, if the last reported sale price of the Company's ordinary shares has been at least 130% of the conversion price then in effect for at least 20 trading days (whether or not consecutive) during any 30 consecutive trading day period (including the last trading day of such period) ending on, and including, the trading day immediately preceding the date on which it delivers notice of redemption at a redemption price equal to 100% of the principal amount of the notes to be redeemed.

Upon the occurrence of a Fundamental Change as defined in the Indenture, holders may require the Company to repurchase for cash all or any portion of their Convertible Notes at a fundamental change repurchase price equal to 100% of the principal amount of the Convertible Notes to be repurchased (plus accrued and unpaid special interest payable under certain circumstances set forth in the terms of the Convertible Notes (if any) to, but excluding, the fundamental change repurchase date). In addition, in connection with a make-whole fundamental change (as defined in the Indenture), or following our delivery of a notice of redemption, the company will, in certain circumstances, increase the conversion rate for a holder who elects to convert its notes in connection with such a corporate event or redemption, as the case may be.

During the year ended December 31, 2019, the conditions allowing holders of the Notes to convert were not met. The Notes are therefore not convertible as of December 31, 2019 and are classified as long-term liability.

The net carrying amount of the liability and equity components of the Convertible Notes as of December 31, 2019 is as follows:

	<u>December 31,</u>
	<u>2019</u>
Liability component:	
Principal amount	\$ 575,000
Unamortized discount	(77,287)
Unamortized issuance costs	<u>(12,594)</u>
Net carrying amount	<u>\$ 485,119</u>
Equity component, net of issuance costs of \$2,046 and deferred taxes of \$11,022	<u>\$ 65,932</u>

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data and unless otherwise indicated)

NOTE 11: CONVERTIBLE SENIOR NOTES, NET (Cont.)

Interest expense related to the Convertible Notes was as follows:

	<u>December 31,</u> <u>2019</u>
Amortization of debt discount	\$ 1,713
Amortization of debt issuance costs	253
Total interest expense recognized	<u>\$ 1,966</u>

b. Capped Call Transactions

In connection with the pricing of the Convertible Notes and the exercise by the Initial Purchasers of the over-allotment option, the Company entered into privately negotiated capped call transactions (“Capped Call Transactions”) with certain financial institutions (“Option Counterparties”). The Capped Call Transactions cover, collectively, the number of the Company’s ordinary shares underlying the Convertible Notes, subject to anti-dilution adjustments substantially similar to those applicable to the Convertible Notes.

The Capped Call Transactions have an initial strike price of approximately \$157.53 per share, subject to certain adjustments, which corresponds to the approximate initial conversion price of the Convertible Notes.

The cap price of the Capped Call Transactions is initially \$229.14 per share and is subject to certain adjustments under the terms of the Capped Call Transactions. The Capped Call Transactions are separate transactions, in each case, entered into by the Company with the Option Counterparties, and are not part of the terms of the Convertible Notes and will not change the holders’ rights under the Convertible Notes.

As the Capped Call Transactions are considered indexed to the Company's stock and are considered equity classified, they are recorded in shareholders’ equity on the consolidated balance sheet and are not accounted for as derivatives. The cost of the Capped Call Transactions was approximately \$53.6 million and was recorded as a reduction to additional paid-in capital.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data and unless otherwise indicated)

NOTE 12: SHAREHOLDERS' EQUITY

- a. Composition of share capital of the Company:

	December 31,			
	2018		2019	
	Authorized	Issued and outstanding	Authorized	Issued and outstanding
	Number of shares			
Ordinary shares of NIS 0.01 par value each	250,000,000	36,838,523	250,000,000	38,043,516

- b. Ordinary shares:

The ordinary shares of the Company confer upon the holders the right to receive notices of and to participate and vote in general meetings of the Company, rights to receive dividends and rights to participate in distribution of assets upon liquidation.

- c. Share-based compensation:

Under the Company's 2014 share incentive plan (the "2014 Plan"), options, RSU, PSU and other share-based awards may be granted to employees, officers, non-employee consultants and directors of the Company.

Under the 2014 Plan, as of December 31, 2019, an aggregate number of 817,511 ordinary shares were reserved for future grant. Any share underlying an award that is cancelled, terminated or forfeited for any reason without having been exercised will automatically be available for grant under the 2014 Plan.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data and unless otherwise indicated)

NOTE 12: SHAREHOLDERS' EQUITY (Cont.)

The total share-based compensation expense related to all of the Company's equity-based awards, recognized for the years ended December 31, 2017, 2018 and 2019 is comprised as follows:

	Year ended December 31,		
	2017	2018	2019
Cost of revenues	\$ 2,289	\$ 3,350	\$ 5,690
Research and development	6,110	7,922	10,960
Sales and marketing	8,642	12,708	20,976
General and administrative	8,196	11,984	17,891
Total share-based compensation expense	<u>\$ 25,237</u>	<u>\$ 35,964</u>	<u>\$ 55,517</u>

The total unrecognized compensation cost amounted to \$141,029 as of December 31, 2019 and is expected to be recognized over a weighted average period of 2.51 years.

d. Options granted to employees:

A summary of the activity in options granted to employees for the year ended December 31, 2019 is as follows:

	Amount of options	Weighted average exercise price	Weighted average remaining contractual term (in years)	Aggregate intrinsic value
Balance as of December 31, 2018	1,476,610	\$ 46.40	7.30	\$ 40,968
Granted	87,600	\$ 115.26		
Exercised	(618,917)	\$ 39.66		
Forfeited	(28,780)	\$ 54.03		
Balance as of December 31, 2019	<u>916,513</u>	\$ 57.29	6.96	\$ 54,762
Exercisable as of December 31, 2019	<u>590,891</u>	\$ 51.50	6.32	\$ 38,523

Starting October 1, 2018, the expected volatility of the Company's common stock is based on the Company's historical volatility. Prior to October 1, 2018, the computation of expected volatility was based on actual historical share price volatility of comparable companies and the Company's historical equity volatility. The expected option term represents the period of time that options granted are expected to be outstanding. For stock-option awards which were at the money when granted (plain vanilla stock-options), it is determined based on the simplified method in accordance with SAB No. 110, as adequate historical experience is not available to provide a reasonable estimate. The Company has historically not paid dividends and has no foreseeable plans to pay dividends and, therefore, uses an expected dividend yield of zero in the option pricing model. The risk-free interest rate is based on the yield of U.S. treasury bonds with equivalent terms.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data and unless otherwise indicated)

NOTE 12: SHAREHOLDERS' EQUITY (Cont.)

The following table sets forth the parameters used in computation of the options compensation to employees for the years ended December 31, 2017, 2018 and 2019:

	Year ended December 31,		
	2017	2018	2019
Expected volatility	45%-48%	47%-48%	48%
Expected dividends	0%	0%	0%
Expected term (in years)	5.25-6.25	5.00-6.20	5.90-6.10
Risk free rate	1.77%- 2.05%	2.38%- 3.12%	1.49%- 2.49%

A summary of options data for the years ended December 31, 2017, 2018 and 2019, is as follows:

	Year ended December 31,		
	2017	2018	2019
Weighted-average grant date fair value of options granted	\$ 21.81	\$ 28.26	\$ 55.43
Total intrinsic value of the options exercised	\$ 33,614	\$ 53,398	\$ 45,326

The aggregate intrinsic value is calculated as the difference between the per-share exercise price and the fair value of an ordinary share for each share subject to an option multiplied by the number of shares subject to options at the date of exercise.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data and unless otherwise indicated)

NOTE 12: SHAREHOLDERS' EQUITY (Cont.)

The following tables summarize information about the Company's outstanding and exercisable options granted to employees as of December 31, 2019:

Exercise price	Options outstanding as of December 31, 2019	Weighted average remaining contractual term (years)	Options exercisable as of December 31, 2019	Weighted average remaining contractual term (years)
\$ 1.06 – 14.00	40,055	3.77	40,055	3.77
\$ 37.44 – 47.29	164,875	6.96	85,404	6.61
\$ 47.40 – 51.86	309,557	7.09	211,097	6.85
\$ 52.48 – 64.65	285,726	6.34	241,978	6.03
\$ 64.93 – 131.65	116,300	9.22	12,357	9.15
	916,513	6.96	590,891	6.32

e. A summary of RSUs and PSUs activity for the year ended December 31, 2019 is as follows:

	Amount of RSUs and PSUs	Weighted average grant date fair value
Unvested as of December 31, 2018	1,721,620	\$ 56.15
Granted	918,850	\$ 119.93
Vested	(586,076)	\$ 57.00
Forfeited	(94,750)	\$ 72.85
Unvested as of December 31, 2019	1,959,644	\$ 85.00

The total fair value of RSUs and PSUs vested (based on fair value of the Company's ordinary shares at vesting date) during the years ended December 31, 2017, 2018 and 2019 was \$12,547, \$23,762 and \$67,737, respectively.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data and unless otherwise indicated)

NOTE 13: INCOME TAXES

CyberArk Software Ltd.'s subsidiaries are separately taxed under the domestic tax laws of the jurisdiction of incorporation of each entity.

a. Corporate tax in Israel:

Ordinary taxable income is subject to a corporate tax rate as follows: 2017 – 24% and 2018 onwards – 23%.

In December 2016, the Israeli Parliament approved the Economic Efficiency Law (Legislative Amendments for Applying the Economic Policy for the 2017 and 2018 Budget Years), which reduces the corporate income tax rate to 24% effective from January 1, 2017 and to 23% effective from January 1, 2018.

b. Income before taxes on income is comprised as follows:

	Year ended December 31,		
	2017	2018	2019
Domestic income	\$ 13,937	\$ 52,158	\$ 52,254
Foreign income (loss)	10,492	(315)	17,830
	<u>\$ 24,429</u>	<u>\$ 51,843</u>	<u>\$ 70,084</u>

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data and unless otherwise indicated)

NOTE 13: INCOME TAXES (Cont.)

c. Deferred income taxes:

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

	<u>December 31,</u>	
	<u>2018</u>	<u>2019</u>
Deferred tax assets:		
Carry-forwards losses and credits	\$ 16,069	\$ 19,205
Capital losses carry-forwards	47	90
Research and development expenses	1,351	1,932
Deferred revenues	7,466	8,043
Share-based compensation	5,922	8,841
Operating lease liability	-	1,400
Accruals and other	<u>1,524</u>	<u>1,783</u>
Deferred tax assets before valuation allowance	32,379	41,294
Less: Valuation allowance	<u>1,647</u>	<u>1,299</u>
Net deferred tax assets	<u>\$ 30,732</u>	<u>\$ 39,995</u>
Deferred tax liabilities:		
Intangible assets	\$ 1,997	\$ 1,950
Convertible senior notes	-	10,786
Deferred commission	4,770	6,463
Operating lease ROU asset	-	1,308
Property and equipment and other	<u>662</u>	<u>471</u>
Deferred tax liabilities	<u>\$ 7,429</u>	<u>\$ 20,978</u>

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data and unless otherwise indicated)

NOTE 13: INCOME TAXES (Cont.)

As of December 31, 2019, approximately \$36,454 of undistributed earnings held by the Company's foreign subsidiaries are designated as indefinitely reinvested. If these earnings were repatriated to Israel, it would be subject to income taxes and to an adjustment for foreign tax credits and foreign withholding taxes. Determination of the amount of unrecognized deferred tax liability related to these earnings is not practicable.

d. Income taxes are comprised as follows:

	Year ended December 31,		
	2017	2018	2019
Current	\$ 2,558	\$ 11,827	\$ 13,994
Deferred	5,856	(7,056)	(6,974)
	<u>\$ 8,414</u>	<u>\$ 4,771</u>	<u>\$ 7,020</u>
	Year ended December 31,		
	2017	2018	2019
Domestic	\$ 3,033	\$ 8,359	\$ 8,093
Foreign	5,381	(3,588)	(1,073)
	<u>\$ 8,414</u>	<u>\$ 4,771</u>	<u>\$ 7,020</u>

e. A reconciliation of the Company's theoretical income tax expense to actual income tax expense is as follows:

	Year ended December 31,		
	2017	2018	2019
Income before income taxes	<u>\$ 24,429</u>	<u>\$ 51,843</u>	<u>\$ 70,084</u>
Statutory tax rate	<u>24.0%</u>	<u>23.0%</u>	<u>23.0%</u>
Theoretical income tax expense	<u>5,863</u>	<u>11,924</u>	<u>16,119</u>
Excess tax benefits related to share-based compensation	(5,050)	(6,726)	(6,391)
Non-deductible expenses	2,081	3,011	3,002
Intra-entity intellectual property transfer	-	1,768	-
Unrecognized tax benefits	645	697	1,343
Foreign and preferred enterprise tax rates differential	(1,792)	(5,710)	(6,717)
Impact of Tax Cuts and Jobs Act of 2017	6,492	-	-
Other	<u>175</u>	<u>(193)</u>	<u>(336)</u>
Income tax expense	<u>\$ 8,414</u>	<u>\$ 4,771</u>	<u>\$ 7,020</u>

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data and unless otherwise indicated)

NOTE 13: INCOME TAXES (Cont.)

f. Net operating loss carry-forwards:

As of December 31, 2019, the Company had net operating losses substantially derived from excess tax benefits from share-based payments and capital tax losses, totaling approximately \$75,605 and \$219, respectively, out of which \$58,004 and none of losses, respectively, were attributed to the U.S. subsidiary. The rest were attributed to Israel, can be carried forward indefinitely and resulted from acquisitions made by the Company. Out of the operating losses attributed to the U.S. subsidiary, \$40,833 are subject to up to 20-year carryforward period. The remaining \$17,171 can be carried forward indefinitely but are subject to the 80% taxable income limitation upon utilization. Utilization of some of U.S. net operating losses are subject to annual limitation due to the "change in ownership" provisions of the U.S. Internal Revenue Code and similar state provisions. The annual limitation may result in the expiration of net operating losses before utilization.

g. Tax benefits under the Law for the Encouragement of Capital Investments, 1959:

As of December 31, 2019, approximately \$14,716 was derived from tax exempt profits earned by the Company's "Approved Enterprises" and "Beneficiary Enterprise". The Company and its Board of Directors have determined that such tax-exempt income will not be distributed as dividends and intends to reinvest the amount of its tax-exempt income earned by the Company. Accordingly, no provision for deferred income taxes has been provided on income attributable to the Company's "Approved Enterprises" and "Beneficiary Enterprises" as such income is essentially permanently reinvested.

If the Company's retained tax-exempt income is distributed, the income would be taxed at the applicable corporate tax rate as if it had not elected the alternative tax benefits under the Law for the Encouragement of Capital Investments and an income tax liability of up to \$3,613 would be incurred as of December 31, 2019.

In December 2016, the Israeli Knesset passed Amendment 73 to the Investment Law which included a number of changes to the Investment Law regimes through regulations approved on May 1, 2017 and that have come into effect from January 1, 2017.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data and unless otherwise indicated)

NOTE 13: INCOME TAXES (Cont.)

Applicable benefits under the new regime include:

- Introduction of a benefit regime for "Preferred Technology Enterprises," granting a 12% tax rate in central Israel – on qualified income deriving from Benefited Intellectual Property, subject to a number of conditions being fulfilled, including a minimal amount or ratio of annual R&D expenditure and R&D employees, as well as having at least 25% of annual income derived from exports to large markets. Preferred Technological Enterprise ("PTE") is defined as an enterprise which meets the aforementioned conditions and for which total consolidated revenues of its parent company and all subsidiaries are less than NIS 10 billion.
- A 12% capital gains tax rate on the sale of a preferred intangible asset to a foreign affiliated enterprise, provided that the asset was initially purchased from a foreign resident at an amount of NIS 200 million or more.
- A withholding tax rate of 20% for dividends paid from PTE income (with an exemption from such withholding tax applying to dividends paid to an Israeli company). Such rate may be reduced to 4% on dividends paid to a foreign resident company, subject to certain conditions regarding percentage of foreign ownership of the distributing entity.

The Company adopted the PTE since 2017 and believes it is eligible for its benefits.

h. Tax benefits under the Law for the Encouragement of Industry (Taxation), 1969:

Management believes that the Company currently qualifies as an "industrial company" under the above law and as such, is entitled to certain tax benefits including accelerated depreciation, deduction of public offering expenses in three equal annual installments and amortization of other intangible property rights for tax purposes.

i. Tax Benefits for Research and Development

Israeli tax law (section 20A to the Israeli Tax Ordinance) allows, under certain conditions, a tax deduction for research and development expenses, including capital expenses, for the year in which they are paid. Such expenses must relate to scientific research in industry, agriculture, transportation, or energy, and must be approved by the relevant Israeli government ministry, determined by the field of research. Furthermore, the research and development must be for the promotion of the company's business and carried out by or on behalf of the company seeking such tax deduction. However, the amount of such deductible expenses is reduced by the sum of any funds received through government grants for the finance of such scientific research and development projects. As for expenses incurred in scientific research that is not approved by the relevant Israeli government ministry, they will be deductible over a three-year period starting from the tax year in which they are paid. The Company believes that it is eligible for the above mentioned benefit for the majority of its research and development expenses.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data and unless otherwise indicated)

NOTE 13: INCOME TAXES (Cont.)

j. Tax Reform- United States of America

On December 22, 2017, the Tax Cuts and Jobs Act of 2017 ("Tax Act") was signed into law making significant changes to the Internal Revenue Code of 1986, as amended ("Code"). Such changes include a reduction in the corporate tax rate and limitations on certain corporate deductions and credits, among other changes. The changes include, but are not limited to:

Rate Reduction

The Tax Act reduces the U.S. federal corporate income tax rate from 35% to 21% for tax years beginning after December 31, 2017. In addition, the Tax Act makes certain changes to the depreciation rules and implements new limits on the deductibility of certain expenses and deduction.

The Company recorded a reduction of its deferred tax assets as of December 31, 2017 of approximately \$6.5 million.

Deemed Repatriation Transition Tax

The Deemed Repatriation Transition Tax is a tax on previously untaxed accumulated and current earnings and profits ("E&P") of certain foreign subsidiaries. To determine the amount of the Transition Tax, the Company must determine, in addition to other factors, the amount of post-1986 E&P of its foreign subsidiaries, as well as the amount of non-U.S. income taxes paid on such earnings. The impact of the Transition Tax on the US subsidiary was immaterial.

Tax Deductibility of Executive Compensation

Prior to the Tax Act being signed into law on December 22, 2017, Section 162(m) of the Code generally disallowed tax deductions for publicly-held companies for compensation paid to certain of its executive officers who were "covered employees" under this rule in excess of \$1 million per officer in any year. Performance-based compensation was exempt from this deduction limitation if specific requirements set forth in the Code and applicable Treasury Regulations were met.

The Tax Act repealed the exemption from Section 162(m)'s deduction limit for performance-based compensation, effective for the taxable years after December 31, 2017. Accordingly, compensation paid to the Company's covered executive officers in excess of \$1 million during such taxable years will not be deductible unless such compensation qualifies for the transition grandfathering relief applicable to certain binding arrangements in place as of November 2, 2017, and which was not modified in any material respect on or after such date.

Global Intangible Low-Taxed Income ("GILTI")

The TCJA introduced the rules for tax on the global intangible low-taxed income ("GILTI") on foreign income in excess of a deemed return on tangible assets of foreign corporations.

The U.S. subsidiary is entitled to offset the GILTI income inclusion against losses.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data and unless otherwise indicated)

NOTE 13: INCOME TAXES (Cont.)

k. Tax assessments:

As of December 31, 2019, CyberArk Software Ltd.'s tax years until December 31, 2014 have become subject to statute of limitations effective in Israel. As of the date of the approval of the financial statements, Vaultive is under examination by the Israeli Tax Authorities for the tax years 2015 through 2018.

As of that date, the U.K. subsidiary's tax years until December 31, 2015 are also subject to statutes of limitation effective in the U.K. The year ended on December 31, 2017 is also subject to statutes of limitation effective in the U.K, while the year ended on December 31, 2016 is open due to submission of an amended return.

The U.S. subsidiary's tax years ended December 31, 2016 through 2019, statute of limitation have not yet expired. For companies acquired by the U.S. subsidiary, there are open loss years from 2008 through 2017.

l. Unrecognized tax benefits:

A reconciliation of the opening and closing amounts of total unrecognized tax benefits is as follows:

	Year ended December 31,	
	2018	2019
Opening balance	\$ 1,119	\$ 1,993
Increase related to prior year tax positions	404	120
Decrease related to expiration of statutes of limitations	(353)	(242)
Increase related to current year tax positions	823	1,857
Closing balance	<u>\$ 1,993</u>	<u>\$ 3,728</u>

During the years ended December 31, 2017, 2018 and 2019, the Company recorded \$56, \$(38) and \$47, respectively, for interest expense (income) related to uncertain tax positions. As of December 31, 2018 and 2019, accrued interest was \$65 and \$112, respectively.

Although the Company believes that it has adequately provided for any reasonably foreseeable outcomes related to tax audits and settlement, there is no assurance that the final tax outcome of its tax audits will not be different from that which is reflected in the Company's income tax provisions. Such differences could have a material effect on the Company's income tax provision, cash flow from operating activities and net income in the period in which such determination is made.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data and unless otherwise indicated)

NOTE 14: FINANCIAL INCOME, NET

	Year ended December 31,		
	2017	2018	2019
Bank charges	\$ (158)	\$ (177)	\$ (274)
Exchange rate income (losses), net	1,735	(1,050)	(803)
Interest income	2,526	5,778	10,843
Amortization of debt discount and issuance costs	-	-	(1,966)
Financial income, net	<u>\$ 4,103</u>	<u>\$ 4,551</u>	<u>\$ 7,800</u>

NOTE 15: BASIC AND DILUTED NET INCOME PER SHARE

	Year ended December 31,		
	2017	2018	2019
Numerator:			
Net income available to shareholders of ordinary shares	<u>\$ 16,015</u>	<u>\$ 47,072</u>	<u>\$ 63,064</u>
Denominator:			
Shares used in computing basic net income per ordinary shares	<u>34,824,312</u>	<u>36,174,316</u>	<u>37,586,387</u>

	Year ended December 31,		
	2017	2018	2019
Numerator:			
Net income available to shareholders of ordinary shares	<u>\$ 16,015</u>	<u>\$ 47,072</u>	<u>\$ 63,064</u>
Denominator:			
Shares used in computing diluted net income per ordinary shares	<u>36,175,824</u>	<u>37,065,727</u>	<u>38,890,108</u>

The total weighted average number of shares related to outstanding options, RSUs and PSUs that have been excluded from the calculation of diluted net income per ordinary share was 1,880,018, 1,175,311 and 495,975 for the years ended December 31, 2017, 2018 and 2019, respectively.

Additionally, 3.6 million shares underlying the conversion option of the Convertible Notes are not considered in the calculation of diluted net income per share as the effect would be anti-dilutive. The Company intends to settle the principal amount of Convertible Notes in cash and therefore will use the treasury stock method for calculating any potential dilutive effect on diluted net income per share, if applicable. The conversion will have a dilutive impact on diluted net income per share when the average market price of a common stock for a given period exceeds the conversion price of \$157.53 per share.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data and unless otherwise indicated)

NOTE 16: SEGMENTS, CUSTOMERS AND GEOGRAPHIC INFORMATION

- a. The Company applies ASC No. 280, "Segment Reporting." The Company operates in one reportable segment.
- b. The total revenues are attributed to geographic areas based on the location of the Company's channel partners which are considered as end customers, as well as direct customers of the Company.

The following tables present total revenues for the years ended December 31, 2017, 2018 and 2019 and long-lived assets as of December 31, 2018 and 2019:

Revenues:

	Year ended December 31,		
	2017	2018	2019
United States	\$ 145,453	\$ 187,704	\$ 233,945
Israel	7,282	6,909	7,827
United Kingdom	24,837	26,652	36,146
Europe, the Middle East and Africa *)	49,659	78,525	85,757
Other	34,470	43,409	70,220
	<u>\$ 261,701</u>	<u>\$ 343,199</u>	<u>\$ 433,895</u>

For the years ended December 31, 2017, 2018 and 2019, no single customer contributed more than 10% to the Company's total revenues.

Long-lived assets:

	December 31,	
	2018	2019
United States	\$ 4,502	\$ 3,810
Israel	9,161	11,441
United Kingdom	944	801
Europe, the Middle East and Africa *)	126	84
Other	387	336
	<u>\$ 15,120</u>	<u>\$ 16,472</u>

*) Excluding United Kingdom and Israel

Description of Securities

CyberArk Software Ltd., an Israeli corporation (the “Company,” “we” or “our”), currently has one class of securities registered under Section 12 of the Securities Exchange Act of 1934, as amended, the Company’s ordinary shares, par value NIS 0.01 per share. The following is a summary of some of the terms of our ordinary shares based on our articles of association, as may be amended and restated from time to time, and Israeli law.

The following summary is not complete and is subject to, and is qualified in its entirety by reference to, the provisions of our articles of association and Israeli law.

Name of exchange on which registered: Our ordinary shares have been quoted on Nasdaq under the symbol “CYBR” since September 24, 2014. Prior to that date, there was no public trading market for our ordinary shares. Our IPO was priced at \$16.00 per share on September 24, 2014.

Registration Number and Purposes of the Company. Our registration number with the Israeli Registrar of Companies is 51-229164-2. Our purpose, as set forth in article 3 of our articles of association, is to engage in any lawful activity.

Share Capital. Our authorized share capital consists of 250,000,000 ordinary shares, par value NIS 0.01 per share. All of our issued and outstanding ordinary shares are validly issued, fully paid and non-assessable. Our ordinary shares are not redeemable and do not have any preemptive rights.

Restrictions on Securities. The ownership or voting of ordinary shares by non-residents of Israel is not restricted in any way by our articles of association or the laws of the State of Israel, except for citizens of countries which are, or have been in a state of war with Israel or under anti-terror legislation.

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.

Election of Directors. Our ordinary shares do not have cumulative voting rights for the election of directors. As a result, the holders of a majority of the voting power represented at a shareholders meeting have the power to elect all of our directors.

Under our articles of association, our board of directors must consist of not less than four but no more than nine directors, as may be fixed from time to time by our board of directors. Pursuant to our articles of association, the vote required to appoint a director is a simple majority vote of holders of our voting shares, participating and voting at the relevant meeting. In addition, our directors are divided into three classes that are each elected at the third annual general meeting of our shareholders, in a staggered fashion (such that one class is elected each annual general meeting), and serve on our board of directors unless they are removed by a vote of 65% of the total voting power of our shareholders at a general meeting of our shareholders or upon the occurrence of certain events, in accordance with Israeli Companies Law 5759,1999 (the “Companies Law”) and our articles of association. In addition, our articles of association allow our board of directors to fill vacancies on the board of directors or to appoint new directors up to the maximum number of directors permitted under our articles of association. Such directors serve for a term of office equal to the remaining period of the term of office of the directors(s) whose office(s) have been vacated or in the case of new directors, for a term of office according to the class to which such director was assigned upon appointment.

Dividend and Liquidation Rights. We may declare a dividend to be paid to the holders of our ordinary shares in proportion to their respective shareholdings. Under the Companies Law, dividend distributions are determined by the board of directors and do not require the approval of the shareholders of a company unless the company’s articles of association provide otherwise. Our articles of association do not require shareholder approval of a dividend distribution and provide that dividend distributions may be determined by our board of directors.

Pursuant to the Companies Law, the distribution amount is limited to the greater of retained earnings or earnings generated over the previous two years, according to our then last reviewed or audited financial statements, provided that the date of the financial statements is not more than six months prior to the date of the distribution. In the event that we do not have retained earnings or earnings generated over the two most recent years, we may seek the approval of the Israeli court in order to distribute a dividend. In each case, we are only permitted to distribute a dividend if our board of directors and the court, if applicable, determines 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.

In the event of our liquidation, after satisfaction of liabilities to creditors, our assets will be distributed to the holders of our ordinary shares in proportion to their shareholdings. This right, as well as the right to receive dividends, may be affected by the grant of preferential dividend or distribution rights to the holders of a class of shares with preferential rights that may be authorized in the future.

Exchange Controls. There are currently no Israeli currency control restrictions on remittances of dividends on our ordinary shares, proceeds from the sale of the shares or interest or other payments to non-residents of Israel, except for shareholders who are subjects of countries that are, or have been, in a state of war with Israel.

Shareholder Meetings. Under Israeli law, we are required to hold an annual general meeting of our shareholders once every calendar year that must be held no later than 15 months after the date of the previous annual general meeting. All meetings other than the annual general meeting of shareholders are referred to in our articles of association as special general meetings. Our board of directors may call special general meetings whenever it sees fit, at such time and place, within or outside of Israel, as it may determine. In addition, the Companies Law provides that our board of directors is required to convene a special general meeting upon the written request of (i) any two of our directors or one-quarter of the members of our board of directors or (ii) one or more shareholders holding, in the aggregate, either (a) 5% or more of our outstanding issued shares and 1% of our outstanding voting power or (b) 5% or more of our outstanding voting power.

Subject to the provisions of the Companies Law and the regulations promulgated thereunder, shareholders entitled to participate and vote at general meetings are the shareholders of record on a date to be decided by the board of directors, which may be between four and 40 days prior to the date of the meeting. Furthermore, the Companies Law requires that resolutions regarding the following matters must be passed at a general meeting of our shareholders:

- amendments to our articles of association;
- appointment or termination of our auditors;
- approval of certain related party transactions;
- increases or reductions of our authorized share capital;
- certain merger transactions; and
- the exercise of our board of director's powers by a general meeting, if our board of directors is unable to exercise its powers and the exercise of any of its powers is required for our proper management.

The Companies Law requires that notice of any annual general meeting or special general meeting be provided to shareholders at least 21 days prior to the meeting and if the agenda of the meeting includes the appointment or removal of directors, the approval of transactions with office holders or interested or related parties, or an approval of a merger, notice must be provided at least 35 days prior to the meeting.

Under the Companies Law, shareholders of a public company are not permitted to take action via written consent in lieu of a meeting.

Voting Rights

Voting Rights and Conversion. All ordinary shares have identical voting and other rights in all respects.

Quorum requirements. Pursuant to our articles of association, holders of our ordinary shares have one vote for each ordinary share held on all matters submitted to a vote before the shareholders at a general meeting. As a foreign private issuer, the quorum required for our general meetings of shareholders consists of at least two shareholders present in person or by proxy who hold or represent between them at least 25% of the total outstanding voting rights. A meeting adjourned for lack of a quorum is generally adjourned to the same day in the following week at the same time and place, to such time and date if so specified in the notice of the meeting, or to such time and date as the chairman of the general meeting shall determine (which may be earlier or later than the forgoing dates). At the reconvened meeting, any one shareholder present in person or by proxy shall constitute a lawful quorum, generally, regardless of the number of shares held by such shareholder unless the meeting was convened pursuant to a shareholders request as permitted under the Companies Law, in such case, the quorum shall be one or more shareholder, present in person or by proxy, and holding the number of shares required under the Companies Law for making such requisition.

Vote Requirements. Our articles of association provide that all resolutions of our shareholders require a simple majority vote, unless otherwise required by the Companies Law or by our articles of association. Under our articles of association, the alteration of the rights, privileges, preferences or obligations of any class of our shares requires the ordinary majority vote of all classes of shares voting together as a single class at a shareholder meeting. Our articles of association also require that the removal of any director from office (other than external directors, if applicable) or the amendment of the provisions of our articles of association relating to our staggered board requires the vote of 65% of the total voting power of our shareholders. Another exception to the simple majority vote requirement is a resolution for the voluntary winding up, or an approval of a scheme of arrangement or reorganization, of the company pursuant to Section 350 of the Companies Law, which requires the approval of holders of 75% of the voting rights represented at the meeting, in person, by proxy or by voting deed and voting on the resolution.

Access to Corporate Records. Under the Companies Law, shareholders are provided access to: minutes of our general meetings; our shareholders register and principal shareholders register, articles of association and annual financial statements, certain other documents as provided in the Companies Law, and any document that we are required by law to file publicly with the Israeli Companies Registrar 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 interest or protect a trade secret or patent.

Acquisitions under Israeli Law

Full Tender Offer. A person wishing to acquire shares of an Israeli public company and who would as a result hold over 90% of the target company's issued and outstanding share capital or that of a certain class of shares is required by the Companies Law to make a tender offer to all of the company's shareholders or the shareholders who hold shares of the relevant class for the purchase of all of the issued and outstanding shares of the company or of the same class, as applicable.

If the shareholders who do not accept the offer hold less than 5% of the issued and outstanding share capital of the company or of the applicable class of shares, and more than half of the shareholders who do not have a personal interest in the offer accept the offer, all of the shares that the acquirer offered to purchase will be transferred to the acquirer by operation of law. However, a tender offer will also be accepted if the shareholders who do not accept the offer hold less than 2% of the issued and outstanding share capital of the company or of the applicable class of shares.

If the tender offer was not accepted, the acquirer may not acquire shares of the company that will increase its holdings to more than 90% of the company's issued and outstanding share capital or of the applicable class from shareholders who accepted the tender offer.

Special Tender Offer. The Companies Law provides that an acquisition of shares of an Israeli public company must be made by means of a special tender offer if as a result of the acquisition the purchaser would become a holder of 25% or more of the voting rights in the company. This requirement does not apply if there is already another holder of at least 25% of the voting rights in the company. Similarly, the Companies Law provides that an acquisition of shares in a public company must be made by means of a special tender offer if as a result of the acquisition the purchaser would become a holder of more than 45% of the voting rights in the company, if there is no other shareholder of the company who holds more than 45% of the voting rights in the company, subject to certain exceptions. These requirements do not apply if the acquisition occurs in the context of a private placement approved by the general meeting as a private offering whose purpose is to give the acquirer at least 25% or 45% or more, as the case may be.

A special tender offer may be consummated only if (i) at least 5% of the voting power attached to the company's outstanding shares will be acquired by the offeror and (ii) the special tender offer is accepted by a majority of the votes of those offerees who gave notice of their position in respect of the offer; in counting the votes of offerees, the votes of a holder of control in the offeror, a person who has personal interest in acceptance of the special tender offer, holders of 25% or more of the voting rights in the company or anyone on their behalf, including their relatives and entities controlled by them, will not be taken into account.

Merger. The Companies Law permits merger transactions if approved by each party's board of directors and, unless certain requirements described under the Companies Law are met, by a majority vote of each party's shareholders.

For purposes of the shareholder vote, unless a court rules otherwise, the merger will not be deemed approved if a majority of the votes of shares represented at the shareholders meeting that are held by parties other than the other party to the merger, or by any person (or group of persons acting in concert) who holds (or hold, as the case may be) 25% or more of the voting rights or the right to appoint 25% or more of the directors of the other party, vote against the merger. If, however, the merger involves a merger with a company's own controlling shareholder or if the controlling shareholder has a personal interest in the merger, then the merger is instead subject to the same special majority approval that governs all extraordinary transactions with controlling shareholders (as described under "Directors, Senior Management and Employees—Board Practices—Approval of Related Party Transactions under Israeli Law—Disclosure of Personal Interests of Controlling Shareholders and Approval of Certain Transactions" in our most recently filed Annual Report on Form 20-F).

If the transaction would have been approved by the shareholders of a merging company but for the separate approval of each class or the exclusion of the votes of certain shareholders as provided above, a court may still approve the merger upon the request of holders of at least 25% of the voting rights of a company, if the court holds that the merger is fair and reasonable, taking into account the value of the parties to the merger and the consideration offered to the shareholders of the company.

Upon the request of a creditor of either party to 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 the merging entities, and may further give instructions to secure the rights of creditors.

In addition, a merger may not be consummated unless at least 50 days have passed from the date on which a proposal for approval of the merger was filed by each party with the Israeli Registrar of Companies and at least 30 days have passed from the date on which the merger was approved by the shareholders of each party.

Anti-takeover Measures under Israeli Law and our Articles of Association

The Companies Law allows us to create and issue shares having rights different from those attached to our ordinary shares, including shares providing certain preferred rights with respect to voting, distributions or other matters and shares having preemptive rights. No preferred shares are authorized under our articles of association. In the future, if we do authorize, create and issue a specific class of preferred shares, such class of shares, depending on the specific rights that may be attached to it, may have the ability to frustrate or prevent a takeover or otherwise prevent our shareholders from realizing a potential premium over the market value of their ordinary shares. The authorization and designation of a class of preferred shares will require an amendment to our articles of association, which requires the prior approval of the holders of a majority of the voting power attaching to our issued and outstanding shares at a general meeting. The convening of the meeting, the shareholders entitled to participate and the majority vote required to be obtained at such a meeting will be subject to the requirements set forth in the Companies Law as described above in "—Voting Rights."

Furthermore, in accordance with our articles of association and the Companies Law, our directors are divided into three classes such that each class is elected at the third annual general meeting of our shareholders, in a staggered fashion, and serve on our board of directors unless they are removed by a vote of 65% of the total voting power of our shareholders at a general meeting of our shareholders or upon the occurrence of certain events, in accordance with the Companies Law and our articles of association. See further discussion above in "—Election of Directors."

Transfer Agent and Registrar

The transfer agent and registrar for our ordinary shares is American Stock Transfer & Trust Company, LLC. Its address is 6201 15th Avenue, Brooklyn, New York 11219, and its telephone number is (800) 937-5449.

Changes to Share Capital

The Company may, from time to time, by a resolution of our shareholders, increase its authorized share capital by the creation of new shares. Any such increase shall be in such amount and shall be divided into shares 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. Except to the extent otherwise provided in such resolution, any new shares included in the authorized share capital increased as aforesaid shall be subject to all the provisions of our articles of association which are applicable to shares of such class included in the existing share capital without regard to class (and, if such new shares are of the same class as a class of shares included in the existing share capital, to all of the provisions which are applicable to shares of such class included in the existing share capital).

The Company may, from time to time, by a resolution of our shareholders, provide for shares with such preferred or deferred rights 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 resolution.

If at any time our share capital is divided into different classes of shares, the rights attached to any such class, unless otherwise provided by our articles of association, may be modified or cancelled by the Company by a resolution of a general meeting of the shareholders holding all shares as one class, without any required separate resolution of any class of shares.

The Company may, by or pursuant to an authorization of a resolution of our shareholders:

- consolidate all or any part of our issued or unissued authorized share capital into shares of a per share nominal value which is larger, equal to or smaller than the per share nominal value of its existing shares;
 - divide or sub-divide our shares (issued or unissued) or any of them, into shares of smaller or the same nominal value, and the resolution whereby any share is divided may determine that, as among the holders of the shares resulting from such subdivision, one or more of the shares may, in contrast to others, have any such preferred or deferred rights or rights of redemption or other special rights, or be subject to any such restrictions, as we may attach to unissued or new shares;
 - cancel any shares which, at the date of the adoption of such resolution, have not been taken or agreed to be taken by any person, and reduce the amount of its share capital by the amount of the shares so canceled; or
 - reduce our share capital in any manner.
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English summary of the office lease agreement dated February 26, 2015 entered by and between Azorei Mallal Industries Ltd. (the “**Landlord**”) and CyberArk Software Ltd. (the “**Company**”), regarding the Company's office space in Petach-Tikva, Israel, as amended from time to time (“**Lease**”).

- Subject Matter of the Lease: Unprotected tenancy lease of office and parking spaces for the purpose of conducting the Company's business. Premises are located in Petach-Tikva, Israel.
 - Term of the Lease:
 - The term of the Lease is sixty (60) months commencing on July 1, 2017 other than with respect to the 1st, 2nd and 3rd floors which commence on later dates, with the Company's right for early termination after 36 months. The Company is given two options to extend the term of the Lease of twelve (12) months each. Such options apply automatically unless the Company notifies the Landlord 180 days prior to the commencement of each such option period that it does not wish to exercise the option.
 - The term of the Lease for all parking spaces, leased by the Company from time to time, is linked to the lease term of the main premises.
 - Premises Covered by the Lease:
 - Property – The Lease includes 10 floors, levels 1 to 10. The Company has a right of first refusal to lease the remaining 3 adjacent floors in the Landlord's other existing or future buildings that are located in the same office park.
 - Parking – The Company has the right to lease three hundred (300) parking lots.
 - Rental Fees:
 - Property – The Company shall pay a monthly rental fee of 74 NIS (approximately US\$18) per square meter (gross). For the first option period, the monthly rental fees shall be increased by 5% compared to the monthly rental fee of the preceding period. All rental fees are exclusive of VAT and index-linked to the Consumer Price Index published by the Central Bureau of Statistics (the “**Index**”); *provided* that the rental fees shall not be less than the nominal values listed above.
 - Parking – The monthly rental fee for the parking spaces currently leased by the Company is 433 NIS per parking space, in each case plus VAT and Index-linked.
 - Management Fees – The management fees shall be paid on a cost plus 15% basis plus VAT and Index-linked.
 - Payment Terms – The rental fees shall be paid three months in advance. The Company has agreed to sign a direct debit with respect to the rental and management fees. In the event the Company is over-charged, that extra amount shall be remitted to the Company within five business days.
 - Guarantees:
 - An autonomous un-conditional bank guarantee, for an amount representing three (3) months' rental fee plus VAT, to be extended from time to time by the Company to remain in force for the entire term of Lease and for ninety (90) days thereafter.
 - Dispute Resolution:
 - Technical disputes raised regarding the Lease, shall be governed by an agreed-upon professional arbitrator (a civil engineer). Legal disputes raised regarding the Lease, shall be governed by Israeli Court in Tel Aviv.
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- Other Terms of the Lease:
 - The Company has a right to sub-lease the premises (or any portion thereof) and to sub-let to a substitute lessee, subject to the Landlord's prior written consent. The Company may also transfer the Lease to an affiliate, subject to the Landlord's prior written consent.
 - Similar to other lease agreements, each party agrees to assume responsibility for any damage, injury or loss (bodily or otherwise) resulting from any act, omission or negligence on its part, and with respect of the Company—relating to its use of the leased property.
 - The Lease further includes terms concerning the following matters:
 - Renovations – Generally, the Company may not perform any major renovations on the premises without prior written authorization from the Landlord. Subject to such advance approval by the Landlord, the Company may invest certain amounts on renovations for which the Landlord has agreed to reimburse the Company for a certain percentage of the costs.
 - Utilities – The Company is responsible for paying for water, power and telephone utility bills, in addition to any taxes or fees, tolls, levies, property taxes and any other payments owed to governmental or local authorities relating to the property during the term of the Lease, unless such fees are specifically designated for the property owner.
 - No Right of set-off – The parties have agreed that any amounts owed shall not be subject to a set-off right.
 - Termination of the Lease, vacating of premises and fixtures – Upon the termination or expiration of the Lease, the Company shall vacate the premises from any person or object which is not owned by the Landlord and return it to the Landlord in an undamaged, usable state. The Company has sole discretion to remove any fixtures, provided such removal does not damage the premises and provided that the Landlord will have no duty to compensate the Company for fixtures which it decides to leave.
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List of Subsidiaries of CyberArk Software Ltd.

<u>Name of Subsidiary</u>	<u>Place of Incorporation</u>
CyberArk Software, Inc.	Delaware, United States
Cyber-Ark Software (UK) Limited	United Kingdom
CyberArk Software (Singapore) PTE. LTD.	Singapore
CyberArk Software (DACH) GmbH	Germany
CyberArk Software Italy S.r.l.	Italy
CyberArk Software (France) SARL	France
CyberArk Software (Netherlands) B.V.	Netherlands
CyberArk Software (Australia) Pty Ltd.	Australia
CyberArk Software (Japan) K.K.	Japan
CyberArk Software Canada Inc.	Canada
CyberArk USA Engineering LP	Delaware, United States
CyberArk Software (Spain), S.L.	Spain

**CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER PURSUANT TO
EXCHANGE ACT RULE 13A-14(A)/15D-14(A)
AS ADOPTED PURSUANT TO SECTION 302
OF THE SARBANES-OXLEY ACT OF 2002**

I, Joshua Siegel, certify that:

1. I have reviewed this Annual Report on Form 20-F of CyberArk Software Ltd. (the “company”);
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the company as of, and for, the periods presented in this report;
4. The company’s other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 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 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.

/s/ Joshua Siegel

Joshua Siegel
Chief Financial Officer

Date: March 5, 2020

**CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER PURSUANT TO
18 U.S.C. SECTION 1350
AS ADOPTED PURSUANT TO SECTION 906
OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report of CyberArk Software Ltd. (the “Company”) on Form 20-F for the fiscal year ended December 31, 2019 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Ehud Mokady, do certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to Section 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) 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.

/s/ Ehud Mokady

Ehud Mokady

Chairman of the Board and Chief Executive Officer

Date: March 5, 2020

**CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER PURSUANT TO
18 U.S.C. SECTION 1350
AS ADOPTED PURSUANT TO SECTION 906
OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report of CyberArk Software Ltd. (the "Company") on Form 20-F for the fiscal year ended December 31, 2019 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Joshua Siegel, do certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to Section 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) 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.

/s/ Joshua Siegel

Joshua Siegel
Chief Financial Officer

Date: March 5, 2020

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (Nos. 333-200367, 333-202850, 333-216755, 333-223729 and 333-230269) of CyberArk Software Ltd. of our reports dated March 5, 2020 with respect to the consolidated financial statements of CyberArk Software Ltd. and its subsidiaries and the effectiveness of internal control over financial reporting of CyberArk Software Ltd. and its subsidiaries included in this annual report on Form 20-F for the year ended December 31, 2019.

Tel Aviv, Israel
March 5, 2020

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