

CYREN Ltd.  
Form 20-F  
April 27, 2018

**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, 2017

OR

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

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

OR

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

Date of event requiring this shell company report

Commission file number 000-26495

**CYREN LTD.**

(Exact name of Registrant as specified in its charter and translation of Registrant's name into English)

**Israel**

(Jurisdiction of incorporation or organization)

**10 Ha-Menofim St, 5th Floor**

**Herzliya 4672561, Israel**

**011-972-9-863-6888**

(Address of principal executive offices)

**J. Michael Myshrall, Chief Financial Officer, 1430 Spring Hill Road Suite 330 McLean, VA 22102**

**Fax: 703-760-3321**

(Name, Telephone, Email and/or Facsimile number and Address of Company Contact Person)

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

<b>Title of each class</b>	<b>Name of each exchange on which registered</b>
<b>Ordinary Shares, par value ILS 0.15 per share</b>	<b>NASDAQ Capital Market</b>

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 (December 31, 2017): 53,375,854 Ordinary Shares

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

Note: Checking the above box will not relieve any registrant required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 from their obligations under those Sections.

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 and posted on its corporate web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).

Yes                      No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or an emerging growth company. See 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<sup>†</sup> provided pursuant to Section 13(a) of the Exchange Act.

<sup>†</sup> 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.

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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

(APPLICABLE ONLY TO ISSUERS INVOLVED IN BANKRUPTCY PROCEEDINGS DURING THE PAST FIVE YEARS)

Indicate by check mark whether the registrant has filed all documents and reports required to be filed by Sections 12, 13 or 15(d) of the Securities Exchange Act of 1934 subsequent to the distribution of securities under a plan confirmed by a court.

Yes

No

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## FORWARD-LOOKING STATEMENTS

Except for the historical information contained in this Annual Report, the statements contained in this Annual Report are “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995, as amended, and other federal securities laws with respect to our business, financial condition and results of operations. Such forward-looking statements reflect our current view with respect to future events and financial results.

We urge you to consider that statements which use the terms “anticipate,” “believe,” “expect,” “plan,” “intend,” “estimate” and similar expressions are intended to identify forward-looking statements. We remind readers that forward-looking statements are merely predictions and therefore inherently subject to uncertainties and other factors and involve known and unknown risks that could cause our actual results, performance, levels of activity, or achievements, or industry results, to be materially different from those expressed or implied by such forward-looking statements. Such forward-looking statements appear in “Item 4. Information on the Company” and “Item 5. Operating and Financial Review and Prospects,” as well as elsewhere in this Annual Report. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date hereof. Except as required by applicable law, including the securities laws of the United States, we undertake no obligation to update or revise any forward-looking statements to reflect new information, future events or circumstances, or otherwise after the date hereof. We have attempted to identify significant uncertainties and other factors affecting forward-looking statements in the Risk Factors section that appears below.

## **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.**

Unless otherwise indicated, all references in this document to “Cyren”, “the Company,” “we,” “us” or “our” are to Cyren Ltd., and its consolidated subsidiaries, namely Cyren Inc., Cyren Iceland hf, Cyren UK Ltd., and Cyren Gesellschaft mbH.

#### **A. Selected financial data**

The selected consolidated statements of operations data for the years ended December 31, 2017, 2016, and 2015 and the selected consolidated balance sheet data as of December 31, 2017 and 2016 have been derived from the audited Consolidated Financial Statements of Cyren included elsewhere in this Annual Report on Form 20-F, or this Annual Report. The selected consolidated statements of operations data for the years ended December 31, 2014 and 2013 and the selected consolidated balance sheet data as of December 31, 2015, 2014 and 2013 have been derived from the previously published audited Consolidated Financial Statements of Cyren not included elsewhere in this Annual Report. Our historical results are not necessarily indicative of results to be expected for any future period. The data set forth below should be read in conjunction with “Item 5. Operating and Financial Review and Prospects” and the Consolidated Financial Statements and the Notes thereto included elsewhere herein:

Year Ended December 31,				
2017	2016	2015	2014	2013



(USD and share amounts in thousands, except per share data)

## Selected Data:

Revenues	\$30,799	\$30,983	\$27,762	\$31,925	\$32,248
Operating loss	\$(13,762)	\$(6,067)	\$(4,460)	\$(6,525)	\$(2,107)
Net loss attributable to ordinary and equivalently participating shareholders	\$(15,648)	\$(6,213)	\$(4,799)	\$(7,016)	\$(9,871)
Operating income (loss) per share	\$(0.33)	\$(0.16)	\$(0.13)	\$(0.23)	\$(0.08)
Basic net earnings (loss) per share	\$(0.38)	\$(0.16)	\$(0.14)	\$(0.25)	\$(0.38)
Diluted operating income (loss) per share	\$(0.33)	\$(0.16)	\$(0.13)	\$(0.23)	\$(0.08)
Diluted net earnings (loss) per share	\$(0.38)	\$(0.16)	\$(0.14)	\$(0.25)	\$(0.38)
Weighted average number of shares used in computing basic net earnings per share	40,922	39,135	34,316	28,598	26,231
Weighted average number of shares used in computing diluted net earnings per share	40,922	39,135	34,316	28,598	26,231
Total Assets	\$64,236	\$47,532	\$54,405	\$51,473	\$50,933

**B. Capitalization and indebtedness**

Not applicable

**C. Reason for the offer and use of proceeds**

Not applicable

## D. Risk factors

### RISK FACTORS

Our business faces significant risks. You should carefully consider all of the information set forth in this annual report and in our other filings with the U.S. Securities and Exchange Commission, or the SEC, including the following risk factors which we face and which are faced by our industry. Our business, financial condition and results of operations could be materially adversely affected by any of these risks. This report also contains forward-looking statements that involve risks and uncertainties. Our results could materially differ from those anticipated in these forward-looking statements, as a result of certain factors including the risks described below and elsewhere in this report and our other SEC filings. See also “Forward-Looking Statements”.

#### Business Risks

***If the Internet security market does not accept our cloud-based product offerings, our sales will not grow as quickly as anticipated, or at all, and our business, results of operations and financial condition would be harmed.***

We are seeking to exploit our cloud-based security platform, Cyren Cloud Security (“CCS”) to disrupt the Internet security and the email security markets and our historic business model. Our success will depend to a substantial extent on the willingness of enterprises, large and small, to increase their use of cloud computing services. The market for messaging security and compliance solutions delivered as a service in particular is at an early stage relative to on-premise solutions, and these applications may not achieve and sustain high levels of demand and market acceptance.

Historically, companies have used appliance-based security products, such as firewalls, intrusion prevention systems, or IPS, anti-virus, or AV, and web and messaging gateways, for their IT security. These enterprises may be hesitant to purchase our cloud-based security offering if they believe that signature-based products, or our competitors’ products, are more cost-effective, provide substantially the same functionality or otherwise provide a sufficient level of IT security. Many enterprises have invested substantial personnel and financial resources to integrate traditional enterprise software or hardware appliances for these applications into their businesses, and currently, most enterprises have not allocated a fixed portion of their budgets to protect against next-generation advanced cyber attacks. As a result, to expand our customer base, we need to convince potential customers to allocate a portion of their discretionary budgets to purchase our products and services. If we do not succeed in convincing customers that our offerings should be an integral part of their overall approach to IT security, our sales will not grow as quickly as anticipated, or at all, which would have an adverse impact on our business, results of operations and financial condition.

In addition, many enterprises may be reluctant or unwilling to use cloud computing services because they have concerns regarding the risks associated with its reliability and security, among other things, of this delivery model, or its ability to help them comply with applicable laws and regulations. If enterprises do not perceive the benefits of this delivery model, then the market for our services and our sales would not grow as quickly as we anticipate or at all and our business, results of operations and financial condition would be harmed.

***If the market does not continue to respond favorably to our traditional Threat Intelligence Service security solutions, including our Cyren embedded antispam services, embedded antivirus, embedded Uniform Resource Locator (URL) filtering services or our future services do not gain acceptance, we will fail to generate sufficient revenues.***

Our success depends on the continued acceptance and use of our Threat Intelligence Service security solutions by current and new businesses, Original Equipment Manufacturers (“OEMs”), and service provider customers, plus the interest of such customers in our newest offerings. As the markets for messaging, antivirus and web security products continue to mature and consolidate, we are seeing increasing competitive pressures and demands for even higher quality products at lower prices. This increasing demand comes at a time when Internet security threats are more varied and intensive, challenging top end solutions to keep their performance at an industry-acceptable level of accuracy. If our solutions do not continue to evolve to meet market demand, or newer products on the market prove more effective, our business could fail. Also, if growth in the markets for these solutions begins to slow, our business, results of operations and financial condition will suffer dramatically.

*If we are unable to effectively integrate future investments and acquisitions, our business operations and financial results will suffer.*

Our success will depend, in part, on our ability to expand our service and product offerings and grow our business in response to changing technologies, customer demands and competitive pressures. In some circumstances, we may decide to do so through the acquisition of complementary businesses and technologies rather than through internal development, including, for example, our 2012 acquisition of the antivirus business of the Icelandic company, Frisk Software International (“Frisk”) and the German internet security company eleven.

If we encounter further difficulties or unforeseen expenditures in integrating the business, technologies, products, personnel or operations of any company that we acquire, the revenue and operating results of the combined company could be adversely affected. The risks we face in connection with acquisitions include:

disruption of our ongoing business, diversion of resources, increased expenses and distraction of our management from operating our business to addressing acquisition integration challenges;

additional legal and regulatory compliance;

cultural challenges associated with integrating employees from the acquired companies into our organization;

inability to retain key employees from the acquired companies;

inability to strengthen our competitive position, achieve our strategic goals, generate sufficient financial return to offset acquisition costs or realize the expected benefits of the acquisition;

failure to identify significant problems or liabilities, including liabilities resulting from the acquired companies’ pre-acquisition failure to comply with applicable laws, during our pre-acquisition due diligence;

difficulties related to our entry into geographic or business markets in which we have little or no prior experience or where competitors have stronger market positions;

difficulties in, or inability to, successfully sell any acquired products or services;

difficulties with the coordination of research and development, sales and marketing, accounting, human resources and other general and administrative systems;

changes in relationships with strategic partners as a result of product acquisitions or strategic positioning resulting from the acquisitions;

liability for activities of the acquired companies before the acquisition, including intellectual property infringement claims, violations of laws, commercial disputes, tax liabilities and litigation; and

unanticipated write-offs or charges.

The occurrence of any of these risks could have a material adverse effect on our business operations and financial results.

***We face intense competition and could lose market share to our competitors, which could adversely affect our business, financial condition and results of operations.***

The market for security products and services is intensely competitive and characterized by rapid changes in technology, customer requirements, industry standards and frequent new product introductions and improvements. We anticipate continued challenges from current competitors as well as by new entrants into the industry. If we are unable to anticipate or effectively react to these competitive challenges, our competitive position could weaken, and we could experience a decline in our revenue that could adversely affect our business and results of operations.

Many of our existing competitors have, and some of our potential competitors could have, substantial competitive advantages such as:

greater name recognition and larger customer bases;

larger sales and marketing budgets and resources;

broader distribution and established relationships with channel and distribution partners and customers;

greater customer support resources;

lower labor and research and development costs; and

substantially greater financial, technical and other resources.

In addition, some of our larger competitors have substantially broader product offerings and may be able to leverage their relationships with distribution partners and customers based on other products or incorporate functionality into existing products to gain business in a manner that may discourage users from purchasing our products, subscriptions and services, including by selling at zero or negative margins, product bundling or offering closed technology platforms.

Potential customers may also prefer to purchase from their existing suppliers rather than a new supplier regardless of product performance or features. As a result, even if the features of our offerings are superior, customers may not purchase our services or products. In addition, innovative start-up companies, and larger companies that are making significant investments in research and development, may invent similar or superior products and technologies that compete with our product and services. Our current and potential competitors may also establish cooperative relationships among themselves or with third parties that may further enhance their resources. If we are unable to compete successfully, or if competing successfully requires us to take costly actions in response to the actions of our competitors, our business, financial condition and results of operations could be adversely affected.

Some of our competitors have acquired businesses that may allow them to offer more directly competitive and comprehensive solutions than they had previously offered. As a result of such acquisitions, our current or potential competitors might be able to adapt more quickly to new technologies and end user needs, devote greater resources to the promotion or sale of their products and services, initiate or withstand substantial price competition, take advantage of acquisitions or other opportunities more readily, or develop and expand their product and service offerings more quickly than we can. Due to various reasons, organizations may be more willing to incrementally add solutions to their existing security infrastructure from competitors than to replace it with our solutions. These competitive pressures in our market or our failure to compete effectively may result in price reductions, fewer orders, reduced revenue and gross margins, and loss of market share. Any failure to meet and address these factors could seriously harm our business and operating results.

Also, many of our smaller competitors that specialize in providing protection from a single type of business security threat may deliver these specialized business security products to the market more quickly than we can or may introduce innovative new products or enhancements before we do. Conditions in our markets could change rapidly and significantly as a result of technological advancements.

***If we are unable to enhance our existing solutions and develop new solutions, our growth will be impeded.***

Our ability to attract new customers and increase revenue from existing customers will depend in large part on our ability to enhance and improve our existing solutions and to introduce new solutions. The success of any enhancement or new solution depends on several factors, including the timely completion, introduction and market acceptance of the enhancement or solution. Any enhancement or solution we develop or acquire may not be introduced in a timely or cost-effective manner and may not achieve the broad market acceptance necessary to generate significant revenue. If we are unable to successfully develop or acquire new solutions or enhance our existing solutions to meet customer requirements, we may not grow as expected.

We cannot be certain that our development activities will be successful or that we will not incur delays or cost overruns. Furthermore, we may not have sufficient financial resources to identify and develop new technologies and bring enhancements or new solutions to market in a timely and cost-effective manner. New technologies and enhancements could be delayed or cost more than we expect, and we cannot ensure that any of these solutions will be commercially successful if and when they are introduced.

***A loss of any of our large customers could have a material adverse effect on our financial condition and results of operations.***

In the year ended December 31, 2017, our three largest customers accounted for approximately 17% of our annual revenues and we expect this percentage to increase in 2018 as a result of contract expansions with those customers. A significant reduction in revenue in the future from these major customers could have a material adverse effect on our financial condition, results of operations and cash flow. In addition, if one or more of our major customers were to develop its own competing technology or to experience economic difficulties, changes in purchasing policies or difficulties in fulfilling their obligations to us, our financial condition could be materially and adversely affected.

***Adverse conditions in the national and global financial markets could have a material adverse effect on our business, operating results and financial condition.***

Our financial performance depends, in part, on the state of the economy, which may deteriorate in the future. Challenging economic conditions worldwide have from time to time contributed, and may continue to contribute, to slowdowns in the information technology industry, resulting in reduced demand for our solutions as a result of continued constraints on IT-related capital spending by our customers and increased price competition for our solutions.



If the economies of countries in which our customers and potential customers are located weaken, our customers may reduce or postpone their spending significantly. This could result in reductions in sales of our services and longer sales cycles, slower adoption of new technologies and increased price competition. In addition, weakness in the end user market could negatively affect the cash flow of our OEM and service provider partners, distributors and resellers who could, in turn, delay paying their obligations to us. This would increase our credit risk exposure and cause delays in our recognition of revenues on future sales to these customers. Specific economic trends, such as declines in the demand for PCs, servers, and other computing devices, or weakness in corporate information technology spending, could have a more direct impact on our business. Any of these events would likely harm our business, operating results and financial condition.

***If the perceived general level of advanced cyber attacks declines, demand for our solutions may decrease, our cost of doing business may increase and our business could be harmed.***

Our business is substantially dependent on enterprises recognizing that advanced cyber attacks are pervasive and are not effectively prevented by legacy security solutions. High visibility attacks on prominent enterprises and governments have increased market awareness of the problem of advanced cyber attacks and help to provide an impetus for enterprises to devote resources to protecting against advanced cyber attacks, such as purchasing our services and products and broadly deploying our services and products within their organizations. If advanced cyber attacks were to decline, or enterprises perceived that the general level of advanced cyber attacks have declined, our ability to attract new customers and expand our offerings within existing customers could be materially and adversely affected and harm our business, results of operations and financial condition.

In addition, various state legislatures have enacted laws aimed at regulating the distribution of unsolicited email. These and similar legal measures, both in the United States and worldwide, may have the effect of reducing the amount of unsolicited email and malicious software that is distributed and hence diminish the need for our Internet security solutions. Any such developments would have an adverse impact on our revenues.

***We depend upon OEM partners, service providers and resellers to sell the majority of our products, and if our partners fail to perform, our ability to sell and distribute our products and services will be limited, and our operating results will be harmed.***

We expect to continue to be dependent upon OEM partners and service providers for a significant portion of our revenues, which will be derived from sales of our messaging, antivirus and web security solutions. We also expect resellers to become important in the distribution of our newer cloud-based Internet security solutions.

We anticipate that in the future we will derive a substantial portion of the sales of CCS through channel partners. In order to scale our channel program to support growth in our business, it is important that we help our partners enhance their ability to independently sell and deploy our solutions. We may be unable to successfully expand and improve the effectiveness of our channel sales program.

Our operating results and financial condition may be materially adversely affected if:

anticipated orders or payments from these partners fail to materialize;

our partners cease the promotion of our business or begin to promote additional solutions;

our partners are acquired by larger companies who may have other relationships or technologies that lead to the displacement or termination of Cyren contracts;

our partners do not live up to their contractual agreements or fail to pay for services rendered; or

our partners' businesses fail.

If we are unable to maintain our relationships with these channel partners, or otherwise develop and expand our indirect distribution channel, our business, results of operations, financial condition or cash flows could be adversely affected.

***Our quarterly operating results may fluctuate, which could adversely affect our share price.***

Our revenues and operating results could vary significantly from period to period as a result of a variety of factors, many of which are outside of our control. As a result, comparing our revenues and operating results on a period-to-period basis may not be meaningful, and shareholders should not rely on our past results as an indication of our future performance. We may not be able to accurately predict our future revenues or results of operations. We base our current and future expense levels on our operating plans and sales forecasts, and our operating costs are relatively fixed in the short-term. As a result, we may not be able to reduce our costs sufficiently to compensate for an unexpected shortfall in revenues, and even a small shortfall in revenues could disproportionately and adversely affect financial results for that quarter. If our revenues or operating results fall below the expectations of investors or any securities analysts that cover our stock, our share price could decline substantially.

A number of factors, many of which are enumerated in this “Risk Factors” section, are likely to cause fluctuations in our operating results or cause our share price to decline. These factors include:

our ability to successfully market both our traditional messaging, antivirus and web security solutions and our newer cloud-based Internet security solutions in new markets, both domestic and international;

our ability to successfully develop and market new, modified or upgraded solutions, as may be needed;

the continued acceptance of our solutions by our current partners and customer base;

our ability to expand our workforce with qualified personnel, as may be needed;

unanticipated bugs or other problems affecting the delivery of our solutions to customers;

the success of our partners’ sales efforts to their customer base;

the solvency of our partners and their ability to allocate sufficient resources towards the marketing of our solutions;

our partners' ability to effectively integrate our solutions into their product offerings;

the substantial decrease in information technology spending;

the pricing of our solutions;

our ability to timely collect fees owed by our customers and partners;

a global slowdown;

sudden, dramatic fluctuations in exchange rates of currencies covering the fees we collect from our foreign customers versus the currencies utilized in our business (namely, the Israeli Shekel ("ILS"), the U.S. Dollar ("USD"), the Euro ("EUR") and the British Pound ("GBP"));

our ability to add cost-effective space and equipment to our current data centers in a timely and effective manner to match the rate of growth in our business, plus our ability to build new, cost-effective data centers as worldwide demand for our products may require; and

the effectiveness of our end user support, whether provided by our customers or directly by Cyren.

***Our ability to continue to increase our revenues will depend on our ability to successfully execute our sales and business development plan.***

The complexity of the underlying technological base of messaging, antivirus and web security solutions, and the current landscape of the markets, require highly trained sales and business development personnel to educate prospective distributors, resellers, OEM and service provider partners and customers regarding the use and benefits of our solutions. We continue to be substantially dependent on our sales force to obtain new customers and to drive additional use cases and adoption among our existing customers. We believe that there is significant competition for sales personnel with the skills and technical knowledge that we require. Our ability to achieve significant revenue growth will depend, in large part, on our success in recruiting, training and retaining sufficient numbers of sales personnel to support our growth. New hires require significant training and may take significant time before they achieve full productivity. Our recent hires and planned hires may not become productive as quickly as we expect, and we may be unable to hire or retain sufficient numbers of qualified individuals in the markets where we do business or plan to do business.

Our future success depends on our ability to sell additional solutions to our customers. This may require increasingly sophisticated and costly sales efforts and may not result in additional sales. In addition, the rate at which our customers purchase additional solutions depends on a number of factors, including the perceived need for additional solutions, growth in the number of end users, and general economic conditions. If our efforts to sell additional solutions to our customers are not successful, our business, financial condition and/or results of operations may suffer.

***We rely on our management team and other key employees and will need additional personnel to grow our business, and the loss of one or more key employees or our inability to attract and retain qualified personnel could harm our business.***

Our success is substantially dependent on our ability to attract, retain and motivate the members of our management team and other key employees throughout our organization. Competition for highly skilled personnel is intense, especially in Israel, Berlin, Iceland, London, Sunnyvale, Austin, and the Washington D.C. metro area, where we have offices and a need for highly skilled personnel. We may not be successful in attracting qualified personnel to fulfill our current or future needs. Our competitors may be successful in recruiting and hiring members of our management team or other key employees, and it may be difficult for us to find suitable replacements on a timely basis, on competitive terms, or at all. Also, to the extent we hire employees from mature public companies with significant financial resources, we may be subject to allegations that such employees have been improperly solicited, that they have divulged proprietary or other confidential information or that their former employers own such employees' inventions or other work product.

In addition, we believe that it is important to establish and maintain a corporate culture that facilitates the maintenance and transfer of institutional knowledge within our organization and also fosters innovation, teamwork, a passion for customers and a focus on execution. Certain key members of our management team have only been working together for a relatively short period of time. If we are not successful in integrating these key employees into our organization, such failure could delay or hinder our product development efforts and the achievement of our strategic objectives, which could adversely affect our business, financial condition and results of operations.

The loss of our software developers or senior operations personnel may also adversely affect the continued development and support of both our current messaging, antivirus and web security solutions and future solutions presently included in our roadmap for development, thereby causing our operating results to suffer and the value of your investment to decline.

We do not have employment agreements inclusive of set periods of employment with any of our key personnel. We cannot prevent them from leaving at any time. We do not maintain key-person life insurance policies, listing us as a beneficiary, on any of our employees. If one or more of our key employees resigns or otherwise ceases to provide us with their service, our business, financial condition and/or results of operations could be harmed.

***Our business and operating results could suffer if we do not successfully address potential risks inherent in doing business overseas.***

We market and sell our products worldwide and have personnel in many parts of the world. In addition, we have sales offices and research and development facilities outside the United States and we conduct, and expect to continue to conduct, a significant amount of our business with companies that are located outside the United States, particularly in Europe, Israel and Asia. We also enter into strategic distributor and reseller relationships with companies in certain international markets where we do not have a local presence. If we are not able to maintain successful strategic distributor relationships internationally or recruit additional companies to enter into strategic distributor relationships, our future success in these international markets could be limited. Business practices and regulations in the international markets that we serve differ from those in the United States and Israel and periodically require us to include terms other than our standard terms in customer contracts. To the extent that we enter into customer contracts that include non-standard terms related to payment, warranties, or performance obligations, our operating results may be adversely impacted.

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

greater difficulty in enforcing contracts and accounts receivable collection and longer collection periods;

the uncertainty of protection for intellectual property rights in some countries;

greater risk of changes in regulatory practices, tariffs, and tax laws and treaties;

risks associated with trade restrictions and foreign legal requirements, including the importation, certification, and localization of our products required in foreign countries;

the potential that our operations in Israel and the U.S. may limit the acceptability of our products to some foreign governments, and vice versa;

greater risk of a failure of foreign employees, partners, distributors, and resellers to comply with both U.S. and foreign laws, including antitrust regulations, and any trade regulations ensuring fair trade practices;

heightened risk of unfair or corrupt business practices in certain geographies and of improper or fraudulent sales arrangements that may impact financial results and result in restatements of, or irregularities in, financial statements;

the potential for acts of terrorism, hostilities or war;

increased expenses incurred in establishing and maintaining office space and equipment for our multinational operations;

greater difficulty in recruiting local experienced personnel, and the costs and expenses associated with such activities;

management communication and integration problems resulting from cultural and geographic dispersion;

fluctuations in exchange rates between the U.S. Dollar, Shekel, Euro, Pound and other foreign currencies in markets where we do business; and

general economic and political conditions and uncertainties in these foreign markets.

These factors and other factors could harm our ability to gain future international revenues and, consequently, materially impact our business, operating results, and financial condition. The expansion of our existing international operations and entry into additional international markets will require significant management attention and financial resources.

***Changes in the tax treatment of companies engaged in Internet commerce may adversely affect the commercial use of our services and our financial results.***

Due to the global nature of the Internet and the global reach of our network, it is possible that various states or countries might attempt to regulate our transmissions or levy sales, income, consumption, use or other taxes relating to our services or activities, or impose obligations on us to collect such taxes. Tax authorities in many jurisdictions are currently reviewing the appropriate treatment of companies engaged in Internet commerce such as the provision of cloud computing services and other online services. The imposition of new or revised tax laws or regulations may subject us to additional sales, income, consumption, use or other taxes. We cannot predict the effect of current attempts to impose such taxes on commerce over the Internet. New or revised taxes and, in particular, sales, use or consumption taxes, the Value Added Tax and similar taxes would likely increase the cost of doing business online. New taxes could also create significant increases in internal costs necessary to capture data, and collect and remit taxes. Any of these events could have an adverse effect on our business and results of operations.



***The application of tax laws is subject to interpretation and if tax authorities challenge our methodologies or our analysis of our tax rates it could result in an increase to our worldwide effective tax rate and cause us to change the way we operate our business.***

The application of the tax laws of various jurisdictions to our international business activities is subject to interpretation and also depends on our ability to operate our business in a manner consistent with our corporate structure and intercompany arrangements. The tax authorities of the jurisdictions in which we operate may challenge our methodologies for valuing developed technology or intercompany arrangements, including our transfer pricing, or determine that the manner in which we operate our business does not achieve the expected tax consequences, which could increase our worldwide effective tax rate and adversely affect our financial position and results of operations.

A certain degree of judgment is required in evaluating our tax positions and determining our provision for income taxes. In the ordinary course of business, there are many transactions and calculations for which the ultimate tax determination is uncertain. For example, our effective tax rates could be adversely affected by earnings being lower than anticipated in countries where we have lower statutory rates and higher than anticipated in countries where we have higher statutory rates, by changes in foreign currency exchange rates or by changes in the relevant tax, accounting and other laws, regulations, principles and interpretations. As we operate in numerous taxing jurisdictions, the application of tax laws can be subject to diverging and sometimes conflicting interpretations by tax authorities of these jurisdictions. It is not uncommon for tax authorities in different countries to have conflicting views, for instance, with respect to, among other things, the manner in which the arm's length standard is applied for transfer pricing purposes, or with respect to the valuation of intellectual property. In addition, tax laws are dynamic and subject to change as new laws are passed and new regulations or interpretations of the law are issued or applied. For example, the work being carried out by the OECD on base erosion and profit shifting as a response to increasing globalization of trade could result in changes in tax treaties or the introduction of new legislation that could impose an additional tax on businesses. As a result of changes to laws or interpretations, our tax positions could be challenged and our income tax expenses could increase in the future.

For instance, if tax authorities in any of the countries in which we operate were to successfully challenge our transfer prices, they could require us to reallocate our income (or part of our income) to reflect transfer pricing adjustments, which could result in an increased tax liability to us. In addition, if the country from which the income was reallocated did not agree with the reallocation asserted by the first country, we could become subject to tax on the same income in both countries, resulting in double taxation. If tax authorities were to allocate income to a higher tax jurisdiction, subject our income to double taxation or assess interest and penalties, it could increase our tax liability, which could adversely affect our financial position and results of operations.

***We are subject to privacy and data protection laws and regulations in various jurisdictions, including the EU General Data Protection Regulation, as well as contractual privacy and data protection obligations, which may limit the use and adoption of, or require modification of, our products and services and could affect our marketing activities. Our failure to comply with such laws, regulations or obligations could subject us to liability and could harm our reputation and business.***

Our industry is highly regulated and many federal, state and foreign government bodies and agencies have adopted, or are adopting, laws and regulations regarding the collection, use, and disclosure of personal information. Some of our solutions process customer data which may contain the personal information of end users, and any failure to adequately address privacy concerns, or to otherwise comply with applicable privacy laws and regulations could result in liability, damage to our reputation, loss of sales, or further harm our business. Privacy concerns, whether or not valid, may inhibit market adoption of our solutions. The costs of compliance with such laws and regulations that apply to our customers' business may in turn limit their use and adoption of our products and services and therefore reduce overall demand for them.

We are subject to the privacy and data protection laws and regulations adopted by Israel, Europe and the United States and potentially other jurisdictions. Where the local data protection and privacy laws of a jurisdiction apply, we may be required to register our operations in that jurisdiction or make changes to our business so that registered users' data is only collected and processed in accordance with applicable local law.

In particular, the European Union has imposed greater obligations under their privacy and data protection laws. For example, the European Union adopted the General Data Protection Regulation (GDPR) which will become effective in May 2018 and is wide ranging in scope. GDPR will replace, to a large extent, the data protection laws of each European Union member state and impose stringent requirements for data processors and controllers. Such requirements will include more fulsome disclosures about the processing of personal information, data retention limits and deletion requirements, mandatory notification in the case of a data breach and heightened standards regarding valid consent in some specific cases of data processing. The GDPR also includes substantially higher penalties for failure to comply (a fine up to 20 million Euro or up to 4% of the annual worldwide turnover, whichever is greater, can be imposed). We have spent considerable resources to comply with these regulations and when these laws and regulations come into effect, the more stringent requirements on privacy user notifications and data handling may require us to further adapt our business and incur additional costs.

If any of our customers or prospective customers decide not to purchase our products or services because of regulatory uncertainty, our revenues could decline and our business could suffer. Any inability by us, or a third-party contractor, to adequately address privacy concerns, whether valid or not, or to comply with applicable privacy or data protection laws, regulations and privacy standards, could result in additional cost and liability to us, damage our reputation, inhibit sales of our solutions and harm our business.

*Our web security solutions may be adversely affected if we are not able to receive sufficient components from third party suppliers.*

Our web security solution relies in part on certain components supplied by third parties pursuant to contractual relationships. If these third parties breach their agreements with us, we may have difficulty in securing alternative sources for these components in a timely manner and thus our web security solution may not perform at the level we expect. If this were to occur, the effectiveness of the solution would drop, it would become less attractive to customers/potential customers and anticipated revenues could decline.

## **Technology Risks**

*We may not have the resources or skills required to adapt to the changing technological requirements and shifting preferences of our customers and their users.*

The messaging, antimalware and web security industries are characterized by difficult technological challenges, sophisticated distributors of Internet security threats, multiple-variant viruses, advanced persistent threats, unique phishing scams and constantly evolving malevolent software distribution practices and targets that could render our solutions and proprietary technology ineffective. Our success depends, in part, on our ability to continually enhance our existing messaging, antimalware and web security solutions and to develop new solutions, functions and technology that address the potential needs of prospective and current customers and their users.

Many of our end users operate in markets characterized by rapidly changing technologies and business plans, which require them to adapt to increasingly complex IT networks, incorporating a variety of hardware, software applications, operating systems and networking protocols. As their technologies and business plans grow more complex, we expect these customers to face new and increasingly sophisticated methods of attack. We face significant challenges in ensuring that our solutions effectively identify and respond to these advanced and evolving attacks without disrupting our customers' network performance. As a result of the continued rapid innovations in the technology industry, including the rapid growth of smart phones, tablets and other devices and the trend of "bring your own device" in enterprises, we expect the networks of our end users to continue to change rapidly and become more complex.

We have identified and implemented a number of new products and enhancements to our platform that we believe are important to our continued success in the IT security market. For example, in January 2018 we announced the release of our new cloud-based email archiving service. Going forward, we may not be successful in developing and marketing, on a timely basis, such new products or enhancements or that our new products or enhancements will adequately address the changing needs of the marketplace. In addition, some of our new products and enhancements

may require us to develop new architectures that involve complex, expensive and time-consuming research and development processes. Although the market expects rapid introduction of new products and enhancements to respond to new threats, the development of these products and enhancements is difficult and the timetable for commercial release and availability is uncertain, as there can be significant time lags between initial beta releases and the commercial availability of new products and enhancements. We may experience unanticipated delays in the availability of new products and enhancements to our platform and fail to meet customer expectations with respect to the timing of such availability. If we do not quickly respond to the rapidly changing and rigorous needs of our customers by developing, releasing and making available on a timely basis new products and enhancements to our services and products that can adequately respond to advanced threats and our customers' needs, our competitive position and business prospects will be harmed. Furthermore, from time to time, we, or our competitors, may announce new products with capabilities or technologies that could have the potential to replace or shorten the life cycles of our existing services products. Announcements of new products could cause customers to defer purchasing our existing services or products.

Additionally, the process of developing new technology is expensive, complex and uncertain. The success of new products and enhancements depends on several factors, including appropriate component costs, timely completion and introduction, differentiation of new products and services from those of our competitors, and market acceptance. To maintain our competitive position, we must continue to commit significant resources to developing new products or services before knowing whether these investments will be cost-effective or achieve the intended results. We may not be able to successfully identify new product opportunities, develop and bring new products or services to market in a timely manner, or achieve market acceptance of our platform. Products and technologies developed by others may render our offerings obsolete or noncompetitive. If we expend significant resources on researching and developing products or services and such products and services are not successful, our business, financial position and results of operations may be adversely affected. We may not be able to use new technologies effectively or adapt to OEM, service provider, customer or end user requirements or emerging industry standards.

***Our solutions may be adversely affected by defects or denial of service attacks, which could cause our OEM and service provider partners, customers or end users to stop using our solutions.***

Our messaging, antimalware and web security solutions are based in part upon new and complex software and highly advanced computer systems. Complex software and computer systems can contain defects, particularly when first introduced or when new versions are released, and are possible targets for denial of service attacks instigated by “hackers”. Although we conduct extensive testing and implement Internet security processes, we may not discover defects or vulnerabilities in our software or systems that affect our new or current solutions or enhancements until after they are delivered. Although we have not experienced any material defects or vulnerabilities to date in our messaging, antimalware and web security offerings, it is possible that, despite testing by us, defects or vulnerabilities may exist in the solutions we provide. These defects or vulnerabilities could cause or lead to interruptions for customers of our solutions, resulting in damage to our reputation, legal risks, loss of revenue, delays in market acceptance and diversion of our development resources, any of which could cause our business, financial condition and/or results of operations to suffer.

***Real or perceived defects, errors or vulnerabilities in our services or the failure of our services to block malware or prevent a cyber-attack or security breach could harm our reputation and adversely impact our business, financial condition and results of operations.***

Because our products and services are complex, they have contained and may contain design or manufacturing defects or errors that are not detected until after their commercial release and deployment by our end users. For example, from time to time, certain of our end users have reported defects in our products related to performance, scalability and compatibility that were not detected before offering the service. Additionally, defects may cause our products or services to be vulnerable to security attacks, cause them to fail to help secure networks or temporarily interrupt end users’ networking traffic. Because the techniques used by computer hackers to access or sabotage networks change frequently and may not be recognized until launched against a target, we may be unable to anticipate these techniques and provide a solution in time to protect our end users’ networks.

Furthermore, as a well-known provider of Internet security solutions, our networks, products, and services could be targeted by attacks specifically designed to disrupt our business and harm our reputation. In addition, our data centers and networks may experience technical failures and downtime, may fail to distribute appropriate updates, or may fail to meet the increased requirements of a growing end user base, any of which could temporarily or permanently expose our end users’ networks, leaving their networks unprotected against the latest security threats.

Any real or perceived defects, errors or vulnerabilities in our services, or any other failure of our services to detect an advanced threat, could result in:

a loss of existing or potential customers or channel partners;

delayed or lost revenue;

a delay in attaining, or the failure to attain, market acceptance;

the expenditure of significant financial and product development resources in efforts to analyze, correct, eliminate, or work around errors or defects, to address and eliminate vulnerabilities, or to identify and ramp up production with alternative third-party manufacturers;

an increase in service level availability or warranty claims, or an increase in the cost of servicing such claims, either of which would adversely affect our gross margins;

harm to our reputation or brand; and

litigation, regulatory inquiries or investigations that may be costly to address and further harm our reputation.

Data thieves are sophisticated, often affiliated with organized crime and operate large scale and complex automated attacks. In addition, their techniques change frequently and generally are not recognized until launched against a target. If we fail to identify and respond to new and complex methods of attack and to update our services to detect or prevent such threats in time to protect our end users' systems, our business and reputation will suffer.

An actual or perceived security breach or theft of the sensitive data of one of our end users, regardless of whether the breach is attributable to the failure of our products or services, could adversely affect the market's perception of our security offerings. Despite our best efforts, there is no guarantee that our products and services will be free of flaws or vulnerabilities, and even if we discover these weaknesses we may not be able to correct them promptly, if at all. A breach of our systems could also result in the disclosure of sensitive and confidential information as well as information regarding our customers, end users and partners. Our end user customers may also misuse our products and services, which could result in a breach or theft of business data.

***Our messaging, antimalware and web security solutions may be adversely affected if we are not able to receive a sufficient sampling of Internet traffic or our data centers were to become unavailable.***

Our messaging, antimalware and web security solutions are dependent, in part, on the ability of our data centers to analyze, in an automated fashion, live feeds of Internet and web related traffic received through our services to customers and other contractual arrangements. If we were to suffer an unanticipated, substantial decrease in such traffic or our multiple data centers become unavailable for any significant period, the effectiveness of our technologies would drop, our product offerings would become less attractive to customers/potential customers and revenues could decline.

***False detection of applications, viruses, malware, spyware, vulnerability exploits, data patterns or URL categories could adversely affect our business.***

Our classifications of application type, virus, malware, spyware, vulnerability exploits, data, or URL categories may falsely detect applications, content or threats that do not actually exist. This risk is heightened by the inclusion of a "heuristics" feature in our products, which attempts to identify applications and other threats not based on any known signatures but based on characteristics or anomalies which indicate that a particular item may be a threat. These "false positives", while typical in our industry, may impair the perceived reliability of our products and may therefore adversely impact market acceptance of our services and products. If our services and products restrict important files or applications based on falsely identifying them as malware or some other item that should be restricted, this could adversely affect end users' systems and cause material system failures. Any such false identification of important files or applications could result in damage to our reputation, negative publicity, loss of end users and sales, increased costs to remedy any problem, and costly litigation.



*Our cloud-based SecaaS offerings are newer service offerings, so we may not see the customer traction in these offerings that we anticipate.*

Security-as-a-Service (“SecaaS”) is a model of cloud-based services offerings. In 2014, we released CWS, our cloud-based security service that provides end users with secure browsing from any device, anywhere. In March 2017, we launched CCS 4.0 which unified four fully cloud based Internet security services on one platform including – CWS, CES, DNS security and cloud sandboxing. Subsequent releases have added new features such as our email archiving service. The solutions we are promoting and will promote to this market enable us to offer Internet security solutions directly to our Enterprise customers or through our channel partners. Among other things, this cloud-based approach is intended to speed up the process of moving our solutions to market, and ease the integration burden for our customers.

In recent years, companies have begun to expect that key security software services, such as URL filtering, be provided through a SecaaS model. In order to provide CCS via a SecaaS deployment, we have made and will continue to make capital investments to implement this alternative business model, which could negatively affect our financial results. Even with these investments, the SecaaS business model for CCS may not be successful. Because of the newness of the technologies involved and the resulting learning curve required of all employees in the sale and support of the new offerings, we cannot be certain that we will convince potential customers of the benefits of these new offerings and sell them at the rate we anticipate. If we fall short of our expectations, and especially given the significant resources invested by us in bringing these new offerings to market, our financial results will suffer and the value of shareholder investments will decline.

*If we fail to develop or protect our Cyren brand name, our business may be harmed.*

In January 2014, we announced the Company would change its name from Commtouch to Cyren. We adopted our new name as we completed our transformation into a leading provider of cloud-based information security solutions that are specially designed to be deployed or private labeled by customers and partners alike. Developing and maintaining awareness and integrity of our company and our new brand are important to achieving widespread acceptance of our existing and future offerings and are important elements in attracting new customers. The importance of brand recognition will increase as competition in our market further intensifies. Successful promotion of our brand will depend on the effectiveness of our marketing efforts and on our ability to provide reliable and useful solutions at competitive prices. We plan to continue investing substantial resources to promote our brand, both domestically and internationally, but there is no guarantee that our brand development strategies will enhance the recognition of our brand. Some of our existing and potential competitors have well-established brands with greater recognition than we have. If our efforts to promote and maintain our brand are not successful, our operating results and our ability to attract and retain customers may be adversely affected. In addition, even if our brand recognition and loyalty increases, this may not result in increased use of our solutions or higher revenue.

## **Investment Risks**

*The issuance of additional shares in connection with financings, acquisitions, investments, our stock incentive plans, conversion of our convertible notes or otherwise will dilute other shareholders. In addition, our failure in the future to raise additional capital or generate the significant capital necessary to expand our operations and invest in new services and products could reduce our ability to compete and could harm our business.*

We intend to continue to make investments to support our business growth and may require additional funds to respond to business challenges, including the need to develop new features to enhance our services and products, improve our operating infrastructure or acquire complementary businesses and technologies. Accordingly, we may need to engage in equity or debt financings to secure additional funds. For example, in August 2015, we completed an underwritten public offering of 7,666,665 ordinary shares at a price to the public of \$1.65 per share. In March 2017, we issued \$6.3 million aggregate principal amount of convertible notes. In November 2017 we issued approximately 10.6 million ordinary shares for \$1.85 per share to WP XII Investments B.V., an entity controlled by funds affiliated with Warburg Pincus LLC (together “Warburg Pincus”) as described more fully in Item 5.B. - Operating and Financial Review and Prospects - Liquidity and Capital Resources - Private Placement. The subsequent tender offer by Warburg Pincus completed on December 24, 2017 resulted in the conversion of the convertible notes into shares and the accelerated vesting of employee options. If we raise additional equity or convertible debt financing, our stockholders may experience significant dilution of their ownership interests and the per share value of our ordinary shares could decline. Furthermore, if we engage in debt financing, the holders of debt would have priority over the holders of our ordinary shares, and we may be required to accept terms that restrict our ability to incur additional indebtedness or that otherwise restrict our ability to operate our business. We may also be required to take other actions that would otherwise be in the interests of the debt holders and force us to maintain specified liquidity or other ratios, any of

which could harm our business, operating results, and financial condition. We may not be able to obtain additional financing on terms favorable to us, if at all. If we are unable to obtain adequate financing or financing on terms satisfactory to us when we require it, our ability to continue to support our business growth and to respond to business challenges could be significantly impaired, and our business may be adversely affected.

***We are controlled by Warburg Pincus whose interest in our business may be different from yours.***

Our controlling shareholder, Warburg Pincus, holds approximately 52% of our outstanding ordinary shares as of March 31, 2018, and has the right to nominate the number of directors proportional to its holdings of our outstanding shares. As of March 31, 2018, two directors nominated by Warburg Pincus serve on our Board of Directors. Warburg Pincus is able to exercise significant influence over many matters requiring the approval of our Board of Directors and/or shareholders, including the election of directors and approval of significant corporate transactions. In addition, our other directors and our executive officers that are not related to Warburg Pincus (together known as “affiliated entities”), beneficially own, in the aggregate, approximately 7% of our outstanding ordinary shares as of March 31, 2018. If they vote together (especially if they were to exercise all vested options into shares entitled to voting rights in the Company), these shareholders will be able to exercise influence over matters requiring a special majority vote of our shareholders, including the compensation of directors and approval of certain significant corporate transactions. In this regard, we know of no shareholders or voting agreement between major shareholders or between such shareholders and directors or officers.

In addition, conflicts of interest may arise as a consequence of the control by Warburg Pincus, including:

conflicts between Warburg Pincus and our other shareholders whose interests may differ with respect to, among other things, our strategic direction or significant corporate transactions;

conflicts related to corporate opportunities that could be pursued by us, on the one hand, or by Warburg Pincus, on the other hand; or

conflicts related to existing or new contractual relationships between us, on the one hand, and Warburg Pincus, on the other hand.

***Our ordinary shares often trade at different prices on NASDAQ and TASE.***

Our ordinary shares are traded primarily on the NASDAQ Capital Market and also on the Tel Aviv Stock Exchange (“TASE”). Trading in our ordinary shares on these markets is made in different currencies (U.S. dollars on the NASDAQ Capital Market, and Israeli Shekels on the TASE), and at different times (resulting from different time zones, different trading days and different public holidays in the United States and Israel). Consequently, the trading prices of our ordinary shares on these two markets often differ. Any decrease in the trading price of our ordinary shares on one of these markets could cause a decrease in the trading price of our ordinary shares on the other market.

***U.S. holders of our shares could be subject to material adverse tax consequences if we are considered a “passive foreign investment company” for U.S. federal income tax purposes.***

We do not believe that we are a passive foreign investment company, and we do not expect to become a passive foreign investment company. However, our status in any taxable year will depend on our assets, income and activities in each year, and because this is a factual determination made annually after the end of each taxable year, there can be no assurance that we will not be considered a passive foreign investment company for the current taxable year or any future taxable years. If we were a passive foreign investment company for any taxable year while a taxable U.S. holder held our shares, such U.S. holder could face adverse U.S. federal income tax consequences, including having gains realized on the sale of our ordinary shares classified as ordinary income, rather than as capital gain, the loss of the preferential rate applicable to dividends received on our ordinary shares by individuals who are U.S. holders, and having interest charges apply to distributions by us and the proceeds of share sales.

***U.S. persons who own 10% or more of our ordinary shares may be subject to adverse U.S. tax consequences under the U.S. controlled foreign corporation rules***

If we or one of our non-U.S. subsidiaries are or become a controlled foreign corporation, or “CFCs,” “10% U.S. Shareholders” (as defined below) may be taxed on their pro rata share of certain of our earnings, even if those earnings are not distributed by us. A non-U.S. corporation is a “CFC” if more than 50% of its shares (by vote or value) are owned by “10% U.S. Shareholders.” A U.S. person is a “10% U.S. Shareholder” if such person owns (directly, indirectly and/or constructively) 10% or more of the total combined voting power of all classes of shares entitled to vote of such corporation or 10% more of the total value of shares of all classes of stock of such corporation.

In general, if a U.S. person sells or exchanges stock in a foreign corporation and such person is a “10% U.S. Shareholder” at any time during the 5-year period ending on the date of the sale or exchange when such foreign corporation was a CFC, any gain from such sale or exchange may be treated as a dividend to the extent of the corporation’s earnings and profits attributable to such shares that were accumulated during the period that the shareholder held the shares while the corporation was a CFC (with certain adjustments).

The CFC rules are complex. The foregoing is merely a summary of certain potential application of these rules. No assurances can be given that we or one of our non-U.S. subsidiaries are not or will not become a CFC, and certain changes to the CFC constructive ownership rules introduced by recent U.S. tax legislation could, under certain circumstances, cause us to be classified as a CFC. Each holder is urged to consult its tax advisor with respect to the possible application of the CFC rules.

***We do not intend to pay dividends for the foreseeable future.***

We have never declared or paid any dividends on our ordinary shares. We intend to retain any earnings to finance the operation and expansion of our business, and we do not anticipate paying any cash dividends in the future. As a result, you may only receive a return on your investment in our ordinary shares if the market price of our ordinary shares increases.

## **Intellectual Property Risks**

***If we fail to adequately protect our intellectual property rights or face a claim of intellectual property infringement by a third party, we could lose our intellectual property rights or be liable for significant damages.***

We regard our patented and patent pending technology, copyrights, service marks, trademarks, trade secrets and similar intellectual property as critical to our success, and rely on patent, trademark and copyright law, trade secret protection and confidentiality or license agreements with our employees and customers to protect our proprietary rights. See Item 4. Information on the Company, *Intellectual Property* for information pertaining to our patent activities. We may seek to patent certain additional software or other technology in the future. Any such patent applications might not result in patents issued within the scope of the claims we seek, or at all.

Despite our precautions, unauthorized third parties may copy certain portions of our technology, reverse engineer or obtain and use information that we regard as proprietary or otherwise infringe or misappropriate our patent or our

patent pending technology, trade secrets, copyrights, trademarks and similar proprietary rights. In addition, the laws of some foreign countries do not protect proprietary rights to the same extent as do the laws of the United States. Thus, our means of protecting our proprietary rights in the United States or abroad, as well as our financial resources, may not be adequate, and competitors may independently develop similar technology.

We cannot be certain that our security solutions do not infringe issued patents in certain parts of the world. Therefore, other parties, whether in the United States or elsewhere, may assert infringement claims against us. We may also be subject to legal proceedings and claims from time to time in the ordinary course of our business, including claims of alleged infringement of copyrights, trademarks and other intellectual property rights of third parties by ourselves and our customers. Our customer agreements typically include indemnity provisions, so we may be obligated to defend against third party intellectual property rights infringement claims on behalf of our customers. Such claims, even if not meritorious, could result in the expenditure of significant financial and managerial resources. We may not have the proper resources in order to adequately defend against such claims.

### **Risks Relating to Operations in Israel**

*Conditions in Israel may limit our ability to develop and sell our products, resulting in a decline in revenues.*

We are incorporated under the laws of the State of Israel. Our principal research and development facilities are located in Israel. Since the establishment of the State of Israel in 1948, a number of armed conflicts have taken place between Israel and its neighboring countries, as well as incidents of civil unrest, and a number of state and non-state actors have publicly committed to its destruction. Political, economic and military conditions in Israel could directly affect our operations. We could be adversely affected by any major hostilities involving Israel, including acts of terrorism or any other hostilities involving or threatening Israel, the interruption or curtailment of trade between Israel and its trading partners, a significant increase in inflation or a significant downturn in the economic or financial condition of Israel. Any on-going or future violence between Israel and the Palestinians, armed conflicts, terrorist activities, tension along the Israeli borders or with other countries in the region, including Iran, or political instability in the region could disrupt international trading activities in Israel and may materially and negatively affect our business and could harm our results of operations.

Certain countries, as well as certain companies and organizations, continue to participate in a boycott of Israeli firms, firms with large Israeli operations and others doing business with Israel and Israeli companies. In addition, such boycott, restrictive laws, policies or practices may change over time in unpredictable ways, and could, individually or in the aggregate, have a material adverse effect on our business in the future. Should the BDS Movement, the movement for boycotting, divesting and sanctioning Israel and Israeli institutions (including universities) and products become increasingly influential in the United States and Europe, this may also adversely affect our business and financial condition.

Some of our employees in Israel, including some of our executive officers, are obligated to perform annual military reserve duty in the Israel Defense Forces, depending on their age and position in the armed forces. Furthermore, they may be called to active reserve duty at any time under emergency circumstances for extended periods of time. Our operations could be disrupted by the absence, for a significant period, of one or more of our executive officers or key employees due to military service, and any significant disruption in our operations could harm our business.

***Because a substantial portion of our revenues historically have been generated in U.S. dollars (USD) and the Euro (EUR), and a significant portion of our expenses have been incurred in Israeli Shekel (ILS), British Pound (GBP) and Icelandic Krona (ISK), our results of operations may be adversely affected by currency fluctuations.***

We have generated a substantial portion of our revenues in USD and EUR, and incurred a substantial portion of our expenses, principally salaries and related personnel expenses, office rent and other outside services, in currencies other than USD. Those expenses incurred in Israel are denominated in Shekels, those incurred in the United Kingdom are denominated in GBP and those incurred in Iceland are denominated in ISK. We anticipate that a significant portion of our expenses will continue to be denominated in these currencies. As a result, we are exposed to risk to the extent that the value of the USD depreciates against the ILS, GBP and ISK or to the extent that the value of the USD appreciates against the EUR. In those events, the USD cost of Cyren's operations will increase and the USD value of Cyren's revenues will decrease, respectively, and the Company's USD measured results of operations will be adversely affected. During 2017, the USD value of operating costs denominated in ILS, GBP and ISK increased due to the depreciation of the USD vs. all such currencies, and the U.S. dollar value of revenues denominated in EUR increased due to the depreciation of the USD vs the EUR. During 2016, the USD value of operating costs denominated in ILS, and ISK increased due to the depreciation of the USD vs. the ILS and ISK, and the USD value of revenues denominated in EUR decreased due to the appreciation of the USD vs the EUR. During 2015, the USD value of operating costs denominated in ILS and ISK decreased (insignificantly) due to the appreciation of the USD vs the ILS and ISK, and the USD value of revenues denominated in EUR decreased due to the appreciation of the USD vs the EUR. In both 2016 and 2015, the exchange rate fluctuation between the USD and the GBP did not have a material effect on the Company's operations as the operations in the United Kingdom were only formed during the end of 2016 and beginning of 2017.

We cannot predict the trend for future years. Our operations also could be adversely affected if we are unable to guard against currency fluctuations in the future. To date, we have not engaged in any significant hedging transactions. In



the future, we may enter into currency hedging transactions to decrease the risk of financial exposure from fluctuations in the exchange rate of the dollar against the ILS. Foreign currency fluctuations, and our attempts to mitigate the risks caused by such fluctuations, could have a material and adverse effect on our results of operations and financial condition.

***The government programs and benefits which we previously received require us to meet several conditions and may be terminated or reduced in the future.***

We received grants from the Government of Israel through a program with the Israel Innovation Authority, or the IIA (formerly known as the Office of the Chief Scientist of the Israeli Ministry of Economy and Industry, or OCS), pursuant to the Israeli Law for the Encouragement of Industrial Research and Development, 1984, and related regulations (the “R&D Law”), to finance a significant portion of our research and development expenditures in Israel. In 2017 and 2016, we received \$718 thousand and \$751 thousand, respectively.

In order to meet specified conditions in connection with grants and programs of the IIA, we have made representations to the Israel government about our Israeli operations. One of the grants requires a minimum commitment of three years and we are required to share information with other companies and academics. From time to time, the conduct of our Israeli operations has deviated from our forecasts. If we fail to meet the conditions of the grants, including the maintenance of a material presence in Israel, or if there is any material deviation from the representations made by us to the Israeli government, we could be required to refund the grants previously received (together with an adjustment based on the Israeli consumer price index and an interest factor) and would likely be ineligible to receive IIA grants in the future.

On July 29, 2015, the Israeli Parliament, the Knesset, enacted Amendment No. 7 to the R&D Law (the “R&D Amendment”), which, effective as of January 1, 2016, amends material provisions of the R&D Law, including royalty rates, changes to royalty rates upon transfer of manufacturing rights abroad, etc., leaves substantial discretion with the IIA regarding some of the core issues of the R&D Law, thus causing much ambiguity as to the implementation of the R&D Amendment and its effect on companies which developed know-how using funds received from the OCS. The IIA has recently published a directive incorporating most of the former provisions, including those with respect to transfer of manufacturing rights, transfer of know-how and others. The restrictions stated above, or similar or other restrictions and requirements for payment may impair our ability to sell our technology assets outside of Israel or to outsource or transfer development or manufacturing activities with respect to any product or technology outside of Israel.

***You may have difficulties enforcing a U.S. judgment against us and our executive officers and directors or asserting U.S. securities laws claims in Israel.***

Cyren Ltd. is organized under the laws of Israel, and we maintain significant operations in Israel. In addition, a significant portion of our assets are located outside the United States. Service of process upon our non-U.S. resident directors and enforcement of judgments obtained in the United States against them and Cyren Ltd. may be difficult to obtain within the United States. It may be difficult to enforce civil causes of actions under U.S. securities law in original actions instituted in Israel. Israeli courts may refuse to hear a claim based on a violation of U.S. securities

laws because Israel is not the most appropriate forum 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 substance of the applicable U.S. law must be proved as a fact, which can be a time-consuming and costly process. Certain matters of procedure will also be governed by Israeli law. Furthermore, there is little binding case law in Israel addressing these matters.

Israeli courts might not enforce judgments rendered outside Israel which may make it difficult to collect on judgments rendered against us. Subject to certain time limitations, an Israeli court may declare a foreign civil judgment enforceable only if it finds that (a) the judgment was rendered by a court which was, according to the laws of the state of the court, competent to render the judgment; (b) the judgment may no longer be appealed; (c) the obligation imposed by the judgment is enforceable according to the rules relating to the enforceability of judgments in Israel and the substance of the judgment is not contrary to public policy; and (d) the judgment is executory in the state in which it was given.

Even if these conditions are satisfied, an Israeli court will not enforce a foreign judgment if it was given in a state whose laws do not provide for the enforcement of judgments of Israeli courts (subject to exceptional cases) or if its enforcement is likely to prejudice the sovereignty or security of the State of Israel. An Israeli court also will not declare a foreign judgment enforceable if (i) the judgment was obtained by fraud; (ii) there is a finding of lack of due process; (iii) the judgment was rendered by a court not competent to render it according to the laws of private international law in Israel; (iv) the judgment is at variance with another judgment that was given in the same matter between the same parties and that is still valid; or (v) at the time the action was brought in the foreign court, a suit in the same matter and between the same parties was pending before a court or tribunal in Israel.

***Provisions of Israeli law may delay, prevent or make difficult an acquisition of Cyren Ltd., which could prevent a change of control and therefore depress the price of our shares.***

Israeli corporate law regulates mergers and acquisitions of shares through tender offers, requires special approvals for transactions involving officers, directors or significant shareholders and regulates other matters that may be relevant to these types of transactions. Furthermore, Israeli tax considerations may make potential transactions unappealing to us or to 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, Israeli tax law allows for tax deferral in certain circumstances but makes the deferral contingent on the fulfillment of a number of conditions, including 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 and other similar provisions could delay, prevent or impede an acquisition of our company or our merger with another company, even if such an acquisition or merger would be beneficial to us or to our shareholders.

***Your rights and responsibilities as a shareholder will be governed by Israeli law which differs in some respects from the rights and responsibilities of shareholders of U.S. companies.***

We are incorporated under Israeli law. The rights and responsibilities of the holders of our ordinary shares are governed by our Articles of Association and Israeli law. These rights and responsibilities differ in some respects from the rights and responsibilities of shareholders in typical U.S.-based corporations. In particular, a shareholder of an Israeli company has a duty to act in good faith toward the company and other shareholders and to refrain from abusing its power in the company, including, among other things, in voting at the 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 interested party transactions requiring shareholder approval. In addition, a controlling shareholder, a shareholder who knows that it possesses the power to determine the outcome of a shareholder vote or to appoint or prevent the appointment of a director or executive officer in the company has a duty of fairness toward the company. There is limited case law available to assist us in understanding the implications of these provisions that govern shareholders' actions. 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.

***As a foreign private issuer whose shares are listed on the NASDAQ Capital Market, we may follow certain home country corporate governance practices instead of certain NASDAQ requirements.***

As a foreign private issuer whose shares are listed on the NASDAQ Capital Market, we are permitted to follow certain home country corporate governance practices instead of certain requirements of the NASDAQ listing rules.

Among other things, we may follow home country practice with regard to composition of our Board of Directors, or Board, and quorum requirements at shareholders' meetings. In addition, we may follow our home country law, instead of the NASDAQ listing rules, which require that we obtain shareholder approval for certain dilutive events, such as for the establishment or amendment of certain equity-based compensation plans, an issuance that will result in a change of control of the Company, certain transactions other than a public offering involving issuances of a 20% or more interest in the Company and certain acquisitions of the stock or assets of another company.

A foreign private issuer that elects to follow a home country practice instead of NASDAQ requirements must submit to NASDAQ in advance a written statement from an independent counsel in such issuer's home country certifying that the issuer's practices are not prohibited by the home country's laws. In addition, a foreign private issuer must disclose in its annual reports filed with the SEC or on its website each such requirement that it does not follow and describe the home country practice followed by the issuer instead of any such requirement (see Item 16G. "Corporate Governance" for a list of those home country practices followed by us). Accordingly, our shareholders may not be afforded the same protection as provided under NASDAQ's corporate governance rules.

*We will likely lose our foreign private issuer status this year, and be deemed a 'domestic issuer' commencing January 2019 which will subject us to increased expenses.*

While we currently qualify as a foreign private issuer, the determination of foreign private issuer status is made annually on the last business day of our most recently completed second fiscal quarter. Accordingly, the next determination will be made on June 30, 2018. If, on such date, Warburg Pincus continues to hold more than 50% of our ordinary shares, we will lose our foreign private issuer status and be deemed a US domestic issuer as of January 2019.

The regulatory and compliance costs to us under U.S. securities laws as a U.S. domestic issuer will be significantly higher than the costs we currently incur as a foreign private issuer. As a domestic issuer, we will, among other things, be subject to more detailed and extensive reporting requirements than those applicable to foreign private issuers (such as annual reports on Form 10-K and quarterly reports on Form 10-Q) and be subject to the US proxy rules. We will also be required to make certain changes to our corporate governance practices and update certain of our policies to comply with requirements applicable to U.S. domestic issuers. We expect that compliance with these additional requirements will result in significant legal and financial compliance costs and will make some activities more time consuming and costly. In addition, we expect that our management and other personnel will need to divert attention from operational and other business matters to devote substantial time to these requirements.

#### **Item 4. Information on the Company.**

##### **A. History and development of the Company**

We were incorporated as a private company under the laws of the State of Israel on February 10, 1991 and our legal form is a company limited by shares. We became a public company on July 15, 1999 under the name Commtouch Software Ltd. In January 2014, we changed our legal name to Cyren Ltd.

Our principal executive offices are located at 10 Hamenofim St., 5<sup>th</sup> Floor, Herzliya, Israel 46140, where our telephone number is 972-9-863-6888. Our Amended and Restated Articles of Association, or Articles of Association, are on file in Israel with the Israeli Securities Authority ("ISA") and available for public inspection online through the ISA website at <https://www.magna.isa.gov.il>.

Our authorized agent in the United States is our subsidiary, Cyren Inc. located at 1430 Spring Hill Road, Suite 330, McLean, Virginia 22102.

The Company finances the capital expenditures from operations. The Company continues to invest in capital expenditures that support the growth of the Company's business and support the rollout of new products and services.

## **B. Business Overview**

### **Cyren Overview**

Purpose built for the cloud, Cyren is an early pioneer and leading innovator of SaaS security solutions that protect businesses and their employees and customers from threats on the web, in email and on mobile devices. Our mission is to protect people and organizations from cyber threats when they use the internet.

Cyren's cloud-first approach to security sets us apart from other vendors in the market. Cyren is an internet security company that is delivering security results that are disrupting legacy vendors and appliance-based solutions. Our security solutions are architected around the fundamental belief that internet security is a race against time – and the cloud best enables the speed, sophistication and advanced automation needed to detect and block threats as they emerge on the internet. As more and more businesses move their data and applications to the cloud, they need a security provider that is able to keep pace.

Today's internet threats are faster and stealthier than ever. As cybercrime has become more sophisticated, every malware, phishing and ransomware variant is unique, making it more difficult to detect and block attacks. While organizations have traditionally protected their users with gateway security appliances at their network perimeter, more frequent and evasive attacks combined with a more distributed workforce are reducing the effectiveness of this approach. Traditional appliances lack the real-time threat intelligence and processing power to detect emerging threats, and the growth of mobile devices and an increasingly distributed workforce mean that more and more business is conducted outside of the traditional network perimeter. As a result, when new attacks appear in a matter of seconds, legacy appliances can leave companies vulnerable for hours, days or even weeks.

Cyren's security cloud delivers faster detection and protection, with SaaS security solutions that inspect web and email traffic before it reaches a user's browser or inbox – often identifying and blocking threats in just seconds. Our SaaS solutions are easy to deploy and manage, delivering critical security and faster innovation, for a low total cost of ownership.

## **Our Offerings**

Cyren's cloud security services are delivered via two security platforms:

**Cyren Cloud Security (CCS)** – this SaaS security platform is designed for enterprise customers, and is sold either directly or through channel partners. Cyren Cloud Security services include Web Security, Email Security, DNS Security and Cloud Sandboxing.

**Cyren Threat Intelligence Services (TIS)** – this platform offers cloud-based cyber threat detection APIs, and SDKs to many of the world's leading technology and security vendors. Cyren Threat Intelligence Services include Email Security, Web Security, Endpoint Security, and Advanced Threat Protection.

These platforms are powered by Cyren GlobalView™, Cyren's global security cloud (see Figure 1 below) that identifies emerging threats in real time. GlobalView analyzes over 25 billion security transactions each day, using big data analytics, artificial intelligence, machine learning and advanced heuristics to rapidly detect and prevent sophisticated attacks. By inspecting internet traffic in the cloud, Cyren identifies and automatically blocks threats as they emerge on the internet, stopping threats in seconds before they reach users. Google, Microsoft and Check Point are just a few of the organizations that depend on Cyren to power their security infrastructure.



Figure 1: The Cyren GlobalView security cloud applies advanced detection engines against massive volumes of security transactions in real time to identify emerging cyber threats in seconds.

## **Cyren GlobalView**

With massive volumes of enterprise and consumer traffic from more than 180 countries, GlobalView is able to see and analyze emerging threats on the internet within seconds. The key to GlobalView's detections capabilities include:

**Massive Security Data** – Everyday, Cyren processes more than 25 billion security transactions generated by over 1.3 billion users worldwide to detect cyber threats as they emerge – including thousands of new, never-been-seen malicious IP addresses, phishing sites and URLs. As a result, Cyren is able to identify new and emerging threats in seconds.

**Comprehensive Detection Technologies** – Cyren's proprietary detection engines leverage big data analytics, advanced heuristics, recurrent pattern detection, behavioral sandboxing, and machine learning, all tied together in a single-pass streaming architecture that applies these detection techniques in parallel. Distributed, massively scalable, and fault tolerant, this approach delivers fully automated real-time threat identification with zero human intervention across web, DNS, email, and files.

**Advanced Cyber Intelligence** – Real-time, actionable cyber intelligence services are used by over 200 technology and security providers including Google, Microsoft and Check Point. The breadth and accuracy of our security cloud identifies and blocks more than 300 million threats each day, and enables protection from malicious messages, hosts and websites, and instantly automates protection for all users.

Figure 2: Cyren Cloud Security is a 100% cloud-delivered SaaS security platform.

### **Cyren Cloud Security:**

Cyren Cloud Security (CCS) offers enterprise customers a broad set of internet security services from a common integrated platform (see Figure 2 above), referred to by some in the industry as a “secure internet gateway”. The services include Cyren Web Security (a SaaS secure web gateway), Cyren Email Security (a SaaS secure email gateway), Cyren DNS Security (a SaaS DNS web filtering solution), and Cyren Cloud Sandboxing (an advanced threat protection service integrated into Cyren Web Security and Cyren Email Security, and also available as a standalone service). These products are all available on the CCS platform, leveraging shared threat detection services, a common policy framework, integrated reporting, customer onboarding and license management. Each of these service offerings may be purchased separately, or as part of a bundled suite. All products are sold on a per-user SaaS subscription model, providing customers with a quick-to-deploy, easy-to-manage solution and a low total cost of ownership.

**Cyren Web Security** – provides enforcement of Web policy and state-of-the-art threat protection for business users, with intrinsic SaaS simplicity: quick to deploy, easy to manage, comprehensive in coverage, and requiring just a subscription to start. Cyren Web Security offers multilayered proxy-based defense-in-depth, protecting organizations from a broad range of threats including ransomware, malicious URLs, phishing attacks, viruses, zero-day malware, botnets, and much more.

**Cyren DNS Security** – keeps users safe from web-borne threats and blocks inappropriate content with a cloud service which is easy to deploy and simple to manage. Cyren DNS Security allows businesses to quickly and easily protect employees at headquarters, visitors in remote offices, customers at retail stores, or students on a campus. Featuring a simple policy-based set-up, businesses can block malicious phishing and botnet sites, stop people from accessing specific types of websites, enforce “safe search,” and ensure a positive web experience for users.

**Cyren Email Security** – a comprehensive cloud-based secure email gateway that works well with both on premise and cloud-based business email, Cyren Email Security filters an organization’s inbound and outbound email to protect users from cyber threats and spam, and offers email archiving for easier eDiscovery and regulatory compliance. Inbound email security protects against malware, phishing, business email compromise, and more, with advanced threat protection from cloud sandboxing, malware outbreak protection and time-of-click analysis. Support for SPF (Sender Policy Framework) provides sender validation to prevent email spoofing, while policy-based encryption protects sensitive email communications. Outbound protections block botnet-infected devices from sending malware or spam from a customer’s domain.

**Cyren Sandboxing** – an advanced layer of security that augments Cyren’s web and email security services, Cyren Sandboxing protects businesses against breaches and data loss from today’s most sophisticated and evasive threats. Cyren Sandboxing “detonates” suspicious files and URLs to determine if they are malicious, even threats that have never been seen before, including zero-day exploits, targeted attacks, and advanced persistent threats. Because these kinds of threats are increasingly “sandbox aware” as hackers use diverse strategies to evade detection by traditional sandboxing appliances, Cyren’s unique cloud sandbox array technology (see Figure 3 below) automatically detonates these malicious files and embedded URLs across multiple different sandboxes until they express their full set of behaviors.

Figure 3: Cyren’s patent-pending cloud sandbox array technology continues to detonate suspicious files until their full malicious behavior has been expressed.

### **Threat Intelligence Services**

Used and trusted by many of the world’s leading technology, network and security vendors, Cyren Threat Intelligence Services empower technology companies with the real-time detection capabilities of our GlobalView™ threat intelligence network, backed by a dedicated technical and commercial support model. Our globally comprehensive and unique insights into current and emerging threats are provided as individual cyber intelligence services in four service categories:

**Email Security** – Our embedded email security includes a complete set of protection that can be deployed in a wide range of configurations. Suitable as a core security offering or as a complementary layer, the flexible engine easily integrates into existing platforms, minimizing costs, without affecting performance. Available services include:

Anti-Spam Inbound Service

Anti-Spam Outbound Service

URL Filtering

IP Reputation Service for Email

Virus Outbreak Detection

Anti-Malware

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**Web Security** – Our comprehensive web security delivers real-time threat intelligence in various configurations for robust, integrated and automated threat detection that delivers a superior view of threats as they emerge. Our intelligence platform automatically investigates IPs, domains, hosts and files associated with suspect behaviors and maintains risk scores that enable rapid reclassification of entities based on associated activity. Available services include:

Cyren Anti-Malware

URL Filtering

DNS Security

**Endpoint Security** – Cyren’s Endpoint Security detects malware on a variety of endpoints, including mobile devices and embedded operating system devices through a variety of capabilities, including:

Anti-Malware for Mobile

URL Filtering for Mobile

Anti-Malware for Next-Gen Endpoint solutions

Inbound and Outbound IoT Gateway protection

**Advanced Threat Protection** – As cybercrime becomes faster and more sophisticated, Cyren’s embedded Advanced Threat Protection (ATP) delivers superb intelligence and detection of the most advanced cyber threats. Ideal for a range of partners, including mobile device management (MDM) platforms, business app developers, security vendors, app stores, device manufacturers and mobile operators, ATP includes reliable and proven tools for combating mobile malware, ransomware and other web-borne threats

Real-Time Phishing Intelligence

Real-Time Malware Intelligence

Real-Time IP Intelligence

Cloud Threat Lookup

Cloud Sandbox Array

Real Time Phishing and Fraud Intelligence.

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## Sales and Marketing

Cyren's cloud security solutions are sold into two markets:

### *Enterprise SaaS.*

In this market segment, enterprise customers purchase our CCS web and email security solutions to protect their employees, data and IP.

### *OEM/embedded security partners.*

In this market segment, our partners integrate Cyren Threat Intelligence Services and cloud detection services into their infrastructure or security products to protect their customers and users.

## *Enterprise SaaS Market*

### *Sales*

Our sales and marketing programs are organized by geographic regions, including EMEA, North America, and Asia Pacific. We organize our sales force into teams that focus on large enterprises (3,000 employees and above), and mid-sized organizations (200 - 3,000 employees).

We sell through both direct and indirect channels, including value added resellers and managed service providers:

*Direct sales.* We market and sell our solutions to enterprise customers directly through our field and inside sales teams, as well as indirectly through a co-selling model where our sales organization actively assists our network of distributors and resellers. Our sales personnel are primarily located in North America and EMEA, with additional personnel located in Asia-Pacific.

*Reseller channel.* We engage our value added resellers via a two-tier distribution model, where resellers purchase Cyren services through their distribution partner, as opposed to directly from us, and distributors provide sales support services such as technical support, education, training and financial services. Our reseller partners maintain relationships with their customers throughout the territories in which they operate, providing them with services and



third-party solutions to help meet their evolving security requirements. As such, these partners act as a direct conduit through which we can connect with these prospective customers to offer our solutions. Our channel distribution partners include security and cloud-centric distributors such as Arrow, Cloud Distribution, ALSO and Synnex.

*Managed service providers.* Unlike many other security products on the market today, Cyren's CCS platform is architected as an integrated platform offering multi-tenant cloud services and delegated administration. This enables our MSP partners to operate our services on behalf of multiple customers, allowing them to deliver turnkey internet security services to their customer bases. Our MSP distribution partners include security and cloud-centric distributors like Carvir, Daisy, and Arrow.

### *Marketing*

We have a number of marketing initiatives to build awareness about our solutions and encourage customer adoption of our solutions. Our marketing programs include a variety of digital marketing, advertising, conferences, events, white-papers, public relations activities and web-based seminar campaigns targeted at key decision makers within our prospective customers. We offer free online diagnostic tools to identify security gaps, free trials, and competitive evaluations to allow prospective customers to experience the quality of our solutions, to learn in detail about the features and functionality of our suite, and to quantify the potential benefits of our solutions.

In addition, we create integrated sales and marketing programs targeting specific market segments, including vertical markets and competitive/disruption campaigns. This target-market approach enables us to provide a higher level of service and understanding of our customers' unique needs, including the industry-specific business and regulatory requirements in their industries, as well as specific pain points and limitations of their incumbent legacy appliance solutions

### ***OEM/Embedded Security Partner Market***

#### *Sales*

We target two segments to primarily sell our Threat Intelligence Services within this embedded solutions market:

*Service providers.* Organizations offering internet access or email services that need to protect their customers from internet threats. For these partners, we offer carrier-class email security, web security, and advanced threat protection services that can be integrated into their large-scale, high performance infrastructures.

*Security vendors.* Network equipment and security vendors offering endpoint, gateway, and cloud-based solutions that need to augment their security capabilities, or integrate third party best-of-breed internet security capabilities into their products. For these partners, we offer cloud-based APIs and SDKs for email security, web security, endpoint protection, and advanced threat protection that can be integrated into their on premise appliances or cloud solutions.

Our sales team for this segment is organized by geographic regions, including EMEA, North America, and Asia Pacific. The sales process for this segment entails consultative, technical business development engagements working with partner product management and engineering teams to architect and integrate our solutions into their products. Recent wins in 2017 include deals with customers such as Rackspace and Microsoft.

#### *Intellectual Property*

We regard our patented and patent pending anti-spam and antivirus technology, copyrights, service marks, trademarks, trade secrets and similar intellectual property as critical to our success, and rely on patent, trademark and copyright law, trade secret protection and confidentiality and/or license agreements with our employees, customers, partners and others to protect our proprietary rights.

In 2004, we purchased a United States patent, U.S. Patent No. 6,330,590 that relates to the RPD technology used in many of our security solutions. During 2006, we filed a provisional patent application in the United States relating to the prevention of spam in streaming systems or, in other words, unwanted conversational media sessions (i.e., voice and video related). This provisional application was converted to a formal patent application and that application was then divided into three applications. The United States Patent and Trademark Office granted the original application as United States Patent No. 7,849,186. The three divisional patents were also subsequently granted as United States Patent No. 7,991,919, United States Patent No. 8,190,737 and United States Patent No. 8,195,795, all of which have a term concurrent with US Patent No. 7,849,186. In 2016, we filed a provisional patent application in the United States relating to a multi-sandbox array that utilizes unique intellectual property we developed in support of our cyber threat protection capabilities. In February 2017, we converted this provisional application into patent applications for the multi-sandbox array in the United States, Europe and Israel. We may seek to patent certain additional software or other technology in the future.

We have trademarks for our company name “Cyren” and we are also maintaining our registered trademark for “CommTouch”, which is registered in the U.S., Canada, Israel, European Union and China. Through acquisition, we also acquired registered trademarks such as “FRISK”, “F-PROT”, “eleven”, “Expurgate” and “Command Antimalware”. We may allow certain of these trademarks to lapse over time. Since at least September 2003, we have claimed common law trademark rights in “RPD” and “Recurrent Pattern Detection”, as applicable to our messaging security solutions. We have also been claiming common law trademark rights in “Zero-Hour” in relation to our virus outbreak detection product (and more recently one of our web security products) and “GlobalView” in relation to our Internet Protocol, or IP, reputation and web security products, as well as our “cloud computing” network infrastructure.

It may be possible for unauthorized third parties to copy or reverse engineer certain portions of our products or obtain and use information that we regard as proprietary. In addition, the laws of some foreign countries do not protect proprietary rights to the same extent as do the laws of the United States. There can be no assurance that our means of protecting our proprietary rights in the United States or abroad will be adequate or that competing companies will not independently develop similar technology.

Other parties may assert infringement claims against us. We may also be subject to legal proceedings and claims from time to time in the ordinary course of our business, including claims of alleged infringement by us and/or our customers of the trademarks and other intellectual property rights of third parties. Our customer agreements typically include indemnity provisions so we may be obligated to defend against third party intellectual property rights infringement claims on behalf of our customers. Such claims, even if not meritorious, could result in the expenditure of significant financial and managerial resources.

#### *Government Programs*

Under the R&D Law, as in effect prior to the R&D Amendment, research and development programs approved by the Research Committee of the OCS (the "Research Committee") were eligible for grants or loans if they met certain criteria, in return for the payment of royalties from the sale of the product developed in accordance with the program and subject to other restrictions. Once a project was approved, the OCS awarded grants of up to 50% of the project's expenditures in return for royalties, usually at the rate of 3% to 6% of sales of products developed with such grants. For projects approved after January 1, 1999, the amount of royalties payable was up to a dollar-linked amount equal to 100% of such grants plus interest at LIBOR.

The terms of these grants, in accordance with the pre-R&D Amendment regime, prohibited the manufacture outside of Israel of the product developed in accordance with the program without the prior consent of the Research Committee. Such approval was generally subject to an increase in the total amount to be repaid to the OCS to between 120% and 300% of the amount granted, depending on the extent of the manufacturing that was conducted outside of Israel.

The R&D Law, as in effect prior to the R&D Amendment, also provided that know-how from the research and development, which was used to produce the product, could not be transferred to Israeli third parties without the approval of the Research Committee. Until 2005, the R&D Law stated that such know-how could not be transferred to non-Israeli third parties at all. An amendment to the R&D Law has set forth certain exceptions to this rule; however, the practical implications of such exceptions were quite limited. The R&D Law, as in effect prior to the R&D Amendment, stressed that it was not just transfer of know-how that was prohibited, but also transfer of any rights in such know-how. Such restriction did not apply to exports from Israel of final products developed with such technologies. Approval of the transfer could be granted only if the transferee undertook to abide by all of the provisions of the R&D Law and regulations promulgated thereunder, including the restrictions on the transfer of

know-how and the obligation to pay royalties.

On July 29, 2015, the Israeli Parliament, the Knesset, enacted the R&D Amendment. Pursuant to the R&D Amendment, the OCS was replaced with the Israel Innovation Authority (“IIA”), which is comprised of a Council body, the Chief Scientist, the Director General and a member of the Research Committee. According to the R&D Amendment, the Council will have broad discretion regarding material matters, including with respect to the new funding programs (“Tracks”), will be required to determine certain characteristics (which are mainly technical but also include the type of Benefit (“Benefit”, as defined under the R&D Amendment, includes grants, loans, exemptions, discounts, guarantees and additional means of assistance, but with the exclusion of purchase of shares) to be granted as well as its scope, conditions for receipt of approval for the Benefit and the identity of the party which is permitted to perform the approved activities, and may determine additional matters, including delay in payment of the Benefit and requests for provision of guarantees for its receipt, payment of an advance by the IIA, what know-how will be developed and requirements regarding its full or partial ownership, provisions regarding transfer, disclosure or exposure of know-how to third parties in Israel and abroad (including payment or non-payment for the same, as well as ceilings for such payments), requirements with respect to manufacture in Israel and transfer of manufacture abroad (including payment for such transfer), performance of innovative activities for the benefit of third parties, etc. In addition, while the pre-R&D Amendment regime provided base-line default terms and conditions with respect to the core issues relevant for OCS grant recipients, as provided above, these default provisions have been largely rescinded by the R&D Amendment. Many of these matters will now be decided separately for each Track by the Council, based on certain guidelines stipulated in the R&D Amendment. Such guidelines provide, for example, that considerable preference should be given to having ownership of IIA-funded know-how and rights vest with the Benefit recipient and/or with an Israeli company, with transfer of know-how and related rights abroad to be permitted only in exceptional circumstances. In addition, the R&D Amendment stipulates that the transfer of manufacturing rights abroad, whether under a license or otherwise, shall only be allowed in special circumstances. Nonetheless, these matters are merely guidelines, and the essential matters will be determined by the Council in its discretion. On May 7, 2017, the IIA published the Rules for Granting Authorization for Use of Know-How Outside of Israel (the “Licensing Rules”). The Licensing Rules enable the approval of out-licensing arrangements and other arrangements for granting of an authorization to an entity outside of Israel to use know-how developed under research and development programs funded by the IIA. Subject to payment of a “License Fee” to the IIA, at a rate that will be determined by the IIA in accordance with the Licensing Rules, the IIA may now approve arrangements for the license of know-how outside of Israel. This allows companies that have received IIA support to commercialize know-how in a manner which was not previously available. The IIA has recently published a directive incorporating most of the former provisions, including those with respect to transfer of manufacturing rights, transfer of know-how and others.

### *Government Regulation*

Laws aimed at curtailing the spread of spam have been adopted by the United States federal government, i.e., the CAN-SPAM Act, and certain individual U.S. states, with the CAN-SPAM Act superseding some state laws or certain elements thereof. The Israel government has also adopted an amendment to the Communications Law, 1982, aimed at curtailing the spread of spam transmittal of commercial advertisements by email, fax, SMS or automated dialing systems without the consent of the recipient. The law sets punitive fines for advertisers of spam, who may also be subject to civil lawsuits and class actions. In addition, on June 21, 2017, the Israeli Privacy Protection Authority released a Directive that addresses direct mail and direct mail services, according to which the nature of the consent required for direct mail and direct mail services varies under the circumstances.

The propagation of email viruses, whether through email or websites, which are aimed at destroying or stealing third party data, is illegal under standard state and federal law outlawing theft, misappropriation, conversion, etc., without the need for special legislation prohibiting such activities on the Internet. Despite the existence of these laws, sources for Internet viruses continue to spread multi-variant viruses seemingly without much fear of recrimination. New laws providing for more stringent penalties could be adopted in various jurisdictions, but it is unclear what, if any, affect these would have on the antivirus industry in general and our solutions in particular.

On October 6, 2015, the European Court of Justice invalidated the U.S. - EU Safe Harbor framework and the Swiss data protection authorities later invalidated the U.S.-Swiss Safe Harbor framework. Subsequently, the U.S. and E.U. announced agreement on a new framework for transatlantic data flows entitled the EU-US Privacy Shield. We have applied for Privacy Shield Certification with the U.S. Department of Commerce and expect to be certified shortly. However, it is possible that Privacy Shield may be challenged in EU courts, so there is some uncertainty regarding its future validity and our ability to rely on it for EU to US data transfers. Additionally, the EU has enacted the new General Data Protection Regulation (GDPR), which will take effect on May 25, 2018 and carries with it significantly increased responsibilities and potential penalties for companies that process EU personal data. As the GDPR effective date approaches, we expect increased regulatory and customer attention surrounding data privacy in the EU. Furthermore, outside of the EU, we continue to see increased regulation of data privacy and security, including the adoption of more stringent subject matter specific state laws, national laws regulating the collection and use of data, and security and data breach obligations. We have invested heavily in data sovereignty features to ensure that Cyren customer data is handled in accordance with applicable law.

We will continue to monitor legal requirements and will follow additional legal requirements for customer data privacy as they evolve.

### *Geographic Information*

The Company conducts its business on the basis of one reportable segment.

*Revenues for Last Three Financial Years*

See Item 5. Operating and Financial Review and Prospects – “Revenue Sources” and the financial statements included elsewhere in this Annual Report. Below is a breakdown of our revenues by location (in thousands of U.S. dollars):

	Year Ended December 31,		
	2017	2016	2015
United States	\$12,407	\$12,921	\$11,424
Europe	12,992	12,446	10,786
Asia Pacific	2,724	2,696	3,436
Israel	2,397	2,832	1,958
Other	279	88	158
	\$30,799	\$30,983	\$27,762

*Competitive Landscape*

The markets in which Cyren competes are intensely competitive and rapidly changing. However, we believe there are very few competitors that offer the complete package of anti-spam, antivirus, threat intelligence, email security and web security protections that Cyren provides.

The principal competitive factors in our industry include price, product functionality, product integration, platform coverage and ability to scale, worldwide sales infrastructure and global technical support. Some of our competitors have greater financial, technical, sales, marketing and other resources than we do, as well as greater name recognition and a larger installed customer base. Additionally, some of these competitors have research and development capabilities that may allow them to develop new or improved products that may compete with product lines and services we market and distribute, possibly at a lower cost. Our success will depend on our ability to adapt to these competing forces, to develop more advanced products more rapidly and less expensively than our competitors and/or to purchase new products by way of strategic acquisitions, and to educate potential OEM customers as to the benefits of using our products rather than developing their own products.

In the market for messaging security solutions, there are sophisticated offerings that compete with our solutions. Email defense security providers offering forms of Software-as-a-Service packaged software (gateway), multi-functional appliances and managed service solutions and which may be viewed as both competitors and potential customers to Cyren include Google, Symantec, McAfee, Cisco, Proofpoint, and Mimecast. Messaging



security providers offering solutions on an OEM basis similar to Cyren's business model, and which may be viewed as direct competitors, include Cloudmark (acquired by Proofpoint), Mailshell and Vade Secure.

The market for real-time virus protection products is also constantly evolving, as those designing and proliferating viruses and other malware seek new vulnerabilities and distribution techniques, and also continue to leverage email distribution as a cost-effective medium for accurately targeting broad, numerous potential victims. Cyren's real-time offering differs from traditional antivirus solutions by leveraging our global footprint and patented RPD technology to rapidly detect outbreaks, often hours or days before traditional antimalware solutions; it thereby offers a complementary solution to signature and heuristic-based antivirus engines. For this reason, our virus outbreak detection engine has been deployed by many security companies and service providers.

In the market for antimalware solutions, there are vendors offering fairly effective solutions using various technologies based on signatures, emulation and heuristics. Cyren has a targeted OEM/service provider focus, plus an increasing focus on heuristics and zero day effectiveness. Most companies in this space provide endpoint products and in some cases make software development kits available on an OEM basis. Competitors to Cyren include Sophos, Bitdefender, Kaspersky, McAfee, Symantec and open source software such as Clam-AV.

In the market for web security solutions, there are advanced offerings that compete with our GlobalView URL filtering solution and CWS. Web security providers offering forms of software (gateway), multi-functional appliances and managed service solutions and which may be viewed as both competitors and potential customers to Cyren include McAfee, ForcePoint, Symantec (BlueCoat), Zscaler, Barracuda, and Cisco (OpenDNS). Web security providers offering solutions on an OEM basis similar to Cyren's business model, and which may be viewed as direct competitors, include Webroot (BrightCloud) and Symantec (RuleSpace).

We expect that the markets for Internet security solutions will continue to become more consolidated, with companies increasing their presence in this market or entering ancillary markets by acquiring or forming strategic alliances with our competitors or business partners, such as ForcePoint's acquisitions of Websense and Stonesoft, Symantec's acquisition of BlueCoat, and Cisco, Proofpoint, FireEye, and Sophos – each of whom have made several acquisitions in the cloud security sector. See also disclosure under "Item 3. Key Information– Risk Factors—Business Risks— we face intense competition and could lose market share to our competitors, which could adversely affect our business, financial condition and results of operations."

### **C. Organizational Structure**

The Company wholly owns the following main subsidiary companies:

- a. Cyren Inc., a Delaware corporation and a wholly owned subsidiary of the Company, which has its principal office located in McLean, VA plus two supporting offices located in Sunnyvale, CA and Austin, TX.
- b. Cyren Iceland hf, a limited liability company organized and existing under the laws of Iceland and wholly owned by the Company, with an office in Hafnarfjordur, Iceland.
- c. Cyren Gesellschaft mbH, a German limited liability company wholly owned by the Company, with an office in Berlin, Germany.
- d. Cyren UK Ltd, a United Kingdom limited liability company wholly owned by the Company, with an office in Bracknell, UK.

### **D. Property, plants and equipment**

Property and equipment costs recorded on our consolidated balance sheet as of December 31, 2017, 2016, and 2015 consisted of the following:

*Property and equipment, net*

	Year Ended December 31,		
	2017	2016	2015
	(in thousands)		
Cost:			
Computers and peripheral equipment	\$11,782	\$10,019	\$9,309
Office furniture and equipment	1,293	1,194	1,118
Leasehold improvements	1,896	1,677	1,619
	14,971	12,890	12,046
Less accumulated depreciation	(12,184)	(10,809)	(9,725)
Property and equipment, net	\$2,787	\$2,081	\$2,321

All of our facilities are leased.

Our office in Herzilya, Israel, is approximately 18,342 square feet and houses research and development, sales, marketing, support and administrative personnel. Our U.S. subsidiary Cyren Inc. is headquartered in McLean, Virginia in an office of approximately 4,707 square feet and it houses executive management, finance, HR and administrative personnel; its office in Sunnyvale, California (approximately 2,497 square feet), is staffed by operations, sales and marketing personnel; and its office in Austin, TX (approximately 9,128 square feet) which houses sales and marketing personnel. A portion of our leased office space in the United States has been sub-leased. Our subsidiary Cyren Iceland hf is located in Hafnarfjordur, Iceland in an office of approximately 7,136 square feet, which houses antivirus research and development and operations and some administrative personnel. Our subsidiary Cyren GmbH is based in Berlin, Germany, in an office of approximately 10,333 square feet, which houses research and development, operations, sales, marketing and administrative personnel. Our subsidiary Cyren UK Ltd. is based in Bracknell, UK in an office of approximately 3,180 square feet, which houses sales and marketing personnel.

#### **Item 4A. Unresolved Staff Comments.**

Not applicable.

#### **Item 5. Operating and Financial Review and Prospects.**

##### *Overview*

From 2003 through 2008, the sole focus of our business had been the development and selling, through reseller and OEM distribution channels, of anti-spam, Zero-Hour virus outbreak detection and IP reputation solutions to a wide array of customers. During late 2008, we expanded our focus by way of the release of our first URL filtering solutions for the web security market. In September 2010, we acquired certain assets comprising the Command Antivirus business unit of Authentium, Inc. On October 1, 2012, the Company completed the acquisition of the antivirus business of Frisk. The acquisition has enabled the Company to provide antivirus technology utilizing the combined resources of both organizations. On November 16, 2012, the Company completed the acquisition of eleven. The acquisition of eleven has enabled Cyren to accelerate delivery of private label cloud-based security solutions, specifically designed for the OEM and service provider markets. In January 2014, the Company rebranded itself from Commtouch to Cyren, and later that year launched Cyren WebSecurity version 1.0 which built on the Company's SDK technology, as well as the acquisitions from eleven and FRISK, to deliver a cloud-based Security-as-a-Service platform. Since 2014 CWS has continued to mature and during the first quarter of 2016 the Company launched CWS 3.0 that leverages Cyren's deep technology and security data assets, as well as cyber threat and advanced malware detection. In March 2017, the Company launched CCS 4.0, which unified CWS, CES, Cyren DNS security and cloud sandboxing on a single globally operated security as a service platform. On April 9, 2018, the Company launched its most recent version CCS 4.3 which includes cryptocurrency mining protection, imposter protection and cloud application access control.

*Critical Accounting Policies and Estimates*

This “Item 5. Operating and Financial Review and Prospects” section is based upon the Company’s consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States (“U.S. GAAP”). The preparation of these financial statements requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. Actual results could differ from those estimates. On an ongoing basis, the Company’s management evaluates estimates. Such estimates are based on historical experience and on various other assumptions that are believed to be reasonable, the results of which form the basis for making judgments about the carrying values of assets and liabilities.

*Intangible Assets*

Intangible assets that are not considered to have an indefinite useful life are amortized over their estimated useful lives, which range from 1 to 15 years. Acquired customer contracts and relationships are amortized over their estimated useful lives in proportion to the economic benefits realized. This accounting policy results in accelerated amortization of such customer contracts and relationships arrangements as compared to the straight-line method. Technology, Intellectual Property and Trademark are amortized over their estimated useful lives on a straight-line basis.

### *Impairment of Long-Lived Assets*

The Company's long-lived assets and identifiable intangibles are reviewed for impairment in accordance with ASC 360 "Property, Plant and Equipment", whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable.

Recoverability of these assets is measured by comparison of the carrying amount of each asset group to the future undiscounted cash flows the asset group is expected to generate. If the asset is considered to be impaired, the amount of any impairment is measured as the difference between the carrying value and the fair value of the impaired asset.

For each of the three years in the period ended December 31, 2017, no impairment losses have been identified.

### *Goodwill*

Goodwill represents the excess of the purchase price in a business combination over the fair value of net tangible and intangible assets acquired. Goodwill is not amortized, but rather is subject to an impairment test.

The Company performs an annual impairment test at December 31, of each fiscal year, or more frequently if impairment indicators are present. The Company operates in one operating segment, and this segment comprises its only reporting unit.

ASC 350 prescribes a two-phase process for impairment testing of goodwill. The first phase screens for impairment, while the second phase (if necessary) measures impairment. Goodwill impairment is deemed to exist if the net book value of a reporting unit exceeds its estimated fair value determined using market capitalization. In such case, the second phase is then performed, and the Company measures impairment by comparing the carrying amount of the reporting unit's goodwill to the implied fair value of that goodwill. An impairment loss is recognized in an amount equal to the excess. ASC 350 allows an entity to first assess qualitative factors to determine whether it is necessary to perform the two-step quantitative goodwill impairment test. An entity is not required to calculate the fair value of a reporting unit unless the entity determines, based on a qualitative assessment, that it is more likely than not that its fair value is less than its carrying amount. Alternatively, ASC 350 permits an entity to bypass the qualitative assessment for any reporting unit and proceed directly to performing the first step of the goodwill impairment test. Accordingly, the Company elected to proceed directly to the first step of the quantitative goodwill impairment test and compares the fair value of the reporting unit with its carrying value.

For each of the three years in the period ended December 31, 2017, no impairment losses have been identified.

*Fair Value Measurements*

The carrying amounts of cash and cash equivalents, trade receivables, prepaid expenses, other receivables and trade payables, approximate their fair values due to the short-term maturities of such financial instruments.

Fair value is an exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or a liability. A three-tiered 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 - Quoted prices (unadjusted) in active markets for identical assets or liabilities that the Company can access at the measurement date.

Level 2 - Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly.

Level 3 - Unobservable inputs for the asset or liability.

The availability of observable inputs can vary from instrument to instrument and is affected by a wide variety of factors, including, for example, the type of instrument, the liquidity of markets and other characteristics particular to the transaction. To the extent that valuation is based on models or inputs that are less observable or unobservable in the market, the determination of fair value requires more judgment and the instruments are categorized as Level 3.

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

The Company's earn-out considerations are classified within Level 3. The valuation methodology used by the Company to calculate the fair value of the earn-out considerations is the discounted cash-flow method. The assumptions used in the valuation of the earn-out considerations for the period up to December 31, 2015 included forecasted future revenues and a weighted average cost of capital of 14.32% - 18.45%. During the year ended December 31, 2015, the effect of the measurement of the earn-out consideration fair value was a reduction in the liability of \$75 thousand which was recorded in the statements of operations under adjustments to earn-out consideration in the consolidated financial statements included elsewhere in this Annual Report.

As of December 31, 2017, there are no unobservable inputs remaining which are related to the liability as the period for determining the earn-out considerations value ended as of December 31, 2015. The value as of December 31, 2017 represents the remaining actual undiscounted cash-flow that is expected from the earn-out consideration, including accrued interest expenses and legal fees through December 31, 2017.

### *Revenue Recognition*

The Company derives its revenues from the sale of real-time cloud-based services for each of Cyren's security offerings. The Company sells its solutions primarily through OEMs, which are considered end-users and also sells complete security services directly to enterprises.

Revenue is recognized when there is persuasive evidence of an arrangement, the service has been rendered, the collection of the fee is probable and the amount of fees to be paid by the customer is fixed or determinable.

Revenues from such services are recognized ratably over the contractual service term, which generally includes a term period of one to three years.



Deferred revenues include unearned amounts received from customers, but not yet recognized as revenues. Such revenues are recognized ratably over the term of the applicable agreement.

*Research and development costs, net*

Research and development costs are charged to statements of operations as incurred, except for capitalized technology.

*Capitalized technology*

The Company capitalizes development costs incurred during the application development stage which are related to internal-use technology that supports its security services. Costs related to preliminary project activities and post implementation activities are expensed as incurred as research and development costs on the statements of operations. Capitalized internal-use technology is included in intangible assets on the balance sheet and is amortized on a straight-line basis over its estimated useful life, which is generally one to three years. Amortization expenses are recognized under cost of goods sold. Management evaluates the useful lives of these assets on an annual basis and tests for impairment whenever events or changes in circumstances occur that could impact the recoverability of these assets.

*Accounting for Stock-Based Compensation*

ASC 718 - “Compensation-stock Compensation”- (“ASC 718”) requires companies to estimate the fair value of equity-based payment awards on the date of grant using an option-pricing model. The value of the portion of the award that is ultimately expected to vest is recognized as an expense over the requisite service periods in the Company’s consolidated statements of operations.

The Company recognizes compensation expense for the value of its awards on a straight-line basis over the requisite service period of each of the awards, net of estimated forfeitures. Estimated forfeitures are based on actual historical pre-vesting forfeitures. ASC 718 requires forfeitures to be estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. Estimated forfeitures are based on actual historical pre-vesting forfeitures (pursuant to the adoption of ASU 2016-09, the Company made a policy election to estimate the number of awards that are expected to vest).

The Company estimates the fair value of stock options granted using the Black-Scholes option-pricing model. The option-pricing model requires a number of assumptions, of which the most significant are the expected stock price volatility and the expected option term. Expected volatility was calculated based upon actual historical stock price movements over the most recent periods ending on the grant date, equal to the expected term of the options. The expected term of options granted represents the period of time that options granted are expected to be outstanding, based upon historical experience. The risk-free interest rate is based on the yield from U.S. treasury bonds with an equivalent term. The Company has historically not paid dividends and has no foreseeable plans to pay dividends.

The Company applies ASC 718, and ASC 505-50, “Equity Based Payments to Non-Employees” (“ASC 505-50”), with respect to options issued to non-employees.

The fair value for options granted to employees and directors in 2017, 2016, and 2015 is estimated at the date of grant using a Black-Scholes options pricing model with the following assumptions:

Stock options	Year ended December 31,		
	2017	2016	2015
Volatility	44%-51 %	48%-50 %	42%-48 %
Risk-free interest rate	1.2%-2.1 %	0.8%-1.4 %	1.1%-1.2 %
Dividend yield	0 %	0 %	0 %
Expected life (years)	3.5-5.1	3.4-5.0	3.4-3.9

*Accounting for Income Tax*

The Company accounts for income taxes in accordance with ASC 740, "Income Taxes" ("ASC 740"). ASC 740 prescribes the use of the liability method whereby deferred tax asset and liability account balances are determined based on differences between financial reporting and tax bases of assets and liabilities and are measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse. The Company provides a valuation allowance to reduce deferred tax assets to amounts more likely than not to be realized.

ASC 740 contains a two-step approach to recognizing and measuring a liability for uncertain tax positions. The first step is to evaluate the tax position taken or expected to be taken in a tax return by determining if the weight of available evidence indicates that it is more likely than not that, on an evaluation of the technical merits, the tax position will be sustained on audit, including resolution of any related appeals or litigation processes. The second step is to measure the tax benefit as the largest amount that is more than 50% (cumulative basis) likely to be realized upon ultimate settlement.

*Impact of recently issued accounting standards*

In May 2014, the FASB issued ASU No. 2014-09, Revenue from Contracts with Customers: Topic 606 (“ASC 606”), to supersede nearly all existing revenue recognition guidance under U.S. GAAP. Under the new standard, revenue is recognized when a customer obtains control of promised goods or services and is recognized in an amount that reflects the consideration which the entity expects to receive in exchange for those goods or services. In addition, the standard requires disclosure of the nature, amount, timing, and uncertainty of revenue and cash flow arising from contracts with customers. The guidance permits two methods of modification: retrospectively to each prior reporting period presented (full retrospective method), or retrospectively with the cumulative effect of initially applying the guidance recognized at the date of initial application (the modified retrospective method.). The Company will adopt the new standard, effective January 1, 2018, using the modified retrospective method applied to those contracts which were not substantially completed as of January 1, 2018. The Company has completed its evaluation of the Standard and does not expect a material change in its pattern of revenue recognition. In addition, the standard requires the deferral and amortization of “incremental” costs incurred to obtain a contract. The primary contract acquisition cost for the Company are sales commissions. Under current GAAP, the Company expenses sales commissions as incurred while under the standard such costs will be classified as a contract asset and amortized over a period that approximates the timing of revenue recognition on the underlying contracts. The Company will record an asset and a cumulative effect to retained earnings of approximately \$1,306 thousand on the opening balance sheet at January 1, 2018.

In February 2016, the FASB issued ASU 2016-02, “Leases” (Topic 842), whereby lessees will be required to recognize for all leases at the commencement date a lease liability, which is a lessee’s obligation to make lease payments arising from a lease, measured on a discounted basis, and a right-of-use asset, which is an asset that represents the lessee’s right to use, or control the use of, a specified asset for the lease term. Under the new guidance, lessor accounting is largely unchanged. A modified retrospective transition approach for leases existing at, or entered into after, the beginning of the earliest comparative period presented in the financial statements must be applied. The modified retrospective approach would not require any transition accounting for leases that expired before the earliest comparative period presented. Companies may not apply a full retrospective transition approach. ASU 2016-02 is effective for annual and interim periods beginning after December 15, 2018. Early application is permitted. The Company is evaluating the potential impact of this new guidance.

In August 2016, the FASB issued ASU 2016-15 - “Statement of Cash Flows (Topic 230), Classification of Certain Cash Receipts and Cash Payments”, which is intended to reduce diversity in practice in how certain cash receipts and cash payments are presented and classified in the Consolidated Statement of Cash Flows by providing guidance on eight specific cash flow issues. ASU 2016-15 is effective retrospectively on January 1, 2018, with early adoption permitted. The Company is in the process of evaluating the impact of this new guidance.

In November 2016, the FASB issued ASU 2016-18, “Statement of Cash Flows (Topic 230): Restricted Cash”. The ASU requires that the Consolidated Statement of Cash Flows explain the change in total cash and equivalents and amounts generally described as restricted cash or restricted cash equivalents when reconciling the beginning-of-period and

end-of-period total amounts. The ASU also requires a reconciliation between the total of cash and equivalents and restricted cash presented on the Consolidated Statement of Cash Flows and the cash and equivalents balance presented on the Consolidated Balance Sheet. ASU 2016-18 is effective retrospectively on January 1, 2018, with early adoption permitted. The Company is in the process of evaluating the impact of this new guidance.

In January 2017, the FASB issued ASU 2017-04, Intangibles-Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment. ASU 2017-04 eliminates step two of the goodwill impairment test and specifies that goodwill impairment should be measured by comparing the fair value of a reporting unit with its carrying amount. Additionally, the amount of goodwill allocated to each reporting unit with a zero or negative carrying amount of net assets should be disclosed. ASU 2017-04 is effective for annual or interim goodwill impairment tests performed in fiscal years beginning after December 15, 2019, and early adoption is permitted. The Company is in the process of evaluating the impact of this new guidance.

In May 2017, the FASB issued ASU 2017-09, “Compensation – Stock Compensation (Topic 718): Scope of Modification Accounting.” ASU 2017-09 was issued to provide clarity and reduce both 1) diversity in practice and 2) cost and complexity when applying the guidance in Topic 718 to a change in the terms or conditions of a share-based payment award. ASU 2017-09 provides guidance about which changes to the terms or conditions of a share-based payment award require an entity to apply modification accounting under Topic 718. The amendments in ASU 2017-09 are effective for fiscal years, and interim periods within those years, beginning after December 15, 2017. Early adoption is permitted, including adoption in any interim period. The amendments in ASU 2017-09 have been applied prospectively to awards modified on or after the adoption date. The Company has adopted the new standard effective January 1, 2017 and adoption of this standard did not have a material impact on the consolidated financial statements.

**A. Operating results***Results of Operations*

The following table sets forth financial data for the years ended December 31, 2017, 2016, and 2015 (in thousands):

	<b>Year ended December 31,</b>		
	<b>2017</b>	<b>2016</b>	<b>2015</b>
Revenues	\$30,799	\$30,983	\$27,762
Cost of revenues	11,899	10,042	8,866
Gross profit	18,900	20,941	18,896
Operating expenses:			
Research and development, net	9,825	8,656	8,842
Sales and marketing	15,551	10,814	8,466
General and administrative	7,286	6,645	6,123
Adjustment to earn-out consideration	-	893	(75 )
Total operating expenses	32,662	27,008	23,356
Operating loss	(13,762)	(6,067)	(4,460)
Other income (expense), net	452	(1 )	27
Financial expense, net	(2,380 )	(147 )	(243 )
Loss before taxes on income	(15,690)	(6,215)	(4,676)
Tax benefit (expense)	42	2	(123 )
Loss	\$(15,648)	\$(6,213)	\$(4,799)

*Comparison of Years Ended December 31, 2017 and 2016*

*Revenues.* Revenues for 2017 of \$30.8 million decreased by \$0.2 million from \$31.0 million in 2016, which represents a 1% decrease. The decrease was mainly driven by several terminations of partner contracts in the Threat Intelligence business, mostly due to customers who were unwilling or unable to absorb price increases upon renewal. This decrease was offset by the addition of approximately 250 new customers in the Enterprise business and by continued improvement in average selling prices and average size of the customers, as well as new threat intelligence contracts with significant partners. The overall trend in both business lines is positive as the Company continues to grow on the Enterprise side and continues to offer more sophisticated threat intelligence services to our partners while disengaging from partners that have a different product focus or that are principally driven by price.

*Cost of Revenues.* Cost of revenues for 2017 of \$11.9 million increased by \$1.9 million from \$10.0 million in 2016, which represents a 19% increase. The increase is mainly due to an increase in amortization of capitalized development expenses of \$1 million compared to 2016. This increase has an accounting impact of reducing the gross margin in accordance with U.S. GAAP. In addition, the Company continued to invest in enhancing its network and customer support capabilities through increased outside services expenses and increase in payroll and related expenses as a result of additional recruitments. These increases are required as a foundation for the continued growth in the Enterprise line of business. Headcount associated with cost of revenues increased from 28 to 34 employees during 2017.

*Research and Development, Net.* Research and development expenses for 2017 of \$9.8 million increased by \$1.1 million compared to \$8.7 million in 2016. The increase is mainly due to an approximate \$1.1 million increase in payroll and related expenses and \$0.6 million increase in outside services expenses associated with our increased investment in R&D, offset by a \$0.6 million increase in the capitalization of development expenses, which is expected as we continue to invest more in development. R&D headcount during 2017 increased from 106 to 109 employees.

*Sales and Marketing.* Sales and marketing expenses for 2017 of \$15.6 million increased by \$4.8 million, compared to \$10.8 million in 2016. The increase is mainly due to a \$3.5 million increase in payroll and related expenses as our sales and marketing headcount increased from 51 as of December 31, 2016 to 66 as of December 31, 2017. The increase is also due to an incremental \$0.7 million in corporate and IT expenses required to support the increase in headcount, an increase of \$0.2 million in travel expenses and a \$0.4 million increase in outside marketing services expenses as the Company continues to invest in sales and marketing.

*General and Administrative.* General and administrative expenses for 2017 of \$7.3 million increased by \$0.7 million, compared to \$6.6 million in 2016. The increase is mainly due to an increase of \$0.8 million in payroll and related expenses, mainly due to an increase of \$0.4 million in stock based compensation expenses resulting from the accelerated vesting triggered by the change in control event that occurred on December 24, 2017 (please refer to note 8 in the consolidated financial statements included elsewhere in this Annual Report for further details). This increase was offset by the benefit associated with a decrease in the allowance for doubtful debts that occurred during 2017, which resulted in a decrease in general and administrative expenses of \$0.1 million in 2017 compared to 2016. G&A headcount during 2017 increased from 27 to 30 employees.

*Adjustment to Earn-Out Consideration.* Adjustment to the earn-out consideration for 2017 decreased to \$0.0 million from an expense of \$0.9 million in 2016. The expense in 2016 resulted entirely from interest and legal expenses associated with a ruling received with respect to the legal dispute with the former eleven shareholders. Please refer to Note 7c. of the consolidated financial statements included elsewhere in this Annual Report.

*Other Income (Expense), Net.* Other income, net, for 2017 of \$0.5 million increased by \$0.5 million compared to \$0.0 million in 2016. The increase is due to the income generated upon the sale of the Company's shares in imatrix. Please refer to note 2f. in the consolidated financial statements included elsewhere in this Annual Report for further details.

*Financial Expense, Net.* Financial expenses, net, for 2017 of \$2.4 million increased by \$2.3 million, compared to \$0.1 million in 2016. The increase is mainly due to a \$0.7 million increase in interest expenses associated with the convertible notes issued in March 2017, \$1.3 million expense resulting from the change in fair value of the embedded conversion feature associated with the convertible notes, and \$0.3 million expense resulting from the effect of foreign currency exchange rate fluctuation.

#### *Comparison of Years Ended December 31, 2016 and 2015*

*Revenues.* Revenues for 2016 of \$31.0 million increased by \$3.2 million from \$27.8 million in 2015, which represents a 12% increase. The increase was mainly driven by improvement in average selling prices and higher contract renewal



values in the Threat Intelligence business, as well as an increase in reported usage by some customers.

*Cost of Revenues.* Cost of revenues for 2016 of \$10.0 million increased by \$1.1 million from \$8.9 million in 2015, which represents a 12% increase. The increase is mainly due to an increase in amortization of capitalized development expenses of \$1.3 million compared 2015. This increase has an accounting impact of reducing the gross margin in accordance with U.S. GAAP. This increase was offset, primarily, by a \$0.3 million decrease in outside services expenses as the Company secured new vendor relationships.

*Research and Development, Net.* Research and development expenses for 2016 of \$8.7 million decreased by \$0.1 million compared to \$8.8 million in 2015. The decrease is mainly due to an increase in the capitalization of development expenses of \$1.2 million offset, primarily, by a \$0.9 million increase in payroll and related expenses associated with our increased investment in R&D.

*Sales and Marketing.* Sales and marketing expenses for 2016 of \$10.8 million increased by \$2.3 million, compared to \$8.5 million in 2015. The increase is mainly due to a \$1.3 million increase in payroll and related expenses and a \$0.9 million increase in outside marketing services expenses as the Company continues to invest in sales and marketing. Sales and marketing headcount increased from 33 as of December 31, 2015 to 51 as of December 31, 2016, with the majority of the new hires taking place during the second half of 2016.

*General and Administrative.* General and administrative expenses for 2016 of \$6.6 million increased by \$0.5 million, compared to \$6.1 million in 2015. The increase is mainly due to the benefit associated with a decrease in the allowance for doubtful debts that occurred during 2015, which resulted in an increase in general and administrative expenses of \$0.3 million in 2016 compared to 2015, an increase of \$0.1 million in travel expenses, and an increase in litigation expenses of \$0.1 million.

*Adjustment to Earn-Out Consideration.* Adjustment to the earn-out consideration for 2016 of \$0.9 million increased from an income of \$0.1 million in 2015. The expense in 2016 results entirely from interest and legal expenses associated with a ruling received with respect to the legal dispute with the former eleven shareholders. Please refer to Note 7c. of the consolidated financial statements included elsewhere in this Annual Report. The income in 2015 results from a decrease in revenue forecasts that are the basis for determining the fair value of the earn-out consideration.

*Financial Expense, Net.* Financial expenses, net, for 2016 of \$0.1 million decreased by \$0.1 million, compared to \$0.2 million in 2015. The decrease is mainly due to the decrease in interest expense as we paid down in full the Company's credit line during the first quarter of 2016.

*Tax Benefit (Expense).* Tax benefit for 2016 of \$0.0 million decreased by \$0.1 million, compared to a tax expense of \$0.1 million in 2015. The decrease is mainly due to a decrease of \$0.1 million in current tax expenses generated from the Company's German subsidiary.

*Quarterly Results of Operations (Unaudited).*

The following table sets forth certain unaudited quarterly statements of operations data for the eight quarters ended December 31, 2017. This information has been derived from the Company's consolidated unaudited financial statements, which, in management's opinion, have been prepared on the same basis as the audited consolidated financial statements, and include all adjustments, consisting only of normal recurring adjustments, necessary for a fair presentation of the information for the quarters presented. This information should be read in conjunction with our audited consolidated financial statements and the notes thereto included elsewhere in this Annual Report. The operating results for any quarter are not necessarily indicative of the operating results for any future period.

Three Months Ended							
Dec 31	Sep 30	Jun 30	Mar 31	Dec 31	Sep 30	Jun 30	Mar 31
2017	2017	2017	2017	2016	2016	2016	2016

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

Revenues	\$7,522	\$7,561	\$7,757	\$7,959	\$8,111	\$7,902	\$7,559	\$7,411
Cost of revenues	3,177	2,891	2,799	3,032	2,682	2,747	2,562	2,051
Gross profit	4,345	4,670	4,958	4,927	5,429	5,155	4,997	5,360
Operating expenses:								
Research and development, net	2,896	2,286	2,353	2,290	2,203	2,072	2,103	2,278
Sales and marketing	4,156	4,071	3,751	3,573	3,512	2,532	2,027	2,743
General and administrative	2,313	1,731	1,679	1,563	1,782	1,475	1,691	1,697
Adjustment to earn-out consideration	-	-	-	-	893	-	-	-
Total operating expenses	9,365	8,088	7,783	7,426	8,390	6,079	5,821	6,718
Operating loss	(5,020)	(3,418)	(2,825)	(2,499)	(2,961)	(924 )	(824 )	(1,358)
Other income (expense)	1	-	450	1	(6 )	(2 )	-	7
Financial income (expense), net	(2,117)	(58 )	(130 )	(75 )	54	(68 )	(40 )	(93 )
Loss before taxes on income	(7,136)	(3,476)	(2,505)	(2,573)	(2,913)	(994 )	(864 )	(1,444)
Tax benefit (expense)	(106 )	51	42	55	9	19	25	(51 )
Loss	\$(7,242)	\$(3,425)	\$(2,463)	\$(2,518)	\$(2,904)	\$(975 )	\$(839 )	\$(1,495)
Basic loss per share	\$(0.16 )	\$(0.09 )	\$(0.06 )	\$(0.06 )	\$(0.07 )	\$(0.02 )	\$(0.02 )	\$(0.04 )
Diluted loss per share	\$(0.16 )	\$(0.09 )	\$(0.06 )	\$(0.06 )	\$(0.07 )	\$(0.02 )	\$(0.02 )	\$(0.04 )

### *Effective Corporate Tax Rates*

Corporate tax rates and real capital gains tax in Israel were 24% in 2017, 25% in 2016 and 26.5% in 2015.

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), 2016 which reduces the corporate income tax rate to 24% effective from January 1, 2017 and to 23% effective from January 1, 2018.

The Company's German subsidiary is subject to German tax at a consolidated rate of approximately 30%.

Other non-Israeli subsidiaries are taxed according to the tax laws in their respective countries of residence.

The Company does not provide deferred tax liabilities when it intends to reinvest earnings of foreign subsidiaries indefinitely. Undistributed earnings of foreign subsidiaries that are considered to be permanently reinvested amounted to \$0.5 million and unrecognized deferred tax liability related to such earnings amounted to \$0.1 million as of December 31, 2017.

The Company may currently qualify as an "industrial company" within the definition of the Law for the Encouragement of Industry (Taxation), as such, it may be eligible for certain tax benefits, including, inter alia, special depreciation rates for machinery, equipment and buildings, amortization of patents, certain other intangible property rights and deduction of share issuance expenses.

### *U.S. Tax Reform*

On December 22, 2017, the United States enacted the Tax Cuts and Jobs Act (the "U.S. Tax Reform"); a comprehensive tax legislation that includes significant changes to the taxation of business entities. These changes include several key tax provisions that might impact the Company, among others: (i) a permanent reduction to the statutory federal corporate income tax rate from 35% to 21% effective for tax years beginning after December 31, 2017; (ii) a partial limitation on the tax deductibility of business interest expense; (iii) a shift of the U.S. taxation of multinational corporations from a tax on worldwide income to a territorial system (along with certain rules designed to prevent erosion of the U.S. income tax base) and (iv) a one-time deemed repatriation tax on accumulated offshore earnings

held in cash and illiquid assets, with the latter taxed at a lower rate.

Deferred tax effects of the U.S. Tax Reform:

As a result of the U.S. Tax Reform and the reduced U.S. corporate income tax rate, the Company has remeasured its deferred taxes as of December 31, 2017 to reflect the reduced rate that will apply in future periods, when these deferred taxes are settled or realized.

As the Company completes its analysis of the U.S. Tax Reform and incorporates additional guidance that may be issued by the U.S. Treasury Department, the IRS or other standard-setting bodies, the Company may identify additional effects not reflected as of December 31, 2017.

#### *Net Operating Loss Carry-Forwards*

As of December 31, 2017, Cyren's net operating loss carryforwards for tax purposes amounted to \$75.2 million and capital loss carryforwards of \$15.2 million which may be carried forward and offset against taxable income in the future, for an indefinite period.

As of December 31, 2017 the U.S. subsidiary had net operating loss carryforwards of \$38.0 million for federal tax purposes and \$8.3 million for state tax purposes. These losses may offset any future U.S. taxable income of the U.S. subsidiary and will expire in the years 2018 through 2037.

On December 24, 2017, a “change in the respective ownership” event occurred upon the completion of the Warburg Pincus tender offer as described in note 8b to the consolidated financial statements included elsewhere in this Annual Report, and in accordance with the relevant provisions of the Internal Revenue Code 382 of 1986 and similar state provisions. Therefore, utilization of U.S. net operating losses are subject to substantial annual limitation. Management believes that the annual limitations will result in the partial expiration of net operating losses before utilization.

Management currently believes that based upon its estimations for future taxable income, it is more likely than not that the deferred tax assets regarding the loss carryforwards will not be utilized in the foreseeable future. Thus, a valuation allowance was provided to reduce deferred tax assets to their realizable value.

*Tax Assessments*

As of December 31, 2017, the Company and certain of its subsidiaries filed Israeli and foreign income tax returns. The statute of limitations relating to the consolidated Israeli income tax return is closed for all tax years up to and including 2013.

The statute of limitations related to tax returns of the Company's U.S subsidiary is closed for all tax years up to and including 2013.

The statute of limitations related to tax returns of the Company's German subsidiary is closed for all tax years up to and including 2013.

The Company believes that it has adequately provided for reasonably foreseeable outcomes related to tax audits and settlements. The final tax outcome of any Company tax audits could be different from that which is reflected in the Company's income tax provisions and accruals. Such differences could have a material effect on the Company's income tax provision and net income (loss) in the period in which such determination is made.

*Impact of Inflation and Currency Fluctuations*

Cyren's revenues, and certain of its subsidiary's revenues, are generated mainly in U.S. dollars. In addition, most of their costs are incurred in U.S. dollars. The Company's management believes that the U.S. dollar is the primary currency of the economic environment in which Cyren and certain of its subsidiaries operate. Thus, the functional and reporting currency of Cyren and certain of its subsidiaries is the U.S. dollar.

Cyren and certain subsidiaries' transactions and balances denominated in dollars are presented at their original amounts. Non-dollar transactions and balances have been re-measured to dollars in accordance with ASC 830, "Foreign Currency Matters". All transaction gains and losses from re-measurement of monetary balance sheet items denominated in non-dollar currencies are reflected in the statements of operations as financial income or expenses, as appropriate.

For those subsidiaries whose functional currency has been determined to be their local currency, assets and liabilities are translated at year-end exchange rates and statements of operations items are translated at average exchange rates prevailing during the year. Such translation adjustments are recorded as a separate component of accumulated other comprehensive income (loss) in shareholders' equity.

The vast majority of Cyren's revenues in Israel are denominated in U.S. dollars (USD) and in Euros (EUR). However, a substantial portion of Cyren's operating expenses in Israel, primarily its research and development expenses, are denominated in Israeli Shekel (ILS). In addition, the vast majority of Cyren's operating expenses in the UK are denominated in British Pound (GBP) and the vast majority of Cyren's operating expenses in Iceland are denominated in Icelandic Krona (ISK). Costs and revenues not denominated in USD are re-measured to USD, when recorded, at prevailing rates of exchange. This is done for the purposes of the Company's financial statements and reporting. As a result, we are exposed to risk to the extent that the value of the USD depreciates against the ILS, GBP and ISK or to the extent that the value of the USD appreciates against the EUR. In those events, the USD cost of Cyren's operations will increase and the USD value of Cyren's revenues will decrease, respectively, and the Company's USD-measured results of operations will be adversely affected. Consequently, we are and will be affected by changes in the prevailing ILS/USD, EUR/USD, GBP/USD and ISK/USD exchange rates and exchange rate fluctuations will have an impact on the period-to-period comparisons of the Company's results.

The table below presents the change in the ILS/USD, EUR/USD, GBP/USD and ISK/USD exchange rates over the last three years:

<b>Equivalent to 1 U.S. dollar</b>	<b>As of December 31, 2017</b>	<b>Change during 2017 (*)</b>	<b>As of December 31, 2016</b>	<b>Change during 2016 (*)</b>	<b>As of December 31, 2015</b>	<b>Change during 2015 (*)</b>		
ILS/USD	3.467	(9.8 )%	3.845	(1.5 )%	3.902	0.3	%	
EUR/USD	0.835	(12.2 )%	0.951	3.5 %	0.919	11.7	%	
GBP/USD	0.741	(9.0 )%	0.814	20.6 %	0.675	5.2	%	
ISK/USD	104.4	(7.4 )%	112.8	(12.9 )%	129.6	2.1	%	

(\*) Positive change represents appreciation of the USD vs the opposing currency and a negative change represents depreciation of the USD vs the opposing currency.

During 2017, the USD value of operating costs denominated in ILS, GBP and ISK increased due to the depreciation of the USD vs. all such currencies, and the USD value of revenues denominated in EUR increased due to the depreciation of the USD vs the EUR.

During 2016, the USD value of operating costs denominated in ILS, and ISK increased due to the depreciation of the USD vs. the ILS and ISK, and the USD value of revenues denominated in EUR decreased due to the appreciation of the USD vs the EUR. The exchange rate fluctuation between the USD and the GBP did not have a material effect on the Company's operations in 2016 as the operations in the United Kingdom were only formed during the end of 2016 and beginning of 2017.

During 2015, the USD value of operating costs denominated in ILS and ISK decreased (insignificantly) due to the appreciation of the USD vs the ILS and ISK, and the USD value of revenues denominated in EUR decreased due to the appreciation of the USD vs the EUR. The exchange rate fluctuation between the USD and the GBP did not have a material effect on the Company's operations in 2016 as the operations in the United Kingdom were only formed during the end of 2016 and beginning of 2017.

The inflation/deflation in the general price indexes in Israel and in the countries in which the Company's subsidiaries are located, during 2017, 2016 and 2015 had an immaterial effect on the Company's results and operations.

## **B. Liquidity and capital resources**

We finance our operations primarily from our cash and cash equivalents and cash from operations. In March 2017 we issued \$6.3 million aggregate principal amount of convertible notes and in November 2017 we received gross proceeds of \$19.6 million when we issued approximately 10.6 million ordinary shares for \$1.85 per share to Warburg Pincus upon the completion of the Private Placement (described in more detail below). In addition, in August 2015 we realized net proceeds of \$11.5 million as a result of the sale by us of 7,666,665 of our ordinary shares in a public offering. During prior years we also held a short-term line of credit from a U.S. bank, however this line of credit was paid down in full and closed in February 2016.

As of December 31, 2017 and December 31, 2016, we had approximately \$24.0 million and \$10.6 million of cash and cash equivalents, respectively.

### *Cash Flows from Operating Activities*



In 2017, net cash used in operating activities was \$7.2 million and was primarily due to a net loss of \$15.6 million adjusted for non-cash activity of \$3.7 million amortization of intangible assets, \$1.3 million depreciation of property and equipment, \$2.1 million stock-based compensation expenses, \$1.3 million change in fair value of the embedded conversion feature on the convertible notes, a \$0.8 million increase in employees and payroll accruals, accrued expenses and other liabilities, and offset by a decrease in deferred revenues of \$0.8 million.

In 2016, net cash generated by operating activities was \$2.1 million and was primarily due to a net loss of \$6.2 million adjusted for non-cash activity of \$2.8 million amortization of intangible assets, \$1.2 million depreciation of property and equipment, \$1.0 million stock-based compensation expenses, \$0.8 million expenses as a result of the ruling received with respect to the legal dispute with the former eleven shareholders, a \$0.8 million decrease in trade receivables alongside a \$2.3 million increase in deferred revenues, and offset by a decrease of \$0.3 in employees and payroll accruals, accrued expenses and other liabilities and an increase in long term lease deposits of \$0.2 million. The increase in deferred revenues was due to the renewal of several multiyear large customer agreements which were paid up front.

In 2015, net cash used in operating activities was \$2.0 million and was primarily due to a net loss of \$4.8 million adjusted for non-cash activity of \$1.5 million amortization of intangible assets, \$1.3 million depreciation of property and equipment, \$1.1 million stock-based compensation expenses and \$0.7 million decrease in trade receivables, along with a decrease in deferred revenues of \$1.1 million and a decrease in accrued expenses and other liabilities of \$0.6 million.

*Cash Flows from Investing Activities*

In 2017, net cash used in investing activities consisted of \$3.6 million capitalization of technology and \$1.8 million purchase of property and equipment, offset by \$0.5 million proceeds from sale of investment in affiliate.

In 2016, net cash used in investing activities consisted of \$2.8 million capitalization of technology and \$1.0 million purchase of property and equipment.

In 2015, net cash used in investing activities primarily consisted of \$1.8 million capitalization of technology and \$1.2 million purchase of property and equipment.

Our capital expenditures over the last three years consisted primarily of continued investment in R&D and also purchases of property and equipment to expand our data centers and to invest in our infrastructure in order to support new business and the growth of the Company.

*Cash Flows from Financing Activities*

In 2017, net cash generated by financing activities was \$25.4 million and was due to net proceeds of \$19.0 million from the Private Placement, \$6.3 million proceeds from the issuance of convertible notes and \$0.1 million proceeds from the exercise of options.

In 2016, net cash used in financing activities was \$4.1 million and was due to the \$4.2 million repayment of our credit line, offset by \$0.1 million proceeds from the exercise of options.

In 2015, net cash provided by financing activities was \$10.4 million and was due to net proceeds of \$11.5 million from a public offering, \$4.4 million proceeds from our credit line and \$0.2 million proceeds from exercise of options, offset by repayment of credit line in the amount of \$5.2 million and \$0.5 million payment of earn-out consideration from the acquisition of Frisk.

*Working Capital*

As of December 31, 2017, 2016 and 2015 the Company had positive working capital of \$14.3 million, \$2.9 million and \$7.4 million, respectively. The increase in working capital during 2017 is primarily due to the cash raised through the convertible notes and Private Placement. The decrease in 2016 is primarily due to lack of capital raise activities in 2016 to fund our operations alongside the increase in the earn-out consideration balance due to the ruling received in the legal dispute with the former eleven shareholders.

*Credit Line and Convertible Notes*

On March 27, 2017 the Company issued \$6.3 million aggregate principal amount of convertible notes in a private placement. The notes were unsecured, unsubordinated obligations of Cyren and carried a 5.0% interest rate, payable semi-annually in (i) 50% cash and (ii) 50% cash or ordinary shares at Cyren's election. The notes had a 2.5-year term and were expected to mature in September 2019, unless converted in accordance with their terms prior to maturity. The notes had a conversion price of \$2.50 per share subject to adjustment in the event of a future equity issuance priced at less than \$2.10 per share. In addition, the notes were subject to immediate conversion upon a change in control in the Company. On September 27, 2017, the Company issued 11,595 shares on account of accrued interest based on a conversion price of \$2.50 per share.

On November 6, 2017, the Company completed a private offering to Warburg Pincus at a price per share of \$1.85 as described under '*Private Placement*' below. According to the terms of the convertible notes, the conversion price was adjusted to \$1.85.

On November 30, 2017, \$925,000 of the convertible notes balance was converted into 500,000 shares at a price per share of \$1.85.

On December 24, 2017, Warburg Pincus completed a public tender offer for Cyren shares which resulted in Warburg Pincus holding approximately 52% of the Company's shares. In accordance with the terms of the convertible notes, this constituted a change of control event, and the convertible notes including all accrued interest as of December 24, 2017 were converted into 2,944,813 shares at a price per share of \$1.85.

During the first quarter of 2016, the Company decided not to extend its credit line as the funds were deemed unnecessary, and the credit line was paid down in full.

Subsequently, as of December 31, 2017 there are no convertible notes or accrued interest on account of convertible notes, and no financial debt on the Company's balance sheet.

#### *Earn-Out Consideration*

In conjunction with the 2012 acquisition of eleven, the Company entered into an earn-out agreement with the former shareholders that would pay additional consideration based on the revenue performance for the years ending 2012-2015. Subsequently in 2014 the Company had a legal dispute regarding the amount and timing of the earn-out payments, and in the beginning of 2017 the former shareholders of eleven received an arbitral judgment in Germany in their favor, and the earn-out consideration balance was increased as of December 31, 2016 to reflect the additional interest and legal expenses determined in the arbitral judgement. The earn-out consideration balance presented on the Company's balance sheet as of December 31, 2017 reflects the complete liability relating to the earn-out, including accrued interest. For additional information, please refer to Note 7c. of the consolidated financial statements included elsewhere in this Annual Report.

#### *Public Offerings*

On August 17, 2015, the Company completed an underwritten public offering of 7,666,665 ordinary shares, nominal value of ILS 0.15 per share at a price to the public of \$1.65 per share, which includes the full exercise of the underwriter's over-allotment option of 999,999 ordinary shares. The Company received net proceeds of \$11.5 million (after payment of \$1.1 million issuance expenses).

On July 30, 2014, the Company completed a public offering of 4,771,796 ordinary shares, nominal value ILS 0.15 per share, and warrants to purchase an aggregate of 1,670,128 ordinary shares in combinations consisting of one ordinary share and one warrant to purchase 0.35 of an ordinary share, at an offering price per fixed combination of \$2.41. Each warrant has an exercise price of \$3.08 per share, will be exercisable following the six-month anniversary of the date of its issuance and will expire ninety months following the date of its issuance. The Company received net proceeds of \$10.2 million (after payment of \$1.3 million issuance expenses).

#### *Private Placement*

On November 6, 2017, we completed a private placement in which we issued approximately 10.6 million ordinary shares to WP XII BV, an entity controlled by funds affiliated with Warburg Pincus (together, “Warburg Pincus”), for \$1.85 per share, representing gross proceeds of approximately \$19.6 million to us. As a result of the Private Placement, Warburg Pincus became the owner of approximately 21.3% of our outstanding share capital.

In connection with the Private Placement, Warburg Pincus appointed two directors to Cyren's board of directors (Cary Davis and Brian Chang – each of whom was subsequently confirmed at the Company's December 2017 shareholder meeting), and received the right, for so long as they hold at least 10% of the Company's outstanding shares, to nominate additional board members in the future in proportion with its share ownership. In connection with the Private Placement, the Company and Warburg Pincus also entered into a registration rights agreement, which, among other things, provides Warburg Pincus with three demand registration rights, piggyback and shelf registration rights. The demand registration rights may be exercised starting August 6, 2018, subject to certain customary blackout periods. In addition, as of November 6, 2019, at the request of Warburg Pincus, the Company will be required to file a shelf registration statement covering the sale of Warburg Pincus's shares.

### *Special Tender Offer*

On November 6, 2017, Warburg Pincus announced its intention to commence the Special Tender Offer pursuant to Israeli law to increase its ownership in the Company, up to a maximum of 31,265,358 of the Company's outstanding ordinary shares from the Company's shareholders at a price of \$2.50 per share. Our Board of Directors resolved to recommend in favor of shareholders tendering their shares in the Special Tender Offer, subject to the terms of the Private Placement share purchase agreement. The recommendation of the Board of Directors was based on, among other things, an independent fairness opinion with respect to the fairness of the tender price.

On December 25, 2017, Warburg Pincus completed the Special Tender Offer in which it purchased 16,991,212 ordinary shares of the Company which were validly tendered pursuant to the offer and therefore became the owner of a total of 27,586,733 ordinary shares of the Company.

### *Outlook*

Our future capital requirements will depend on many factors, including our revenue growth, the timing and extent of our investment in research and development and our datacenter infrastructure. We believe our existing cash, cash equivalents and short-term bank deposits will be sufficient to satisfy our liquidity requirements to continue operations through the third quarter of 2019.

### **C. Research and development, patents and licenses, etc.**

We invest substantial resources in research and development to enhance our products and services, build add-on functionality and improve our core technology. We believe that both hardware and software are critical to expanding our leadership in the security industry. Therefore, we invest heavily in our cloud infrastructure and our new offerings such as CCS. Our engineering team has deep security expertise and works closely with customers to identify their current and future needs. In addition to our focus on hardware and software, our research and development team is focused on research into next-generation threats, which is required to respond to the rapidly changing threat landscape.

Research and development expenses, net, totaled \$9.8 million, \$8.7 million and \$8.8 million for the years ended December 31, 2017, 2016 and 2015, respectively. The increase in research and development expenses in 2017 and compared to 2016 and 2015 is mainly due to increased buildout of our research and development teams globally and

significant investment in outsourced development services. Please refer to item 5A above. We plan to continue to significantly invest in resources to conduct our research and development effort.

Regarding Company patents and patents pending, please refer to item 4B Section “Intellectual Property” in this Annual Report. The Company may seek to patent certain additional software or other technologies in the future.

## **D. Trend Information**

### *Threat Landscape*

The last 12 months period has possibly experienced the greatest amount of dramatic global incidents directly related to malware and cyber threats since the advent of the Internet. From election hacks to global ransomware attacks, malware threats are at an all-time high. As long as these activities prove lucrative, we expect these incidents to get worse.

In this “cyber-war”, with respect specifically to malware, three battlefronts stand out: ransomware, hyper-evasive malware, and malware distribution via HTTPS.

Ransomware has become especially lucrative for cybercriminals. Massive scale ransomware attacks have spread extremely quickly around the globe targeting governments, corporations, and private citizens. With hyper-evasive malware, cybercriminals are using codes designed to specifically detect and evade conventional sandbox detection and analysis. With respect to encrypted HTTPS traffic from “secure” web sites, a recent Cyren study of traffic passing through the Cyren security cloud found that almost 40% of all malware being disseminated today is utilizing HTTPS connections for distribution or communications, yet recent surveys show that the majority of companies around the globe are not inspecting that traffic.

It has become clear that cybercriminals know the weak points in standard corporate defenses, and are optimizing their attacks to leverage these security gaps in every possible way.

Today, no item or user connected to the Internet is immune to attack. While many businesses are still studying what security measures might be necessary, cybercriminals are “all in”, creating dangerous new tools to target companies, governments, and private citizens. We need to be mindful that the world has changed, hyper-evasive malware and threat distribution via HTTPS are growing rapidly; mobile devices— both Android and Apple—are increasingly targets; and Internet of Things tools, from refrigerators to televisions, are an inviting new vector for criminal purposes.

### *Cloud and Mobility*

Businesses are going through a massive change in their IT strategies as they look to drive more business value, agility, and better customer experiences.

*Business internet traffic continues to increase every year* – executives, employees, partners, contractors and customers are accustomed to transacting online. As a result, individuals are far more comfortable opening emails, clicking on links and providing sensitive data and information without questioning the authenticity of the applicable request. The simple organic growth in this usage of the internet is taxing existing legacy appliance solutions that have built-in capacity restrictions limiting their ability to scale.

*Data and applications are increasingly moving to the cloud* – where we used to protect the servers, data and applications we ran in our data centers behind an appliance-based security perimeter, today these apps and data have moved outside of this security perimeter and into the cloud.

*More and more users are working remotely* -- users have left the perimeter, and are working from home offices, airports, hotels, and coffee shops, accessing the Internet without protection from our perimeter security appliances.

As organizations go through this transition, many are finding it increasingly difficult to protect their users, data and networks with traditional on-premise security solutions.

*Buyers continue to move away from traditional on-premise solutions* -- preference for service-based security solutions are growing, driven by innovations, increasing need for security beyond the perimeter, and lower total cost of ownership.



*Mature and legacy on premise deployments are reaching end of life --* and these are increasingly being replaced by SaaS alternatives.

*IT security staffing shortages* – driving products with lower management overhead, as well as some outsourcing to key technology partners.

*Increasingly fast, sophisticated, expensive and high-profile attacks target organizations of all sizes* – attacks are increasingly focused on small companies, less-regulated and less-security aware industries, dictating increased security investment.

*Compliance and regulatory mandates* are creating increased concern among buyers, especially as the cost of failure becomes more painful. Continued, large-scale breaches — themselves a driver for security purchases — will bring about even more stringent levels of regulation.

*Heightened cybercrime activity among nation states* –political and economical motivations are driving cyberattacks of both private enterprises and government entities.

*Automation is increasingly considered critical* to accelerating detection and protection, and to countering IT talent shortages.

These reasons explain why Cyren’s vision for 100% cloud security is compelling to IT security teams looking to protect their businesses in today’s cloud-centric mobile-first world.

**E. Off-Balance Sheet Arrangements**

Not applicable.

**F. Tabular disclosure of contractual obligations**

The following table summarizes our outstanding contractual obligations as of December 31, 2017 (in thousands):

Contractual Obligations	Payments due by period (USD in thousands)				
	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
Operating lease obligation	\$6,249	\$1,366	\$2,088	\$1,849	\$ 946
Other long-term liabilities reflected on the Company's Balance Sheet - accrued severance pay	930	-	-	-	-
Other long-term asset reflected on the Company's Balance Sheet - severance pay fund	(714 )	-	-	-	-
Net - severance pay liability (*)	216	-	-	-	-
Earn-out consideration and related costs	3,588	3,588	-	-	-
Uncertain income tax positions (**)	272	-	-	-	-
Total	\$10,325	\$4,954	\$2,088	\$1,849	\$ 946

(\*) Severance pay obligations to the Company's Israeli employees, as required under Israeli labor law, are payable only upon termination, retirement or death of the respective employee.

Accrual for uncertain income tax position under ASC 740 "Income Taxes" is paid upon settlement and we are (\*\*) unable to reasonably estimate the ultimate amount or timing of settlement. See note 10j of the consolidated financial statements in this Annual Report for further information regarding the Company's liability.

## Item 6. Directors, Senior Management and Employees

### A. Directors and senior management

The following table presents information with respect to our directors' beneficial ownership of our ordinary shares as of February 28, 2018. Beneficial ownership is determined in accordance with the rules of the SEC and includes voting or investment power, with respect to shares. For purposes of the table below, we deem shares subject to options that are currently exercisable or exercisable within 60 days of February 28, 2018, to be outstanding and to be beneficially owned by the person holding such options 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 53,383,120 ordinary shares outstanding as of February 28, 2018.

Name and Position	Age	Percentage of Ordinary Shares Beneficially Owned	Number of Ordinary Shares Beneficially Owned	Number of Options included in Beneficial Ownership
Lior Samuelson, CEO, Director and Chairman of the Board	69	1.7 %	931,143	652,713 options, at exercise prices ranging from \$1.44 to \$3.18 per Ordinary Share. Expiration dates range from December 13, 2018 to January 24, 2023.
Aviv Raiz, Director (3)	59	<1 %	304,082	59,895 options, at exercise prices ranging from \$1.44 to \$3.18 per Ordinary Share. Expiration dates range from December 13, 2018 to February 10, 2022.
Hila Karah, Director (1)(3)	49	<1 %	128,826	59,895 options, at exercise prices ranging from \$1.44 to \$3.18 per Ordinary Share. Expiration dates range from December 13, 2018 to February 10, 2022.
Todd Thomson (Lead Director) (2)	57	<1 %	77,917	47,917 options, at exercise prices ranging from \$1.56 to \$3.18 per Ordinary Share. Expiration dates range from December 13, 2018 to December 18, 2020.
James Hamilton (Director) (1)(2)(3)	54	<1 %	67,917	47,917 options, at exercise prices ranging from \$1.56 to \$3.18 per Ordinary Share. Expiration dates range from December 13, 2018 to December 18, 2020.
David Earhart (Outside Director) (1)(2)(3)	56	<1 %	101,250	81,250 options, at exercise prices ranging from \$1.56 to \$3.01 per Ordinary Share. Expiration dates range from August 1, 2019 to December 18, 2020.
John Becker (Outside Director) (1)(2)(3)	60	<1 %	28,125	28,125 options with an exercise price of \$2.00 per Ordinary Share, and expiration date of April 1, 2023.

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Cary Davis (Director)	51	<1	% 0	No vested options as of April 30, 2018.
Brian Chang	36	<1	% 0	No vested options as of April 30, 2018.

- (1) Member of the Compensation Committee
- (2) Member of the Audit Committee
- (3) Member of the Nominating Committee

*Other Executive Officers:*

The following table sets forth the names and positions of our senior management employees, with ownership data being as of February 28, 2018. These employees, along with Lior Samuelson, are included for purposes of the aggregation of compensation and share ownership of major shareholders, directors and executive officers, and appear elsewhere in this Annual Report.

Name	Age	Ownership	Position
Boris Bogod	43	<1	% Vice President, Global Cloud Operations
Ben Carmi	40	<1	% Senior Vice President, Products
Mickey DiPietro	53	<1	% Senior Vice President, Worldwide Sales
Einat Glik	38	<1	% Vice President, Engineering
Lior Kohavi	47	1.2	% Chief Technology Officer
Dan Maier	54	<1	% Vice President, Marketing
Eva Edwards Markowitz	43	<1	% Vice President, Human Resources
J. Michael Myshrall	48	<1	% Chief Financial Officer
Eric Spindel	41	<1	% Vice President, General Counsel and Corporate Secretary
Sigurdur Stefniison	42	<1	% Vice President, Detection

Lior Samuelson has been a member of the Board since August 2010 and has held the position of Chairman of the Board since December 2010. Mr. Samuelson became Chief Executive Officer at Cyren in 2013. During his extensive career, Mr. Samuelson has served as chairman, CEO and board member of companies in technology, telecommunications, financial services and management consulting, such as Deltathree (DDDC), PricewaterhouseCoopers Securities and The Barents Group. Mr. Samuelson was previously a managing partner with KPMG and a senior manager at Booz Allen Hamilton. Mr. Samuelson holds both a B.A. and a M.A. in economics from Virginia Tech.

Aviv Raiz has served as a Director since December 2005. Mr. Raiz has over 20 years of foreign exchange market and private equity investing experience. He founded and is the president of Eurotrust Ltd. and has been a private equity investor in several high-tech, bio-tech, and Internet companies over the last ten years. Mr. Raiz received his B.A. in

Economics and Political Science as well as an MBA in Finance, from Tel Aviv University.

Hila Karah joined the Board of Directors in March 2008. Ms. Karah is the former CIO of Eurotrust Ltd. and is an investor in several high-tech, bio-tech and Internet companies. Prior to Eurotrust, she served as a partner financial analyst at Perceptive Life Sciences Ltd., a New York-based hedge fund, and was a research analyst at Oracle Partners Ltd., a health care-focused hedge fund based in Connecticut. Ms. Karah is currently a Director and member of the audit and compensation committees at Intec Pharma (Nasdaq: INTC), and Director and member of the compensation committee at DarioHealth (Nasdaq: DRIO). Ms. Karah holds a B.A. in Molecular and Cell Biology from the University of California, Berkeley, and has studied at the UCB-UCSF JMP.

Todd Thomson joined the Board of Directors in November 2011 and has held the position of Lead Director since December 2015. Mr. Thomson is chairman of Dynasty Financial Partners, as well as the founder and CEO of Headwaters Capital. He served in top management positions at Citigroup, including CFO of the Company and CEO of the Global Wealth Management division. Prior to joining Citigroup, Todd Thomson held senior executive positions at GE Capital, Barents Group and Bain & Co. He is also a board member of Century Bank as well as chairman of the Wharton Leadership Advisory Board. Todd Thomson received his MBA, with Distinction, from the Wharton School of Business and his bachelor's degree in economics from Davidson College.

James Hamilton joined the Board of Directors in February 2012. Mr. Hamilton is Chairman of Wedge Networks. Mr. Hamilton has more than 25 years of leadership experience in senior executive roles across many highly successful high-tech companies. He brings proven success at building and leading high-potential, high growth companies from startup to IPO and often through acquisition. Mr. Hamilton was the CEO of Tipping Point, the renowned market leader in Intrusion Prevention Systems (IPS). Mr. Hamilton was also president of Click Security, and president of Efficient Networks, which also achieved a highly successful IPO and was later acquired by Siemens. He has also held various senior sales roles with multiple companies; most recently as SVP of worldwide sales and field operations at Cyan, Inc. Mr. Hamilton is also the president of Valletta Capital, LLC and is active in multiple venture capital, corporate, and charitable boards.

David Earhart joined the Board of Directors in July 2013. David Earhart is President of Data Protection and Endpoint Management at Quest Software, which was spun out of Dell Software and is backed by Francisco Partners and Elliott Management. Mr. Earhart brings more than 20 years of security and systems management experience to his role. Previously, David was CEO of Core Security and served as SVP of Worldwide Field Operations for Damballa, a leading provider of advanced threat protection. In this role, he was responsible for record, triple-digit growth. Before this, David was SVP of Security (IAM) Field Operations at CA Technologies, where his team delivered 300% growth in the security business. Prior to that, David held leadership and executive positions at BMC Software and venture-backed companies within the sales, support and services functions. He holds a B.B.A. in Finance from Texas Tech University.

John Becker joined the Board of Directors as an Outside Director under the Companies Law in April 2017. Mr. Becker brings more than 30 years of security industry and technology experience and offers a lengthy record of growing highly successful companies. In addition to serving on numerous boards, he previously served as the Chief Executive Officer of Sourcefire, ScienceLogic, Approva, Cybertrust, Trusecure, and AXENT Technologies. John is a CPA and graduated from the Robins School of Business at the University of Richmond.

Cary Davis joined the board of directors in November 2017. Mr. Davis is a Managing Director at Warburg Pincus, which he joined in 1994, and focuses on investments in the software and financial technology sectors. He also serves on the boards of several private companies. Prior to joining Warburg Pincus, he was Executive Assistant to Michael Dell at Dell Computer and a consultant at McKinsey & Company. Mr. Davis received a B.A. in economics from Yale University and an M.B.A. from Harvard Business School.

Brian Chang joined the board of directors in November 2017. Mr. Chang is a Principal at Warburg Pincus, which he joined in 2005 and returned in 2009. Mr. Chang focuses on investments in the technology, software and financial technology sectors. He currently serves on the board of several private companies. Prior to joining Warburg Pincus, Mr. Chang worked at Merrill Lynch focusing on corporate finance and mergers and acquisitions transactions. Mr. Chang received a B.S. with Distinction in electrical engineering from Stanford University and an M.B.A. from the Stanford University Graduate School of Business.

Boris Bogod joined Cyren in August 2017 and is responsible for the infrastructure and operation of Cyren's global security cloud. He brings to the task over 20 years of experience deploying, managing and optimizing IT networks and the delivery of cloud services. Boris joined Cyren from Sears Israel (subsidiary of SHC) where he served as Vice President of Operations, and previously held senior operations and infrastructure management positions for several Web based companies including ICAP, Playtech and others. Boris holds B.Sc. in Industrial Engineering and Management (specialization in Information Systems) from Ben-Gurion University in the Negev.

Ben Carmi joined Cyren in December 2015 and is responsible for developing and delivering Cyren's product vision, as well as overseeing the company's global product management teams. He joined Cyren with more than 13 years of product leadership experience, most recently as vice president of product management at Radware. He has also held key product management roles at Check Point Software and RiT Technologies. Ben graduated from Tel Aviv University with a bachelor's degree in industrial engineering and a master's degree in public policy.

Mickey DiPietro joined Cyren in March 2016 and manages Cyren's global sales team, including Threat Intelligence Services and Enterprise Sales. A seasoned sales executive with a track record of success at global security leaders, DiPietro was originally hired to grow Cyren's sales and channel organization and accelerate growth in North America, launching the company's Austin, Texas office in the summer of 2016. Before joining Cyren, DiPietro was responsible for establishing and growing Zscaler's mid-market sales organization. Prior to that, he ran the mid-market sales organizations for Authentic8, Google, and Postini.

Einat Glik joined Cyren in April 2012 and is responsible for running Cyren's global engineering team. Since joining Cyren in 2012, she has managed the product development of our WebSecurity and EmailSecurity services. Prior to joining Cyren, she oversaw product management and authentication with SafeNet and research and development activities with SanDisk. She holds a degree in Computer Science from the Academic College of Tel-Aviv-Yaffo.



Lior Kohavi joined Cyren in June 2013 as Chief Technology Officer. Mr. Kohavi brings over 25 years of vast experience as an engineer, product and technology executive. Previously, Mr. Kohavi held multiple leadership roles, including business strategy architect and partner group manager at Microsoft, VP and GM at Websense, VP Engineering and EVP product management and strategy at Whale Communications (Microsoft acquired). Mr. Kohavi also served as a GM at Cylink VPN Labs and led the development of cryptographic network security products at Algorithmic Research (Cylink acquired) and served as head of the Israel Air Force's Network and Operations Systems Department. Mr. Kohavi holds a B.A. degree in computer science from Bar-Ilan University and an Executive MBA from Tel Aviv University.

Dan Maier joined Cyren in November 2015 and is responsible for Cyren's global marketing activities, including corporate marketing, product marketing, demand generation and public relations. He has more than two decades of experience in senior marketing roles in the technology sector, most recently serving as senior director of product marketing at Zscaler. He previously held vice president of marketing positions at Tumbleweed, Convirture and DecisionView, among others. Dan holds a bachelor's degree in economics from Stanford University and an MBA from UCLA.

Eva Edwards Markowitz, SPHR, SWP, SHRM-SCP, joined Cyren as Vice President Human Resources in October 2013. With her 15 years of Human Resource leadership, Ms. Markowitz orchestrates the management and development of Cyren's most valuable asset: its employees. She previously worked as Human Resources Director for the Analysis Research Planning Corporation (ARPC). She has also held positions with Thomas & Herbert Consulting, LLC, and SteelCloud. Ms. Markowitz received her B.A. from the University of Maryland.

J. Michael Myshrall joined Cyren in January 2011 serving as Vice President of Corporate Development and subsequently served as Vice President of Financial Planning & Analysis. Since March 2014, Mr. Myshrall has been the company's Chief Financial Officer. Mr. Myshrall brings two decades of investment banking, business development and technology experience. Prior to joining Cyren, he focused on technology strategy, financial advisory and mergers and acquisitions, first with Mercator Capital and more recently with Trilos Ventures. Mr. Myshrall previously held various roles with Nortel, Newbridge Networks, Corvis, and Civcom. He holds a degree in electrical engineering from the University of New Brunswick and an MBA from Harvard Business School.

Eric Spindel joined Cyren in May 2016 as General Counsel and Corporate Secretary. Mr. Spindel is responsible for all legal, regulatory, compliance, and corporate governance functions for Cyren. Before joining Cyren, he was a partner at Yigal Arnon & Co., one of Israel's leading law firms. Prior to that, he practiced corporate and securities law for a number of years at Skadden, Arps, Slate, Meagher & Flom LLP and Davies Ward Phillips & Vineberg LLP, and also served as internal counsel for a private equity firm. He received a joint JD/MBA degree from Osgoode Hall Law School/Schulich School of Business in Toronto, Canada.

Sigurdur Stefnisson joined Cyren in October 2012 through the acquisition of FRISK, and serves as Cyren's Vice President of Detection. Mr. Stefnisson joined FRISK in 1996 and contributed to the development of numerous state-of-the-art cybersecurity innovations and has become an authority in the field of advanced threat protection. Mr. Stefnisson oversees all the Advanced Threat Lab and malware research, which is integral in our development of next-generation cybersecurity solutions. He is active in the global security community as a reporter for the Wildlist Organization and as a member of CARO (Computer Antivirus Research Organization) whose mission is to research and study malware.

To the best of our knowledge, there are no arrangements or understandings with major shareholders, customers, suppliers or others pursuant to which any person referred to above was selected as a director or executive officer (other than Cary Davis and Brian Change who were appointed in connection with the Private Placement to Warburg Pincus as described above). There are no family relationships among any of the directors, officers or key employees of Cyren.

## **B. Compensation**

### *Compensation of Directors and Executive Officers*

Under Amendment 20 of the Companies Law, the directors of Cyren can be remunerated by Cyren for their services as directors to the extent such remuneration is in accordance with the compensation policy to be adopted by the Company after approval by Cyren's compensation committee, Board and shareholders.

The cash compensation paid to non-employee directors in 2017 (other than the CEO and Chairman) was \$7,500 per quarter and \$15,000 for the Lead Director.

Directors also are reimbursed for their expenses for each Board of Directors meeting attended. See Item 6 - “The 2016 Non-Employee Equity Incentive Plan” for a discussion of director compensation in the form of option grants.

During 2017, options to purchase 750,000 ordinary shares were granted to executive officers (referred to in Item 6) under the Company’s stock option plans at a weighted average exercise price of \$1.95 per share. A total of 768,807 options and RSUs granted to executive officers and directors received accelerated vesting from the change of control related to the Special Tender Offer.

The aggregate direct remuneration paid by Cyren to directors and executive officers (19 persons) in 2017 was approximately \$3.0 million. During the same period Cyren accrued or set aside approximately \$0.3 million for the same group to provide pension, retirement or similar benefits. As of February 28, 2018, these directors and executive officers of Cyren (19 persons) had 3,775 thousand stock options to purchase a like number of ordinary shares, with 2,738 thousand of those options being vested and exercisable within sixty days of said date. Generally, unless exercised previously, options terminate within six years of their issuance. Five directors have also been granted a total of 90,000 Restricted Stock Units (RSUs), all of which had vested and were available to be sold. Additional information as of February 28, 2017 can be found in Item 6A “Directors and Senior Management”.

The table below reflects the compensation granted to our five most highly compensated officers during or with respect to the year ended December 31, 2017. All amounts reported in the table reflect the cost to the Company, as recognized in our financial statements for the year ended December 31, 2017.

All amounts are in thousands of U.S. dollars.

Name and Position	Salary and Benefits(1)	Cash Bonus(2)	Equity-based Compensation (3)	Total
Lior Samuelson, Chief Executive Officer	\$ 326	\$ 70	\$ 220	\$616
Lior Kohavi, Chief Technology Officer	\$ 277	\$ 75	\$ 119	\$471
J. Michael Myshrall, Chief Financial Officer	\$ 288	\$ 79	\$ 76	\$443
Mickey DiPietro, Senior Vice President Worldwide Sales	\$ 213	\$ 136	\$ 61	\$410
Eric Spindel, Vice President General Counsel and Corporate Secretary	\$ 256	\$ 35	\$ 62	\$353

“Salary and Benefits” include annual salary or service fees paid, payments to the National Insurance Institute, managers’ insurance and pension funds, severance, advanced education funds, basic health insurance, vacation pay, (1) recuperation pay, tax gross-up payments, automobile-related expenses, telephone expenses and benefits and perquisites as mandated by Israeli or applicable law as recorded in the Company’s financial statements for the year ended December 31, 2017.

(2) “Cash Bonus” includes bonus payments and commissions as recorded in the Company’s financial statements for the year ended December 31, 2017.

“Equity-based Compensation” includes the expense recorded in our financial statements for the year ended December (3) 31, 2017 with respect to equity-based compensation granted to the executive officers detailed above, which includes accelerated vesting from the change of control related to the Special Tender Offer

*Options to Purchase Securities from Registrant*

As of December 31, 2017, options to purchase 6,329 thousand ordinary shares were outstanding and held by 214 persons made up of then existing employees, consultants, executive officers, non-employee directors and ex-employees within their post-termination period for exercise under the Company's stock option plans. Of the number of options outstanding, 4,885 thousand were vested and exercisable. Additionally, these outstanding options had exercise prices ranging from \$1.44 to \$3.67 per share, a weighted average per share exercise price of \$2.29 and expiration dates ranging from February 16, 2018 to September 13, 2023.

The Special Tender Offer by Warburg Pincus (in which Warburg Pincus acquired more than 50% of the Company's outstanding shares as described above), resulted in a change of control event for purposes of the Company's equity incentive plans and, as a result, on December 24, 2017, fifty percent of all then outstanding options became fully vested, with the remainder vesting by December 24, 2018. In addition, as of December 24, 2017, the outstanding RSUs held by directors became fully vested in accordance with the Non-Employee Director Plan.

*Employee Equity Incentive Plans*

Employees, including executive officers and other management employees, participate in the Company's employee option plans. In 1996, the Company adopted the 1996 CSI Stock Option Plan for granting options to its U.S. employees and consultants to purchase ordinary shares of the Company, which was replaced in 2006 by the 2006 U.S. Stock Option Plan. Until 1999, the Company issued options to purchase ordinary shares to its Israeli employees pursuant to individual agreements. In 1999, the Company approved the 1999 Section 3(i) share option plan for its Israeli employees and consultants, (which was amended in 2003 and renamed the "Amended and Restated Israeli Share Option Plan"). On December 22, 2016, the Company's shareholders approved a new stock option plan - the 2016 Equity Incentive Plan (the "Employee Plan"). This plan has replaced all prior employee stock option plans which have terminated.

The Employee Plan allows for the issuance of Restricted Stock Units ("RSUs"), as well as options. The options and RSUs generally vest over a period of four years. Options granted under the Employee Plan generally expire after six years from the date of grant. Options and RSUs cease vesting upon termination of the optionee's employment or other relationship with the Company. The per share exercise price for options shall be no less than 100% of the fair market value per ordinary share on the date of grant. Any options and RSUs that are canceled or not exercised within the option term become available for future grant.

All employee stock option plans are administered by the compensation committee. Subject to the provisions of the equity plans and applicable law, the compensation committee has the authority to determine, among other things, to whom options may be granted; the number of ordinary shares to which an option may relate; the exercise price for each share; the vesting period of the option and the terms, conditions and restrictions thereof, including accelerated vesting on change of control provisions; to amend provisions relating to such plans; and to make all other determinations deemed necessary or advisable for the administration of such plans.

*Non-Employee Equity Incentive Plans*

In 1999, the Company adopted the 1999 Directors Stock Option Plan, and in 2008 shareholders approved an extension of the term of this plan through July 13, 2019. On December 22, 2016, the Company's shareholders approved a new stock option plan - the 2016 Non-Employee Director Equity Incentive Plan (the "Non-Employee Plan"). This plan has replaced all existing non-employee stock option plans which have terminated.

The Non-Employee Plan allows for the issuance of Restricted Stock Units ("RSUs"), as well as options. Each option and RSU granted under the Non-Employee Plan generally vests over a period of four years. Each option has an exercise price equal to the fair market value of the ordinary shares on the grant date of such option. Options granted under the Non-Employee Plan generally expire after six years from the date of grant. Options and RSUs cease vesting upon termination of the relationship with the Company, unless the terminated relationship is with a director who has served the Company for at least three years, and he has not resigned voluntarily or was not removed from the Board of Directors due to a failure to perform any of his/her duties to the Company, in which case all unvested options or RSUs would be subject to full accelerated vesting.

New non-employee directors are currently entitled to an initial grant of 50,000 options. Non-employee directors who are re-elected at the annual meeting of shareholders are entitled to additional grants of 10,000 RSUs, except for Mr. Lior Samuelson, who is not entitled to additional compensation other than the compensation paid to him in his capacity as the Company's CEO, and Mr. Todd Thomson who is entitled to an annual grant of 20,000 RSUs in his capacity of Lead Director.

## **C. Board practices**

### *Election of Directors*

Directors (other than Outside Directors, as explained below) are elected by shareholders at the annual general meeting of the shareholders and hold office until the next annual general meeting following the general meeting at which such director is elected and until a successor is elected, or until the director is removed. An annual general meeting must be held at least once in every calendar year, but not more than 15 months after the preceding annual general meeting. Directors may be removed and other directors may be elected in their place or to fill vacancies in the Board of Directors at any time by the holders of a majority of the voting power at a general meeting of the shareholders. Until a vacancy is filled by the shareholders, the Board may appoint new directors temporarily to fill vacancies on the Board. The Articles of Association of Cyren authorize the shareholders to determine, from time to time, the number of directors. Unless otherwise resolved in a general meeting, the Board shall consist of up to ten directors, though only nine directors are currently serving on the Board. During 2015, shareholders approved the creation of a Lead Director position, which carries additional responsibilities and receives \$15 thousand per quarter, compared to \$7,500 per quarter for a standard director.

### *Alternate Directors*

The Articles of Association of Cyren provide that any director may appoint another person to serve as an alternate director and may remove such alternate. Any alternate director possesses all the rights and obligations of the director who appointed him, except that the alternate has no standing at any meeting while the appointing director is present, the alternate may not in turn appoint an alternate for himself (unless the instrument appointing him otherwise expressly provides) and the alternate is not entitled to remuneration. A person who is not qualified to be appointed as a director may not be appointed as an alternate director, a person who is not qualified to be appointed as an outside director with professional or accounting and financial expertise as held by the outside director for whom he is appointed as an alternate may not be appointed as an alternate director for such outside director, and a person who is not qualified to be appointed as an independent director may not be appointed as an alternate director for an independent director. Unless the appointing director limits the time or scope of the appointment, the appointment is effective for all purposes until the appointing director ceases to be a director or terminates the appointment. The appointment of an alternate director does not in itself diminish the responsibility of the appointing director as a director. No director has appointed, and, to our knowledge, no director currently intends to appoint, any other person

as an alternate director.

*Chairman of the Board*

Under the Companies Law, the Chief Executive Officer of a company (or a relative of the Chief Executive Officer) may not serve as the chairman of the board of directors, and the chairman of the board of directors (or a relative of the chairman of the board of directors) may not serve as the Chief Executive Officer, unless approved by the shareholders by a regular majority vote, which includes (i) a majority of the shares held by non-controlling shareholders and shareholders who have no personal interest in the election of the Chief Executive Officer or chairman of the board of directors (or the relatives thereof), as the case may be (excluding a personal interest that is not related to a relationship with the controlling shareholders) who are present and voting at the meeting; or (ii) the total number of shares held by non-controlling shareholders and disinterested shareholders voting against the election of the Chief Executive Officer or chairman of the board of directors (or the relatives thereof) at the meeting does not exceed two percent of the aggregate voting rights in the company. In any event, the shareholder vote cannot authorize the appointment for a period longer than three years, which period may be extended from time to time by the shareholders with a similar majority vote. The Chairman of the Board of Directors shall not hold any other position with the company (except as general manager if approved in accordance with the above procedure) or in any entity controlled by the company, other than as Chairman of the Board of Directors of a controlled entity, and the company shall not delegate to the chairman duties that, directly or indirectly, make him or her subordinate to the General Manager.



*Independent and Outside Directors*

*Israeli Companies Law:* The Israel Companies Law requires Israeli companies with shares that have been offered to the public in or outside of Israel to appoint at least two Outside Directors (also referred to as “external directors”), unless certain conditions are met by the company pursuant to a recently enacted amendment to the Companies Regulations (Relief for Companies Whose Shares are Registered for Trading Outside of Israel) – 2000 (the “Relief Regulations” and the “Amendment to the Relief Regulations”, respectively), as further detailed below. No person may be appointed as an Outside Director if the person or the person’s relative, partner, employer or any entity under the person’s control has or had, on or within the two years preceding the date of the person’s appointment to serve as Outside Director, any affiliation with the company or any entity controlling, controlled by or under common control with the company. The term affiliation includes:

an employment relationship;

a business or professional relationship maintained on a regular basis;

control; and

service as an office holder.

The Israeli Minister of Justice, in consultation with the Israeli Securities Authority, may determine that certain matters will not constitute an affiliation, and has issued certain regulations with respect thereof. In addition, pursuant to Amendment 27 of the Companies Law, effective February 17, 2016 (“Amendment 27”), a business or professional relationship maintained on a regular basis will not constitute affiliation if the relationship commenced after the appointment of the Outside Director for office, the company and the Outside Director consider the relationship to be negligible and the audit committee approved, based on information presented to it, that the relationship is negligible, and the Outside Director declared that he did not know and could not have reasonably known about the formation of the relationship and has no control over their existence or termination.

If the company does not have a controlling shareholder or a shareholder who holds company shares entitling him to vote at least 25% of the votes in a shareholders meeting, then the company may not appoint as an Outside Director any person or such person’s relative, partner, employer or any entity under the person’s control, who has or had, on or within the two years preceding the date of the person’s appointment to serve as Outside Director, any affiliation with the Chairman of the Board, Chief Executive Officer, a substantial shareholder who holds at least 5% of the issued and outstanding shares of the company or voting rights which entitle him to vote at least 5% of the votes in a shareholders meeting, or the Chief Financial Officer.

No person may serve as an Outside Director if the person's position or other business activities create, or may create, a conflict of interest with the person's responsibilities as an Outside Director or may otherwise interfere with the person's ability to serve as an Outside Director. Additionally, no person may serve as an Outside Director if the person, the person's relative, spouse, employer or any entity controlling or controlled by the person, has a business or professional relationship with someone with whom affiliation is prohibited, even if such relationship is not maintained on a regular basis, excepting negligible relationships, or if such person received from the company any compensation as an Outside Director in excess of what is permitted by the Companies Law. If, at the time Outside Directors are to be appointed, all current members of the Board of Directors who are not controlling shareholders or relatives of such shareholders are of the same gender, then at least one Outside Director must be of the other gender. Under the Companies law, at least one of the Outside Directors is required to have "financial and accounting expertise," and the other Outside Director or Directors are required to have either "professional expertise," or "financial and accounting expertise", all as defined under the Companies Law. However, if at least one of our other directors (i) meets the independence requirements under the Securities Exchange Act of 1934, as amended, or (ii) meets the standards of the NASDAQ Listing Rules for membership on the audit committee, and (iii) has accounting and financial expertise as defined under Israeli law, then neither of our Outside Directors is required to possess accounting and financial expertise as long as both possess other requisite "professional expertise".

A director can satisfy the requirements of having “financial and accounting expertise” if due to his or her education, experience and qualifications he or she has acquired expertise and understanding in business and accounting matters and financial statements, in a manner that allows him or her to understand, in depth, the company’s financial statements and to spur a discussion regarding the manner in which the financial data is presented.

A public company’s board of directors must evaluate the proposed Outside Director’s expertise in finance and accounting, by considering, among other things, such candidate’s education, experience and knowledge in the following: (i) accounting and auditing issues typical to the field in which the company operates and to companies of a size and complexity similar to such company; (ii) the company’s independent public accountant’s duties and obligations; (iii) preparation of the company’s consolidated financial statements and their approval in accordance with the Companies Law and the Israeli Securities Law - 1968.

A director is deemed to have “professional expertise” if he or she meets any of the following criteria: (i) has an academic degree in any of the following professions: economics, business administration, accounting, law or public administration; (ii) has a different academic degree or has completed higher education in a field that is the company’s main field of operations, or a field relevant to his or her position; or (iii) has at least five years’ experience in any of the following, or has at least a cumulative total of at least five years’ experience in any two of the following: (A) a senior position in the business management of a corporation with a significant extent of business, (B) a senior public position or a senior position in public service, or (C) a senior position in the company’s main field of operations. As with a candidate’s expertise in finance and accounting, the board of directors here too must evaluate the proposed Outside Director’s “professional qualification” in accordance with the criteria set forth above.

The declaration required by law to be signed by a candidate to serve as Outside Director must include a statement by such candidate concerning his or her education and experience, if relevant, in order that the Board of Directors may properly evaluate whether such candidate meets the requirements of having “financial and accounting expertise” or having “professional expertise” as set forth in the regulations. Additionally, the candidate should submit documents and certificates that support the statements set forth in the declaration.

Outside Directors are to be elected by a majority vote at a shareholders’ meeting, provided that either:

such majority includes a majority of the shares held by non–controlling shareholders and shareholders who have no personal interest in the election of the Outside Directors (excluding a personal interest that is not related to a relationship with the controlling shareholders) who are present and voting at the meeting; or

the total number of shares held by non–controlling shareholders and disinterested shareholders voting against the election of the director at the meeting does not exceed two percent of the aggregate voting rights in the company.

The initial term of an Outside Director is three years and may be extended for up to two additional periods of three years each. However, under regulations promulgated pursuant to the Companies law, companies whose shares are listed for trading on specified exchanges outside of Israel, including the NASDAQ Global Select, Global and Capital markets, may propose that an Outside Director be reelected by the shareholders for such additional periods, beyond the initial three terms, of up to three years each only if (1) the audit committee and the Board of Directors, in nominating the Outside Director, confirms that, in light of the Outside Director's expertise and special contribution to the work of the board of directors and its committees, the reelection for such additional period(s) is beneficial to the company, (2) the election was approved by the majority of shareholders required to appoint Outside Directors for their initial term and (3) the term during which the nominee has served as an external director and the reasons given by the audit committee and board of directors for extending his or her term of office having been presented to the shareholders prior to their approval.

Outside Directors may be re-elected for additional terms of three years each as set forth above, provided that with respect to the appointment for each such additional three-year term, one of the following has occurred: (i) the reappointment of the Outside Director has been proposed by one or more shareholders holding together 1% or more of the aggregate voting rights in the company and the appointment was approved at the general meeting of the shareholders by a simple majority, provided that: (1)(x) in calculating the majority, votes of controlling shareholders or shareholders having a personal interest in the appointment as a result of an affiliation with a controlling shareholder and abstentions are disregarded and (y) the total number of shares of shareholders who do not have a personal interest in the appointment as a result of an affiliation with a controlling shareholder and/or who are not controlling shareholders, present and voting in favor of the appointment exceed 2% of the aggregate voting rights in the company, and (2) pursuant to Amendment 22 to the Companies Law (“Amendment 22”), effective as of January 10, 2014, the Outside Director who has been nominated in such fashion is not a linked or competing shareholder, and does not have or has not had, on or within the two years preceding the date of such person’s appointment to serve as another term as Outside Director, any affiliation with a linked or competing shareholder. The term “linked or competing shareholder” means either the shareholder(s) who nominated the external director for reappointment or a material shareholder of the company holding more than 5% of the shares in the company, provided that at the time of the reappointment, such shareholder(s) of the company, the controlling shareholder of such shareholder(s) of the company, or a company under such shareholder(s) of the company’s control, has a business relationship with the company or are competitors of the company; the Israeli Minister of Justice, in consultation with the Israeli Securities Authority, may determine that certain matters will not constitute a business relationship or competition with the company; (ii) the reappointment of the Outside Director has been proposed by the board of directors and the appointment was approved by the majority of shareholders required for the initial appointment of an Outside Director or (iii) pursuant to Amendment 26 to the Companies Law, effective as of November 25, 2014, the Outside Director has proposed himself for reappointment and the appointment was approved by the majority of shareholders required under Section (i) above.

Outside Directors may be removed only by the same percentage of shareholders as is required for their election, or by a court, and then only if the Outside Director ceases to meet the statutory qualifications for their appointment or if they violate their fiduciary duty to the company. Each committee of a company’s Board of Directors which has been granted any authority normally reserved for the Board of Directors must include at least one Outside Director provided, however that each of the Audit Committee and the Compensation Committee, which are statutorily required under the Companies Law, must include all Outside Director.

An Outside Director is entitled to compensation as provided in the regulations adopted under the Israel Companies Law and is otherwise prohibited from receiving any other compensation, directly or indirectly, in connection with service provided as an Outside Director.

Pursuant to the Amendment to the Relief Regulations, a company may choose not to appoint Outside Directors if it meets all of the following conditions:

The company's shares are listed in a foreign securities exchange which is referenced in Section 5A(c) of the Regulations, which includes, among others, the New York Stock Exchange (NYSE); NASDAQ Global Select Market; and NASDAQ Global Market;

The Company does not have a controlling shareholder; and

The Company complies with the requirements of the foreign securities laws and stock exchange regulations relating to appointment of independent directors and composition of audit and compensation committees as applicable to companies which are incorporated under the laws of such foreign countries.

Pursuant to the Amendment to the Relief Regulations, Israeli companies which meet the above conditions may choose to opt to comply with the applicable foreign exchange rules governing the appointment of independent directors and composition of audit and compensation committees applicable to U.S. domestic issuers (which with respect to the Company are the Nasdaq Listing Rules and the rules set forth in the Exchange Act of 1934 (the "Exchange Act") instead of complying with the Companies Law provisions relating to Outside Directors. An Outside Director who was elected to serve as such prior to the date on which the company opted to comply with the applicable foreign exchange rules governing the appointment of independent directors and composition of the audit and compensation committees as set forth above may continue to serve as a director on the company's board of directors until the earlier of (i) the end of his three year term, or (ii) the second annual general meeting following the company's decision to comply with the said applicable foreign exchange rules.

As of the date of this Annual Report, Cyren's Outside Directors are John Becker and David Earhart. At the 2015 Annual General Meeting held on December 24, 2015, Mr. Earhart was re-elected to a second three-year term, expiring August 2019. At the 2016 Annual General Meeting Mr. Becker was elected for an initial three-year term expiring March 31, 2020, to replace Yair Bar Touv, whose third three-year term expired on March 31, 2017.

*NASDAQ and SEC Rules and Regulations:*

U.S. companies listed on the NASDAQ Capital Market are required to have a majority of directors qualify as independent under NASDAQ Listing Rule 5605. Pursuant to the Companies Law, an Israeli company, whose shares are publicly traded, may elect to adopt a provision in its articles of association pursuant to which a majority of its board of directors (or a third of its Board of Directors in case the company has a controlling shareholder) will constitute individuals complying with certain independence criteria prescribed by the Companies Law, as well as certain other recommended corporate governance provisions. We have not included such a provision in our Articles of Association. Our Board presently complies with the independence requirements of the NASDAQ and SEC regulations described above.

The Company has identified the following Board members as "independent directors" pursuant to NASDAQ Listing Rule 5605(a)(2):

- a. Aviv Raiz
- b. Hila Karah
- c. Todd Thomson
- d. James Hamilton
- e. David Earhart
- f. John Becker

In addition, the NASDAQ Listing Rules currently require Cyren to have at least a majority of independent directors, as defined under Listing Rule 5605(a)(2), on the Board to maintain an audit committee of at least three members, each of whom must:

- (i) be independent as defined under Listing Rule 5605(a)(2);
- (ii) meet the criteria for independence set forth in Rule 10A-3(b)(1) under the Exchange Act as set forth below (subject to the exemptions provided in Exchange Act Rule 10A-3(c));

- (iii) not have participated in the preparation of the financial statements of the Company or any current subsidiary of the Company at any time during the past three years; and
- (iv) be able to read and understand fundamental financial statements, including a company's balance sheet, income statement and cash flow statement.

Under limited circumstances, the Company may have one audit committee member not independent in accordance with the above, but such a member would only be able to serve for a maximum of two years.

Exchange Act Rule 10A-3(b)(1) requires that members of the audit committee meet that rule's definition of independence, which requires that an audit committee member may not, except in his or her capacity as a director or committee member, (i) accept directly or indirectly any consulting, advisory, or other compensatory fee from the Company or any of its subsidiaries (except for fixed amounts of compensation under a retirement plan for prior service with the Company, provided that such compensation is not contingent in any way on continued service), or (ii) be an "affiliated person" of the Company or any of its subsidiaries.



NASDAQ rules also require that the Company certify that it has, and will continue to have, at least one member of the audit committee who has past employment experience in finance or accounting, requisite professional certification in accounting, or any other comparable experience or background which results in the individual's financial sophistication, including being or having been a chief executive officer, chief financial officer or other senior officer with financial oversight responsibilities. Also, the Company is required to disclose whether or not it has an "audit committee financial expert" on its audit committee, as defined under Item 16A to Form 20-F.

The four directors who serve on our audit committee, Mr. Becker, Mr. Thomson, Mr. Hamilton, and Mr. Earhart, qualify as independent directors under NASDAQ Listing Rules (including Exchange Act Rule 10A-3) and further qualify to act as members of our audit committee under the Israel Companies Law.

#### *Audit Committee*

As noted above in the discussion under "*Independent and Outside Directors*", the Companies Law requires public companies to appoint an audit committee. The audit committee's duties include providing assistance to the Board in fulfilling its legal and fiduciary obligations in matters involving our accounting, auditing, financial reporting, internal control and legal compliance functions. In this respect the audit committee approves the services performed by our independent registered public accounting firm and reviews their reports regarding our accounting practices and systems of internal accounting controls. The audit committee also oversees the audits conducted by our independent registered public accounting firm and takes those actions as it deems necessary to confirm that the accountants are independent of management. Under the Companies Law, the responsibilities of the audit committee include identifying irregularities in the management of our business and approving related party transactions as required by law, classifying company transactions as extraordinary transactions or non-extraordinary transactions and as material or non-material transactions in which an officer has an interest (which will have the effect of determining the kind of corporate approvals required for such transaction), assessing the proper function of the company's internal audit regime and determining whether its internal auditor has the requisite tools and resources required to perform his role and to regulate the company's rules on employee complaints, reviewing the scope of work of the company's independent accountants and their fees, and implementing a whistleblower protection plan with respect to employee complaints of business irregularities. Pursuant to Amendment 22, effective as of January 10, 2014, the responsibilities of the audit committee under the Companies Law also include the following matters: (i) to establish procedures to be followed in respect of related party transactions with a controlling shareholder (where such are not extraordinary transactions), which may include, where applicable, the establishment of a competitive process for such transaction, under the supervision of the audit committee, or individual, or other committee or body selected by the audit committee, in accordance with criteria determined by the audit committee; and (ii) to determine procedures for approving certain related party transactions with a controlling shareholder, which were determined by the audit committee not to be extraordinary transactions, but which were also determined by the audit committee not to be negligible transactions.

Under the NASDAQ Listing Rules, an audit committee must consist of at least three directors meeting the independence standards under NASDAQ Listing Rules.



Under the Companies Law, all Outside Directors must serve on the audit committee, and in any case it must include a majority of independent directors, unless the company meets the requirements set forth in the Amendment to the Relief Regulations and chooses to opt in and follow the rules applicable to independent directors and composition of the audit and compensation committees as U.S. domestic issuers pursuant to the Amendment to the Relief Regulations as detailed above, in which case, with respect to the Company, the rules set forth in the Nasdaq Listing Rules and the Exchange Act governing the composition of the audit committee shall apply. The Companies Law defines independent directors as either external directors or directors who: (1) meet the requirements of an external director, other than the requirement to possess accounting and financial expertise or professional qualifications, with audit committee confirmation of such; (2) have been directors in the company for an uninterrupted duration of less than nine years (and any interim period during which such person was not a director which is less than two years shall not be deemed to interrupt the duration); and, (3) were classified as such by the company. One of the Outside Directors must serve as the chair of the audit committee, unless the company meets the requirements set forth in the Amendment to the Relief Regulations and chooses to opt in and follow the rules applicable to independent directors and composition of the audit and compensation committees as U.S. domestic issuers pursuant to the Amendment to the Relief Regulations as detailed above. Furthermore, under the Companies Law, the audit committee may not include the chairman of the board, or any director employed by the Company, by a controlling shareholder or by any entity controlled by a controlling shareholder, or any director providing services to us, to a controlling shareholder or to any entity controlled by a controlling shareholder on a regular basis, or any director whose income is primarily dependent on a controlling shareholder, and may not include a controlling shareholder or any relatives of a controlling shareholder. Under the Companies Law, a meeting of the audit committee is properly convened if a majority of the committee members attend the meeting, and of which the majority of members present must be independent and outside directors, unless the company meets the requirements set forth in the Amendment to the Relief Regulations and chooses to opt in and follow the rules applicable to independent directors and composition of the audit and compensation committees as U.S. domestic issuers pursuant to the Amendment to the Relief Regulations as detailed above. Individuals who are not permitted to be audit committee members may not participate in the committee's meetings other than to make a presentation regarding a particular issue if the chairman of the audit committee determines that such person's presence is necessary in order to present such matter. However, pursuant to Amendment 25 to the Companies Law, effective as of February 6, 2015, an employee who is not a controlling shareholder or a relative of such shareholder may be present in the committee's meeting during discussions if such presence is requested by the committee, and an executive officer may be present in a meeting, if requested by the audit committee, to present his position with regard to a matter under his responsibility where substantial defects in the company's business administration are discussed, but may not vote. Additionally, the company's legal counsel and corporate secretary may participate in the committee's discussions and votes if requested by the committee.

The audit committee consists of David Earhart (chairman), Todd Thomson, audit committee financial expert, John Becker and James Hamilton.

#### *Compensation Committee*

On December 12, 2012, Amendment 20 to the Companies Law, or "Amendment 20", came into force, and its provisions are summarized below:

All public companies and bond companies are required to establish a compensation committee, with one Outside Director serving as chairman of the committee. The committee is to be made up of at least three directors, with a majority of Outside Directors. The remaining directors shall be directors who do not receive direct or indirect compensation for their role as directors (other than compensation paid or given in accordance with Companies Law regulations applicable to the compensation of outside directors, or amounts paid pursuant to indemnification and/or exculpation contracts or commitments and insurance coverage). The compensation committee may not include the chairman of the board, any director employed by or otherwise providing services on a regular basis to the Company, to a controlling shareholder or to any entity controlled by a controlling shareholder, any director whose main livelihood is dependent on a controlling shareholder, or a controlling shareholder or a relative thereof. Nonetheless, in the event the company meets the requirements set forth in the Amendment to the Relief Regulations and chooses to opt in and follow the rules applicable to independent directors and composition of the audit and compensation committees as U.S. domestic issuers pursuant to the Amendment to the Relief Regulations as detailed above, the rules set forth in the Nasdaq Listing Rules and the Exchange Act governing the composition of the compensation committee shall apply. The committee is responsible for (i) proposing an office holder compensation policy to the Board of Directors, (ii) proposing necessary revisions to the compensation policy and examining its implementation, (iii) determining whether to approve transactions with respect to compensation of office holders, and (iv) determining, in accordance with our office holder compensation policy, whether to exempt the compensation terms with an unaffiliated nominee for the position of chief executive officer from requiring shareholders' approval, provided such terms meet with the company's compensation policy. Pursuant to Amendment 27, the audit committee may serve as the company's compensation committee, provided that it meets the composition requirements of the compensation committee.

“Say before pay” rules: The compensation policy recommended by the compensation committee is to be approved by the Board and then, before it takes effect, by shareholders in a vote by the affirmative vote of a majority of the shares voting on the matter, provided that (i) such majority includes at least a majority of the shares of shareholders who are non-controlling shareholders and do not have a personal interest in the said resolution; or (ii) the total number of shares of shareholders specified in clause (i) who voted against this resolution does not exceed 2% of the voting rights in the Company. If the shareholders do not approve the policy, the policy may be returned for further deliberation by the Board, taking into account the rejection of the policy by the minority shareholders. The Board may ultimately approve the policy despite the minority's disapproval, if it finds that the policy is in the company's best interest. The compensation policy must be approved at least every three years. The Board is required to reevaluate the policy from time to time and if a material change occurs.

Under Section 267B(a) and Parts A and B of Annex 1A of the Companies Law, which were legislated as part of Amendment 20, a company's compensation policy shall be determined based on, and take into account, the following parameters:

- a. advancement of the goals of the Company, its working plan and its long term policy;
- b. the creation of proper incentives for the office holders while taking into consideration, inter alia, the Company's risk management policies;
- c. the Company's size and nature of its operations;
- d. the contributions of the relevant office holders in achieving the goals of the Company and profit in the long term in light of their positions;
- e. the education, skills, expertise and achievements of the relevant office holders;
- f. the role of the office holders, areas of their responsibilities and previous agreements with them;
- g. the correlation of the proposed compensation with the compensation of other employees of the Company, and the effect of such differences in compensation on the employment relations in the company; and
- h. the long term performance of the office holder.

In addition, the compensation policy should take into account that if the compensation paid to office holders includes variable components, the policy should address the ability of the board of directors to reduce the value of the variable component from time to time or to set a cap on the exercise value of convertible securities components that are not paid out in cash. Additionally, in the event that the terms of office and employment include grants or payments made upon termination – such grants should take into consideration the length of the term of office or period of employment, the terms of employment of the office holder during such period, the company's success during said period and the office holder's contribution to obtaining the company's goals and maximizing its profits as well as the circumstances and context of the termination.

The compensation policy must set forth standards and rules on the following issues: (a) with respect to variable components of compensation - basing the compensation on long term performance and measurable criteria (though a non-material portion of the variable components can be discretionary awards taking into account the contribution of the office holder to the company). Pursuant to Amendment 27, variable components equal to three month salaries of the relevant office holders, on an annual basis, shall be considered a non-material portion of the variable components. The variable components of compensation paid to office holders who are defined as such only by virtue of being directly subordinated to the CEO can be based entirely on the discretion of the CEO if so permitted under the compensation policy); (b) establishing the appropriate ratio between variable components and fixed components and placing a cap on such variable components (including a cap on the grant date value of convertible securities components that are not paid out in cash); (c) setting forth a rule requiring an office holder to return amounts paid, in the event that it is later revealed that such amounts were paid on the basis of data which prove to be erroneous and resulted in an amendment and restatement of the company's financial statements; (d) determining minimum holding or vesting periods for equity based variable components of compensation, while taking into consideration appropriate long term incentives; and (e) setting a cap on grants or benefits paid upon termination

The compensation committee is also responsible for administering the Company's various stock option plans, including the issuance of option grants to employees of the Company and its subsidiaries.

The compensation committee consists of John Becker (chairman), Hila Karah, James Hamilton and David Earhart.

*Executive Compensation Policy*

On July 25, 2013, an Extraordinary General Meeting of the shareholders of the Company took place, approving the Executive Compensation Policy (the “Policy”), which had been recommended by the compensation committee and approved by the board of directors, for the Company’s directors and office holders, in accordance with the requirements of the Companies Law.

The Policy includes, among other issues prescribed by the Companies Law, a framework for establishing the terms of office and employment of the directors and office holders and guidelines with respect to the structure of the variable pay of office holders.

Our recoupment policy relating to office holder compensation allows for the recovery of any portion of the annual bonus paid based on financial measures that may in the future prove to be based on a mistake which will require a restatement of the financial reports occurring during the 8 quarterly reporting periods (2 years) following the mistaken report.

Our CEO and all of our office holders may be incentivized through cash bonuses and all of our office holders and directors may also be incentivized through long-term equity-based incentives to provide them with a stake in our success – thus linking their long-term financial interests with the interests of our shareholders. In accordance with the Policy, the cash bonuses incentives are developed through a program that sets performance targets based on each office holder’s role and scope. Actual payments are driven by the business and individual performance vis-à-vis the performance targets set at the beginning of the year. The cash bonuses will not exceed 50% of the actual annual base salary for the CEO and office holders (other than Sales) and 85% of the actual annual base salary for Sales officers. In years that the Company does not meet at least 60% of the annual Company’s measures target (as defined by the board of directors), no cash bonuses will be paid.

Equity based compensation may be granted in any form permitted under our equity incentive plans, as in effect from time to time (collectively, the “Equity Incentive Plans”), including stock options and restricted share units. Equity grants to office holders shall be made in accordance with the terms of the Equity Incentive Plans. All equity-based incentives granted to our directors and office holders shall be subject to vesting periods in order to promote long-term retention of the awarded office holders. Grants to our directors and office holders shall vest gradually over a period of not less than three years. The value of the equity based compensation (at the time of grant) per year, for each director and executive officer, shall not exceed the approved ratio between fixed pay and variable pay.

Our compensation committee will periodically review the Policy and monitor its implementation, and recommend to our board of directors and shareholders to amend the Policy as it deems necessary from time to time. The term of the Policy shall be three years as of the date of its adoption, during which, the board of directors is required to examine the Policy and revise it from time to time, if the circumstances under which it had been adopted have materially changed. Following such three year term, the Policy, including any revisions recommended by our compensation committee and approved by our board of directors, as applicable, will be brought once again to the shareholders for approval.

On December 18, 2014, the Annual General Meeting of the shareholders of the Company approved an amendment to the Policy, changing the ranges for fixed base salary and variable pay, in order to better reflect the Company's characters, financial position, needs, prospects and strategic goals.

On December 8, 2015, the Annual General Meeting of the shareholders of the Company approved an additional amendment to the Policy, changing the ratios between the fixed base salary and the variable compensation of certain office holders to provide for the issuance of RSUs, and the annual base salary ranges of certain office holders.

#### *Nominating Committee*

The committee's responsibilities include identifying individuals qualified to become board members and recommending director nominees to the board.

The nominating committee consists of Hila Karah, chair, Aviv Raiz, David Earhart, James Hamilton and Brian Chang.



### *Internal Auditor*

Under the Israel Companies Law, the Board of Directors must appoint an internal auditor, nominated by the audit committee. The role of the internal auditor is to examine, among other matters, whether a company's actions comply with relevant law and orderly business procedure. Under the Israel Companies Law, the internal auditor must be an individual and may be an employee of the company but not an affiliate or office holder, or a relative of an affiliate or office holder, and he or she may not be the company's independent accountant or its representative. The Company routinely engages an Internal Auditor who is an independent third party.

### *Approval of Certain Transactions; Obligations of Directors, Officers and Shareholders*

The Companies Law codifies the fiduciary duties that office holders, including directors and executive officers, owe to a company. An office holder's fiduciary duties consist of a duty of care and a duty of loyalty. Each person listed in the first table that appears above at the beginning of this Item 6 is an office holder.

The duty of loyalty requires an office holder to act in good faith and for the benefit of the company, including to avoid any conflict of interest between the office holder's position in the company and such person's personal affairs, avoiding any competition with the company, avoiding exploiting any corporate opportunity of the company in order to receive personal advantage for such person or others, and revealing to the company any information or documents relating to the company's affairs which the office holder has received due to his or her position as an office holder. A company may approve any of the acts mentioned above provided that all the following conditions apply: the office holder acted in good faith and neither the act nor the approval of the act prejudices the good of the company, and the office holder disclosed the essence of his personal interest in the act, including any substantial fact or document, a reasonable time before the date for discussion of the approval. A director is required to exercise independent discretion in fulfilling his or her duties and may not be party to a voting agreement with respect to his or her vote as a director. A violation of these requirements is deemed a breach of the director's duty of loyalty.

The duty of care requires an office holder to act with a level of care that a reasonable office holder in the same position would employ under the same circumstances. This includes the duty to use reasonable means to obtain information regarding the advisability of a given action submitted for his or her approval or performed by virtue of his or her position and all other relevant information material to these actions.

The Companies Law requires that an office holder promptly discloses any personal interest that he or she may have and all related material information known to him or her, in connection with any existing or proposed transaction by the company. "Personal interest," as defined by the Companies Law, includes a personal interest of any person in an act

or transaction of the company, including a personal interest of his relative or of a corporation in which that person or a relative of that person is a 5% or greater shareholder, a holder of 5% or more of the voting rights, a director or general manager, or in which he or she has the right to appoint at least one director or the general manager, and includes shares for which the person has the right to vote pursuant to a power-of-attorney. "Personal interest" does not apply to a personal interest stemming merely from holding shares in the company.

The office holder must make the disclosure of his personal interest no later than the first meeting of the company's board of directors that discusses the particular transaction. This duty does not apply to the personal interest of a relative of the office holder in a transaction unless it is an "extraordinary transaction." An "extraordinary transaction" is defined as a transaction not in the ordinary course of business, a transaction that is not on market terms, or a transaction that is likely to have a material impact on the company's profitability, assets or liabilities, and a "relative" as a spouse, sibling, parent, grandparent or descendant, and the sibling, parent or descendant of a spouse, as well as the spouse of any of the foregoing.

In the case of a transaction that is not an extraordinary transaction and that does not relate to compensation or terms of employment, after the office holder complies with the above disclosure requirement, only Board approval is required unless the Articles of Association of the company provide otherwise. Pursuant to Amendment 27, extending or renewing the company's engagement with its CEO also requires only Board approval (after compensation committee approval) if (i) the compensation terms are similar to the ones in effect prior to the extension or renewal, (ii) the compensation terms are compliant with the company's compensation policy, and (iii) the CEO's previous engagement with the company was approved by a majority vote of the shareholders of the company which either included a majority of the non-controlling and disinterested shareholders who were present, in person or by proxy, at the meeting or, alternatively, the total shareholdings of the non-controlling and disinterested shareholders who voted against the transaction did not represent more than two percent of the voting rights in the company). Our Articles of Association do not provide otherwise. Such approvals must determine that the transaction is in the company's interest. If the transaction is an extraordinary transaction, then in addition to any approval required by the Articles of Association, it also must be approved by the audit committee and by the Board and, under specified circumstances, by a meeting of the shareholders. An individual who has a personal interest in a matter that is considered at a meeting of the Board or the audit committee generally may not be present at this meeting or vote on this matter unless a majority of the board of directors or the audit committee has a personal interest in the matter, or if such person is invited by the Chairman of the Board or audit committee, as applicable, to present the matter being considered. If a majority of the board of directors or the audit committee has a personal interest in the transaction, shareholder approval also would be required.

The Companies Law applies the same disclosure requirements set forth above to a controlling shareholder of a public company. The term “controlling shareholder” is defined as a shareholder who has the ability to direct the activities of a company, other than if this power derives solely from the shareholder’s position on the board of directors or any other position with the company, and the definition of “controlling shareholder” in connection with matters governing: (i) extraordinary transactions with a controlling shareholder or in which a controlling shareholder has a personal interest, (ii) certain private placements in which the controlling shareholder has a personal interest, (iii) certain transactions with a controlling shareholder or relative with respect to services provided to or employment by the company, (iv) the terms of employment and compensation of the general manager, and (v) the terms of employment and compensation of office holders of the company when such terms deviate from the compensation policy previously approved by the company’s shareholders, also includes shareholders that hold 25% or more of the voting rights if no other shareholder owns more than 50% of the voting rights in the company (and the holdings of two or more shareholders which each have a personal interest in such matter will be aggregated for the purposes of determining such threshold). Extraordinary transactions, including a private placement with a controlling shareholder or in which a controlling shareholder has a personal interest (including for the provision of services to the company through a company controlled by a controlling shareholder, but not including transactions covering the terms of compensation of a controlling shareholder who is an office holder), require the approval of the audit committee, the Board and the shareholders of the company. Extraordinary transactions covering the terms of compensation of a controlling shareholder who is an office holder, require the approval of the compensation committee, the Board and the shareholders of the company. The shareholder approval must either include a majority of the non-controlling and disinterested shareholders who are present, in person or by proxy, at the meeting or, alternatively, the total shareholdings of the non-controlling and disinterested shareholders who vote against the transaction must not represent more than two percent of the voting rights in the company. Generally, the approval of such a transaction may not extend for more than three years, except that in the case of an extraordinary transaction with a controlling shareholder or in which a controlling shareholder has a personal interest that does not concern terms of compensation for service as an office holder, or as a service provider to the company, the transaction may be approved for a longer period if the audit committee determines that the approval of the transaction for a period longer than three years is reasonable under the circumstances.

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

- any amendment to the Articles of Association;
- an increase of the company’s authorized share capital;
- a merger; or
- approval of interested party transactions that require shareholder approval.

In addition, any controlling shareholder, any shareholder who can determine the outcome of a shareholder vote and any shareholder who, under the company’s Articles of Association, can appoint or prevent the appointment of an office

holder, are under a duty to act with fairness towards the company. The Companies Law provides that a breach of the duty of fairness will be governed by the laws governing breach of contract. The Companies Law does not describe the substance of this duty.

*Insurance, Indemnification and Exculpation of Directors and Officers; Limitations on Liability*

The Companies Law permits a company to insure an office holder in respect of liabilities incurred by him or her as a result of the breach of his or her duty of care to the company or to another person, or as a result of the breach of his or her duty of loyalty to the company, to the extent that he or she acted in good faith and had reasonable cause to believe that the act would not prejudice the company. A company can also insure an office holder for monetary liabilities as a result of an act or omission that he or she committed in connection with his or her serving as an office holder. Moreover, in accordance with the Companies Law and the Israeli Securities Law, a company can indemnify an office holder for (a) any monetary liability imposed upon such an office holder for the benefit of a third party pursuant to a court judgment, including a settlement or an arbitrator's decision, confirmed by a court, (b) reasonable legal costs, including attorney's fees, expended by an office holder as a result of an investigation or proceeding instituted against the office holder by a competent authority, provided that such investigation or proceeding concludes without the filing of an indictment against the office holder and either i) no financial liability was imposed on the office holder in lieu of criminal proceedings or ii) financial liability was imposed on the office holder in lieu of criminal proceedings but the alleged criminal offense does not require proof of criminal intent, (c) legal expenses (including attorneys' fees) incurred by an office holder in an administrative enforcement proceeding and certain compensation payable to injured parties for damages suffered by them as determined in the proceeding and (d) reasonable litigation expenses, including legal fees, actually incurred by such an office holder or imposed upon the office holder by a court order, in a proceeding brought against the office holder by or on behalf of the company or by others, or in a criminal action in which he was acquitted, or in a criminal action which does not require proof of criminal intent in which he was convicted. The Companies Law further provides that the indemnification provision in a company's articles of association (i) may be an obligation to indemnify in advance, provided that, other than litigation expenses, it is limited to events the board of directors can foresee in light of the company's actual activities when providing the obligation and that it is limited to a sum or standards the board of directors determines is reasonable in the circumstances, and (ii) may permit the company to indemnify an officer or a director after the fact.

Furthermore, a company can, with one limited exception, exculpate an office holder in advance, in whole or in part, from liability for damages sustained by a breach of duty of care to the company.

All of these provisions are specifically limited in their scope by the Companies Law, which provides that a company may not indemnify or exculpate an officer or director nor enter into an insurance contract that would provide coverage for any monetary liability incurred as a result of (i) a breach by the officer or director of the duty of loyalty, unless the officer or director acted in good faith and had a reasonable basis to believe that the act would not prejudice the company, in which case the company is permitted to indemnify and provide insurance to but not to exculpate; (ii) an intentional or reckless breach by the officer or director of the duty of care, other than if solely done in negligence; (iii) any act or omission done with the intent to derive an illegal personal benefit; or (iv) any fine levied or forfeit against the director or officer.

Under the Companies Law and the Israeli Securities Law, the aforesaid provisions to indemnify or exculpate an office holder, or entering into an insurance contract with respect to the provision of coverage for such matters is subject to the inclusion of provisions in the company's articles of association permitting the company to do so. Our Articles of Association allow us to insure, exculpate and indemnify office holders to the fullest extent permitted by law provided such insurance, exculpation or indemnification is approved in accordance with the Companies Law and Israeli Securities Law. We have acquired directors' and officers' liability insurance covering the officers and directors of Cyren and its subsidiary for certain claims. At the annual meeting of shareholders held on November 18, 2002, the shareholders approved a form of indemnification, exculpation and insurance agreement that is applicable to all our directors. The form of this agreement, as well as related provisions in our Articles of Association, were last amended at the annual meeting of shareholders held on December 15, 2011, and provisions with respect to such indemnification and office holder liability insurance were included in our Compensation Policy.

**D. Employees**

As of December 31, 2017, 2016, and 2015, we had 239, 214, and 193 employees, respectively, with such employees being located in our offices in the Israel, United States, Germany, Iceland and the UK. As of December 31, 2017, our employees were categorized as follows:

Location	General & Administrative	Sales & Marketing	Research & Development	Hosting & Support (Operations)	TOTAL:
ISRAEL OFFICE	8	8	61	12	89
U.S. OFFICES:					
Austin, TX	-	26	-	2	28
Sunnyvale, CA	-	5	-	6	11
McLean, VA	10	3	1	1	15
ICELAND OFFICE	5	-	23	4	32
GERMANY OFFICE	6	7	25	9	47
UK OFFICE	-	17	-	-	17
TOTALS	29	66	110	34	239

While employment-related issues occasionally arise in the normal course, we believe that, on the whole, relations with our employees are good.

None of our U.S. employees are covered by a collective bargaining agreement, rather they sign individual offer letters of employment that, along with relevant Company policies and an employee handbook, formalize employees' relationship with our U.S. subsidiary.

In Israel we are subject to certain labor statutes and national labor court precedent rulings, as well as to certain provisions of the collective bargaining agreements between the Histadrut (General Federation of Labor in Israel) and the Coordination Bureau of Economic Organizations including the Industrialists' Associations. These provisions of collective bargaining agreements are applicable to our Israeli employees by virtue of expansion orders issued in accordance with relevant labor laws by the Israeli Ministry of Labor and Welfare, and which apply such agreement provisions to our employees even though they are not directly part of a union that has signed a collective bargaining agreement. The laws and labor court rulings that apply to our employees principally concern the minimum wage laws, procedures for dismissing employees, determination of severance pay, leaves of absence (such as annual vacation or maternity leave), sick pay and other conditions for employment. The expansion orders which apply to our employees principally concern the requirement for length of the work day and workweek, mandatory contributions to a pension fund, annual recreation allowance, travel expenses payment and other conditions of employment. Furthermore, the wages of most of Cyren's Israeli employees are subject to cost of living adjustments, based on changes in the Israeli

Consumer Price Index. The amounts and frequency of such adjustments are modified from time to time. Also, all Israeli employees are entitled to the funding of pension benefits by preset monthly contributions of the employee and the employer after their initial six months of employment, or, if they already have a pension plan or Managers Insurance, after their initial three months of employment and retroactively. Israeli law generally requires the payment of severance pay upon the retirement or death of an employee or upon termination of employment by the employer or, in certain circumstances, by the employee. We currently fund our ongoing severance obligations by making monthly payments for insurance policies and by an accrual. Effective October, 2014, the Company's agreements with new employees in Israel, are under Section 14 of the Severance Pay Law, 1963. The Company's contributions for severance pay have replaced its severance obligation. Upon contribution of the full amount of the employee's monthly salary for each year of service, no additional calculations is conducted between the parties regarding the matter of severance pay and no additional payment is made by the Company to the employee. Further, the related obligation and amounts deposited on behalf of the employee for such obligation are not stated on the balance sheet, as the Company is legally released from the obligation to employees once the deposit amounts have been paid. A general practice in Israel followed by Cyren, although not legally required, is the contribution of funds on behalf of certain employees to an individual insurance policy known as "Managers' Insurance." This policy provides a combination of savings plan, insurance and severance pay benefits to the insured employee. It provides for payments to the employee upon retirement or death and secures a substantial portion of the severance pay, if any, to which the employee is legally entitled upon termination of employment. Each participating employee contributes an amount equal to 6% of such employee's base salary, and the employer contributes between 12.5% and 14.83% of the employee's base salary. We also provide certain Israeli employees with an Education Fund, to which each participating employee contributes an amount equal to 2.5% of such employee's base salary, and the employer contributes an amount equal to 7.5% of the employee's base salary, up to a certain maximum base salary set by law.



Following the Regulation Regarding Supervision of Financial Services (Provident Funds), 2014 (the “Provident Funds Regulations”), as of January 1, 2016, employees are required to provide the pension funds with certain information regarding the payments being transferred, including the transfer dates, the means of transfer and the account from which the transfer was made and in which the transfer was received. Employers are also required to provide information regarding their employees’ wages and taxable and exempt components of the payments transferred. Employers are also required to provide pension funds with certain information upon cessation of payment to the relevant employee’s fund, including the reason for such cessation and notice regarding the status of the severance pay in the event of termination of employment. After receipt of the required information, the pension fund is required to provide the employee a notice of cessation of payment and the effect such cessation will have on the employee’s rights in the pension fund. Furthermore, the Provident Funds Regulations require pension fund to provide employees feedback regarding payments transferred to the pension funds of their employees in the relevant company. In addition, late payments may bear interest, and employees may require pension funds to repay amounts paid in excess. In addition, Israeli employees and employers are required to pay predetermined sums to the National Insurance Institute, an agency similar to the United States Social Security Administration. Since January 1, 1995, such amounts also include payments for national health insurance. The payments to the National Insurance Institute are approximately 14.5% of wages up to a specified amount, of which the employee contributes approximately 66% and the employer contributes approximately 34%.

#### **E. Share ownership**

Employees, including executive officers and other management employees, participate in the Company’s employee equity incentive plan.

The table in Item 6, Section A above sets forth the directors’ beneficial ownership of our ordinary shares as of February 28, 2018. Other than our CEO and Chairman, Lior Samuelson, and Lior Kohavi, CTO (who beneficially owned 639,832 ordinary shares representing 1.2% of our outstanding shares), no executive officer beneficially owns more than 1% of our ordinary shares as of February 28, 2018.

#### **Item 7. Major Shareholders and Related Party Transactions.**

##### **A. Major shareholders**

The following table presents information with respect to beneficial ownership of our ordinary shares as of February 28, 2018, including:

each person or entity known to Cyren to own beneficially 5% or more of Cyren's ordinary shares, and all executive officers and directors as a group.

Beneficial ownership is determined in accordance with the rules of the SEC and includes voting or investment power, with respect to ordinary shares. For purposes of the table below, we deem shares subject to options, warrants or convertible notes that are currently exercisable/convertible or exercisable/convertible within 60 days of February 28, 2018, to be outstanding and to be beneficially owned by the person holding such options, warrants or convertible notes 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 53,383,120 ordinary shares outstanding as of February 28, 2018.

Major shareholders of ordinary shares	Number of Shares Beneficially Owned	Percent
Warburg Pincus (WP XII Investments B.V.) (1)	27,586,733	51.7 %
Yelin Lapidot Holdings (2)	3,998,703	7.5 %
All other directors and executive officers as a group (19 persons) (3)	3,688,700	6.6 %

(1) Includes 27,586,733 shares indicated in the statement of beneficial ownership on Schedule 13D/A filed on December 29, 2017.

(2) Includes 3,998,703 shares indicated in the statement of beneficial ownership on Schedule 13G/A filed on January 31, 2018.

(3) Includes 2,738,032 options exercisable into a like number of ordinary shares.

Based on a review of the information provided to us by our transfer agent, as of March 31, 2018, there were 38 holders of record of our ordinary shares, of which 27 record holders holding 26,109,884 ordinary shares, or approximately 48.9%, of our outstanding ordinary shares, had registered addresses in the United States. These numbers are not representative of the number of beneficial holders of our shares nor is it representative of where such beneficial holders reside, since many of these shares were held of record by brokers or other nominees. One of such holders is CEDE & Co., the nominee company of the Depository Trust Company (with a registered address in the United States), which held 24,251,633 ordinary shares on behalf of numerous brokers and banks, who in turn held such shares on behalf of their respective clients and customers.

*Significant Changes in Percentage Ownership of Major Shareholders During the Past Three Years*

On November 6, 2017, we issued approximately 10.6 million ordinary shares for \$1.85 per share to Warburg Pincus (WP XII Investments B.V.) upon the completion of the Private Placement. On December 25, 2017 Warburg Pincus announced the successful completion of its Special Tender Offer pursuant to which it purchased 16,991,212 ordinary shares of the Company which were validly tendered pursuant to the offer, from Company shareholders, and became the owner of a total of 27,586,733 ordinary shares of the Company, representing approximately 51.7% of the issued share capital of the Company as of the completion of the Special Tender Offer and automatic conversion of the convertible notes.

In March 2017, an affiliate of Yelin Lapidot Holdings purchased \$4.0 million aggregate principal amount of convertible notes, convertible into ordinary shares at any time based on a conversion price of \$2.50 per share. Upon the November 6, 2017 Private Placement, the conversion price of these notes was reset to \$1.85 per share, and these notes were automatically converted into 2,162,162 shares upon the successful completion of the Special Tender Offer on December 24, 2017. On January 31, 2018, Dov Yelin, Yair Lapidot, Yelin Lapidot Holdings Management Ltd. and Yelin Lapidot Mutual Funds Management Ltd. filed a schedule 13G indicating that it owned 3,998,703 shares of Cyren representing 8.0% of the outstanding shares of Cyren.

On February 5, 2018 Unterberg Capital, LLC, Unterberg Technology Partners LP, Unterberg Koller Capital Fund LP, Thomas I. Unterberg and Ross A. Koller filed a schedule 13G/A indicating that they have ceased to be beneficial owners of more than 5% of Cyren shares, and as of the date thereof may be deemed to be the beneficial owners of 290,456 Cyren shares, representing 0.6% of the outstanding shares of Cyren, which include 290,456 Cyren shares if 290,456 warrants were exercised.

In March 2017, Aviv Raiz reported beneficial holdings of 5,020,510 shares, which includes 4,959,057 ordinary shares and 61,453 stock options representing 12.8% of the outstanding shares of Cyren. In March 2018, Aviv Raiz reported beneficial holdings of 304,082 shares, which includes 234,187 ordinary shares, 10,000 vested RSUs, and 59,895 stock options, and as of the date thereof has ceased to be a beneficial owner of more than 5% of Cyren shares.

On August 17, 2015 Cyren closed a registered underwritten public offering of 7,666,665 ordinary shares at a price to the public of \$1.65 per share, which included the full exercise of the underwriter's overallotment option of 999,999 ordinary shares. As a result of this offering, total outstanding shares increased from 31.4 million to 39.1 million shares resulting in a decrease in ownership percentage for all previous shareholders.

On July 30, 2014 Cyren closed a registered direct offering of 4,771,796 ordinary shares and warrants to purchase 1,670,128 ordinary shares in combinations consisting of one ordinary share and one warrant to purchase 0.35 of an ordinary share at an offering price per fixed combination of \$2.41. Each warrant has an exercise price of \$3.08 per share and is exercisable following the six-month anniversary of the date of its issuance. As a result of this offering, total outstanding shares increased from 26.6 million to 31.4 million shares resulting in a decrease in ownership percentage for all previous shareholders.

### *Control*

The Company is controlled by Warburg Pincus, which, pursuant to the consummation of the Private Placement transaction and the successful completion of the Special Tender Offer made by Warburg Pincus, is the owner of 27,586,733 ordinary shares of the Company, representing approximately 51.7% of the issued share capital of the Company, as of the date of this report. In addition, pursuant to the Private Placement transaction, based on its current share ownership as of the date hereof, Warburg Pincus has the right to nominate five out of ten directors to the Company's board of directors. To date, Warburg Pincus has nominated two directors to the board.

The Company is not aware of any arrangements that may at a subsequent date result in a change in control of the Company.

### **B. Related party transactions**

#### *Private Placement and Registration Rights Agreement*

On November 6, 2017, Warburg Pincus acquired approximately 10.6 million ordinary shares from us for \$1.85 per share, representing gross proceeds of approximately \$19.6 million to us. As a result of the Private Placement, Warburg Pincus became the owner of approximately 21.3% of our outstanding share capital. In connection with this offering, we also agreed to grant certain registration rights to Warburg Pincus. See Item 5.B. - Operating and Financial Review and Prospects - Liquidity and Capital Resources - Private Placement.

### **Item 8. Financial Information.**

#### **A. Consolidated Statements and Other Financial Information**

Our consolidated financial statements and other financial information are included herein on item 18 pages F-1 through F-39.

#### *Legal Proceedings*

Between 2014 and 2015 the Company entered into arbitral proceedings with the former shareholders of eleven GmbH regarding an escrow account and the earn-out consideration related to the purchase agreement of former eleven. With respect to these claims, on March 9, 2017, the arbitral panel provided their ruling in which it accepted the claims submitted by the former eleven shareholders with respect to the escrow amount and the 2013 earn-out liability. The arbitral panel also ruled that Cyren pay legal expenses in the amount of €574 thousand (out of which €113 thousand had been previously deposited) and interest on the claimed amounts, which up to December 31, 2016, amounted to €171 thousand. The 2014 and 2015 earn-out amounts, which have already been recognized within the earn-out consideration on the Company's balance sheet as of December 31, 2015, in the amount of €1,374 thousand, may be payable on the same basis as set forth in the arbitral ruling. The additional liability arising from the legal fees and interest was recognized and presented within the earn-out consideration on the Company's balance sheet and the respective expenses were reflected for the year ending December 31, 2016, in the consolidated statements of operations under adjustment to earn-out consideration within the consolidated financial statements included elsewhere in this Annual Report. The escrow account has been released to the former shareholders. The arbitral award related to the 2013 earn-out consideration has not been declared enforceable by the applicable courts in Germany. Therefore the Company has not paid the award as of December 31, 2017 and subsequently through the date of these financial statements. The former shareholders have commenced legal proceedings before the applicable court in Germany in order to enforce the award and have served this motion on the Company on April 16, 2018. The court is awaiting the Company's response to the motion. At this stage, it is unlikely that the award will not be enforced. The Company believes a portion of the liability may be paid during 2018, but cannot estimate the timing and the amounts that will be paid.

On December 22, 2017, the Company commenced legal proceedings against the German law firm that advised the Company on the purchase agreement of the former eleven, asserting that the law firm provided deficient legal advice which has resulted in an over payment of the earn-out consideration to the former shareholders of eleven, as awarded by the arbitrational panel, and any future amounts that may be enforced relating to the 2014 and 2015 earn-out amounts. The Company cannot estimate the outcome of these proceedings at these early stages.

The Company was a minority shareholder in imatrix corp., a Japanese company (“imatrix”). In September 2015, the Company required imatrix to repurchase all imatrix shares held by the Company pursuant to certain provisions of the Companies Act of Japan. However, since the parties could not agree on the correct valuation for such shares, in November 2015, the Company petitioned the Kawasaki Branch of Yokohama District Court in Japan to determine the share valuation of the Company’s shares in imatrix Corporation. In addition, the Company had also filed a claim regarding unpaid royalties pursuant to a commercial agreement between the two parties while imatrix separately claimed damages for unlawful termination of such agreement. In April 2017, the parties reached a settlement pursuant to which imatrix paid JPY 75 million (approximately US\$676,000) to Cyren to settle all such claims. Out of the total settlement, \$226 thousand was paid towards unpaid royalties and \$450 thousand was paid on account of the imatrix shares held by the Company.

In June 2017, zvelo, Inc. (“zvelo”) filed a Statement of Claim in the Tel Aviv District Court. The Company and zvelo had been parties to an agreement for the receipt of certain URL categorization and filtering services. In September 2015, the Company terminated the agreement, effective as of December 31, 2015. zvelo claims that the Company continues to make use of zvelo’s data post termination in breach of the agreement, infringing on zvelo's rights and commercial secrets, and being unjustly enriched. zvelo is claiming damages of NIS 11,000,000 and an order for the Company to cease from utilizing such data. The Company filed a statement of defense in November 2017, and a pretrial is scheduled in May 2018. In accordance with the court’s recommendation, the parties have engaged in a mediation process.

Other than the above, the Company is not a direct party to any litigation, and it is not aware of any threatened litigation which, in the aggregate, that we believe would be material to the business of the Company.

#### *Dividend Policy*

If the Company decides to distribute a cash dividend out of income that has been tax exempt due to an “approved enterprise” status under the Law for the Encouragement of Capital Investments, 5719-1959, the amount of cash dividend will be subject to corporate tax at the rate then in effect under Israeli law. The Company has never declared or paid cash dividends on its ordinary shares. However, the Company has not adopted a policy not to pay cash dividends and therefore may declare a dividend in the future. The Company’s current plans are to retain future earnings primarily to finance the development of its business and for other corporate purposes.

**B. Significant changes**

Except as otherwise disclosed in this Annual Report, there are no other significant changes since December 31, 2016.

**Item 9. The Offer and Listing.**

*Offering and listing details*

The Company's ordinary shares have been traded publicly on NASDAQ as follows:

From July 13, 1999 through June 29, 2004, under the symbol "CTCH" (up to June 7, 2002 on the National Market, and subsequently on the Small Cap Market, which during 2005 was renamed the "Capital Market");

From June 30, 2004 through June 26, 2005, under the symbol "CTCHC";

From June 27, 2005 through January 1, 2008, under the symbol "CTCH";

From January 2, 2008 through January 29, 2008, under the symbol "CTCHD";

From January 30, 2008 through February 23, 2014, under the symbol "CTCH"; and.

From February 24, 2014, under the symbol "CYRN".



Since December 16, 2009, the Company's ordinary shares have also been traded on the Tel Aviv Stock Exchange, or TASE, under the symbol "CTCH" until February 24, 2014, and under the symbol "CYRN" since that date.

The following table lists the high and low closing sales prices for the Company's ordinary shares on the NASDAQ Capital Market for the periods indicated:

	High	Low
2013:	\$3.99	\$2.02
2014:	\$4.09	\$1.45
2015:	\$3.43	\$1.57
2016:	\$2.50	\$1.31
2017:	\$2.50	\$1.35

2016:		
First Quarter	\$1.76	\$1.31
Second Quarter	\$2.00	\$1.62
Third Quarter	\$2.50	\$1.93
Fourth Quarter	\$2.49	\$1.70

2017:		
First Quarter	\$2.25	\$1.93
Second Quarter	\$2.30	\$1.95
Third Quarter	\$2.05	\$1.35
Fourth Quarter	\$2.50	\$1.65

Most Recent Six Months:

October 2017	\$1.90	\$1.70
November 2017	\$2.45	\$1.65
December 2017	\$2.50	\$2.35
January 2018	\$2.50	\$2.20
February 2018	\$2.25	\$2.05
March 2018	\$2.50	\$2.10

The following table lists the high and low closing sales prices for the Company's ordinary shares on the TASE for the periods indicated. Share prices on the TASE are quoted in ILS:

	High	Low
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2016:

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First Quarter	ILS 6.92	ILS 5.18
Second Quarter	ILS 7.67	ILS 6.29
Third Quarter	ILS 9.64	ILS 7.48
Fourth Quarter	ILS 9.17	ILS 6.95

2017:

First Quarter	ILS 8.73	ILS 7.00
Second Quarter	ILS 8.69	ILS 6.92
Third Quarter	ILS 7.25	ILS 5.22
Fourth Quarter	ILS 9.02	ILS 5.89

Most Recent Six Months:

October 2017	ILS 6.66	ILS 5.97
November 2017	ILS 8.73	ILS 5.89
December 2017	ILS 9.02	ILS 8.36
January 2018	ILS 8.69	ILS 7.49
February 2018	ILS 7.50	ILS 7.20
March 2018	ILS 8.34	ILS 7.34

**Item 10. Additional Information.**

**A. Share Capital**

Not applicable.

**B. Memorandum and Articles of Association**

We are registered under the Israel Companies Law as a public company with registration number 52-004418-1. The objective stated in our Memorandum of Association is to engage in any lawful activity.

*Description of Shares*

Set forth below is a summary of the material provisions governing our share capital. This summary is not complete and should be read together with our Memorandum of Association and Articles of Association, copies of which are filed with this Annual Report or have been filed as exhibits to certain of our prior filings with the SEC.

As of December 31, 2017, our authorized share capital consisted of 75,353,340 ordinary shares, ILS 0.15 par value. As of December 31, 2017 and March 31, 2018, there were 53,375,854 and 53,387,540 ordinary shares issued and outstanding and 1,030,027 and 1,018,341 ordinary shares were dormant, respectively.

*Description of Ordinary Shares*

All issued and outstanding ordinary shares of Cyren are duly authorized and validly issued, fully paid and non-assessable.

The ordinary shares do not have preemptive rights. Our ordinary shares may generally be freely transferred under our Amended and Restated Articles of Association, unless the transfer is restricted or prohibited by applicable law or the rules of the stock exchange on which the shares are traded. Our Memorandum of Association, Amended and Restated

Articles of Association and the laws of the State of Israel do not restrict in any way the ownership or voting of ordinary shares by non-residents of Israel, except, under certain circumstances, with respect to ownership by subjects of countries which are, or have been, in a state of war with Israel.

*Dividend and Liquidation Rights*

The ordinary shares are entitled to their full proportion of any cash or share dividend declared.

Subject to the rights of the holders of shares with preferential or other special rights that may be authorized, the holders of ordinary shares are entitled to receive dividends in proportion to the sums paid up or credited as paid up on account of the nominal value of their respective holdings of the shares in respect of which the dividend is being paid (without taking into account the premium paid up on the shares) out of assets legally available therefor and, in the event of our winding up, to share ratably in all assets remaining after payment of liabilities in proportion to the nominal value of their respective holdings of the shares in respect of which such distribution is being made, subject to applicable law. Declaration of a dividend requires Board approval.

Under current Israeli regulations, any dividends or other distributions paid in respect of ordinary shares purchased by non-residents of Israel with certain non-Israeli currencies (including U.S. dollars) will be freely repatriated in such non-Israeli currencies at the rate of exchange prevailing at the time of conversion, provided that Israeli income tax has been paid on, or withheld from, such payments.

*Modification of Class of Rights*

If at any time the share capital is divided into different classes of shares, then, unless the conditions of allotment of such class provide otherwise, the rights, additional rights, advantages, restrictions and conditions attached or not attached to any class, at any given time, may be modified, enhanced, added or abrogated by resolution at a meeting of the holders of the shares of such class.

Pursuant to Israel's securities laws, a company registering its shares for trade on the Tel Aviv Stock Exchange may not have more than one class of shares for a period of one year following registration, after which it is permitted to issue preferred shares, if the preference of those shares is limited to a preference in the distribution of dividends and these preferred shares have no voting rights.

*Special Provisions in Articles of Association Relating to Directors*

The discussion regarding approval of director compensation and transactions with the Company under "Item 6. Directors, Senior Management and Employees - Approval of Certain Transactions; Obligations of Directors, Officers and Shareholders" is incorporated herein by reference.

*Voting, Shareholder Meetings and Resolutions*

Holders of ordinary shares have one vote for each share held on all matters submitted to a vote of shareholders.

An annual general meeting must be held once every calendar year at such time (not more than 15 months after the last preceding annual general meeting) and at such place, either within or outside the State of Israel, as may be determined by the Board. The quorum required for a general meeting of shareholders consists of at least two shareholders present in person or by proxy and holding at least one-third of the voting rights of the issued share capital. A meeting adjourned for lack of a quorum may be adjourned to the same day in the next week at the same time and place, or to such time and place as the Board may determine in a notice to shareholders. At such reconvened meeting any two shareholders entitled to vote and present in person or by proxy will constitute a quorum. NASDAQ Listing Rule 5620(c) requires that an issuer listed on NASDAQ should have a quorum requirement that in no case be less than 33 1/3% of the outstanding shares of the company's common voting stock. However, as mentioned above, our Articles of Association, consistent with the Companies Law, provide for a lower quorum requirement at an adjourned meeting.

Generally, shareholder resolutions will be deemed adopted if approved by the holders of a majority of the voting power represented at the meeting, in person or by proxy, and voting thereon. For certain matters as described under the Companies Law which require the disclosure whether or not a shareholder has a personal interest, there is a requirement that the majority include the affirmative vote of at least a majority of the votes cast by shareholders who are not controlling shareholders of the Company or interested parties in the matter to be voted upon (or their representatives) or, alternatively, the total shareholdings of the votes cast against the proposal (other than by the Company's controlling shareholders or interested parties in the matter to be voted upon) must not represent more than 2% of the voting rights in the Company. Prior to Amendment 27, the shareholder approval for approving the appointment of either (1) the Chairman of the Board or his/her relative as the Chief Executive Officer of the company, or (2) the Chief Executive Officer or his/her relative as the Chairman of the Board of the company, was required to either meet the Special Majority Criteria, or, alternatively, the total shareholdings of the non-controlling and disinterested shareholders who voted against the transaction was required not to represent more than 2% of the voting rights in the Company. Pursuant to Amendment 27, the Special Majority Criteria was amended such that the two-thirds majority of the shares held by non-controlling shareholders and shareholders who have no personal interest in the election of the Chief Executive Officer or Chairman of the Board of the company (or the relatives thereof), as the case may be (excluding a personal interest that is not related to a relationship with the controlling shareholders) who are present and voting at the meeting was reduced to a regular majority of the shares held by non-controlling shareholders and shareholders who have no personal interest in the election of the Chief Executive Officer or Chairman of the Board of the company (or the relatives thereof), as the case may be (excluding a personal interest that is not related to a relationship with the controlling shareholders) who are present and voting at the meeting.

The board of directors of an Israeli company whose shares or debentures are publicly traded is obligated to adopt a compensation policy governing the terms of office and employment of office holders, after considering the recommendations of the compensation committee. The final adoption of the compensation policy is subject to the approval of the shareholders of the company. Such shareholder approval is subject to certain special majority requirements, as set forth in the Companies Law, pursuant to which the shareholder majority approval must also either include at least a majority of the shares held by non-controlling and disinterested shareholders who actively participate in the voting process (without taking abstaining votes into account), or, alternatively, the total shareholdings of the non-controlling and disinterested shareholders who voted against the transaction must not represent more than two percent of the voting rights in the company.

Nonetheless, even if the shareholders of the company do not approve the proposed compensation policy, the board of directors of a company may approve the proposed compensation policy, provided that the compensation committee and, thereafter, the board of directors resolved, based on detailed, documented, reasons and after a second review of the compensation policy, that the approval of such compensation policy is for the benefit of the company.

Pursuant to the Companies Law, the terms of office and employment of an office holder in a public company should be in accordance with the company's compensation policy. Nonetheless, provisions were established in the Companies Law that allow a company, by special majority vote of the Company's shareholders, to approve terms of office and employment that are not in line with the approved compensation policy.

Terms of office and employment of office holders who are neither directors nor the Chief Executive Officer and which comply with the company's compensation policy require approval by the (i) compensation committee; and (ii) the board of directors. Approval of terms of office and employment for such office holders which do not comply with the compensation policy may nonetheless be approved subject to two cumulative conditions: (i) the compensation committee and thereafter the board of directors, approved the terms after having taken into account the various policy considerations and mandatory requirements set forth in the Companies Law with respect to office holder compensation, and (ii) the shareholders of the company approved the terms of office and employment for such office holders by means of the special majority required for approving the compensation policy (as detailed above).

Terms of office and employment of the Chief Executive Officer which comply with the company's compensation policy require approval by the (i) compensation committee; (ii) the board of directors and (iii) the shareholders of the company by means of the special majority required for approving the compensation policy (as detailed above). Approval of terms of office and employment for the general manager which do not comply with the compensation policy may nonetheless be approved subject to two cumulative conditions: (i) the compensation committee and thereafter the board of directors, approved the terms after having taken into account the various policy considerations and mandatory requirements set forth in the Companies Law with respect to office holder compensation, and (ii) the shareholders of the company approved the terms of office and employment for the general manager which deviate from the compensation policy by means of the special majority required for approving the compensation policy (as detailed above). Notwithstanding the foregoing, a company may be exempted from receiving shareholder approval

with respect to the terms of office and employment of a proposed candidate for general manager if such candidate meets certain independence criteria, the terms of office and employment are in line with the compensation policy, and the compensation committee has determined for specified reasons that presenting the matter for shareholder approval would thwart the proposed engagement. In addition, pursuant to Amendment 27, extending or renewing the company's engagement with its CEO also requires only Board approval (after compensation committee approval) if (i) the compensation terms are similar to the ones in effect prior to the extension or renewal, (ii) the compensation terms are compliant with the company's compensation policy, and (iii) the CEO's previous engagement with the company was approved by a majority vote of the shareholders of the company which either included a majority of the non-controlling and disinterested shareholders who were present, in person or by proxy, at the meeting or, alternatively, the total shareholdings of the non-controlling and disinterested shareholders who voted against the transaction did not represent more than two percent of the voting rights in the company.



Terms of office and employment of office holders (including the general manager) that are not directors may nonetheless be approved by the company despite shareholder rejection, provided that a company's compensation committee and thereafter the board of directors have determined to approve such terms of office and employment based on detailed reasoning, after having re-examined the proposed terms of office and employment, and having taken the shareholder rejection into consideration

Terms of office and employment of directors which comply with the company's compensation policy require approval by the (i) compensation committee; (ii) the board of directors and (iii) the shareholders of the company. Approval of terms of office and employment for directors of a company which do not comply with the compensation policy may nonetheless be approved subject to two cumulative conditions: (i) the compensation committee and thereafter the board of directors, approved the terms after having taken into account the various policy considerations and mandatory requirements set forth in the Companies Law with respect to office holder compensation, and (ii) the shareholders of the company have approved the terms by means of the special majority required for approving the compensation policy (as detailed above).

Pursuant to Amendment 27, changes to the compensation terms of office holders who are subordinated to the company's CEO require only the CEO's approval, provided that such changes (i) are compliant with the company's compensation policy, (ii) the compensation policy authorizes the CEO to approve such changes in his sole discretion, and (iii) the changes are immaterial.

Private placements in a public company require approval by a company's board of directors and shareholders in the following cases:

A private placement that meets all of the following conditions:

The private placement will increase the relative holdings of a shareholder that holds 5% or more of the company's outstanding share capital, assuming the exercise of all of the securities convertible into shares held by that person, or that will cause any person to become, as a result of the issuance, a holder of more than 5% of the company's outstanding share capital.

20% or more of the voting rights in the company prior to such issuance are being offered.

All or part of the consideration for the offering is not cash or registered securities, or the private placement is not being offered at market terms.

A private placement which results in anyone becoming a controlling shareholder of the public company.

In addition, under the Companies Law, certain transactions or a series of transactions are considered to be one private placement. A private placement that meets all of the above conditions, and which must be approved by the shareholders, must also be for the benefit of the company.

Any placement of securities that does not fit the above description may be issued at the discretion of the board of directors.

*Anti-Takeover Provisions Under Israeli Law*

Under the Companies Law, a merger is generally required to be approved by the shareholders (under certain circumstances by special or super majorities as set forth under Israeli law) and board of directors of each of the merging companies. If the share capital of the company that will not be the surviving company is divided into different classes of shares, the approval of each class is also required. In addition, a merger can be completed only after 30 days have passed from the shareholders' approval of each of the merging companies, all approvals have been submitted to the Israeli Registrar of Companies and at least 50 days have passed from the time that a proposal for approval of the merger was filed with the Registrar.

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 hold 25% or more of the voting rights in the company, unless there is already another 25% shareholder of the company. Similarly, the Companies Law provides that an acquisition of shares in a public company must be made by means of a special tender offer if as a result of the acquisition the purchaser would hold more than 45% of the voting rights in the company, unless someone else already holds 45% of the voting power of the company. In addition, if a special tender offer has been accepted, the offeror, and any person controlling the offeror at the time of the offer and any corporation under their control, shall not file an additional tender offer for the purchase of company shares and shall not perform a merger with the company for a period of one year following the date of the special tender offer, unless the offeror provided an undertaking to do the same in the special tender offer.

Certain provisions of the Companies Law or our Articles of Association may have the effect of rendering more difficult or discouraging an acquisition of the Company deemed undesirable by the Board. Those provisions include: (i) limiting the ability of the Company's shareholders to convene general meetings of the Company; (ii) controlling procedures for the conduct of shareholder and Board meetings, including quorum and voting requirements; and (iii) the election and removal of directors. Moreover, the requirement under the Companies Law to have at least two external directors, who cannot readily be removed from office, may make it more difficult for shareholders who oppose the policies of the Board to remove a majority of the then-current directors from office quickly. It may also, in some circumstances, together with the other provisions of our Articles of Association and Israeli law, deter or delay potential future merger, acquisition, tender or takeover offers, proxy contests or changes in control or management of the Company, some of which could be deemed by certain shareholders to be in their best interests and which could affect the price some investors are willing to pay for our ordinary shares.

Israeli tax law treats specified acquisitions, including a stock-for-stock swap between an Israeli company and a foreign company, less favorably than does U.S. tax law. For example, Israeli tax law may subject a shareholder who exchanges his ordinary shares for shares in a foreign corporation to taxation before it would become taxable in the United States, even though the investment has not become liquid, although in the case of shares of a foreign corporation that are traded on a stock exchange, the tax may be postponed subject to certain conditions.

### *Notices*

Each shareholder of record is entitled to receive at least 21 days' prior notice (and for certain matters, 35 days' prior notice) before the date of a shareholder meeting and at least five days' notice before the record date for the meeting. For purposes of determining the shareholders entitled to notice of and to vote at such meeting, the Board of Directors may fix a record date not exceeding 40 days prior to the date of any shareholder meeting.

### *Changes in Our Capital*

Changes in our capital are subject to the approval of the shareholders, generally by a majority of the votes of shareholders present by person or by proxy and voting at the shareholders meeting.

### **C. Material contracts**

On March 27, 2017 the Company issued \$6.3 million aggregate principal amount of convertible notes in a private placement. See Item 5.B. - Operating and Financial Review and Prospects - Liquidity and Capital Resources – Credit Line and Convertible Notes.

On November 6, 2017, the Company and Warburg Pincus entered into a Securities Purchase Agreement and Registration Rights Agreement. See Item 5.B. - Operating and Financial Review and Prospects - Liquidity and Capital Resources - Private Placement.

### **D. Exchange controls**

Under current Israeli laws and regulations, non-residents of Israel who own our ordinary shares may freely convert all amounts received in Israeli currency in respect of such ordinary shares, whether as a dividend, liquidation distribution or as proceeds from the sale of our ordinary shares, into non-Israeli currencies at the rate of exchange prevailing at the time of conversion (provided in each case that the applicable Israeli income tax, if any, is paid or withheld).

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 under certain circumstances, for shareholders who are subjects of countries that are, or have been, in a state of war with Israel.

## **E. Taxation**

### *Israeli taxation*

The following is a summary of the principal tax laws applicable to companies in Israel, including special reference to their effect on us, and Israeli government programs benefiting us. This section also contains a discussion of the material Israeli tax consequences to you if you acquire our ordinary shares. This summary does not discuss all the acts of Israeli tax law that may be relevant to you in light of your personal investment circumstances or if you are subject to special treatment under Israeli law. To the extent that the discussion is based on new tax legislation which has not been subject to judicial or administrative interpretation, we cannot assure you that the views expressed in this discussion will be accepted by the tax authorities or courts. The discussion should not be understood as legal or professional tax advice and is not exhaustive of all possible tax considerations.

### *General Corporate Tax Structure*

The Israeli corporate tax rate in 2017 was 24%, in 2018 and thereafter will be 23%.

Generally, non-Israeli subsidiaries are taxed according to the tax laws in their respective countries of residence.

### *Tax Benefits under the Law for the Encouragement of Industry (Taxes), 1969*

The Law for the Encouragement of Industry (Taxes), 1969 (the “**Industry Encouragement Law**”), generally referred to as the Industry Encouragement Law, provides several tax benefits for industrial companies. An industrial company is defined as a company resident in Israel, at least 90% of the income of which in a given tax year exclusive of income from specified government loans, is derived from an industrial enterprise owned by it. An industrial enterprise is defined as an enterprise whose major activity in a given tax year is industrial production activity.

Under the Industry Encouragement Law, industrial companies are entitled to a number of corporate tax benefits, including:

Special depreciation rate on know-how, patents and/or right to use a patent or certain other intangible property rights.

Expenses related to a public offering on TA stock exchange or recognized stock markets outside of Israel, are deductible in equal amounts over three years.

Under some tax laws and regulations, an industrial enterprise may be eligible for special depreciation rates for machinery, equipment and buildings. These rates differ based on various factors, including the date the operations begin and the number of work shifts. An industrial company owning an approved enterprise may choose between these special depreciation rates and the depreciation rates available to the approved enterprise.

Eligibility for benefits under the Industry Encouragement Law is not subject to receipt of prior approval from any governmental authority.

We believe that we currently qualify as an industrial company within the definition of the Industry Encouragement Law. We cannot assure you that the Israeli tax authorities will agree that we qualify, or, if we qualify, that we will continue to qualify as an industrial company or that the benefits described above will be available to us in the future.

*Capital Gains Tax on Sales of Our Ordinary Shares*

As of January 1, 2012, an individual is subject to a 25% tax rate on real capital gains derived from the sale of shares, as long as the individual is not a "substantial shareholder" (generally a shareholder who is the owner of 10% or more in the right to profits, right to nominate a director (or an officer), voting rights, right to receive assets upon liquidation, or right to instruct someone who holds any of the aforesaid rights regarding the manner in which he or she is to exercise such right(s), and all regardless of the source of such right) in the company issuing the shares.

A substantial shareholder individual will be subject to tax at a rate of 30% in respect of real capital gains derived from the sale of shares issued by the company in which he or she is a substantial shareholder. The determination of whether the individual is a substantial shareholder will be made on the date that the securities are sold. In addition, the individual will be deemed to be a substantial shareholder if at any time during the 12 months preceding the date of sale he or she had been a substantial shareholder.

For gains derived from the sale of an asset acquired before January 1, 2012, and sold on or after such date, other rates of tax will apply depending upon the length of time for which the asset was held.

Corporations are subject to corporate tax with respect to total income, including capital gains, at a corporate tax rate of 23% in 2018 and thereafter (24% in 2017 and 25% in 2016).

Non-Israeli residents are exempt from Israeli capital gains tax on any gains derived from the sale of shares in an Israeli corporation publicly traded on the TASE and/or on a foreign stock exchange, provided such gains do not derive from a permanent establishment of such shareholders in Israel and that such shareholders did not acquire their shares prior to the issuer's initial public offering. However, non-Israeli corporations will not be entitled to such exemption if Israeli residents (i) have a controlling interest of more than 25% in such non-Israeli corporation, or (ii) are the beneficiaries of or are entitled to 25% or more of the revenues or profits of such non-Israeli corporation, whether directly or indirectly.

In some instances where our shareholders may be liable to Israeli tax on the sale of their ordinary shares, the payment of the consideration may be subject to Israeli withholding tax. 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.

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

*Taxation of Israeli Individual Shareholders on Receipt of Dividends*

Israeli residents who are individuals are generally subject to Israeli income tax for dividends paid on our ordinary shares (other than bonus shares or share dividends) at a rate of either 25% or 30%, if the recipient of such dividend is a "substantial shareholder" at the time of distribution or at any time during the preceding 12-month period.



*Taxation of Israeli Resident Corporations on Receipt of Dividends*

Israeli resident corporations are generally exempt from Israeli corporate tax for dividends paid on our ordinary shares.

*Taxation of Non-Resident Holders*

Non-residents of Israel are subject to income tax on income accrued or derived from sources in Israel. Such sources of income include passive income such as dividends, royalties and interest, as well as non-passive income from services rendered in Israel. On distributions of dividends other than bonus shares, or stock dividends, to Israeli and non-Israeli resident individuals and non-Israeli resident corporations we would be required to withhold income tax at the rate of 25% (or 30% if such non-Israeli resident individual is a “substantial shareholder” at the time receiving the dividend or on any date in the 12 months preceding such date), unless a different rate is provided in an applicable tax treaty. Under the U.S.-Israel Tax Treaty, the maximum tax on dividends paid to a holder of our ordinary shares who is a Treaty U.S. Resident is 25% or 15% in case of dividends paid out of the profits of an Approved Enterprise (or a Benefited Enterprise), subject to certain conditions.. Furthermore, dividends not generated by an Approved Enterprise (or Benefited Enterprise) paid to a U.S. corporation holding at least 10% of our issued voting power during the part of the tax year which precedes the date of payment of the dividend and during the whole of its prior tax year (if any), are generally taxed at a rate of 12.5%. subject to certain conditions.

For information with respect to the applicability of Israeli capital gains taxes on the sale of ordinary shares by United States residents, see above “— Capital Gains Tax on Sales of Our Ordinary Shares.”

*Excess Tax*

Individuals who are subject to tax in Israel are also subject to an additional tax at a rate of 3% in 2017 and thereafter (2% in 2016) on annual income exceeding a certain threshold (NIS 640,000 for the year 2017 and thereafter, which amount is linked to the annual change in the Israeli consumer price index, and NIS 803,520 for the year 2016), including, but not limited to, dividends, interest and capital gains.

*Material United States federal income tax consequences*

THE FOLLOWING SUMMARY IS INCLUDED HEREIN FOR GENERAL INFORMATION AND IS NOT INTENDED TO BE, AND SHOULD NOT BE CONSIDERED TO BE, LEGAL OR TAX ADVICE. EACH U.S. HOLDER SHOULD CONSULT WITH HIS OR HER OWN TAX ADVISOR AS TO THE PARTICULAR U.S. FEDERAL INCOME TAX CONSEQUENCES OF THE PURCHASE, OWNERSHIP AND SALE OF OUR ORDINARY SHARES, INCLUDING THE EFFECTS OF APPLICABLE STATE, LOCAL, ESTATE, GIFT, FOREIGN OR OTHER TAX LAWS AND POSSIBLE CHANGES IN THE TAX LAWS.

*U.S. Federal Income Taxation*

Subject to the limitations described in the next paragraph, the following discussion summarizes what we believe to be certain material U.S. federal income tax consequences to a “U.S. Holder” arising from the purchase, ownership and sale of our ordinary shares. For this purpose, a “U.S. Holder” is a holder of ordinary shares that is: (1) an individual citizen or resident of the United States (as determined under U.S. federal income tax rules), including an alien individual who is a lawful permanent resident of the United States or meets the substantial presence residency test under U.S. federal income tax laws; (2) a corporation (or other entity treated as a corporation for U.S. federal income tax purposes) created or organized in or under the laws of the United States or the District of Columbia or any political subdivision thereof; (3) an estate, the income of which is subject to U.S. federal income tax regardless of source; (4) a trust if a court within the United States is able to exercise primary supervision over the administration of the trust or one or more U.S. persons have authority to control all substantial decisions of the trust; or (5) a trust that has a valid election in effect to be treated as a U.S. person to the extent provided in U.S. Treasury Regulations.

This summary is for general information purposes only and does not purport to be a comprehensive description of all of the U.S. federal income tax consequences that may apply to a U.S. Holder as a result of the purchase, ownership, and disposition of our ordinary shares. This summary generally considers only U.S. Holders that will own our ordinary shares as capital assets. Except to the limited extent discussed below, this summary does not consider the U.S. federal tax consequences to a person that is not a U.S. Holder, nor does it describe the rules applicable to determine a taxpayer's status as a U.S. Holder. This summary is based on the provisions of the Internal Revenue Code of 1986, as amended, or the Code, final, temporary and proposed U.S. Treasury Regulations promulgated thereunder, administrative and judicial interpretations thereof, and the U.S./Israel Income Tax Treaty, all as in effect as of the date hereof and all of which are subject to differing interpretations or change, possibly on a retroactive basis. No ruling has been or will be sought from the U.S. Internal Revenue Service, or the IRS, with regard to the U.S. federal income tax treatment of an investment in our ordinary shares by U.S. Holders and, there can be no assurances that the IRS will not take a contrary position regarding the tax consequences of the ownership and disposition of our ordinary shares, or that any such contrary position will not be sustained by a court.

This discussion does not address all of the aspects of U.S. federal income taxation that may be relevant to a particular shareholder based on such shareholder's particular circumstances. For example, this discussion does not address any U.S. federal estate, U.S. federal gift, U.S. federal generation-skipping transfer, or U.S. state or local or foreign tax considerations. In addition, this discussion does not address all of the tax considerations that may be relevant to specific U.S. Holders in light of their particular circumstances or to U.S. Holders subject to special treatment under U.S. federal income tax law, including, without limitation, : (1) a bank, insurance company, tax-exempt entity, retirement plan, tax-deferred account, regulated investment company, or other financial institution or "financial services entity"; (2) a broker or dealer in securities or foreign currency; (3) a person who acquired our ordinary shares in connection with employment or other performance of services; (4) a U.S. Holder that is liable to the U.S. alternative minimum tax; (5) a U.S. Holder that holds our ordinary shares as a hedge or as part of a hedging, straddle, conversion or constructive sale transaction or other risk-reduction transaction for U.S. federal income tax purposes; (6) a tax-exempt entity (including private foundations) ; (7) real estate investment trusts; (8) certain former citizens or residents of the United States; (9) S corporations or (10) a person having a functional currency other than the U.S. dollar. This discussion does not address the U.S. federal income tax treatment of a U.S. Holder that owns, directly, indirectly or constructively, at any time, ordinary shares representing 10% or more of our voting power or value (other than a brief discussion below of certain aspects of the controlled foreign corporation rules and the dividend received deduction rules).

If a partnership or an entity or an arrangement treated as a partnership for U.S. federal income tax purposes holds our ordinary shares, the U.S. federal income tax treatment of a partner in the partnership will generally depend on the status of the partner and the activities of the partnership. Partnerships holding our ordinary shares or partners in such partnerships should consult their own tax advisors regarding the particular U.S. federal income tax consequences of the purchasing, ownership and disposition of our ordinary shares.

You are encouraged to consult your own tax advisor with respect to the specific tax consequences to you of purchasing, holding or disposing of our ordinary shares, including, without limitation, the effects of applicable federal, state, local, foreign or other tax laws and possible changes in the tax laws.

*Taxation of Distributions on Ordinary Shares*

Subject to the discussions under the headings “Passive Foreign Investment Companies” and “Controlled Foreign Corporations” below, a U.S. Holder will be required to include in gross income as dividend income the amount of any distribution paid on ordinary shares (without reduction for the amount of any Israeli tax withheld on the date of the distribution), to the extent that such distribution does not exceed our earnings and profits for the taxable year in which the distribution is made and our accumulated earnings and profits as of the end of the taxable year immediately prior to the taxable year in which the distribution is made, with earnings and profits determined for U.S. federal income tax purposes. The amount of a distribution which exceeds our earnings and profits will be treated first as a non-taxable return of capital, reducing (but not below zero) the U.S. Holder’s tax basis in the U.S. Holder’s ordinary shares to the extent thereof (thereby increasing the amount of gain, or decreasing the amount of loss, to be recognized by the U.S. Holder on a subsequent disposition of the ordinary shares), and then any excess will be treated as capital gain. Since we do not calculate our earnings and profits under U.S. federal income tax principles, it is expected that any distribution may be treated as dividend income, even if the distribution would otherwise be treated as a non-taxable return of capital or as capital gain under the rules described above. Corporate holders generally will not be allowed a deduction for dividends received. For non-corporate U.S. Holders, the maximum federal income tax rate on “qualified dividend income” and long-term capital gains is generally 20%.

Dividends received with respect to our ordinary shares will generally be considered qualified dividend income provided that we are a “qualified foreign corporation,” the stock on which the dividend is paid is held for a minimum holding period (discussed below), and other requirements are satisfied.

For this purpose, “qualified dividend income” means, *inter alia*, dividends received from a “qualified foreign corporation.” The term “qualified foreign corporation” includes a corporation that is not a PFIC (as defined in “—Passive Foreign Investment Companies”) in the year of the distribution or in the prior tax year and that is entitled to the benefits of a comprehensive tax treaty with the United States which includes an exchange of information program and the U.S. Treasury Department has determined that the treaty is satisfactory for purposes of the legislation, or its shares are readily tradable on NASDAQ or another established securities market in the United States. The IRS has published guidance stating that the Israel/U.S. Tax Treaty satisfies this requirement and we believe we are eligible for the benefits of that treaty. Based on current law and applicable administrative guidance, we expect that dividends paid on our ordinary shares will be eligible for treatment as qualified dividend income, provided that we are not a PFIC, and the holding period and other requirements are satisfied.

Dividends that we pay will not constitute qualified dividends: (i) if the U.S. Holder has not held our ordinary shares for at least 61 days of the 121 day period beginning on the date which is 60 days before the ex-dividend date, or (ii) to the extent the U.S. Holder is under an obligation to make related payments on substantially similar property. Any days during which the U.S. Holder has diminished its risk of loss on our ordinary shares are not counted towards meeting the 61-day holding period. Finally, U.S. Holders who elect to treat the dividend income as “investment income” pursuant to Code section 163(d)(4) will not be eligible for the preferential rate of taxation.

The amount of a distribution with respect to our ordinary shares will include the fair market value of any property distributed, and for U.S. federal income tax purposes, the amount of any Israeli taxes withheld therefrom. (See discussion above under “Taxation of Non-Resident Holders of Shares.”) Cash distributions paid by us in ILS, including the amount of any Israeli taxes withheld, will be included in the income of U.S. Holders at a U.S. dollar amount based upon the spot rate of exchange in effect on the date the dividend is includible in the income of the U.S. Holder, and U.S. Holders will have a tax basis in such ILS for U.S. federal income tax purposes equal to such U.S. dollar value. If the U.S. Holder subsequently converts the ILS, any subsequent gain or loss in respect of such ILS arising from exchange rate fluctuations will be U.S. source ordinary exchange gain or loss for U.S. foreign tax credit purposes.

Distributions paid by us will generally be foreign source income for U.S. foreign tax credit purposes. Subject to the limitations set forth in the Code, U.S. Holders may elect to claim a foreign tax credit against their U.S. income tax liability for non-refundable Israeli income tax withheld from distributions received in respect of our ordinary shares, or, alternatively, may be deducted from the U.S. Holder’s taxable income. The election to deduct, rather than credit, foreign taxes, is made on a year-by-year basis and applies to all foreign taxes paid by a U.S. Holder or withheld from a U.S. Holder that year.. U.S. Holders should consult their own tax advisors to determine whether and to what extent they will be entitled to foreign tax credits or deductions.

U.S. Holders that are individuals, estates or trusts and whose income exceeds certain thresholds will be subject to a 3.8% Medicare tax (in addition to the regular income tax) on certain investment income, including dividends.

On December 22, 2017, President Trump signed into law H.R. 1, originally known as the “Tax Cuts and Jobs Act” (the “TCJA”). This new legislation provides a 100% deduction for the foreign-source portion of dividends received from “specified 10-percent owned foreign corporations” by U.S. corporate holders, subject to a one-year holding period. No foreign tax credit, including for Israeli withholding taxes (or deduction for foreign taxes paid with respect to qualifying dividends) would be permitted for foreign taxes paid or accrued with respect to a qualifying dividend. Deduction would be unavailable for “hybrid dividends.” The dividend received deduction enacted under this new legislation may not apply to dividends from a PFIC, discussed below.

*Taxation of Sale, Exchange or other Taxable Disposition of Our Ordinary Shares*

Subject to the discussions under the headings “Passive Foreign Investment Companies” and “Controlled Foreign Corporations” below, upon the sale, exchange or other taxable disposition of our ordinary shares, a U.S. Holder generally will recognize capital gain or loss in an amount equal to the difference between such U.S. Holder’s tax basis in the sold ordinary shares and the amount realized on the disposition of such ordinary shares (or its U.S. dollar equivalent if the amount realized is denominated in a foreign currency). A U.S. Holder that uses the cash method of accounting calculates the U.S. dollar equivalent of the proceeds received on the sale as of the date that the sale settles, while a U.S. Holder that uses the accrual method of accounting is required to calculate the value of the proceeds of the sale as of the “trade date,” unless such U.S. Holder has elected to use the settlement date to determine its proceeds of sale. The amount realized on the sale, exchange or other taxable disposition of the ordinary shares will be the amount of cash received plus the fair market value of any property received. The U.S. Holder’s amount realized and tax basis will be measured in U.S. dollars. Subject to the discussion under “— Passive Foreign Investment Companies” below, any gain or loss realized on the sale or exchange or other disposition of ordinary shares will generally be long-term capital gain or loss if the U.S. Holder’s holding period in the ordinary shares transferred exceeds one year at the time of the disposition. Long-term capital gains of non-corporate U.S. Holders derived with respect to the disposition of ordinary shares are currently subject to tax at reduced rates of up to 20%. The deductibility of capital losses is subject to limitations.

In general, gain or loss realized by a U.S. Holder on a sale, exchange or other disposition of ordinary shares will be treated as U.S. source income for U.S. foreign tax credit purposes, possibly subject to certain exceptions under the Israel/U.S. Tax Treaty.

U.S. Holders that are individuals, estates or trusts and whose income exceeds certain thresholds will be subject to a 3.8% Medicare tax (in addition to the regular income tax) on certain investment income, including capital gains.

*Passive Foreign Investment Companies*

Special U.S. federal income tax laws apply to a U.S. Holder who owns shares of a corporation that was (at any time during the U.S. Holder’s holding period) a passive foreign investment company (a “PFIC”). We would be treated as a PFIC for U.S. federal income tax purposes for any tax year if, during any taxable year, either:

75% or more of our gross income consists of certain types of passive income (the “Income Test”); or

the average quarterly value (or basis, in certain cases) of our passive assets (generally assets that generate passive income or are held for the production of passive income) is 50% or more of the average quarterly value (or basis, in certain cases) of all of our assets (the “Asset Test”).

In arriving at this calculation, we will be treated as holding directly our proportionate share of the assets, and receiving directly our proportionate share of income of any corporation in which we own, directly or indirectly, at least a 25% interest measured by value. For this purpose, passive income generally consists of dividends, interest, rents, royalties, annuities and income from certain commodities transactions and from notional principal contracts. Cash is treated as generating passive income, even if held as working capital or raised in a public offering.

Based on our estimated gross income, the average value of our gross assets, and the nature of our businesses, we do not believe that we will be a PFIC for the current taxable year and do not expect to become one in the foreseeable future. Our status for any taxable year will depend on our income, assets and activities in each year, and because this is a factual determination made annually after the end of each taxable year, there can be no assurance that we will not be considered a PFIC for the current taxable year or any future taxable year. If our income or asset composition were to become more passive (including through the acquisition of assets that generate passive income), we could potentially become a PFIC. In addition, the market value of our assets may be determined in large part by reference to the market price of our ordinary shares, which is likely to fluctuate over time, and a decline in the value of our ordinary shares may result in our becoming a PFIC. Because the PFIC determination is highly fact intensive, there can be no assurance that we will not be a PFIC in any future year.

If we were classified as a PFIC in any year with respect to which a U.S. Holder owns ordinary shares, we would continue to be treated as a PFIC with respect to the 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.



If we were treated as a PFIC for any taxable year during which a taxable U.S. Holder held our ordinary shares, any gain recognized by the U.S. Holder on a sale or other disposition (including certain pledges) of our ordinary shares would be allocated ratably over the U.S. Holder's holding period for the ordinary shares. The amounts allocated to the taxable year of the sale or other disposition and to any year before we became a PFIC would be taxed as ordinary income. The amount allocated to each other taxable year would be subject to tax at the highest rate in effect for individuals or corporations, as appropriate, for that taxable year, and an interest charge would be imposed on the amount allocated to that taxable year. Further, to the extent that any distribution received by a U.S. Holder on its ordinary shares exceeded 125% of the average of the annual distributions on the ordinary shares received during the preceding three years or the U.S. Holder's holding period, whichever is shorter, that distribution (referred to as excess distribution) would be subject to taxation in the same manner as gain, described immediately above.

If we are a PFIC and a U.S. Holder who is an individual dies while owning our ordinary shares, the U.S. Holder's successor would be ineligible to receive a step-up in tax basis of such ordinary shares. In addition, under Section 1291(f) of the Code, the IRS has issued proposed Treasury regulations that, subject to certain exceptions, would cause a U.S. Holder to recognize gain upon certain transfers of our ordinary shares that would otherwise not be subject to U.S. federal income tax (e.g., gifts and exchanges pursuant to corporate reorganizations).

Certain elections may be available that would result in alternative treatments of the ordinary shares. However, we do not expect that we will prepare or provide to U.S. Holders a "PFIC annual information statement," which would enable a U.S. Holder to make one type of election, known as a "qualified electing fund" election.

However, if our ordinary shares are treated as "marketable stock," a U.S. Holder may be allowed to make a "mark-to-market" election with respect to our ordinary shares, which may minimize the adverse PFIC consequences to such U.S. Holder, provided the U.S. Holder completes and files IRS Form 8621 in accordance with the relevant instructions and related Treasury Regulations. If that election is made, the U.S. Holder generally would include as ordinary income in each taxable year the excess, if any, of the fair market value of our ordinary shares at the end of the taxable year over such U.S. Holder's adjusted tax basis in such ordinary shares. Thus, the U.S. Holder may recognize taxable income without receiving any cash to pay its tax liability with respect to such income. The U.S. Holder would also be permitted an ordinary loss in respect of the excess, if any, of the U.S. Holder's adjusted tax basis in our ordinary shares over their fair market value at the end of the taxable year, but only to the extent of the net amount previously included in income as a result of the mark-to-market election. A U.S. Holder's tax basis in our ordinary shares would be adjusted to reflect any such income or loss amount. Gain realized on the sale, exchange or other disposition of our ordinary shares would be treated as ordinary income, and any loss realized on the sale, exchange or other disposition of our ordinary shares would be treated as ordinary loss to the extent that such loss does not exceed the net mark-to-market gains previously included in income by the U.S. Holder, and any loss in excess of such amount will be treated as capital loss. Amounts treated as ordinary income will not be eligible for the favorable tax rates applicable to qualified dividend income or long-term capital gains.

Generally, stock will be considered marketable stock if it is “regularly traded” on a “qualified exchange” within the meaning of applicable Treasury Regulations. A class of stock is regularly traded on an exchange during any calendar year during which such class of stock is traded, other than in de minimis quantities, on at least 15 days during each calendar quarter. To be marketable stock, our ordinary shares must be regularly traded on a qualifying exchange (i) in the United States that is registered with the SEC or a national market system established pursuant to the Exchange Act or (ii) outside the United States that is properly regulated and meets certain trading, listing, financial disclosure and other requirements. Our ordinary shares are expected to constitute “marketable stock” as long as they remain listed on the NASDAQ Capital Market and are regularly traded.

A mark-to-market election will not apply to our ordinary shares held by a U.S. Holder for any taxable year during which we are not a PFIC, but will remain in effect with respect to any subsequent taxable year in which we become a PFIC. The election will not remain in effect if the ordinary shares are no longer regularly traded on a qualified exchange or the IRS consents to the revocation of the election. Each U.S. Holder is encouraged to consult its own tax advisor with respect to the availability and tax consequences of a mark-to-market election with respect to our ordinary shares and with respect to the applicability of the “3.8% Medicare tax where a mark-to-market election is in effect.

If we are a PFIC and, at any time, have a foreign subsidiary that is classified as a PFIC, a U.S. Holder of our ordinary shares may be deemed to own a portion of the shares of such lower-tier PFIC, and generally could incur liability for the deferred tax and interest charge described above if we receive a distribution from, or dispose of all or part of our interest in, or the U.S. Holder were otherwise deemed to have disposed of an interest in, the lower-tier PFIC. A mark-to-market election generally would not be available with respect to such a lower-tier PFIC. U.S. Holders are urged to consult their own tax advisors regarding the tax issues raised by lower-tier PFICs.

In addition, each U.S. Holder of a PFIC is required to file an annual report containing such information as the U.S. Department of the Treasury may require. U.S. Holders are advised to consult with their own tax advisors regarding the details of the PFIC rules and any elections that may be available.

The U.S. federal income tax rules relating to PFICs are complex. U.S. Holders are strongly urged to consult their tax advisors about the PFIC rules, including IRS reporting requirements and the eligibility, manner, and consequences to them of making certain elections with respect to our ordinary shares in the event that we qualify as a PFIC.

### ***Controlled Foreign Corporation***

A foreign corporation is classified as a controlled foreign corporation, or CFC, if “10% U.S. Shareholders” (as defined below) own (directly, indirectly, and/or by application of certain constructive ownership rules) more than 50% of the total combined voting power of all classes of stock of such foreign corporation entitled to vote, or more than 50% of the total value of all stock of such corporation. A “10% U.S. Shareholder” is a United States person (within the meaning of the Code) who owns (directly, indirectly, and/or by application of certain constructive ownership rules) 10% or more of the total combined voting power of all classes of stock entitled to vote of the foreign corporation or 10% more of the total value of shares of all classes of stock of such foreign corporation.

Each 10% U.S. Shareholder of a foreign corporation that is a CFC who owns shares in the CFC, directly or indirectly, on the last day of the CFC’s taxable year, must include in its gross income for U.S. federal income tax purposes its pro rata share of the CFC’s “Subpart F income” for such year, even if the Subpart F income is not distributed. Subpart F income generally includes passive income, but also includes certain other items of income, such as certain related party sales, manufacturing and services income. For tax years beginning after December 31, 2017, the TCJA requires U.S. Shareholders to include their pro rate share of the CFC’s “global intangible low-tax income.” In addition, the 10% U.S. Shareholders of a CFC may be deemed to receive taxable distributions to the extent the CFC invests its earnings in certain specified types of “United States property.”

Section 1248 of the Code generally provides that if a United States person sells or exchanges stock in a foreign corporation and such person is a 10% U.S. Shareholder at any time during the 5-year period ending on the date of the sale or exchange when such foreign corporation was a CFC, any gain from such sale or exchange may be treated as a dividend to the extent of the corporation's earnings and profits attributable to such shares that were accumulated during the period that the shareholder held the shares while the corporation was a CFC (with certain adjustments).

Certain changes to the CFC constructive ownership rules introduced by the TCJA may cause us or one or more of our non-U.S. subsidiaries to be treated as CFCs. This may result in negative U.S. federal income tax consequences for 10% U.S. Shareholders of our ordinary shares.

The CFC rules are complex. The foregoing is merely a summary of certain potential application of these rules. No assurances can be given that we are not or will not become a CFC, and certain changes to the CFC constructive ownership rules introduced by the TCJA could under certain circumstances cause us to be classified as a CFC. Each U.S. Investor is urged to consult its tax adviser with respect to the possible application of the CFC rules.

#### *Information Reporting and Backup Withholding*

In general, a U.S. Holder may be subject to backup withholding, currently at a rate of 24%, on payments made with respect to our ordinary shares. Backup withholding generally applies if a U.S. Holder fails to provide a taxpayer identification number or certification of other exempt status, or otherwise fails to comply with specified identification procedures. Backup withholding is not an additional tax and may be claimed as a refund or a credit against the U.S. federal income tax liability of a U.S. Holder, provided that the required information is timely furnished to the IRS. Holder who does not provide a correct taxpayer identification number may be subject to penalties imposed by the IRS.

Certain U.S. Holders are required to file IRS Form 926, Return by U.S. Transferor of Property to a Foreign Corporation, and certain U.S. Holders may be required to file IRS Form 5471, Information Return of U.S. Persons With Respect to Certain Foreign Corporations, reporting transfers of cash or other property to us and information relating to the U.S. Holder and us. These forms (if applicable) must be filed together with the U.S. Holder's federal income tax return.

In any year in which we are classified as a PFIC, a U.S. Holder will be required to file IRS Form 8621 (Information Return by a Shareholder of a Passive Foreign Investment Company or Qualified Electing Fund). This form (if applicable) must be filed together with the U.S. Holder's U.S. federal income tax return.

Certain U.S. Holders holding specified foreign financial assets, including our ordinary shares, with an aggregate value in excess of the applicable U.S. dollar threshold are, subject to certain exceptions, required to report information relating to our ordinary shares by attaching a complete IRS Form 8938, Statement of Specified Foreign Financial Assets, to their tax returns, for each year in which they hold our ordinary shares.

U.S. Holders who fail to report required information, including failing to file one or more of the forms described above, could become subject to substantial civil and criminal penalties. U.S. Holders should consult their tax advisors regarding the possible implications of these reporting requirements on their investment in our ordinary shares.

### ***Recent U.S. Tax Legislation***

On December 22, 2017, President Trump signed the TCJA into law. Although this is the most extensive overhaul of the United States tax regime in over thirty years, other than as described above, the provisions of the new legislation are not expected to materially impact U.S. Holders with respect to their ownership of our ordinary shares. However, each U.S. Holder should consult its own tax advisor about the consequences of this new legislation with respect to the purchase, ownership and disposition of our ordinary shares.

### ***Foreign Accounts***

The Foreign Account Tax Compliance Act ("FATCA") imposes withholding taxes on certain types of payments made to "foreign financial institutions" (as specially defined under these rules to include many entities that may not typically be thought of as financial institutions) and certain other non-U.S. entities if certification, information reporting and other specified requirements are not met. FATCA imposes a 30% withholding tax on "withholdable payments" if they are

paid to a foreign financial institution or to a foreign non-financial entity unless (i) the foreign financial institution undertakes certain diligence and reporting obligations and other specified requirements are satisfied or (ii) the foreign non-financial entity either certifies it does not have any substantial U.S. owners or furnishes identifying information regarding each substantial U.S. owner and other specified requirements are satisfied. “Withholdable payments” include dividends on our ordinary shares and any gross proceeds from the sale or other disposition of our ordinary shares. If the payee is a foreign financial institution, it must enter into an agreement with the U.S. Treasury requiring, among other things, that it undertake to identify accounts held by certain U.S. persons or U.S.-owned foreign entities, annually report certain information about such accounts and withhold 30% on payments to account holders whose actions prevent it from complying with these reporting and other requirements. Under final U.S. Treasury Regulations and current IRS guidance, any withholding on payments of gross proceeds from the sale or disposition of our ordinary shares will only apply to payments made on or after January 1, 2019. An intergovernmental agreement between the United States and an applicable foreign country may modify the requirements described in this paragraph. Prospective investors should consult their own tax advisors regarding this legislation.

**THE DISCUSSION ABOVE IS A GENERAL SUMMARY. IT DOES NOT COVER ALL TAX MATTERS RELATING TO THE PURCHASE, OWNERSHIP AND DISPOSITION OF OUR ORDINARY SHARES. EACH PROSPECTIVE HOLDER IS URGED TO CONSULT ITS OWN TAX ADVISOR ABOUT THE TAX CONSEQUENCES TO IT OF RELATING TO THE PURCHASE, OWNERSHIP AND DISPOSITION OF OUR ORDINARY SHARES IN LIGHT OF THE INVESTOR’S OWN CIRCUMSTANCES.**

#### **F. Dividends and paying agents**

Not applicable.

#### **G. Statement by experts**

Not applicable.

#### **H. Documents on display**

We file reports with the Israeli Registrar of Companies regarding any changes to our registered name, our registered address, mergers and details regarding security interests on our assets. The information filed with the Registrar of Companies is generally available to the public. In addition to the information available to the public, our shareholders are entitled, upon request, to review and receive copies of all minutes of meetings of our shareholders, as well as to review any document that is applicable to certain transactions which are subject to shareholder approval under the Israel Companies Law, subject to the right of the Company to reject such request if the Company is of the view that the request was made in bad faith, the documents contain trade secrets or patents, or the disclosure is otherwise liable to impact the welfare of the Company.

We are subject to certain of the information reporting requirements of the Exchange Act. As a “foreign private issuer,” we are exempt from the rules and regulations under the Exchange Act prescribing the furnishing and content of proxy statements, and our officers, directors and principal shareholders are exempt from the reporting and “short-swing” profit recovery provisions contained in Section 16 of the Exchange Act, with respect to their purchase and sale of our ordinary shares. In addition, we are not required to file reports and financial statements with the SEC as frequently or as promptly as U.S. companies whose securities are registered under the Exchange Act. However, we file with the SEC an Annual Report on Form 20-F containing financial statements audited by an independent registered public accounting firm. We also furnish quarterly reports on Form 6-K containing unaudited financial information after the end of each quarter and other reports on Form 6-K from time to time. We post our Annual Report on Form 20-F on our web site ( [www.cyren.com](http://www.cyren.com) ) promptly following the filing of our Annual Report with the SEC. We do not intend for any information contained on our Internet website to be considered part of this annual report, and we have included our website address in this Annual Report solely as an inactive textual reference. We will post on our website any materials required to be posted on such website under applicable corporate or securities laws and regulations, including posting any XBRL interactive financial data required to be filed with the SEC, and any notices of general meetings of our shareholders.

This Annual Report and other information filed or to be filed by us can be inspected and copied at the public reference facilities maintained by the SEC at:

100 F Street, NE

Public Reference Room

Washington, D.C. 20549

The SEC maintains a web site at [www.sec.gov](http://www.sec.gov) that contains reports, proxy and information statements, and other information regarding registrants that make electronic filings with the SEC using its EDGAR system.

In addition, since we are also listed on the Tel Aviv Stock Exchange we submit copies of all our filings with the SEC and announcements made public by us to our shareholders in the United States of America to the Israeli Securities Authority and the Tel Aviv Stock Exchange. Such copies can be retrieved electronically through the Tel Aviv Stock Exchange's Internet messaging system ([www.maya.tase.co.il](http://www.maya.tase.co.il)) and through the MAGNA distribution site of the Israeli Securities Authority ( [www.magna.isa.gov.il](http://www.magna.isa.gov.il) ).

#### **I.Subsidiary information**

Not applicable.



**Item 11. Quantitative and Qualitative Disclosures about Market Risk.**

We mainly develop our technology in Israel and in Germany and seek to provide our services worldwide. As a result, our foreign currency exposures give rise to market risk associated with exchange rate movements of the U.S. dollar (USD), our functional and reporting currency, against the Israeli Shekel (ILS) and Euro (EUR). We are exposed to the risk of fluctuation in the USD/ILS and the USD/EUR exchange rate. Our ILS and EUR-denominated expenses consist principally of salaries and related personnel expenses. Although the majority of our revenues are in USD, a substantial portion of our sales are derived from the EUR currency. Neither a ten percent increase nor decrease in current exchange rates would have a material effect on our consolidated financial statements in the next six months.

**Item 12. Description of Securities Other than Equity Securities.**

**A. Debt Securities**

Not applicable.

**B. Warrants and Rights**

Not applicable.

**C. Other Securities**

Not applicable.

**D. American Depositary Shares**

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.**

(a) As of December 31, 2017, we performed an evaluation under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) of the Exchange Act). Our management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and our management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on this evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures are effective as of December 31, 2017, to provide reasonable assurance that the information required to be disclosed in filings and submissions under the Exchange Act, is recorded, processed, summarized, and reported within the time periods specified by the SEC's rules and forms, and that such information related to us and our consolidated subsidiary is accumulated and communicated to management, including the Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions about required disclosure.

(b) Our management is responsible for establishing and maintaining adequate internal control over our financial reporting, as such term is defined in Rule 13a-15(f) under the Exchange Act. Our internal control over financial reporting system was 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 (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) 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 (iii) 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 and even when determined to be effective can only provide reasonable assurance with respect to financial statements. 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.

Our management assessed our internal control over financial reporting as of December 31, 2017. Our management based its assessment on criteria established in Internal Control- Integrated Framework (2013) issued by the Committee of Sponsoring Organization of the Treadway Commission. Based on this assessment, our management has concluded that, as of December 31, 2017, our internal control over financial reporting is effective.

This Annual Report does not include an attestation report of our independent registered public accounting firm regarding internal control over financial reporting. Management's report was not subject to attestation by our independent registered public accounting firm pursuant to a provision under the Dodd-Frank Wall Street Reform and Consumer Protection Act which grants a permanent exemption for non-accelerated filers from complying with Section 404(b) of the Sarbanes-Oxley Act of 2002.

(c) During the period covered by this Annual Report, there were no changes to our internal control over financial reporting that occurred during the year ended December 31, 2017 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

**Item 16****Item 16A. Audit Committee Financial Expert.**

The Board has determined that Mr. Todd Thomson, a member of the audit committee, is an “audit committee financial expert” as that term is defined in Item 16A of Form 20-F, and is “independent” as that term is defined in NASDAQ Listing Rule 5605(a)(2).

**Item 16B. Code of Ethics.**

The Company, by way of Board resolution, has adopted a Code of Ethics applicable to its senior financial officers, including its principal executive, financial and accounting officers. The Code of Ethics is posted on the Company’s website at [www.cyren.com](http://www.cyren.com), under the tab for “Corporate Governance”.

**Item 16C. Principal Accountant Fees and Services.**

Kost, Forer, Gabbay & Kasierer, a member of Ernst & Young Global, has served as our Independent Registered Public Accounting Firm for each of the fiscal years in the three-year period ended December 31, 2017, for which audited financial statements appear in this Annual Report. The following table presents the aggregate fees for audit and other services provided by Kost, Forer, Gabbay & Kasierer, a member of EY Global, and other members of EY Global during the years ended December 31, 2017 and 2016:

	<b>Year ended</b>	
	<b>December</b>	
	<b>31,</b>	
(in thousands)	<b>2017</b>	<b>2016</b>
	<b>Fees</b>	<b>Fees</b>
Audit Fees (1)	\$192	\$193
Tax Fees (2)	8	8
All Other Fees (3)	-	47

Total                   \$200 \$248

(1) Audit fees consist of fees billed for the annual audit services engagement and other audit services, which are those services that only the independent registered public accounting firm can reasonably provide, and include the group audit including statutory audits; consents; attest services; and assistance in connection with documents filed with the SEC.

(2) Tax fees are for professional services rendered by our auditors for tax compliance, tax advice on actual or contemplated transactions, tax consulting associated with international transfer prices and global mobility of employees.

(3) Audit performed on the books and records of a customer.

*Audit Committee Pre-approval Policies and Procedures*

Below is a summary of our current Policies and Procedures:

The main role of the Company's audit committee is to assist the Board of Directors in fulfilling its responsibility for oversight of the quality and integrity of the accounting, auditing and reporting practices of the Company. The Audit Committee oversees the appointment, compensation, and oversight of the Company's independent registered public accounting firm engaged to prepare or issue an audit report on the financial statements of the Company. The audit committee's specific responsibilities in carrying out its oversight role include the approval of all audit and non-audit services to be provided by the external auditor and the quarterly review of the firm's non-audit services and related fees. These services may include audit services, audit-related services, tax services and other services, as described above. It is the policy of the audit committee to approve in advance the particular services or categories of services to be provided to the Company periodically. Additional services may be pre-approved by the audit committee on an individual basis during the year. The audit committee did not avail itself of section (c)(7)(i)(C) of Rule 2-01 of Regulation S-X during 2017, which allows for an exemption from the pre-approval process under certain limited circumstances.

**Item 16D. Exemptions from the Listing Standards for Audit Committees.**

Not applicable.

**Item 16E. Purchases of Equity Securities by the Issuer and Affiliated Purchasers.**

During 2017, 2016, and 2015, no repurchases occurred.

**Item 16F. Change in Registrant's Certifying Accountant.**

Not applicable.

**Item 16G. Corporate Governance.**

Under NASDAQ Listing Rule 5615(a)(3), foreign private issuers, such as our Company, are permitted to follow certain home country corporate governance practices instead of certain provisions of certain NASDAQ Listing Rules. We do not comply with the following requirements of the NASDAQ Listing Rules, and instead follow Israeli law and practice with respect to such corporate governance practices:

NASDAQ Listing Rule 5250(d) requires that an annual report be delivered to shareholders in accordance with three alternative delivery methods set forth in the rule. One of those delivery methods allows for the posting of the annual report on the Company's website. However, that method also requires that i) a prominent undertaking be posted on the website indicating that, upon request, shareholders may receive a hard copy of the annual report free of charge, and ii) simultaneous with this posting, the Company issue a press release stating that its annual report has been filed with the SEC (or other appropriate regulatory authority). This press release must also state that the annual report is available on the Company's website and include the website address and that shareholders may receive a hard copy free of charge upon request.

While the Company's most current Annual Report on Form 20-F, inclusive of consolidated financial statements, is available on its website at [www.cyren.com](http://www.cyren.com), and the Company has indicated publicly that it will provide copies of that report free of charge, upon shareholder request, nevertheless the Company is not in strict compliance with the NASDAQ listing rule. The Company does not include a statement on its website in the form noted above and does not issue a press release upon the posting of the annual report to its website; rather, the Company is following its home country practice (in Israel, which, in addition to the Company's activities noted above, also enables shareholders to inspect the Company's annual consolidated financial statements in person at its principal offices).

NASDAQ Listing Rule 5620(c) requires that an issuer listed on NASDAQ have a quorum requirement that in no case be less than 33 1/3% of the outstanding shares of a company's common voting stock. However, the Company's articles of association, consistent with the Companies Law, provide for a lower quorum in the event of a meeting adjourned for lack of a quorum, in which case any two shareholders entitled to vote and present in person or by proxy at such adjourned meeting shall constitute a quorum. Our quorum requirements for an adjourned meeting do not comply with the NASDAQ requirements and we instead follow our home country practice.

NASDAQ Listing Rule 5635(c) requires that, except in certain defined instances, an issuer receive shareholder approval prior to the issuance of securities when a stock option or purchase plan is to be established or materially amended or other equity compensation arrangement made or materially amended, pursuant to which stock may be acquired by officers, directors, employees, or consultants. During 2012, the Company notified NASDAQ that it is opting to follow home country practice in this regard. Under Israeli law, shareholder approval is not required for some of the matters listed under Rule 5635(c), and thus Board of Director approval, together with that of the Compensation

Committee, will be sufficient to approve those matters. Thus, we do not necessarily seek shareholder approval for the establishment of, and amendments to, stock option or equity compensation plans (as set forth in NASDAQ Listing Rule 5635(c)), as such matters are not subject to shareholder approval under Israeli law. We will attempt to seek shareholder approval for our stock option or equity compensation plans (and the relevant annexes thereto) to the extent required in order to ensure they are tax qualified for our employees in the United States. However, if such approval is not received, then the stock option or equity compensation plans will continue to be in effect, but the Company will be unable to grant options to its U.S. employees that qualify as Incentive Stock Options for U.S. federal tax purpose and equity compensation grants cannot be treated as exempt from the million dollar deduction limit provided in Section 162(m) of the U.S. Internal Revenue Code. Our stock option or other equity compensation plans are also available to our non-U.S. employees, and generally provide features necessary to comply with applicable non-U.S. tax laws.



As noted above under “Item 6. *Directors, Senior Management and Employees Compensation Committee*”, the Company has adopted a compensation policy in accordance with the Companies Law, which is focused on director, CEO and corporate officer compensation (hereinafter “executive compensation”). Pursuant to Israeli law, such policy must be presented to shareholders for approval no less than once every three years. Included within that policy are provisions relating to the equity component of executive compensation, and the Company will follow home country practice under the Companies Law in seeking shareholder approval for matters of executive compensation which require such shareholder approval. We follow the provisions of the Companies Law with respect to matters in connection with the composition and responsibilities of our compensation committee, office holder compensation and any required approval by the shareholders of such compensation. Israeli law, and our Articles of Association, do not require that a compensation committee composed solely of independent members of our board of directors determine (or recommend to the board of directors for determination) executive compensation, as required under NASDAQ’s recently adopted listing standards related to compensation committee independence and responsibilities; nor do they require that the Company adopt and file a compensation committee charter. Instead, our compensation committee has been established and conducts itself in accordance with provisions governing the composition of and the responsibilities of a compensation committee as set forth in the Companies Law. Furthermore, executive compensation is determined and approved by our compensation committee and our board of directors, and in certain circumstances by our shareholders, either in consistency with our previously approved Compensation Policy or, in special circumstances in deviation therefrom, taking into account certain considerations set forth in the Israeli Companies Law. The requirements for approval by the shareholders for any office holder compensation, and the relevant majority or special majority for such approval, are all as set forth in the Israeli Companies Law. Thus, we will seek shareholder approval for all corporate actions with respect to office holder compensation requiring such approval under the requirements of the Israeli Companies Law, including seeking prior approval of the shareholders for the Compensation Policy (which as noted under Item 6, even if our shareholders fail to approve the compensation policy, the Board nevertheless is entitled to adopt such policy if it determines that it is in the best interests of the Company) and for certain executive compensation, rather than seeking approval for such corporate actions in accordance with NASDAQ Listing Rules.

As a foreign private issuer listed on the NASDAQ Capital Market, we may also follow home country practice with regard to, among other things, composition of the board of directors, director nomination process and regularly scheduled meetings at which only independent directors are present. In addition, we may follow our home country practice, instead of the NASDAQ Listing Rules, which require that we obtain shareholder approval for certain dilutive events, such as an issuance that will result in a change of control of the company, certain transactions other than a public offering involving issuances of a 20% or more interest in the company and certain acquisitions of the stock or assets of another company. A foreign private issuer that elects to follow a home country practice instead of NASDAQ requirements, must submit to NASDAQ in advance a written statement from an independent counsel in such issuer’s home country certifying that the issuer’s practices are not prohibited by the home country’s laws. In addition, a foreign private issuer must disclose in its annual reports filed with the Securities and Exchange Commission or on its website each such requirement that it does not follow and describe the home country practice followed by the issuer instead of any such requirement. Accordingly, our shareholders may not be afforded the same protection as provided under NASDAQ’s corporate governance rules.

**Item 16H. Mine Safety Disclosure.**

Not applicable.

**PART III**

**Item 17. Financial Statements.**

The Company has responded to Item 18.

**Item 18. Financial Statements.**

See pages F-1 to F-39.

**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.

Cyren Ltd.

By: /s/ J. Michael Myshrall  
J. Michael Myshrall  
Chief Financial Officer

April 27, 2018

**Item 19. Exhibits**

**Exhibit Index**

Exhibit Number Description of Document

- 1.1 Memorandum of Association of the Company.(1)
- 1.2 Amended and Restated Articles of Association of the Company, as amended on December 22, 2016(2)
- 4.1 Cyren Ltd. 2006 U.S. Stock Option Plan.(3)
- 4.2 Amended and Restated Cyren Ltd. 1999 Non–Employee Directors Stock Option Plan.(4)
- 4.3 Extension of Amended and Restated Cyren Ltd. 1999 Non-Employee Directors Stock Option Plan.(5)
- 4.4 Cyren Ltd. Amended and Restated Israeli Share Option Plan.(6)
- 4.5 2016 Non-Employee Director Equity Incentive Plan (7)
- 4.6 2016 Equity Incentive Plan (8)
- 4.7 Summary of Director Compensation. (9)
- 4.8 The Executive Compensation Policy of the Company, as amended and approved in December 2015. (10)
- 4.9 Form of Convertible Note (11)
- 4.10 Securities Purchase Agreement dated November 6, 2017 between Cyren Ltd. and WP XII Investments BV
- 4.11 Registration Rights Agreement dated November 6, 2017 between Cyren Ltd. and WP XII Investments BV
- 8 List of Subsidiaries of the Company
- 12.1 Certification of Company’s Principal Executive Officer Pursuant to Exchange Act Rule 13a-14(a) or 15d-14(a).
- 12.2

Certification of Company's Principal Financial Officer Pursuant to Exchange Act Rule 13a-14(a) or 15d-14(a).

13 Certification of Company's Principal Executive Officer and Principal Financial Officer Pursuant to 18 U.S.C. 1350.

15 Consent of Kost, Forer, Gabbay & Kasierer, independent registered public accounting firm.

101 The following materials from our Annual Report on Form 20-F for the year ended December 31, 2017 formatted in XBRL (eXtensible Business Reporting Language) are furnished herewith: (i) the Consolidated Balance Sheets, (ii) the Consolidated Statements of Operations, (iii) the Statements of Changes in Shareholders' Equity, (iv) the Consolidated Statements of Cash Flows and (v) the Notes to Consolidated Financial Statements, tagged as blocks of text and in detail.

- (1) Incorporated by reference to exhibits in Amendment No. 1 to Registration Statement on Form F-1 of Cyren Ltd., File No. 333-78531 [filed June 3, 1999].
- (2) Incorporated by reference to Exhibit 1.2 to Annual Report on form 20-F for the year ended December 31, 2016.
- (3) Incorporated by reference to Exhibit 99.4 to Registration Statement on Form S-8 No. 333-141177 [filed March 9, 2007].
- (4) Incorporated by reference to Exhibit 99.1 to Registration Statement on Form S-8 No. 333-141177 [filed March 9, 2007].
- (5) Incorporated by reference to Exhibit 4.5 to Annual Report on form 20-F for the year ended December 31, 2008.
- (6) Incorporated by reference to Exhibit 99.3 to Registration Statement on Form S-8 No. 333-141177 [filed March 9, 2007].
- (7) Incorporated by reference to Exhibit A of Exhibit 99.1 to Registrant's Form 6-K [furnished November 17, 2016].
- (8) Incorporated by reference to Exhibit B of Exhibit 99.1 to Registrant's Form 6-K [furnished November 17, 2016].
- (9) Incorporated by reference to Exhibit 4.5 to Annual Report on Form 20-F for the year ended December 31, 2012.
- (10) Incorporated by reference to Exhibit 4.9 to Annual Report on form 20-F for the year ended December 31, 2015.
- (11) Incorporated by reference to Exhibit 4.9 to Annual Report on form 20-F for the year ended December 31, 2016.

**CYREN LTD. AND ITS SUBSIDIARIES**

**CONSOLIDATED FINANCIAL STATEMENTS**

**AS OF DECEMBER 31, 2017**

**U.S. DOLLARS IN THOUSANDS**

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## **REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

**To the Shareholders and Board of Directors of**

**CYREN LTD.**

### **Opinion on the Financial Statements**

We have audited the accompanying consolidated balance sheets of Cyren Ltd. and its subsidiaries (the “Company”) as of December 31, 2017 and 2016, the related consolidated statements of operations, comprehensive loss, shareholders’ equity and cash flows for each of the three years in the period ended December 31, 2017, 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, 2017 and 2016, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2017, in conformity with U.S. generally accepted accounting principles.

### **Basis for Opinion**

These financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our 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. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the 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.

We have served as the Company's auditor since at least 1997, but we are unable to determine this specific year.

/s/ Kost Forer Gabbay & Kasierer

a Member of Ernst & Young Global

Tel-Aviv, Israel

April 27, 2018

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**CYREN LTD. AND ITS SUBSIDIARIES****CONSOLIDATED BALANCE SHEETS****(in thousands of U.S. dollars)**

	December 31	
	2017	2016
<b>ASSETS</b>		
<b>CURRENT ASSETS:</b>		
Cash and cash equivalents	\$23,981	\$10,621
Trade receivables (net of allowances for doubtful accounts of \$445 and \$560 as of December 31, 2017 and 2016, respectively)	2,890	3,061
Prepaid expenses and other receivables	1,339	918
Total current assets	28,210	14,600
<b>LONG-TERM ASSETS:</b>		
Long-term restricted lease deposits	379	380
Severance pay fund	714	604
Property and equipment, net	2,787	2,081
Intangible assets, net	11,018	10,426
Goodwill	21,128	19,441
Total long-term assets	36,026	32,932
Total assets	\$64,236	\$47,532

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

**CYREN LTD. AND ITS SUBSIDIARIES****CONSOLIDATED BALANCE SHEETS****(in thousands of U.S. dollars, except share and per share data)**

	December 31	
	2017	2016
<b>LIABILITIES AND SHAREHOLDERS' EQUITY</b>		
<b>CURRENT LIABILITIES:</b>		
Trade payables	\$1,017	\$764
Employees and payroll accruals	3,239	2,528
Accrued expenses and other liabilities	1,012	755
Earn-out consideration and related costs	3,588	3,041
Deferred revenues	5,032	4,609
<b>Total current liabilities</b>	<b>13,888</b>	<b>11,697</b>
<b>LONG-TERM LIABILITIES:</b>		
Deferred revenues	524	1,788
Deferred tax liability, net	1,355	1,374
Accrued severance pay	930	816
Other liabilities	438	119
<b>Total long-term liabilities</b>	<b>3,247</b>	<b>4,097</b>
<b>COMMITMENTS AND CONTINGENCIES</b>		
<b>SHAREHOLDERS' EQUITY:</b>		
Ordinary shares nominal value ILS 0.15 par value - Authorized: 75,353,340 shares as of December 31, 2017 and 2016, respectively; Issued: 54,405,881 and 40,353,953 shares as of December 31, 2017 and 2016, respectively; Outstanding: 53,375,854 and 39,174,272 shares as of December 31, 2017 and 2016, respectively	2,097	1,497
Additional paid-in capital	244,609	216,147
Treasury shares: 1,030,027 and 1,179,681 ordinary shares as of December 31, 2017 and 2016, respectively	(3,312 )	(3,867 )
Accumulated other comprehensive loss	(1,195 )	(2,851 )
Accumulated deficit	(195,098)	(179,188)
<b>Total shareholders' equity</b>	<b>47,101</b>	<b>31,738</b>

Total liabilities and shareholders' equity	\$64,236	\$47,532
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The accompanying notes are an integral part of the consolidated financial statements.

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**CYREN LTD. AND ITS SUBSIDIARIES****CONSOLIDATED STATEMENTS OF OPERATIONS**

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

	Year ended December 31,		
	2017	2016	2015
Revenues	\$30,799	\$30,983	\$27,762
Cost of revenues	11,899	10,042	8,866
Gross profit	18,900	20,941	18,896
Operating expenses:			
Research and development, net	9,825	8,656	8,842
Sales and marketing	15,551	10,814	8,466
General and administrative	7,286	6,645	6,123
Adjustment to earn-out consideration	-	893	(75)
Total operating expenses	32,662	27,008	23,356
Operating loss	(13,762)	(6,067)	(4,460)
Other income (expense), net	452	(1)	27
Financial expenses, net	(2,380)	(147)	(243)
Loss before taxes on income	(15,690)	(6,215)	(4,676)
Tax benefit (expense)	42	2	(123)
Loss	\$(15,648)	\$(6,213)	\$(4,799)
Basic and diluted loss per share	\$(0.38)	\$(0.16)	\$(0.14)
Weighted average number of shares used in computing basic and diluted loss per share	40,922,453	39,135,321	34,315,638

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



**CYREN LTD. AND ITS SUBSIDIARIES**

**CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS**

(in thousands of U.S. dollars)

	Year ended December 31,		
	2017	2016	2015
Loss	\$(15,648)	\$(6,213)	\$(4,799)
Other comprehensive loss:			
Foreign currency translation adjustments	1,656	(461 )	(1,655)
Comprehensive loss	\$(13,992)	\$(6,674)	\$(6,454)

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

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## CYREN LTD. AND ITS SUBSIDIARIES

## STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY

(in thousands of U.S. dollars, except share data)

	Number of outstanding ordinary shares	Share capital	Additional paid-in capital	Treasury shares	Accumulated other comprehensive income (loss) (*)	Accumulated deficit	Total
Balance as of January 1, 2015	31,396,940	\$ 1,195	\$ 202,947	\$(4,277)	\$ (735)	\$(168,071)	\$ 31,059
Issuance of shares upon public offering (\$1.65 per share), net of \$1,126 issuance expenses	7,666,665	302	11,222	-	-	-	11,524
Issuance of treasury shares upon exercise of options	57,593	-	(42)	213	-	(18)	153
Stock-based compensation related to employees, directors and consultants	-	-	1,066	-	-	-	1,066
Other comprehensive loss	-	-	-	-	(1,655)	-	(1,655)
Loss	-	-	-	-	-	(4,799)	(4,799)
Balance as of December 31, 2015	39,121,198	1,497	215,193	(4,064)	(2,390)	(172,888)	37,348
Issuance of treasury shares upon exercise of options	53,074	-	(26)	197	-	(87)	84
Stock-based compensation related to employees, directors and consultants	-	-	980	-	-	-	980
Other comprehensive loss	-	-	-	-	(461)	-	(461)
Loss	-	-	-	-	-	(6,213)	(6,213)
Balance as of December 31, 2016	39,174,272	1,497	216,147	(3,867)	(2,851)	(179,188)	31,738
Issuance of shares upon private offering (\$1.85 per share), net of \$631 issuance expenses	10,595,521	452	18,519	-	-	-	18,971
	3,456,407	148	8,083	-	-	-	8,231

Issuance of shares upon conversion of convertible notes and accrued interest on account of the convertible notes							
Issuance of treasury shares upon exercise of options	149,654	-	(200 )	555	-	(262 )	93
Stock-based compensation related to employees, directors and consultants	-	-	2,060	-	-	-	2,060
Other comprehensive income	-	-	-	-	1,656	-	1,656
Loss	-	-	-	-	-	(15,648 )	(15,648)
Balance as of December 31, 2017	53,375,854	\$2,097	\$244,609	\$(3,312 )	\$ (1,195 )	\$(195,098 )	\$47,101

(\*) Relates to foreign currency translation adjustments.

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



## CYREN LTD. AND ITS SUBSIDIARIES

## CONSOLIDATED STATEMENTS OF CASH FLOWS

(in thousands of U.S. dollars)

	Year ended December 31,		
	2017	2016	2015
<u>Cash flows from operating activities:</u>			
Loss	\$(15,648)	\$(6,213)	\$(4,799)
Adjustments to reconcile loss to net cash provided by (used in) operating activities:			
Loss on disposal of property and equipment	2	11	9
Depreciation	1,303	1,246	1,337
Stock-based compensation	2,060	980	1,066
Amortization of intangible assets	3,746	2,836	1,549
Accrued interest, accretion of discount and exchange rate differences on credit line	-	(19 )	69
Accretion of discount on convertible notes	480	-	-
Change in fair value of embedded conversion feature on convertible notes	1,349	-	-
Other income related to investment in affiliate	(450 )	-	-
Accretion and change in fair value of earn-out consideration, net	-	-	(27 )
Other expenses related to the earn-out consideration	117	774	-
Deferred taxes, net	(175 )	(212 )	(257 )
Changes in assets and liabilities:			
Trade receivables, net	77	759	716
Prepaid expenses and other receivables	(362 )	(82 )	36
Change in long-term lease deposits	6	(184 )	(12 )
Trade payables	36	124	(110 )
Employees and payroll accruals, accrued expenses and other liabilities	780	(288 )	(595 )
Deferred revenues	(841 )	2,305	(1,069)
Accrued severance pay, net	4	88	52
Other long-term liabilities	302	(11 )	41
Net cash provided by (used in) operating activities	(7,214 )	2,114	(1,994)
Cash flows from investing activities:			
Capitalization of technology, net of grants received	(3,567 )	(2,824)	(1,751)
Proceeds from sale of investment in affiliate	450	-	-

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Proceeds from sale of property and equipment	-	-	5
Purchase of property and equipment	(1,771 )	(985 )	(1,222)
Net cash used in investing activities	(4,888 )	(3,809 )	(2,968)

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

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**CYREN LTD. AND ITS SUBSIDIARIES****CONSOLIDATED STATEMENTS OF CASH FLOWS**

(in thousands of U.S. dollars)

	Year ended December 31,		
	2017	2016	2015
<u>Cash flows from financing activities:</u>			
Proceeds from public and private offerings, net	18,971	-	11,524
Proceeds from convertible notes	6,300	-	-
Payment of earn-out consideration	-	-	(457 )
Proceeds from credit line	-	-	4,400
Repayment of credit line	-	(4,150 )	(5,200 )
Proceeds from options exercised	93	84	153
Net cash provided by (used in) financing activities	25,364	(4,066 )	10,420
Effect of exchange rate changes on cash and cash equivalents	98	3	(142 )
Increase (decrease) in cash and cash equivalents	13,360	(5,758 )	5,316
Cash and cash equivalents at the beginning of the year	10,621	16,379	11,063
Cash and cash equivalents at the end of the year	\$23,981	\$10,621	\$16,379
Supplemental disclosure of cash flows activities:			
Cash paid (received) during the year for:			
Taxes, net	\$(50 )	\$299	\$190
Interest	\$130	\$60	\$185
Non-cash transactions:			
Purchase of property and equipment by credit	\$(217 )	\$(39 )	\$(82 )
Net change in accrued payroll expenses related to capitalization of technology	\$(255 )	\$(304 )	\$(178 )
	\$(8,231 )	\$-	\$-

Conversion of convertible notes and accrued interest on account of convertible notes into shares

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

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## **CYREN LTD. AND ITS SUBSIDIARIES**

### **NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**(in thousands of U.S. dollars, except share and per share data)**

#### **NOTE 1: GENERAL**

Cyren Ltd. (henceforth “Cyren”) was incorporated under the laws of the State of Israel on February 10, 1991 and its legal form is a company limited by shares. Cyren listed its shares to the public on July 15, 1999 under the name Commtouch Software Ltd. and changed its legal name to Cyren Ltd. in January 2014. Cyren and its subsidiaries, unless otherwise indicated will be referred to in these consolidated financial statements as the “Company”.

The Company is engaged in developing and marketing information security solutions for protecting web, email and mobile transactions. The Company sells its cloud-based solutions worldwide, in both embedded and Security-as-a-Service models, to Original Equipment Manufacturers (“OEMs”), service providers and enterprises. The Company operates in one reportable segment, which constitutes its reporting unit.

#### **NOTE 2: SIGNIFICANT ACCOUNTING POLICIES**

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

##### **a. Use of estimates:**

The preparation of consolidated financial statements in conformity with U.S. GAAP requires management to make estimates, judgments and assumptions. The Company’s management believes that the estimates, judgments and assumptions used are reasonable based upon information available at the time 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 date of the consolidated financial statements and the reported amounts of revenue and expenses during the reporting period. Actual results could differ from those estimates. On an ongoing basis, the Company’s management evaluates estimates, including those related to fair value and useful lives of intangible assets, fair value

of earn-out liabilities, valuation allowance on deferred tax assets, income tax uncertainties, fair values of stock-based awards, other contingent liabilities and estimates used in applying the revenue recognition policy. Such estimates are based on historical experience and on various other assumptions that are believed to be reasonable, the results of which form the basis for making judgments about the carrying values of assets and liabilities.

b. Financial statements in U.S. dollars:

Cyren's revenues, and certain of its subsidiary's revenues, are generated mainly in U.S. dollars. In addition, most of their costs are incurred in U.S. dollars. The Company's management believes that the U.S. dollar is the primary currency of the economic environment in which Cyren and certain of its subsidiaries operate. Thus, the functional and reporting currency of Cyren and certain of its subsidiaries is the U.S. dollar.

**CYREN LTD. AND ITS SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**(in thousands of U.S. dollars, except share and per share data)**

**NOTE 2: SIGNIFICANT ACCOUNTING POLICIES (Cont.)**

Cyren and certain subsidiaries' transactions and balances denominated in dollars are presented at their original amounts. Non-dollar transactions and balances have been re-measured to dollars in accordance with ASC 830, "Foreign Currency Matters". All transaction gains and losses from re-measurement of monetary balance sheet items denominated in non-dollar currencies are reflected in the statements of operations as financial income or expenses, as appropriate.

For those subsidiaries whose functional currency has been determined to be their local currency, assets and liabilities are translated at year-end exchange rates and statements of operations items are translated at average exchange rates prevailing during the year. Such translation adjustments are recorded as a separate component of accumulated other comprehensive income (loss) in shareholders' equity.

c. Principles of consolidation:

The consolidated financial statements include the accounts of Cyren and its subsidiaries. All intercompany balances and transactions have been eliminated upon consolidation.

d. Cash equivalents:

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

e. Restricted deposits:

The Company maintains certain deposits amounts restricted as to withdrawal or use. On December 31, 2017, the Company maintained a balance of \$247 which is restricted and is held as collateral for a bank guarantee and a letter of credit provided to the lessors of two of the Company's offices. A balance of \$133 restricted deposit is presented within prepaid expenses and other receivables and \$114 is presented in the long-term restricted lease deposits balance.

f. Investment in affiliates:

The Company's investments in affiliated companies comprises of investments in which the Company owns less than 20 % or in which the Company cannot exercise significant influence over the affiliates' operating and financial policies. These investments are stated at cost.

The investment in affiliate balance has been zero since December 31, 2013 and no new investments were made during the years ended December 31, 2015, 2016 and 2017.



**CYREN LTD. AND ITS SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**(in thousands of U.S. dollars, except share and per share data)**

NOTE 2: SIGNIFICANT ACCOUNTING POLICIES (Cont.)

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 and peripheral equipment	33
Office furniture and equipment	7– 20
Leasehold improvements	Over the shorter of the term of the lease or the life of the assets

h. Intangible assets:

Intangible assets that are not considered to have an indefinite useful life are amortized over their estimated useful lives, which range from 1 to 15 years. Acquired customer contracts and relationships are amortized over their estimated useful lives in proportion to the economic benefits realized. This accounting policy results in accelerated amortization of such customer contracts and relationships arrangements as compared to the straight-line method. Technology, Intellectual Property and Trademark are amortized over their estimated useful lives on a straight-line basis.

i. Impairment of long-lived assets:

The Company’s long-lived assets and identifiable intangibles are reviewed for impairment in accordance with ASC 360 “Property, Plant and Equipment”, whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable.

Recoverability of these assets is measured by comparison of the carrying amount of each asset group to the future undiscounted cash flows the asset group is expected to generate. If the asset is considered to be impaired, the amount of any impairment is measured as the difference between the carrying value and the fair value of the impaired asset.

For each of the three years in the period ended December 31, 2017, no impairment losses have been identified.

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**CYREN LTD. AND ITS SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**(in thousands of U.S. dollars, except share and per share data)**

NOTE 2: SIGNIFICANT ACCOUNTING POLICIES (Cont.)

j. Goodwill:

Goodwill represents the excess of the purchase price in a business combination over the fair value of net tangible and intangible assets acquired. Goodwill is not amortized, but rather is subject to an impairment test.

The Company performs an annual impairment test at December 31, of each fiscal year, or more frequently if impairment indicators are present. The Company operates in one operating segment, and this segment comprises its only reporting unit.

ASC 350 prescribes a two-phase process for impairment testing of goodwill. The first phase screens for impairment, while the second phase (if necessary) measures impairment. Goodwill impairment is deemed to exist if the net book value of a reporting unit exceeds its estimated fair value determined using market capitalization. In such case, the second phase is then performed, and the Company measures impairment by comparing the carrying amount of the reporting unit's goodwill to the implied fair value of that goodwill. An impairment loss is recognized in an amount equal to the excess. ASC 350 allows an entity to first assess qualitative factors to determine whether it is necessary to perform the two-step quantitative goodwill impairment test. An entity is not required to calculate the fair value of a reporting unit unless the entity determines, based on a qualitative assessment, that it is more likely than not that its fair value is less than its carrying amount. Alternatively, ASC 350 permits an entity to bypass the qualitative assessment for any reporting unit and proceed directly to performing the first step of the goodwill impairment test. Accordingly, the Company elected to proceed directly to the first step of the quantitative goodwill impairment test and compares the fair value of the reporting unit with its carrying value.

For each of the three years in the period ended December 31, 2017, no impairment losses have been identified.

k. Fair value measurements:

The carrying amounts of cash and cash equivalents, trade receivables, prepaid expenses, other receivables and trade payables, approximate their fair values due to the short-term maturities of such financial instruments.

Fair value is an exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or a liability. A three-tiered fair value hierarchy is established as a basis for considering such assumptions and for inputs used in the valuation methodologies in measuring fair value:

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## CYREN LTD. AND ITS SUBSIDIARIES

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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

#### NOTE 2: SIGNIFICANT ACCOUNTING POLICIES (Cont.)

Level 1 Quoted prices (unadjusted) in active markets for identical assets or liabilities that the Company can access at the measurement date.

Level 2 Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly.

Level 3 - Unobservable inputs for the asset or liability.

The availability of observable inputs can vary from instrument to instrument and is affected by a wide variety of factors, including, for example, the type of instrument, the liquidity of markets and other characteristics particular to the transaction. To the extent that valuation is based on models or inputs that are less observable or unobservable in the market, the determination of fair value requires more judgment and the instruments are categorized as Level 3.

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

The Company's earn-out considerations are classified within Level 3. The valuation methodology used by the Company to calculate the fair value of the earn-out considerations is the discounted cash-flow method. The assumptions used in the valuation of the earn-out considerations for the period up to December 31, 2015 included forecasted future revenues and a weighted average cost of capital of 14.32% - 18.45%. During the year ended December 31, 2015, the effect of the measurement of the earn-out consideration fair value was a reduction in the liability of \$75 which was recorded in the statements of operations under adjustments to earn-out consideration.

As of December 31, 2017, there are no unobservable inputs remaining which are related to the liability as the period for determining the earn-out considerations value ended as of December 31, 2015. The value as of December 31, 2017

represents the remaining actual undiscounted cash-flow that is expected from the earn-out consideration, including accrued interest expenses and legal fees through December 31, 2017.

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**CYREN LTD. AND ITS SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**(in thousands of U.S. dollars, except share and per share data)**

NOTE 2: SIGNIFICANT ACCOUNTING POLICIES (Cont.)

1. Derivative financial instruments:

The Company accounts for derivatives based on ASC 815 (“Derivatives and Hedging”). ASC 815 requires the Company to recognize all derivatives on the balance sheet at fair value.

Under these standards, the Company separately accounts for the liability and derivative component as an implicit or explicit term that affects some or all of the cash flows or the value of other exchanges required by a contract in a manner similar to a derivative instrument. The derivative component at issuance is recognized at fair value, based on the fair value of a similar instrument that does not have a conversion feature. The liability component is presented at its discounted value based on the excess of the principal amount of the debentures over the fair value of the derivative component, after adjusting for an allocation of debt issuance costs. The effective portion of the gain or loss on the derivative instrument is reported in the consolidated statements of operations under financial expenses, net.

m.

Revenue recognition:

The Company derives its revenues from the sale of real-time cloud-based services for each of Cyren’s email security, web security, antimalware and advanced threat protection offerings. The Company sells its solutions primarily through OEMs which are considered end-users and also sells complete security services directly to enterprises.

Revenue is recognized when there is persuasive evidence of an arrangement, the service has been rendered, the collection of the fee is probable and the amount of fees to be paid by the customer is fixed or determinable.

Revenues from such services are recognized ratably over the contractual service term, which generally includes a term period of one to three years.

Deferred revenues include unearned amounts received from customers, but not yet recognized as revenues. Such revenues are recognized ratably over the term of the related agreement.

n. Research and development costs, net:

Research and development costs are charged to statements of operations as incurred, except for capitalized technology.

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**CYREN LTD. AND ITS SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**(in thousands of U.S. dollars, except share and per share data)**

**NOTE 2: SIGNIFICANT ACCOUNTING POLICIES (Cont.)**

**o. Capitalized technology:**

The Company capitalizes development costs incurred during the application development stage which are related to internal-use technology that supports its security services. Costs related to preliminary project activities and post implementation activities are expensed as incurred as research and development costs on the statements of operations. Capitalized internal-use technology is included in intangible assets on the balance sheet and is amortized on a straight-line basis over its estimated useful life, which is generally one to three years. Amortization expenses are recognized under cost of goods sold. Management evaluates the useful lives of these assets on an annual basis and tests for impairment whenever events or changes in circumstances occur that could impact the recoverability of these assets.

**p. Government grants:**

The Company receives Israeli government grants for funding certain approved research and development projects. These grants are recognized at the time the Company is entitled to such grants, on the basis of the related costs incurred and recorded as a deduction of research and development costs. The deduction in research and development costs due to government grants amounted to \$778, \$852 and \$800 in 2017, 2016 and 2015, respectively.

**q. Concentrations of credit risk:**

The Company has no significant off-balance-sheet concentration of credit risk.

Financial instruments that potentially subject the Company to concentrations of credit risk consist principally of cash and cash equivalents and trade receivables. The majority of the Company's cash and cash equivalents are invested in dollars and are deposited in major banks in the United States, Germany, Iceland, UK and Israel. Such investments in

the United States may be in excess of insured limits and are not insured in other jurisdictions. Management believes that the financial institutions that hold the Company's investments are institutions with high credit standing, and accordingly, minimal credit risk exists with respect to these investments.

The trade receivables of the Company are derived from transactions with companies located primarily in North America, Europe, Israel and Asia. An allowance for doubtful accounts is determined with respect to those amounts that the Company has determined to be doubtful of collection. The provision for doubtful accounts amounted \$445 and \$560 at December 31, 2017 and 2016, respectively. Bad debt benefit for each of the years ended December 31, 2017, 2016 and 2015 was \$65, \$4 and \$314, respectively.

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**CYREN LTD. AND ITS SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**(in thousands of U.S. dollars, except share and per share data)**

NOTE 2: SIGNIFICANT ACCOUNTING POLICIES (Cont.)

r. Accounting for stock-based compensation:

ASC 718 - “Compensation-stock Compensation”- (“ASC 718”) requires companies to estimate the fair value of equity-based payment awards on the date of grant using an option-pricing model. The value of the portion of the award that is ultimately expected to vest is recognized as an expense over the requisite service periods in the Company’s consolidated statements of operations.

The Company recognizes compensation expense for the value of its awards on a straight-line basis over the requisite service period of each of the awards, net of estimated forfeitures. Estimated forfeitures are based on actual historical pre-vesting forfeitures. ASC 718 requires forfeitures to be estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. Estimated forfeitures are based on actual historical pre-vesting forfeitures (pursuant to the adoption of ASU 2016-09, the Company made a policy election to estimate the number of awards that are expected to vest).

The Company estimates the fair value of stock options granted using the Black-Scholes option-pricing model. The option-pricing model requires a number of assumptions, of which the most significant are the expected stock price volatility and the expected option term. Expected volatility was calculated based upon actual historical stock price movements over the most recent periods ending on the grant date, equal to the expected term of the options. The expected term of options granted represents the period of time that options granted are expected to be outstanding, based upon historical experience. The risk-free interest rate is based on the yield from U.S. treasury bonds with an equivalent term. The Company has historically not paid dividends and has no foreseeable plans to pay dividends.

The Company applies ASC 718, and ASC 505-50, “Equity Based Payments to Non-Employees” (“ASC 505-50”), with respect to options issued to non-employees.

The fair value for options granted to employees and directors in 2017, 2016 and 2015 is estimated at the date of grant using a Black-Scholes options pricing model with the following assumptions:

<b>Stock options</b>	<b>Year ended</b>		
	<b>December 31,</b>		
	<b>2017</b>	<b>2016</b>	<b>2015</b>
Volatility	44%-51%	48%-50%	42%-48%
Risk-free interest rate	1.2%-2.1%	0.8%-1.4%	1.1%-1.2%
Dividend yield	0%	0%	0%
Expected term (years)	3.5-5.1	3.4-5.0	3.4-3.9

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**CYREN LTD. AND ITS SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**(in thousands of U.S. dollars, except share and per share data)**

NOTE 2: SIGNIFICANT ACCOUNTING POLICIES (Cont.)

s. Basic and diluted loss per share:

Basic loss per share has been computed using the weighted-average number of ordinary shares outstanding during the year. Diluted loss per share is computed based on the weighted average number of ordinary shares outstanding during each year, plus the weighted average number of dilutive potential ordinary shares considered outstanding during the year.

In 2017, 2016 and 2015 there is no difference between the denominator of basic and diluted loss per share.

t. Severance pay:

The Company's liability for severance pay in Israel is calculated pursuant to Israel's Severance Pay Law based on the most recent salary of the employees multiplied by the number of years of employment as of the balance sheet date. Employees are entitled to one month's salary for each year of employment or a portion thereof. The Company's obligation for all of its Israeli employees is fully provided by monthly deposits with severance pay funds and insurance policies, and by an accrual. The value of those funds and policies is recorded as an asset in the Company's balance sheet.

The deposited funds include profits and losses accumulated up to the balance sheet date. The deposited funds may be withdrawn only upon the fulfillment of the obligation pursuant to Israel's Severance Pay Law or labor agreements. The value of the deposited funds is based on the cash surrendered value of these policies.

Effective October, 2014, the Company's agreements with new employees in Israel, are under Section 14 of the Severance Pay Law, 1963. The Company's contributions for severance pay have replaced its severance obligation.

Upon contribution of the full amount of the employee's monthly salary for each year of service, no additional calculations is conducted between the parties regarding the matter of severance pay and no additional payment is made by the Company to the employee. Further, the related obligation and amounts deposited on behalf of the employee for such obligation are not stated on the balance sheet, as the Company is legally released from the obligation to employees once the deposit amounts have been paid.

Severance benefit (expense) for the years ended December 31, 2017, 2016 and 2015 was \$20, \$(87) and \$(53), respectively.

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**CYREN LTD. AND ITS SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**(in thousands of U.S. dollars, except share and per share data)**

**NOTE 2: SIGNIFICANT ACCOUNTING POLICIES (Cont.)**

**u. Treasury shares:**

The Company repurchases its ordinary shares from time to time on the open market and holds such shares as treasury shares. The Company presents the cost to repurchase treasury shares as a reduction in shareholders' equity.

The Company reissues treasury shares under the stock purchase plan, upon exercise of option and upon issuance of shares upon acquisitions. Reissuance of treasury shares is accounted for in accordance with ASC 505-30 whereby gains are credited to additional paid-in capital and losses are charged to additional paid-in capital to the extent that previous net gains are included therein; otherwise to accumulated deficit.

**v.**

**Income taxes:**

The Company accounts for income taxes in accordance with ASC 740, "Income Taxes" ("ASC 740"). ASC 740 prescribes the use of the liability method whereby deferred tax asset and liability account balances are determined based on differences between financial reporting and tax bases of assets and liabilities and are measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse. The Company provides a valuation allowance to reduce deferred tax assets to amounts more likely than not to be realized.

ASC 740 contains a two-step approach to recognizing and measuring a liability for uncertain tax positions. The first step is to evaluate the tax position taken or expected to be taken in a tax return by determining if the weight of available evidence indicates that it is more likely than not that, on an evaluation of the technical merits, the tax position will be sustained on audit, including resolution of any related appeals or litigation processes. The second step is to measure the tax benefit as the largest amount that is more than 50% (cumulative basis) likely to be realized upon ultimate settlement.

w.

Comprehensive loss:

The Company accounts for comprehensive loss in accordance with ASC No. 220, "Comprehensive Income". Comprehensive loss generally represents all changes in shareholders' equity during the period except those resulting from investments by, or distributions to, shareholders. The Company determined that its items of other comprehensive income (loss) relate to gains and losses from functional currency translation adjustments on behalf of subsidiaries whose functional currency has been determined to be their local currency.

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## CYREN LTD. AND ITS SUBSIDIARIES

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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

#### NOTE 2: SIGNIFICANT ACCOUNTING POLICIES (Cont.)

x. Impact of recently issued accounting standards:

In May 2014, the FASB issued ASU No. 2014-09, Revenue from Contracts with Customers: Topic 606 (“ASC 606”), to supersede nearly all existing revenue recognition guidance under U.S. GAAP. Under the new standard, revenue is recognized when a customer obtains control of promised goods or services and is recognized in an amount that reflects the consideration which the entity expects to receive in exchange for those goods or services. In addition, the standard requires disclosure of the nature, amount, timing, and uncertainty of revenue and cash flow arising from contracts with customers. The guidance permits two methods of modification: retrospectively to each prior reporting period presented (full retrospective method), or retrospectively with the cumulative effect of initially applying the guidance recognized at the date of initial application (the modified retrospective method.). The Company will adopt the new standard, effective January 1, 2018, using the modified retrospective method applied to those contracts which were not substantially completed as of January 1, 2018. The Company has completed its evaluation of the Standard and does not expect a material change in its pattern of revenue recognition. In addition, the standard requires the deferral and amortization of “incremental” costs incurred to obtain a contract. The primary contract acquisition cost for the Company are sales commissions. Under current GAAP, the Company expenses sales commissions as incurred while under the standard such costs will be classified as a contract asset and amortized over a period that approximates the timing of revenue recognition on the underlying contracts. The Company will record an asset and a cumulative effect to retained earnings of approximately \$1,306 on the opening balance sheet at January 1, 2018.

In February 2016, the FASB issued ASU 2016-02, “Leases” (Topic 842), whereby lessees will be required to recognize for all leases at the commencement date a lease liability, which is a lessee’s obligation to make lease payments arising from a lease, measured on a discounted basis, and a right-of-use asset, which is an asset that represents the lessee’s right to use, or control the use of, a specified asset for the lease term. Under the new guidance, lessor accounting is largely unchanged. A modified retrospective transition approach for leases existing at, or entered into after, the beginning of the earliest comparative period presented in the financial statements must be applied. The modified retrospective approach would not require any transition accounting for leases that expired before the earliest comparative period presented. Companies may not apply a full retrospective transition approach. ASU 2016-02 is effective for annual and interim periods beginning after December 15, 2018. Early application is permitted. The Company is evaluating the potential impact of this new guidance.



## CYREN LTD. AND ITS SUBSIDIARIES

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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

#### NOTE 2: SIGNIFICANT ACCOUNTING POLICIES (Cont.)

In August 2016, the FASB issued ASU 2016-15 - “Statement of Cash Flows (Topic 230), Classification of Certain Cash Receipts and Cash Payments”, which is intended to reduce diversity in practice in how certain cash receipts and cash payments are presented and classified in the Consolidated Statement of Cash Flows by providing guidance on eight specific cash flow issues. ASU 2016-15 is effective retrospectively on January 1, 2018, with early adoption permitted. The Company is in the process of evaluating the impact of this new guidance.

In November 2016, the FASB issued ASU 2016-18, “Statement of Cash Flows (Topic 230): Restricted Cash”. The ASU requires that the Consolidated Statement of Cash Flows explain the change in total cash and equivalents and amounts generally described as restricted cash or restricted cash equivalents when reconciling the beginning-of-period and end-of-period total amounts. The ASU also requires a reconciliation between the total of cash and equivalents and restricted cash presented on the Consolidated Statement of Cash Flows and the cash and equivalents balance presented on the Consolidated Balance Sheet. ASU 2016-18 is effective retrospectively on January 1, 2018, with early adoption permitted. The Company is in the process of evaluating the impact of this new guidance.

In January 2017, the FASB issued ASU 2017-04, Intangibles-Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment. ASU 2017-04 eliminates step two of the goodwill impairment test and specifies that goodwill impairment should be measured by comparing the fair value of a reporting unit with its carrying amount. Additionally, the amount of goodwill allocated to each reporting unit with a zero or negative carrying amount of net assets should be disclosed. ASU 2017-04 is effective for annual or interim goodwill impairment tests performed in fiscal years beginning after December 15, 2019, and early adoption is permitted. The Company is in the process of evaluating the impact of this new guidance.

In May 2017, the FASB issued ASU 2017-09, “Compensation – Stock Compensation (Topic 718): Scope of Modification Accounting.” ASU 2017-09 was issued to provide clarity and reduce both 1) diversity in practice and 2) cost and complexity when applying the guidance in Topic 718 to a change in the terms or conditions of a share-based payment award. ASU 2017-09 provides guidance about which changes to the terms or conditions of a share-based payment award require an entity to apply modification accounting under Topic 718. The amendments in ASU 2017-09 are effective for fiscal years, and interim periods within those years, beginning after December 15, 2017.

Early adoption is permitted, including adoption in any interim period. The amendments in ASU 2017-09 have been applied prospectively to awards modified on or after the adoption date. The Company has adopted the new standard effective January 1, 2017 and adoption of this standard did not have a material impact on the consolidated financial statements.

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**CYREN LTD. AND ITS SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS****(in thousands of U.S. dollars, except share and per share data)**

## NOTE 3: PROPERTY AND EQUIPMENT, NET

	December 31	
	2017	2016
Cost:		
Computers and peripheral equipment	\$11,782	\$10,019
Office furniture and equipment	1,293	1,194
Leasehold improvements	1,896	1,677
	14,971	12,890
Less accumulated depreciation	(12,184)	(10,809)
Property and equipment, net	\$2,787	\$2,081

Depreciation expense amounted to \$1,303, \$1,246 and \$1,337 in 2017, 2016 and 2015, respectively.

## NOTE 4: INTANGIBLE ASSETS, NET

## a. Definite-lived intangible assets:

	December 31,	
	2017	2016
Original amounts:		
Customer contracts and relationships	\$5,326	\$4,978
Technology	(*16,896)	(*12,458)
Trademarks	1,614	1,537
Total original amounts	23,836	18,973

Accumulated amortization:		
Customer contracts and relationships	(3,744 )	(3,014 )
Technology	(8,235 )	(4,887 )
Trademarks	(839 )	(646 )
Accumulated amortization	(12,818 )	(8,547 )
Intangible assets, net	\$11,018	\$10,426

(\* Includes \$8,877 and \$5,056 capitalized technology as of December 31, 2017 and 2016, respectively. Capitalized technology includes \$4,081 and \$2,143 for which amortization has not yet begun as of December 31, 2017 and 2016, respectively.

**CYREN LTD. AND ITS SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**(in thousands of U.S. dollars, except share and per share data)**

NOTE 4: INTANGIBLE ASSETS, NET (Cont.)

b. The intangible assets that are subject to amortization are amortized over their estimated useful lives using the straight-line method, except for customer relations which are amortized on an accelerated basis.

The following table sets forth the weighted average annual rates of amortization for the major classes of intangible assets:

	Weighted average %
Customer contracts and relationships	7
Technology	32
Trademarks	10
Total intangible assets	24

c. Amortization expense amounted to \$3,746, \$2,836 and \$1,549 for 2017, 2016 and 2015, respectively.

d. The estimated aggregate amortization expenses for the succeeding fiscal years are as follows:

2018	\$3,193
2019	4,449
2020	1,023
2021	863
2022	757
Thereafter	732
Total	\$11,017

## NOTE 5: GOODWILL

The changes in the carrying amount of goodwill for the year ended December 31, 2017 and 2016 are as follows:

	Year ended December 31,	
	2017	2016
Balance at the beginning of the year	\$19,441	\$19,864
Foreign currency translation adjustments	1,687	(423 )
Balance at the year end	\$21,128	\$19,441

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## CYREN LTD. AND ITS SUBSIDIARIES

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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

#### NOTE 6: EARN-OUT CONSIDERATION

In conjunction with the 2012 acquisition of eleven, the Company entered into an earn-out agreement with the former shareholders that would pay additional consideration based on the revenue performance for the years ending 2012-2015. Subsequently in 2014 the Company had a legal dispute regarding the amount and timing of the earn-out payments and had entered into arbitral proceedings with the former shareholders of eleven. On March 9, 2017, the Company received the arbitral judgement. Pursuant to the judgement, the earn-out consideration balance was increased to reflect additional legal expenses and interest expenses covering the period up to December 31, 2016 in a total amount of \$774. These additional expenses are reflected in the consolidated statements of operations under adjustment to earn-out consideration. During 2017, the Company continued to accrue interest on the unpaid earn-out consideration balance. Such interest is reflected in the consolidated statements of operations under financial expenses, net. The earn-out consideration balance presented on the Company's balance sheet as of December 31, 2017 reflects the complete liability relating to the earn-out, including accrued interest. For additional information, please refer to Note 7c(i).

#### NOTE 7: COMMITMENTS AND CONTINGENCIES

Cyren Ltd., which was incorporated in Israel, partially financed its research and development expenditures under a program sponsored by the Israel Innovation Authority ("IIA") for the support of certain research and development activities conducted in Israel.

In connection with specific research and development, the Company received \$3,470 of participation payments from the IIA through December 31, 2017. In return for the IIA's participation in this program, the Company is committed to pay royalties at a rate of 3.5% of the program's developed product sales, up to 100% of the amount of grants received plus interest at annual LIBOR rate. The Company's total commitment for royalties payable with respect to future sales, based on IIA participations received, net of royalties paid or accrued, totaled \$2,734 and \$2,150 as of December 31, 2017 and 2016, respectively. For the years ended December 31, 2017, 2016 and 2015, \$144, \$156 and \$128, respectively, were recorded as cost of revenues with respect to royalties due to the IIA.

b. Operating leases:

Certain facilities of the Company are rented under non-cancellable operating lease agreements, which expire on various dates, the latest of which is in 2026.

Facilities rent expenses for 2017, 2016 and 2015 were \$2,004, \$1,090 and \$978, respectively.

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**CYREN LTD. AND ITS SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS****(in thousands of U.S. dollars, except share and per share data)**

## NOTE 7: COMMITMENTS AND CONTINGENCIES (Cont.)

Annual minimum future lease payments due under the above agreements (and motor vehicle leases, which expire in 2020), at the exchange rate in effect on December 31, 2017, are as follows:

2018	\$1,366
2019	1,128
2020	960
2021	935
2022	914
2023 and thereafter	946
	\$6,249

## c. Litigations:

Between 2014 and 2015 the Company entered into arbitral proceedings with the former shareholders of eleven GmbH regarding an escrow account and the earn-out consideration related to the purchase agreement of former eleven. With respect to these claims, on March 9, 2017, the arbitral panel provided their ruling in which it accepted the claims submitted by the former eleven shareholders with respect to the escrow amount and the 2013 earn-out liability. The arbitral panel also ruled that Cyren pay legal expenses in the amount of €574 thousand (out of which €113 thousand had been previously deposited) and interest on the claimed amounts, which up to December 31, 2016, amounted to €171 thousand. The 2014 and 2015 earn-out amounts, which have already been recognized within the earn-out consideration on the Company's balance sheet as of December 31, 2015, in the amount of €1,374 thousand, may be payable on the same basis as set forth in the arbitral ruling. The additional liability arising from the legal fees and interest was recognized and presented within the earn-out consideration on the Company's balance sheet and the respective expenses were reflected for the year ending December 31, 2016, in the consolidated statements of operations under adjustment to earn-out consideration.

The escrow account has been released to the former shareholders. The arbitral award related to the 2013 earn-out consideration has not been declared enforceable by the applicable courts in Germany. Therefore the Company has not

paid the award as of December 31, 2017 and subsequently through the date of these financial statements. The former shareholders have commenced legal proceedings before the applicable court in Germany in order to enforce the award and have served this motion on the Company on April 16, 2018. The court is awaiting the Company's response to the motion. At this stage, it is unlikely that the award will not be enforced. The Company believes a portion of the liability may be paid during 2018, but cannot estimate the timing and the amounts that will be paid.

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## CYREN LTD. AND ITS SUBSIDIARIES

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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

#### NOTE 7: COMMITMENTS AND CONTINGENCIES (Cont.)

On December 22, 2017, the Company commenced legal proceedings against the German law firm that advised the Company on the purchase agreement of the former eleven, asserting that the law firm provided deficient legal advice which has resulted in an over payment of the earn-out consideration to the former shareholders of eleven, as awarded by the arbitrational panel, and any future amounts that may be enforced relating to the 2014 and 2015 earn-out amounts. The Company cannot estimate the outcome of these proceedings at these early stages.

On June 28, 2017 a vendor filed a Statement of Claim in the Tel Aviv District Court (the “SOC”). According to the vendor’s SOC, the Company entered into an agreement with the vendor for receipt of services, based on a database developed by the vendor. In September 2015, the Company terminated the agreement with the vendor, effective as of December 31, 2015. The vendor claims that the Company continues to make use of the vendor’s database post termination thus breaching the agreement, infringing on the vendor’s rights and commercial secrets, and being unjustly enriched.

The vendor is claiming license fees of approximately \$3,150 and an injunction relief ordering the Company and/or its customers to delete any remaining data and to cease from utilizing such data.

The Company denies all claims and has filed a Statement of Defense on November 15, 2017. Pretrial was scheduled for May 15, 2018. In accordance with the court’s recommendation from November 28, 2017, the parties agreed to examine a non-binding mediation process and have appointed a mediator. At this early stage, the Company is unable to make any estimations as to the outcome of this litigation.

#### NOTE 8: SHAREHOLDERS’ EQUITY

a. General:

Ordinary shares confer upon their holders the right to receive notice to participate and vote in general shareholder meetings of the Company and to receive dividends, if declared.

b. Public and Private Offerings:

On August 17, 2015, the Company completed a public offering of 7,666,665 ordinary shares, nominal value ILS 0.15 per share at an offering price of \$1.65 per share, which includes the full exercise of the underwriter's over-allotment option of 999,999 ordinary shares. The Company received total proceeds of \$11,524, which is net of \$1,126 issuance expenses.

## CYREN LTD. AND ITS SUBSIDIARIES

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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

#### NOTE 8: SHAREHOLDERS' EQUITY (Cont.)

On November 6, 2017, the Company completed a private offering to Warburg Pincus, a global private equity firm ("WP"), of 10,595,521 ordinary shares, nominal value ILS 0.15 per share at an offering price of \$1.85 per share. The Company received total proceeds of \$18,971, which is net of \$631 issuance expenses. Subsequent to private offering, WP executed a share tender offer to the Company's shareholders which was finalized on December 24, 2017, after which WP holds approximately 52% of the Company's shares.

#### c. Conversion of convertible notes:

On March 27, 2017 the Company issued \$6.3 million aggregate principal amount of convertible notes in a private offering. The notes were unsecured, unsubordinated obligations of Cyren and carried a 5.0% interest rate, payable semi-annually in (i) 50% cash and (ii) 50% cash or ordinary shares at Cyren's election. The notes had a 2.5-year term and were expected to mature in September 2019, unless converted in accordance with their terms prior to maturity. The notes had a conversion price of \$2.50 per share. The conversion price was subject to adjustment should future equity issuances be priced at less than \$2.10 per share. In addition, the notes would be subject to immediate conversion upon any change in control in the Company.

On September 27, 2017, the Company issued 11,594 shares on account of accrued interest based on a conversion price of \$2.50 per share.

On November 6, 2017, the Company completed a private offering to WP at a price per share of \$1.85 as described in note 8b. above. According to the terms of the convertible notes, the conversion price was adjusted to \$1.85.

On November 30, 2017, \$925 of the convertible notes balance was converted into 500,000 shares at a price per share of \$1.85.

On December 24, 2017, WP completed a share tender offer after which WP held approximately 52% of the Company's shares. In accordance with the terms of the convertible notes, this constituted a change of control event, and the convertible notes including all accrued interest as of December 24, 2017 were converted into 2,944,813 shares at a price per share of \$1.85.

Subsequently, as of December 31, 2017 there are no convertible notes or accrued interest on account of convertible notes on the Company's balance sheet.

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**CYREN LTD. AND ITS SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**(in thousands of U.S. dollars, except share and per share data)**

**NOTE 8: SHAREHOLDERS' EQUITY (Cont.)**

d. Equity Incentive Plan:

In 1996, the Company adopted the 1996 CSI Stock Option Plan for granting options to its U.S. employees and consultants to purchase ordinary shares of the Company, which was replaced in 2006 by the 2006 U.S. Stock Option Plan. Until 1999, the Company issued options to purchase ordinary shares to its Israeli employees pursuant to individual agreements. In 1999, the Company approved the 1999 Section 3(i) share option plan for its Israeli employees and consultants, (which was amended in 2003 and renamed the "Amended and Restated Israeli Share Option Plan"). On December 22, 2016, the Company's shareholders approved a new stock option plan - the 2016 Equity Incentive Plan (the "Equity Incentive Plan"). This plan, along with its respective Israeli appendix, has replaced all existing employee and consultants stock option plans which have terminated.

The Equity Incentive Plan allows for the issuance of Restricted Stock Units ("RSUs"), as well as options. The options and RSUs generally vest over a period of four years. Options granted under the Equity Incentive Plan generally expire after six years from the date of grant. Options and RSUs cease vesting upon termination of the optionee's employment or other relationship with the Company. The per share exercise price for options shall be no less than 100% of the fair market value per ordinary share on the date of grant. Any options and RSUs that are canceled or not exercised within the option term become available for future grant.

As of December 31, 2017, an aggregate of 3,144,103 ordinary shares of the Company are still available for future grant under the Equity Incentive Plan.

e. Non-Employee Directors stock option plan:

In 1999, the Company adopted the 1999 Directors Stock Option Plan, and in 2008 shareholders approved an extension of the term of this plan through July 13, 2019. On December 15, 2006, the plan was extended through 2016. On December 22, 2016, the Company's shareholders approved a new stock option plan - the 2016 Non-Employee Director

Equity Incentive Plan (the “Non-Employee Director Plan”). This plan, along with its respective Israeli appendix, has replaced all existing Directors stock option plans which have terminated.

The Non-Employee Director Plan allows for the issuance of Restricted Stock Units (“RSUs”), as well as options. Each option and RSU granted under the Non-Employee Plan generally vests over a period of four years. Each option has an exercise price equal to the fair market value of the ordinary shares on the grant date of such option. Options granted under the Non-Employee Director Plan generally expire after six years from the date of grant. Options and RSUs cease vesting upon termination of the relationship with the Company.

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## CYREN LTD. AND ITS SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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

## NOTE 8: SHAREHOLDERS' EQUITY (Cont.)

As of December 31, 2017, an aggregate of 450,412 ordinary shares of the Company are still available for future grant to non-employee directors.

The finalization of the tender offer executed by WP, as described in note 8b., resulted in a Change of Control event ("COC") in accordance with the Company's equity incentive plans. As a result, as of December 24, 2017, fifty percent f. of all outstanding options became fully vested, and the remainder will vest over a period of one year, or upon termination of the relationship with the optionee. In addition, as of December 24, 2017, all outstanding RSUs became fully vested in accordance with the Non-Employee Director Plan.

g. A summary of the Company's employees and directors' stock option activity under the plans is as follows:

	Number of options	Weighted average exercise price	Weighted average remaining contractual term (years)	Aggregate intrinsic value
Outstanding at January 1, 2017	5,521,630	\$ 2.39	3.96	\$ 1,141
Granted	1,823,911	1.96		
Exercised	(59,654 )	1.56		
Expired and forfeited	(1,235,067)	2.38		
Outstanding at December 31, 2017	6,050,820	\$ 2.27	3.56	\$ 2,498
Options vested and expected to vest at December 31, 2017	5,895,123	\$ 2.28	3.53	\$ 2,407
Exercisable options at December 31, 2017	4,630,420	\$ 2.37	3.21	\$ 1,663

Weighted average fair value of options granted during the year \$ 0.76

As of December 31, 2017, the Company had \$812 of unrecognized compensation expense related to non-vested stock options, expected to be recognized over a remaining weighted average period of 0.99 years.

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## CYREN LTD. AND ITS SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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

## NOTE 8: SHAREHOLDERS' EQUITY (Cont.)

h. The employee and directors options outstanding as of December 31, 2017, have been separated into ranges of exercise prices, as follows:

Outstanding		Weighted average remaining contractual life in years	Weighted average exercise price per share	Exercisable	
Exercise price per share	Options outstanding			Options exercisable	Weighted average exercise price per share
\$1.44 - \$1.91	1,742,214	4.32	\$ 1.55	1,255,970	\$ 1.54
\$2.00 - \$2.13	1,779,918	5.00	\$ 2.03	970,971	\$ 2.04
\$2.29 - \$2.91	862,909	1.52	\$ 2.62	860,460	\$ 2.62
\$3.00 - \$3.14	1,146,642	2.54	\$ 3.03	1,040,904	\$ 3.03
\$3.16 - \$3.32	519,137	1.71	\$ 3.27	502,115	\$ 3.26
	6,050,820	3.56	\$ 2.27	4,630,420	\$ 2.37

i. A summary of the Company's RSUs activity under the plans is as follows:

	Number of RSUs
Outstanding at January 1, 2017	30,000
Granted	60,000
Vested	(90,000 )
Forfeited	-
Outstanding at December 31, 2017	-

j. Options to non-employees and non-directors:

Issuance date	Options outstanding	Exercise price per share	Options exercisable	Exercisable through
February 16, 2012	53,000	\$ 3.16	53,000	Feb-18
February 13, 2013	5,000	\$ 3.14	5,000	Feb-19
August 1, 2013	150,000	\$ 3.08	150,000	Aug-19
May 14, 2014	3,000	\$ 3.32	2,845	May-20
February 18, 2015	3,000	\$ 3.00	2,566	Feb-21
February 10, 2016	40,000	\$ 1.44	28,750	Feb-22
January 24, 2017	25,000	\$ 2.00	12,500	Jan-23
	279,000		254,661	

The options vest and become exercisable at a rate of 1/16 of the options every three months.

**CYREN LTD. AND ITS SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS****(in thousands of U.S. dollars, except share and per share data)**

## NOTE 8: SHAREHOLDERS' EQUITY (Cont.)

As of December 31, 2017, the Company had approximately \$28 of unrecognized compensation expense related to non-employee non-vested stock options, expected to be recognized over a weighted average period of 1.00 years.

k. The total stock-based compensation expense related to all of the Company's equity-based awards, recognized for the years ended December 31, 2017, 2016 and 2015, was as follows:

	Year ended December 31,		
	2017	2016	2015
Cost of revenues	\$207	\$73	\$64
Research and development	505	314	302
Sales and marketing	553	198	251
General and administrative	795	395	449
	\$2,060	\$980	\$1,066

## NOTE 9: INCOME TAXES

a. Corporate tax structure:

i. Corporate tax rates and real capital gains tax in Israel were 24% in 2017, 25% in 2016 and 26.5% in 2015.

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), 2016* which reduces the corporate income tax rate to 24% effective from January 1, 2017 and to 23% effective from January 1, 2018.

ii. The Company's German subsidiary is subject to German tax at a consolidated rate of approximately 30%.

iii. Other Non-Israeli subsidiaries are taxed according to the tax laws in their respective countries of residence.

The Company does not provide deferred tax liabilities when it intends to reinvest earnings of foreign subsidiaries indefinitely. Undistributed earnings of foreign subsidiaries that are considered to be permanently reinvested amounted to \$467 and unrecognized deferred tax liability related to such earnings amounted to \$123 as of December 31, 2017.

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**CYREN LTD. AND ITS SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**(in thousands of U.S. dollars, except share and per share data)**

NOTE 9: INCOME TAXES (Cont.)

b. Tax benefits under Israel's Law for the Encouragement of Industry (Taxation), 1969:

The Company may currently qualify as an "industrial company" within the definition of the Law for the Encouragement of Industry (Taxation), as such, it may be eligible for certain tax benefits, including, inter alia, special depreciation rates for machinery, equipment and buildings, amortization of patents, certain other intangible property rights and deduction of share issuance expenses.

c. U.S. Tax Reform:

On December 22, 2017, the United States enacted the Tax Cuts and Jobs Act (the "U.S. Tax Reform"); a comprehensive tax legislation that includes significant changes to the taxation of business entities. These changes include several key tax provisions that might impact the Company, among others: (i) a permanent reduction to the statutory federal corporate income tax rate from 35% to 21% effective for tax years beginning after December 31, 2017; (ii) a partial limitation on the tax deductibility of business interest expense; (iii) a shift of the U.S. taxation of multinational corporations from a tax on worldwide income to a territorial system (along with certain rules designed to prevent erosion of the U.S. income tax base) and (iv) a one-time deemed repatriation tax on accumulated offshore earnings held in cash and illiquid assets, with the latter taxed at a lower rate.

Deferred tax effects of the U.S. Tax Reform:

As a result of the U.S. Tax Reform and the reduced U.S. corporate income tax rate, the Company has remeasured its deferred taxes as of December 31, 2017 to reflect the reduced rate that will apply in future periods, when these deferred taxes are settled or realized.

As the Company completes its analysis of the U.S. Tax Reform and incorporates additional guidance that may be issued by the U.S. Treasury Department, the IRS or other standard-setting bodies, the Company may identify additional effects not reflected as of December 31, 2017.

d. Net operating loss carry-forwards:

As of December 31, 2017, Cyren's net operating loss carryforwards for tax purposes amounted to \$75,249 and capital loss carryforwards of \$15,216 which may be carried forward and offset against taxable income in the future, for an indefinite period.

As of December 31, 2017 the U.S. subsidiary had net operating loss carryforwards of \$38,006 for federal tax purposes and \$8,295 for state tax purposes. These losses may offset any future U.S. taxable income of the U.S. subsidiary and will expire in the years 2018 through 2037.

**CYREN LTD. AND ITS SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS****(in thousands of U.S. dollars, except share and per share data)**

## NOTE 9: INCOME TAXES (Cont.)

On December 24, 2017, a “change in the respective ownership” event occurred upon the completion of the WP tender offer as described in note 8b, and in accordance with the relevant provisions of the Internal Revenue Code 382 of 1986 and similar state provisions. Therefore, utilization of U.S. net operating losses are subject to substantial annual limitation. Management believes that the annual limitations will result in the partial expiration of net operating losses before utilization.

Management currently believes that based upon its estimations for future taxable income, it is more likely than not that the deferred tax assets regarding the loss carryforwards will not be utilized in the foreseeable future. Thus, a valuation allowance was provided to reduce deferred tax assets to their realizable value.

## e. Deferred income taxes:

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. As of December 31, 2017 and 2016, the Company’s deferred taxes were in respect of the following:

	December 31,	
	2017	2016
Deferred tax assets:		
Net operating loss carryforwards	\$25,645	\$48,740
Capital loss carryforwards	3,500	3,603
Other	2,295	2,693
Deferred tax assets before valuation allowance	31,440	55,036
Valuation allowance	(30,177)	(54,068)

Deferred tax asset, net of valuation allowance	1,263	968
Deferred tax liabilities:		
Intangibles	(2,432 )	(2,206 )
Deferred revenue	(186 )	(136 )
Deferred tax liability	(2,618 )	(2,342 )
Deferred tax liability, net (*)	\$(1,355 )	\$(1,374 )

(\*) The entire amount is due to foreign deferred taxes

**CYREN LTD. AND ITS SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**(in thousands of U.S. dollars, except share and per share data)**

NOTE 9: INCOME TAXES (Cont.)

f. Reconciliation of the theoretical tax benefit (expense):

For the year ended December 31, 2017, the main reconciling item between the Company's statutory tax rate and the effective tax rate relates to the increase in the valuation allowance in the amount of \$3,494 due to the increase in carryforward losses (prior to the effect of the "change in the respective ownership" which resulted in a parallel decrease in the deferred tax asset and the valuation allowance).

For the year ended December 31, 2016, the main reconciling item between the Company's statutory tax rate and the effective tax rate relates to the increase in the valuation allowance in the amount of \$1,586 due to the net increase in carryforward losses.

For the year ended December 31, 2015, the main reconciling item between the Company's statutory tax rate and the effective tax rate relates to the increase in the valuation allowance in the amount of \$1,329 due to the net increase in carryforward losses.

The statutory tax rate used in the reconciliation is the Israeli corporate tax rate.

g. Loss before tax benefit (expense) consists of the following:

	Year ended December 31,		
	2017	2016	2015
Domestic	\$(10,452)	\$(5,034)	\$(4,679)

Foreign	(5,238 )	(1,181)	3
Loss before tax benefit (expense)	\$(15,690)	\$(6,215)	\$(4,676)

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## CYREN LTD. AND ITS SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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

## NOTE 9: INCOME TAXES (Cont.)

h. Tax benefit (expense) is comprised of the following:

	Year ended December 31,		
	2017	2016	2015
Current taxes:			
Foreign	\$(133)	\$(212)	\$(389)
Domestic	-	-	(2 )
	\$(133)	\$(212)	\$(391)
Deferred taxes:			
Foreign	\$175	\$214	\$268
Domestic	-	-	-
	\$175	\$214	\$268
Tax benefit (expense), net	\$42	\$2	\$(123)

i. A reconciliation of the beginning and ending amount of unrecognized tax benefits related to uncertain tax positions is as follows:

	December 31,	
	2017	2016
Beginning balance	\$119	\$131
Increases (decrease) related to tax positions taken during prior years	137	(7 )
Effect of exchange rate	16	(5 )

Ending balance	\$272	\$119
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The entire amount of unrecognized tax benefits, if recognized, would reduce the Company's annual effective tax rate. Unrecognized tax benefits are presented on the consolidated balance sheets under other long term liabilities.

j. Tax assessments:

As of December 31, 2017, the Company and certain of its subsidiaries filed Israeli and foreign income tax returns. The statute of limitations relating to the consolidated Israeli income tax return is closed for all tax years up to and including 2013.

The statute of limitations related to tax returns of the Company's U.S subsidiary is closed for all tax years up to and including 2013.



**CYREN LTD. AND ITS SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS****(in thousands of U.S. dollars, except share and per share data)**

## NOTE 9: INCOME TAXES (Cont.)

The statute of limitations related to tax returns of the Company's German subsidiary is closed for all tax years up to and including 2013.

The Company believes that it has adequately provided for reasonably foreseeable outcomes related to tax audits and settlements. The final tax outcome of any Company tax audits could be different from that which is reflected in the Company's income tax provisions and accruals. Such differences could have a material effect on the Company's income tax provision and net income (loss) in the period in which such determination is made.

## NOTE 10: GEOGRAPHIC INFORMATION

The Company manages its business on a basis of one reportable segment and follows the requirements of ASC 280 "Segment Reporting".

## a. Revenues from external customers:

	Year ended		
	December 31,		
	2017	2016	2015
United States	\$12,407	\$12,921	\$11,424
Europe	12,992	12,446	10,786
Asia Pacific	2,724	2,696	3,436
Israel	2,397	2,832	1,958
Other	279	88	158
	\$30,799	\$30,983	\$27,762

b. The Company's net amount of property and equipment is as follows:

	December 31	
	2017	2016
Israel	\$685	\$751
United States	1,490	1,036
Germany	287	181
Other	325	113
	\$2,787	\$2,081

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## CYREN LTD. AND ITS SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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

## NOTE 11: FINANCIAL EXPENSE, NET

	Year ended December 31,		
	2017	2016	2015
Income:			
Interest on cash and cash equivalents	\$2	\$1	\$1
Foreign currency exchange differences, net	-	-	78
	2	1	79
Expenses:			
Change in fair value of embedded conversion feature on convertible notes	(1,349)	-	-
Interest and accretion of discount	(735 )	(20 )	(288)
Foreign currency exchange differences, net	(248 )	(88 )	-
Other	(50 )	(40 )	(34 )
	(2,382)	(148)	(322)
	\$(2,380)	\$(147)	\$(243)

**CYREN LTD. AND ITS SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS****(in thousands of U.S. dollars, except share and per share data)**

## NOTE 12: RELATED PARTIES

a. Balances with related parties:

	December 31 2017 2016	
Trade receivables	\$-	\$226
Allowance for doubtful debts	-	(226)
Trade receivables, net (*)	\$-	\$-
Prepaid expenses (**)	\$31	\$-

(\*) Related to transactions with imatrix. The Company was a minority shareholder in imatrix corp., a Japanese company (“imatrix”). In September 2015, the Company required imatrix to repurchase all imatrix shares held by the Company pursuant to certain provisions of the Companies Act of Japan. However, since the parties could not agree on the correct valuation for such shares, in November 2015, the Company petitioned the Kawasaki Branch of Yokohama District Court in Japan to determine the share valuation of the Company’s shares in imatrix Corporation. In addition, the Company had also filed a claim regarding unpaid royalties pursuant to a commercial agreement between the two parties while imatrix separately claimed damages for unlawful termination of such agreement. In April 2017, the parties reached a settlement pursuant to which imatrix paid \$676 to Cyren to settle all such claims. Out of the total settlement, \$226 were paid for unpaid royalties and \$450 were paid on account of the imatrix shares held by the Company. The \$450 is presented as other income in the consolidated statement of operations. See note 12b. for further details.

(\*\*) Related to a software license agreement with a related party. See note 12b. for further details.

**CYREN LTD. AND ITS SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS****(in thousands of U.S. dollars, except share and per share data)**

## NOTE 12: RELATED PARTIES (Cont.)

## b. Transactions with related parties:

	Year ended December 31,		
	2017	2016	2015
Revenues	\$-	\$ -	\$226
Bad debt collected / (expenses) (*)	\$226	\$ -	\$(226)
Gain from sale of investment in affiliate (*)	\$450	\$ -	\$-
Software licensing expenses (**)	\$21	\$ -	\$-

(\*) Transactions with imatrix. The effects arising from imatrix's bad debt were recorded under general and administrative expenses on the consolidated statements of operations. The gain from the sale of the investment in imatrix was recorded as other income on the consolidated statements of operations.

(\*\*) Expenses arising from a software licensing agreement which was executed in March 2017. At the time of execution, the vendor was not a related party. On December 24, 2017, upon completion of the tender offer by WP, the vendor became a related party. The expenses were recorded under research and development expenses net, on the consolidated statements of operations.

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