CYREN LTD.

FORM 10-Q
(Quarterly Report)

Filed 08/12/20 for the Period Ending 06/30/20

Telephone	7037603320
CIK	0001084577
Symbol	CYRN
SIC Code	7372 - Services-Prepackaged Software
Industry	Software
Sector	Technology
Fiscal Year	12/31

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

FORM 10-Q

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

For the quarterly period ended June 30, 2020

OR

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

For the transition period from ___________to __________

Commission file number: 000–26495

CYREN LTD.

(Exact name of Registrant as specified in its charter)

Israel	Not applicable
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
10 Ha-Menofim St., 5th Floor Herzliya, Israel	4672561
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code 011–972–9–863–6888

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

Title of Each Class	Trading Symbol(s)	Name of Each Exchange on Which Registered
Ordinary Shares, par value ILS 0.15 per share	CYRN	Nasdaq Capital Market

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

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

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

Large accelerated filer	☐	Accelerated filer	☐
Non-Accelerated filer	☒	Smaller reporting company	☒
		Emerging growth company	☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act) Yes ☐ No ☒

Indicate the number of shares outstanding of each issuer's classes of common stock, as of the latest practicable date: 60,413,557 ordinary shares as of July 31, 2020.

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CYREN LTD.

CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

AS OF JUNE 30, 2020

($USD in thousands, except share and per share amounts)
(Unaudited)

PART I. FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS.

CYREN LTD.
CONDENSED CONSOLIDATED BALANCE SHEETS
($USD in thousands, except share and per share amounts)

	June 30, 2020 Unaudited	December 31, 2019
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	$ 16,103	$ 11,551
Trade receivables (net of allowances for doubtful accounts of $176 and $129, respectively)	2,366	2,187
Deferred commissions	1,037	948
Prepaid expenses and other receivables	1,203	819
Total current assets	20,709	15,505
LONG-TERM ASSETS:		
Long-term deferred commissions	1,352	1,580
Long-term lease deposits	850	767
Operating lease right-of-use assets	11,466	8,695
Severance pay fund	582	659
Property and equipment, net	4,675	4,410
Intangible assets, net	9,338	8,966
Goodwill	20,251	20,246
Total long-term assets	48,514	45,323
Total assets	$ 69,223	$ 60,828

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

CYREN LTD.
CONDENSED CONSOLIDATED BALANCE SHEETS
($USD in thousands, except share and per share amounts)

	June 30, 2020 Unaudited	December 31, 2019
LIABILITIES AND SHAREHOLDERS' EQUITY		
CURRENT LIABILITIES:		
Trade payables	$ 1,106	$ 1,184
Employees and payroll accruals	3,714	3,427
Accrued expenses and other liabilities ($31 and $40 attributable to related parties, respectively)	1,200	1,145
Operating lease liabilities	1,886	1,946
Deferred revenues	9,714	7,208
Total current liabilities	17,620	14,910
LONG-TERM LIABILITIES:		
Deferred revenues	1,460	1,956
Convertible notes (related party)	10,000	10,000
Convertible Debentures ($231 attributable to related parties)	9,447	-
Long-term operating lease liabilities	9,966	7,174
Deferred tax liability	677	796
Accrued severance pay	735	811
Other liabilities	633	470
Total long-term liabilities	32,918	21,207
COMMITMENTS AND CONTINGENCIES		
SHAREHOLDERS' EQUITY:		
Ordinary shares nominal value ILS 0.15 par value - Authorized: 110,000,000 shares at June 30, 2020 (Unaudited) and December 31, 2019; Issued and Outstanding: 60,197,223 and 59,372,173 shares at June 30, 2020 (Unaudited) and December 31, 2019, respectively	2,345	2,309
Additional paid-in capital	257,045	255,741
Accumulated other comprehensive loss	(2,011)	(2,010)
Accumulated deficit	(238,694)	(231,329)
Total shareholders' equity	18,685	24,711
Total liabilities and shareholders' equity	$ 69,223	$ 60,828

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

CYREN LTD.
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
($USD in thousands, except share and per share amounts)
(Unaudited)

	Three months ended June 30,		Six months ended June 30,	
	2020	2019	2020	2019
	Unaudited		Unaudited	
Revenues	$ 9,181	$ 9,711	$ 18,830	$ 19,366
Cost of revenues	3,778	3,789	7,376	7,789
Gross profit	5,403	5,922	11,454	11,577
Operating expenses:				
Research and development, net	4,151	4,297	7,495	8,474
Sales and marketing	3,146	3,590	6,182	7,446
General and administrative	2,476	2,398	4,690	4,830
Total operating expenses	9,773	10,285	18,367	20,750
Operating loss	(4,370)	(4,363)	(6,913)	(9,173)
Other income, net	2	17	8	265
Financial expenses, net [(1)]	(290)	(268)	(521)	(321)
Loss before taxes on income	(4,658)	(4,614)	(7,426)	(9,229)
Tax benefit	44	41	61	80
Loss	$ (4,614)	$ (4,573)	$ (7,365)	$ (9,149)
Basic and diluted loss per share	$ (0.08)	$ (0.08)	$ (0.12)	$ (0.17)
Weighted average number of shares used in computing basic and diluted loss per share	60,041	54,424	59,862	54,300

(1) Transactions with related parties are included in the line item above (refer to Footnote 8, Related Parties, of the Notes to Consolidated Financial Statements for additional information).

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

CYREN LTD.
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS
($USD in thousands, except share and per share amounts)
(Unaudited)

	Three months ended June 30,		Six months ended June 30,	
	2020	2019	2020	2019
	Unaudited		Unaudited	
Loss	$ (4,614)	$ (4,573)	$ (7,365)	$ (9,149)
Other comprehensive income (loss):				
Foreign currency translation adjustments	287	276	(1)	(96)
Comprehensive loss	$ (4,327)	$ (4,297)	$ (7,366)	$ (9,245)

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

CYREN LTD.
CONDENSED CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY
($USD in thousands, except share amounts)
(Unaudited)

	Three months ending June 30, 2019						
	Number of outstanding ordinary shares	**Share capital**	**Additional paid-in capital**	**Treasury shares**	**Accumulated other comprehensive income (loss) (*)**	**Accumulated deficit**	**Total shareholders' equity**
Balance as of March 31, 2019 (Unaudited)	54,260,357	$ 2,097	$ 245,527	$ (416)	$ (2,038)	$ (217,800)	$ 27,370
Issuance of treasury shares upon exercise of options and vesting of restricted share units	145,524	-	(91)	416	-	(87)	238
Issuance of ordinary shares upon exercise of options and vesting	59,476	-	85	-	-	-	85
Payment of interest in shares	35,950	1	70	-	-	-	71
Stock-based compensation related to employees, directors and consultants	-	-	314	-	-	-	314
Other comprehensive loss	-	-	-	-	276	-	276
Loss	-	-	-	-	-	(4,573)	(4,573)
Balance as of June 30, 2019 (Unaudited)	54,501,307	$ 2,098	$ 245,905	$ -	$ (1,762)	$ (222,460)	$ 23,781

	Six months ending June 30, 2019						
	Number of outstanding ordinary shares	**Share capital**	**Additional paid-in capital**	**Treasury shares**	**Accumulated other comprehensive income (loss) (*)**	**Accumulated deficit**	**Total shareholders' equity**
Balance as of December 31, 2018	54,057,208	$ 2,097	$ 245,570	$ (998)	$ (1,666)	$ (213,143)	$ 31,860
Issuance of treasury shares upon exercise of options and vesting of restricted share units	348,673	-	(403)	998	-	(168)	427
Issuance of ordinary shares upon exercise of options and vesting	59,476	-	85	-	-	-	85
Payment of interest in shares	35,950	1	70	-	-	-	71
Stock-based compensation related to employees, directors and consultants	-	-	583	-	-	-	583
Other comprehensive loss	-	-	-	-	(96)	-	(96)
Loss	-	-	-	-	-	(9,149)	(9,149)
Balance as of June 30, 2019 (Unaudited)	54,501,307	$ 2,098	$ 245,905	$ -	$ (1,762)	$ (222,460)	$ 23,781

	Three months ending June 30, 2020					
	Number of outstanding ordinary shares	Share capital	Additional paid-in capital	Accumulated other comprehensive income (loss) (*)	Accumulated deficit	Total shareholders' equity
Balance as of March 31, 2020 (Unaudited)	59,965,805	$ 2,335	$ 256,360	$ (2,298)	$ (234,080)	$ 22,317
Restricted stock units vested	37,500	2	(2)	-	-	-
Payment of interest in shares	129,376	5	138	-	-	143
Stock-based compensation related to employees, directors and consultants	-	-	507	-	-	507
Issuance of shares upon early conversion of Convertible Debentures	64,542	3	42			45
Other comprehensive loss	-	-	-	287	-	287
Loss	-	-	-	-	(4,614)	(4,614)
Balance as of June 30, 2020 (Unaudited)	60,197,223	$ 2,345	$ 257,045	$ (2,011)	$ (238,694)	$ 18,685

	Six months ending June 30, 2020					
	Number of outstanding ordinary shares	Share capital	Additional paid-in capital	Accumulated other comprehensive income (loss) (*)	Accumulated deficit	Total shareholders' equity
Balance as of December 31, 2019	59,372,173	$ 2,309	$ 255,741	$ (2,010)	$ (231,329)	$ 24,711
Restricted stock units vested	631,132	28	(28)	-	-	-
Payment of interest in shares	129,376	5	138	-	-	143
Stock-based compensation related to employees, directors and consultants	-	-	1,152	-	-	1,152
Issuance of shares upon early conversion of Convertible Debentures	64,542	3	42	-	-	45
Other comprehensive loss	-	-	-	(1)	-	(1)
Loss	-	-	-	-	(7,365)	(7,365)
Balance as of June 30, 2020 (Unaudited)	60,197,223	$ 2,345	$ 257,045	$ (2,011)	$ (238,694)	$ 18,685

(*) Relates to foreign currency translation adjustments.

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

CYREN LTD.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
($USD in thousands, except share and per share amounts)
(Unaudited)

	Six months ended June 30, 2020	Six months ended June 30, 2019
	Unaudited	
Cash flows from operating activities:		
Loss	$ (7,365)	$ (9,149)
Adjustments to reconcile loss to net cash used in operating activities:		
Loss on disposal of property and equipment	13	1
Depreciation	1,215	936
Stock-based compensation	1,152	583
Amortization of intangible assets	1,283	1,851
Amortization of deferred commissions	803	(612)
Amortization of operating lease right-of-use assets	922	713
Interest on convertible notes	283	282
Interest and amortization of debt issuance costs on Convertible Debentures	211	-
Other expenses income related to the earn-out consideration	-	(257)
Deferred taxes, net	(118)	(127)
Changes in assets and liabilities:		
Trade receivables	(162)	705
Prepaid expenses and other receivables	(383)	(775)
Deferred commissions	(664)	748
Change in long-term lease deposits	(86)	23
Trade payables	(114)	(823)
Employees and payroll accruals, accrued expenses and other liabilities	(47)	(224)
Deferred revenues	1,989	6,354
Accrued severance pay, net	1	68
Operating lease liabilities	(954)	(733)
Other long-term liabilities	163	(111)
Net cash used in operating activities	(1,858)	(547)
Cash flows from investing activities:		
Proceeds from sale of property and equipment	4	-
Capitalization of technology	(1,589)	(1,435)
Purchase of property and equipment	(1,438)	(950)
Net cash used in investing activities	(3,023)	(2,385)

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

CYREN LTD.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
($USD in thousands, except share and per share amounts)
(Unaudited)

	Six months ended June 30,			
	2020		2019	
	Unaudited			
Cash flows from financing activities:				
Proceeds from Convertible Debentures, net of debt issuance costs		9,442		-
Payment of earn-out consideration		-		(2,680)
Proceeds from options exercised		-		512
Net cash provided by (used in) financing activities		9,442		(2,168)
Effect of exchange rate changes on cash, cash equivalents and restricted cash		(13)		(48)
Increase (decrease) in cash, cash equivalents and restricted cash		4,548		(5,148)
Cash, cash equivalents and restricted cash at the beginning of the period		12,127		18,156
Cash, cash equivalents and restricted cash at the end of the period	$	16,675	$	13,008
Supplemental cash flow disclosures:				
Cash paid during the year for:				
Interest	$	144	$	553
Supplemental disclosure of non-cash transactions:				
Purchase of property and equipment by credit	$	(46)	$	(2)
Operating lease right-of-use asset exchanged for lease obligations		3,614		-
Issuance of shares on early conversion of Convertible Debentures		44		-
Issuance of shares for payment of interest on convertible notes		144		71
Net change in accrued payroll expenses related to capitalization of technology		(69)		(105)
Reconciliation of cash, cash equivalents and restricted cash as shown in the condensed consolidated statements of cash flow:				
Cash and cash equivalents	$	16,103	$	12,405
Restricted cash included in long-term restricted lease deposits		572		603
Total cash, cash equivalents and restricted cash	$	16,675	$	13,008

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

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 a cybersecurity company providing email security and threat intelligence solutions. 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. Operating segments are defined as components of a business that can earn revenues and incur expenses for which discrete financial information is available that is evaluated on a regular basis by the chief operating decision maker ("CODM"). The Company's CODM is its principal executive officer, who decides how to allocate resources and assess performance. A single management team reports to the CODM, who manages the entire business. The Company's CODM reviews consolidated results of operations to make decisions, allocate resources and assess performance and does not evaluate the profit or loss from any separate geography or product line.

NOTE 2:- SIGNIFICANT ACCOUNTING POLICIES

a. Interim Financial Statements

The accompanying consolidated balance sheet as of June 30, 2020, the consolidated statements of operations, the consolidated statements of comprehensive loss and the statement of changes in shareholders' equity for the three and six months ended June 30, 2020 and 2019, as well as the consolidated statements of cash flows for the six months ended June 30, 2020 and 2019, are unaudited. These unaudited interim consolidated financial statements have been prepared in accordance with generally accepted accounting principles in the United States ("U.S. GAAP") and applicable rules and regulations of the Securities and Exchange Commission regarding interim financial reporting. In management's opinion, the unaudited interim consolidated financial statements include all adjustments of a normal recurring nature necessary for the fair presentation of the Company's financial position as of June 30, 2020, as well as its results of operations for the three and six months ended June 30, 2020 and 2019. The results of operations for the three and six months ended June 30, 2020 are not necessarily indicative of the results to be expected for the year ending December 31, 2020 or for other interim periods or for future years.

b. Over the past several years, the Company has devoted substantially most of its effort to research and development, product development and increasing revenues through additional investments in sales & marketing. The Company generated a loss of $4,614 and $7,365 for the three- and six-months ending June 30, 2020, respectively, negative cash flow of $1,858 from operating activities in the six months ended June 30, 2020 and has an accumulated deficit of $238,694 as of June 30, 2020. The Company is planning to finance its operations from its existing and future working capital resources and to continue to evaluate additional sources of capital and financing. However, there is no assurance that additional capital and/or financing will be available to the Company, and even if available, whether it will be on terms acceptable to the Company or in amounts required. Accordingly, the Company's Board approved a contingency plan, to be effected if needed, in whole or in part, at its discretion, to allow the Company to continue its operations and meet its cash obligations. The contingency plan consists of cost reduction, which include mainly the following steps: reduction in consultants' expenses, headcount, compensation paid to key management personnel and capital expenditures. The Company and the Board believe that its existing capital resources will be adequate to satisfy its expected liquidity requirements for at least twelve months from the filing date.

NOTE 2:- SIGNIFICANT ACCOUNTING POLICIES (Cont.)

c. 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 interim 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.

d. Significant accounting policies

The accompanying unaudited interim financial statements should be read in conjunction with the Company's Annual Report on Form 10-K filed with the Securities and Exchange Commission (the "SEC") on March 30, 2020.

Other than the change described below, there have been no changes to the significant accounting policies described in the Annual Report on Form 10-K for the fiscal year ended December 31, 2019 that have had a material impact on the unaudited interim consolidated financial statements and related notes.

e. Recently issued and adopted pronouncements:

In August 2018, the FASB issued ASU No. 2018-15, Intangibles—Goodwill and Other—Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract ("ASU 2018-15"). ASU 2018-15 aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software. The update to the standard is effective for interim and annual periods beginning after December 15, 2019, with early adoption permitted. Entities can choose to adopt the ASU 2018-15 prospectively or retrospectively. The adoption of the standard had an immaterial impact on the Condensed Consolidated Financial Statements.

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 adoption of the standard had an immaterial impact on the Condensed Consolidated Financial Statements.

In June 2016, the FASB issued ASU 2016-13, Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments. ASU 2016-13 amends the impairment model to utilize an expected loss methodology in place of the currently used incurred loss methodology, which will result in the more timely recognition of losses. This standard requires entities to estimate an expected lifetime credit loss on financial assets ranging from short-term trade accounts receivable to long-term financings and report credit losses using an expected losses model rather than the incurred losses model that was previously used. The new accounting standard will be effective for the fiscal year beginning on January 1, 2020, including interim periods within that year. The adoption of the standard had an immaterial impact on the Condensed Consolidated Financial Statements.

NOTE 3:- LEASES

The Company adopted the new standard as of January 1, 2019, using the modified retrospective approach. The modified retrospective approach provides a method for recording existing leases at adoption and in comparative periods that approximates the results of a full retrospective approach. The Company has elected to utilize the available package of practical expedients permitted under the transition guidance within the new standard which does not require it to reassess the prior conclusions about lease identification, lease classification and initial direct costs.

In addition, the Company has elected the short-term lease exception for leases with a term of 12 months or less. As part of this election it will not recognize right-of-use assets and lease liabilities on the balance sheet for leases with terms less than 12 months. The Company also elected the practical expedient to not separate lease and non-lease components for all our leases. This will result in the initial and subsequent measurement of the balances of the right-of-use asset and lease liability being greater than if the policy election was not applied.

Some leases include one or more options to extend the lease. The exercise of options to extend the lease is typically at the Company's sole discretion; therefore, the majority of renewals to extend the lease terms are included in our right of use assets and lease liabilities as they are reasonably certain of exercise. The Company regularly evaluates the renewal options, and, when it is reasonably certain of exercise, it will include the renewal period in its lease term. Lease modifications result in remeasurement of the lease liability.

The right-of-use asset and lease liability are initially measured at the present value of the lease payments, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the Company's incremental borrowing rate based on the information available at the date of adoption in determining the present value of the lease payments.

Some of the real estate leases contain variable lease payments, including payments based on an index or rate. Variable lease payments based on an index or rate are initially measured using the index or rate in effect at lease adoption. Additional payments based on the change in an index or rate are recorded as a period expense when incurred.

Income from subleased properties is recognized and presented as a reduction of costs, allocated among operating expense line items, in the Company's Consolidated Statements of Operations and Comprehensive Loss. In addition to sublease rent, variable non-lease costs such as common-area maintenance and utilities are charged to subtenants over the duration of the lease for their proportionate share of these costs. These variable non-lease income receipts are recognized in operating expenses as a reduction to costs incurred by the Company in relation to the head lease.

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

NOTE 3:- LEASES (Cont.)

The Company has various operating leases for office space and vehicles that expire through 2030. Below is a summary of our operating right-of-use assets and operating lease liabilities as of June 30, 2020:

Operating lease right-of-use assets	$	11,466
Operating lease liabilities, current	$	1,886
Operating lease liabilities long-term		9,966
Total operating lease liabilities	$	11,852

The short-term lease liabilities are included within accrued expenses and other short-term liabilities in the consolidated balance sheet.

Minimum lease payments for our right of use assets over the remaining lease periods as of June 30, 2020, are as follows:

Year ended December 31,		
2020	$	1,179
2021		2,288
2022		1,690
2023		1,496
2024		1,528
Thereafter		5,704
Total undiscounted lease payments	$	13,885
Less: Interest		2,033
Present value of lease liabilities	$	11,852

Premises rent expense was $732 and $565 for the three months ended June 30, 2020 and 2019, respectively and $1,386 and $1,101 for the six months ended June 30, 2020 and 2019, respectively.

As of June 30, 2020, Cyren subleases two real estate properties. Sublease receipts were $119 and $69 for the three months ended June 30, 2020 and 2019 respectively and $190 and $138 for the six months ended June 30, 2020 and 2019, respectively.

The Company has elected the practical expedient to not separate lease components from non-lease components.

The weighted average remaining lease terms and discount rates for all of operating leases were as follows as of June 30, 2020:

Remaining lease term and discount rate:

Weighted average remaining lease term (years)	7.5
Weighted average discount rate	4.36%

NOTE 4:- COMMITMENTS AND CONTINGENCIES

a. Cyren Ltd., which was incorporated in Israel, partially financed its research and development expenditures under programs 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 $3,699 of participation payments from the IIA through June 30, 2020, but no grants since 2018. 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 $2,667 and $2,765 as of June 30, 2020 and December 31, 2019 respectively. For the three months ended, June 30, 2020 and 2019, $69 and $84, respectively, were recorded as cost of revenues with respect to royalties due to the IIA. For the six months ended, June 30, 2020 and 2019, $110 and $136, respectively, were recorded as cost of revenues with respect to royalties due to the IIA.

b. Litigation:

i. Between 2014 and 2015 the Company entered into arbitral proceedings with the former shareholders of eleven 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 arbitrational 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 arbitrational panel also ruled that Cyren pay legal expenses and interest on the claimed amounts, which were reflected in the year ending December 31, 2016 on the Company's balance sheet and in the consolidated statements of operations under adjustment to earn-out consideration.

The escrow account has been released to the former shareholders. The arbitrational award related to the 2013 earn-out consideration was declared enforceable by the applicable courts in Germany. Accordingly, on May 30, 2018, the Company paid the portion of the earn-out consideration in the amount of $604 that was declared enforceable by the German district court. The Company did not pay the remainder of the earn-out consideration, including accrued legal and interest, which appear on the Company's consolidated balance sheets as of December 31, 2018, and filed an appeal to the German Federal Supreme Court challenging the enforceability of the remaining amounts.

In February 2019, the parties signed a settlement agreement to resolve all pending claims, and on February 28, 2019 the Company paid $2,680 to settle the earn-out consideration in full. The total amount paid to resolve all claims was $256 less than the accrued liability, which generated "other income" as previously reflected in the consolidated statements of operations for the period ending December 31, 2019.

NOTE 4:- COMMITMENTS AND CONTINGENCIES (Cont.)

ii. 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 claimed that the Company had continued 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 claimed damages of approximately $3,150 and injunctive relief ordering the Company and/or its customers to delete any remaining data and to cease from utilizing such data.

The Company denied all claims and 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 appointed a mediator. The parties agreed to conduct a third-party audit of the Company's databases in the scope of the mediation.

In September 2018 and January 2019, the same vendor filed a lawsuit against two of the Company's customers in the United States. The vendor alleged that the clients misappropriated the vendor's trade secrets and sought injunctive relief and monetary damages in an amount to be determined. Both customers contended that the allegations related to the services they receive from the Company, and the Company agreed to indemnify both clients against these claims. On September 30, 2019, the court dismissed one of the lawsuits in its entirety for lack of personal jurisdiction and, in the second lawsuit, dismissed part of the claims with prejudice but granted the vendor the right to amend its other claims. On October 31, 2019, the vendor filed an amended complaint. In December 2019, the Company reached a settlement with the vendor and the Company agreed to pay $750; $375 in December 2019 and the remaining portion in January 2020. As of June 30, 2020, the Company has paid all amounts due under this settlement.

NOTE 5:- 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. Issuance of convertible notes:

On December 5, 2018 the Company issued $10,000 aggregate principal amount of convertible notes in a private offering. The notes are unsecured, unsubordinated obligations of Cyren and carry a 5.75% interest rate, payable semi-annually in (i) 50% cash and (ii) 50% cash or ordinary shares at Cyren's election. The notes have a 3-year term and are expected to mature in December 2021, unless converted in accordance with their terms prior to maturity. The notes were issued with a conversion price of $3.90 per share which was subject to adjustment using a weighted average ratchet mechanism based on the size and price of future equity offerings and the total shares outstanding. On November 7, 2019 Cyren announced the closing of a rights offering that raised gross proceeds of $8,019. As a result of this offering, the conversion price of the convertible notes was adjusted to $3.73. In addition, the notes would be subject to immediate conversion upon any change in control in the Company (or subject to repayment if the price in the change in control transaction is less than the conversion price). The Company incurred interest expense for the three and six months ended June 30, 2020 of $142 and $283, respectively. In June 2020, the Company paid semi-annual interest payments totaling, $288, of which $144 was paid in cash and the remaining portion through the issuance of 129,376 shares.

The Company has accrued interest of $28 as of June 30, 2020.

NOTE 5:- SHAREHOLDERS' EQUITY (Cont.)

c. Issuance of Convertible Debentures :

In March 2020, the Company entered into purchase agreements with a select group of accredited investors for the purchase of $10.25 million aggregate principal amount of Convertible Debentures in a private placement. Upon the closing, the Company received approximately $9.4 million (net of $0.8 million in issuance expenses).

The debentures are unsecured, subordinated obligations of Cyren and carry a 5.75% interest rate per annum, payable semi-annually in cash or ordinary shares at Cyren's election. The debentures have a four-year term and mature in March 2024, unless converted in accordance with their terms prior to maturity. The debentures have a conversion price of $0.75 per share and are convertible into 1,333 ordinary shares per $1,000 principal amount of debentures. The conversion price is subject to adjustment based on the price and timing of future equity offerings and other customary adjustments. Upon the satisfaction of price and other conditions, Cyren has the right to force the conversion of the debentures.

On June 11, 2020, one of the debenture holders converted $48 of principal plus interest of their debentures, which was a portion of their holding. The principal and interest was paid through the issuance of 64,542 shares.

The Company incurred interest expense for the three and six months ended June 30, 2020 of $187 and $211, of which $44 and $49 are related to the amortization of debt issuance costs, respectively.

The Company has accrued interest of $163 as of June 30, 2020.

d. Equity Incentive Plan:

On December 22, 2016, the Company's shareholders approved a new equity plan - the 2016 Equity Incentive Plan (the "Equity Incentive Plan"). This plan, along with its respective Israeli appendix, replaced all then-existing employee and consultants stock option plans.

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 cancelled or not exercised within the option term become available for future grant.

On July 30, 2019, the shareholders of the Company approved an increase in the number of Ordinary Shares reserved for issuance under the 2016 Equity Incentive Plan and its respective Israeli Appendix to a total of 11,200,000.

As of June 30, 2020, an aggregate of 9,233,414 ordinary shares of the Company are still available for future grant under the Equity Incentive Plan.

e. Non-Employee Directors stock option plan:

On December 22, 2016, the Company's shareholders approved a new equity plan - the 2016 Non-Employee Director Equity Incentive Plan (the "Non-Employee Director Plan"). This plan, along with its respective Israeli appendix, replaced all existing Directors stock option plans.

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.

On July 30, 2019 the shareholders of the Company approved an increase in the number of Ordinary Shares reserved for issuance under the Non-Employee Director Plan and its respective Israeli Appendix to a total of 1,150,000 Ordinary Shares.

As of June 30, 2020, an aggregate of 842,882 ordinary shares of the Company are still available for future grant to non-employee directors.

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

NOTE 5:- SHAREHOLDERS' EQUITY (Cont.)

f. 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 December 31, 2019	7,299,667	$ 2.16	3.81	$ -
Granted	96,500	1.18		
Exercised	-	-		
Expired and forfeited	(729,108)	2.64		
Outstanding at June 30, 2020	6,667,059	$ 2.10	3.53	$ 4
Options vested and expected to vest at June 30, 2020	6,434,586	$ 2.10	3.48	$ 4
Exercisable options at June 30, 2020	3,871,797	$ 2.23	2.54	$ -
Weighted average fair value of options granted during the quarter		$ 0.47		

As of June 30, 2020, the Company had $2,046 of unrecognized compensation expense related to non-vested stock options granted to employees and directors, expected to be recognized over a remaining weighted average period of 2.61 years.

g. The employee and director options outstanding as of June 30, 2020, have been separated into ranges of exercise prices, as follows:

	Outstanding			Exercisable	
Exercise price per share	Options outstanding	Weighted average remaining contractual life in years	Weighted average exercise price per share	Options exercisable	Weighted average exercise price per share
$1.06 - $1.64	1,599,721	4.01	$ 1.56	500,221	$ 1.46
$1.70 - $2.00	1,599,860	3.31	$ 1.87	1,180,775	$ 1.93
$2.05 - $2.29	1,447,490	4.22	$ 2.10	641,840	$ 2.10
$2.30 - $2.75	898,662	3.74	$ 2.39	529,200	$ 2.37
$2.90 - $3.20	1,121,326	2.09	$ 2.97	1,019,761	$ 2.97
	6,667,059	3.53	$ 2.10	3,871,797	$ 2.23

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

NOTE 5:- SHAREHOLDERS' EQUITY (Cont.)

h. Options to non-employees and non-directors:

Issuance date	Options outstanding	Exercise price per share	Options exercisable	Exercisable through
February 18, 2015	3,000	$ 3.00	3,000	Feb-21
February 10, 2016	40,000	$ 1.44	40,000	Feb-22
January 24, 2017	25,000	$ 2.00	25,000	Jan-23
	68,000		68,000	

The options vest and become exercisable at a rate of 1/16 of the options every three months.

As of June 30, 2020, the Company did not have any unrecognized compensation expense related to non-employee and non-director non-vested stock options.

i. A summary of the Company's RSUs activity for employees, directors and non-employees under the plans is as follows:

	Number of RSUs	Weighted average grant date fair value
Awarded and unvested at December 31, 2019	1,733,132	$ 2.09
Granted	514,000	1.30
Vested	(631,132)	2.49
Forfeited	(42,500)	2.30
Awarded and unvested at June 30, 2020	1,573,500	$ 1.66

As of June 30, 2020, the Company had approximately $2,087 of unrecognized compensation expense related to RSUs, expected to be recognized over a weighted average period of 2.53 years.

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

NOTE 5:- SHAREHOLDERS' EQUITY (Cont.)

j. The total stock-based compensation expense related to all of the Company's equity-based awards, recognized for the three and six months ended June 30, 2020 and 2019 was as follows:

	Three months ended June 30,		Six months ended June 30	
	2020	2019	2020	2019
	Unaudited		Unaudited	
Cost of revenues	$ 20	$ 33	$ 64	62
Research and development	64	58	159	125
Sales and marketing	43	48	139	97
General and administrative	380	175	790	299
	$ 507	$ 314	$ 1,152	$ 583

NOTE 6:- SEGMENT AND GEOGRAPHIC INFORMATION

Summary information about geographic areas:

ASC 280, "Segment Reporting," establishes standards for reporting information about operating segments. Operating segments are defined as components of an enterprise about which separate financial information is available that is evaluated regularly by the chief operating decision maker in deciding how to allocate resources and in assessing performance. The Company manages its business on the basis of one reportable segment and derives revenues from licensing of software and sales of professional services, maintenance and technical support (see note 1 for a brief description of the Company's business). The following is a summary of revenues within geographic areas:

a. The following sets forth total revenue by geographic area based on the billing address of the customer:

	Three months ended June 30,		Six months ended June 30,	
	2020	2019	2020	2019
United States	$ 4,440	$ 4,516	$ 8,874	$ 9,082
Europe	2,978	3,015	6,187	6,147
Asia Pacific	565	659	1,233	1,269
Israel	1,104	1,456	2,349	2,720
Other	94	65	187	148
	$ 9,181	$ 9,711	$ 18,830	$ 19,366

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

NOTE 6:- SEGMENT AND GEOGRAPHIC INFORMATION (Cont.)

b. Major customers:

During the quarter ended June 30, 2020 and 2019, 23% and 20%, respectively, of the Company's revenues were derived from a single customer. For the quarter ended June 30, 2020, no other customer accounted for more than 10% of total revenue.

c. Remaining performance obligations:

As of June 30, 2020, approximately $50,433 of revenue is expected to be recognized from remaining performance obligations that are unsatisfied (or partially unsatisfied) for non-cancellable contracts. The Company expects to recognize revenue on approximately 32% of these remaining performance obligations during the remainder of 2020, approximately 44% in 2021, with the remainder recognized thereafter.

c. Revenue generated by Customer Type:

	Three months ended June 30,		Six months ended June 30,	
	2020	2019	2020	2019
	Unaudited		Unaudited	
OEM/Embedded Security (*)	$ 7,511	$ 7,881	$ 15,417	$ 15,673
Enterprise/SMB (**)	1,670	1,830	3,413	3,693
	$ 9,181	$ 9,711	$ 18,830	$ 19,366

(*) This market represents customers who embed Cyren Threat Detection Services and Threat Intelligence Feeds into their infrastructure and/or products to protect their customers and users.

(**) In this market, Cyren provides enterprise customers email security products, threat intelligence and cloud-based sandbox threat analysis to protect their employees, data and IP.

d. The following sets forth the Company's property and equipment by geographic area:

	June 30, 2020	December 31 2019
	Unaudited	
Israel	$ 1,121	$ 1,291
United States	1,486	1,527
Germany	1,873	1,345
Other	195	247
	$ 4,675	$ 4,410

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

NOTE 7:- FINANCIAL EXPENSE, NET

	Three months ended June 30,		Six months ended June 30,	
	2020	**2019**	**2020**	**2019**
Income:				
Interest on cash and cash equivalents	$ -	$ 1	$ -	$ 22
Expenses:				
Interest expense, net of interest capitalized	(329)	(104)	(492)	(215)
Foreign currency exchange differences, net	59	(149)	7	(96)
Other	(20)	(16)	(36)	(32)
	$ (290)	$ (268)	$ (521)	$ (321)

NOTE 8:- RELATED PARTIES

a. Balances with related parties:

	June 30, 2020	December 31, 2019
	Unaudited	
Interest expense accrual – Convertible Notes (*)	$ 27	$ 32
Interest expense accrual – Convertible Debentures (**)	4	-
Long term Convertible Notes (***)	10,000	10,000
Long term Convertible Debentures (****)	231	-

(*) Related to the semi-annual interest payable due in June and December related to the Convertible Notes entered into December 5, 2018. See note 5b. for further details.

(**) Related to the semi-annual interest payable due in September and March related to the Convertible Debentures entered into March 19, 2020. See note 5c. for further details.

(***) Related to the Convertible Notes entered into December 5, 2018. See note 5b. for further details.

(****) Related to the Convertible Debentures entered into March 19, 2020 See note 5c. for further details.

b. Transactions with related parties:

	Three months ended June 30,		Six months ended June 30,	
	2020	**2019**	**2020**	**2019**
	Unaudited		Unaudited	
Interest expense on Convertible Notes (*)	$ 142	$ 142	$ 283	$ 282
Interest expense on Convertible Debentures (**)	$ 5	$ -	$ 5	$ -

(*) Related to the semi-annual interest payable due in June and December related to the Convertible Notes entered into December 5, 2018. See note 5b. for further details.

(**) Related to the semi-annual interest payable due in September and March related to the Convertible Debentures entered into March 19, 2020. See note 5c. for further details.

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ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with the information contained in our consolidated financial statements and the notes thereto. The following discussion and analysis includes forward-looking statements that involve certain risks and uncertainties, including, but not limited to, those described in Item 1A. Risk Factors in our most recent Annual Report on Form 10-K (the "2019 Annual Report"). Our actual results may differ materially from those discussed below. See "Special Note Regarding Forward-Looking Statements" below.

Overview

Purpose built for the cloud, Cyren is an early pioneer and leading innovator of Software-as-a-Service (SaaS) security solutions that protect businesses, their employees and customers against threats from email and the web.

Cyren's cloud-based approach to security sets us apart from other vendors in the market. Our security solutions are architected around the fundamental belief that cyber 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.

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.

Cyren's cloud security products and services fall into three categories:

- **Cyren Threat Detection Services –** these services detect a variety of threats in email and from the web, and are embedded into products from the world's leading technology and security vendors. Cyren Threat Detection Services include our Email Security Detection Engine, Malware Detection Engine, Web Security Engine, and Threat Analysis Service.

- **Cyren Threat Intelligence Data Products** – Cyren's threat intelligence feeds provide valuable threat intelligence data that can be used by enterprise or OEM customers to support threat detection, threat hunting and incident response. Cyren's threat intelligence feed offerings include IP Reputation Intelligence, Phishing Intelligence, Malware Intelligence and Zombie Intelligence.

- **Cyren Enterprise Email Security Products** – these include cloud-based solutions designed for enterprise customers, and are sold either directly or through channel partners. Cyren enterprise email security products include Cyren Email Security, a cloud-based secure email gateway and Cyren Inbox Security, an anti-phishing product for Microsoft 365 (formerly Office 365).

Key Opportunities and Challenges

Threat Landscape

The last several years have 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. Phishing attacks have become increasingly common, and no company, large or small seems immune to these threats. Additionally, with so many employees now working remotely due to the COVID-19 pandemic, companies may face an increased risk of attempted security breaches and incidents. Hackers have become more successful at monetizing these attacks, and as long as these activities prove lucrative, we expect these incidents to continue.

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, while cloud and mobility are becoming increasingly important, as evidenced by the following trends:

- Business internet traffic continues to increase every year;
- Data and applications are increasingly moving to the cloud;
- More and more users are working remotely, particularly since the COVID-19 pandemic;
- Buyers continue to move away from traditional on-premise solutions;
- Mature and legacy on premise deployments are reaching end of life and are increasingly being replaced by cloud and SaaS alternatives;
- IT security staffing shortages;
- Increasingly fast, sophisticated, expensive and high-profile attacks target organizations of all sizes;
- Compliance and regulatory mandates;
- Heightened cybercrime activity among commercial enterprises and nation states;
- Automation is increasingly considered critical to accelerating detection and protection; and
- The need to simplify operations through vendor consolidation.

These are some of the reasons why we believe 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.

Investments in Operations, Research and Development and Sales and Marketing

Our cost of revenues, research and development expenses, and sales and marketing expenses are all significant contributing factors to our operating losses. Over time, we expect that our utilization of our cloud infrastructure will increase and provide the opportunity for improved gross margins. Our investments in research and development are required in order to enhance and improve our solutions. In the future, we expect to lower the rate of Research and Development (R&D) investment as a percentage of revenue, and we expect to be able to drive more revenue from existing solutions rather than by adding new solutions. The return on our sales and marketing investment is tied to attracting new customers and enhancing our business with existing customers, thereby lowering the overall sales and marketing costs as a percent of revenues. In the second quarter of 2020, headcount declined as we continue to reduce expenses, and we believe managing future headcount and expense growth will be key in improving our gross and operating margins over time.

Growing Our Enterprise Business

Although all of our services are subscription services, our enterprise offerings on the CCS and CIS platforms are typically invoiced up front for an annual contract amount, or the full multi-year contract amount, at the start of the term. As a result, this business is expected to provide a larger immediate contribution to cash flow and better return on investment. As this enterprise business grows as a portion of our overall revenues, we expect to increase deferred revenue and our operating results and cash flow to improve, which will make us less reliant on other sources of capital in the future.

Components of our Operating Results

Revenue

We derive 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.

We sell all of our solutions as subscription services, either through OEMs and service providers, which are considered Cyren customers, or as complete security services directly, or indirectly via our partners, to enterprises.

Cost of Revenue

Personnel costs, which consist of salaries, benefits, bonuses and stock-based compensation for employees that operate our network and provide support services to our customers, as well as data center costs, are the most significant components of our cost of revenues. Other costs include third party contractors, royalties for use of third-party technologies, amortization of intangibles and depreciation of data center equipment. We expect these costs may increase in absolute dollars as we continue to optimize our cloud infrastructure and our support services but should reduce as a percentage of overall revenue.

Operating Expenses

Our operating expenses consist of research and development, sales and marketing, and general and administrative expenses. Personnel costs, which consist of salaries, benefits, bonuses, and stock-based compensation, are the most significant component of our operating expenses. Operating expenses also include allocated overhead costs for facilities, IT and depreciation. We expect operating expenses to increase in absolute dollars as we continue to grow.

Research and Development. Research and development expenses consist primarily of personnel costs, outsourced engineering and threat analysis services. We believe these investments are crucial for our ability to continue to enhance the functionality of our services, as well as to develop and introduce new services to the market. We expect research and development expenses may increase as we release new products during 2020, due to a reduction in capitalized costs which reduces R&D expenses. Development costs related to internal use technology that supports our security services are capitalized on the balance sheet, while other development costs are expensed as they are incurred.

Sales and Marketing. Sales and marketing expenses primarily include personnel costs, sales commissions, marketing activities, and travel associated with sales and marketing. We market and sell our services worldwide through our sales organization and distribution channels. We capitalize sales commissions paid to internal sales personnel and amortize these expenses over an estimated period of benefit that reflects the expected future revenue streams. We reduced sales and marketing expense in 2019 and in the first half of 2020 but anticipate that we may need to increase investment in these areas as we launch our new products and enhance our sales and marketing teams to support our further growth. Our sales personnel are typically not immediately productive, and therefore the increase in expenses we incur when adding personnel is not immediately accompanied by increased revenue and in some cases may not result in increased revenue if these new sales personnel are unsuccessful in becoming productive.

General and Administrative. General and administrative expenses consist primarily of personnel costs, audit fees, legal expenses, recruiting expenses and other general operating costs. We expect our general and administrative expenses to grow in absolute dollars as we continue our operational growth.

Other Income (Expense), net

Other income (expense), net consists generally of capital gain or loss from the sale of assets. However, in the first quarter of 2019, we reached a financial settlement with the former shareholders of eleven related to the legal dispute regarding the amount and timing of the earn-out payments related to the acquisition of eleven (the "eleven settlement"). Since the financial settlement was less than the accrued interest and the unpaid earn-out consideration on the Company's balance sheet, the difference was reflected as other income during the period.

Financial Expenses, net

Financial expenses, net consist mainly of foreign exchange gains and losses, interest expense on our outstanding debt and interest income earned on our cash and cash equivalents. In 2019 and 2020, these expenses also included income related to the accounting for a multi-year arrangement where a customer paid upfront the full contract value. This has been deemed a significant financing component under ASC 606.

Tax Benefit

Our tax benefit is derived primarily from income taxes in foreign jurisdictions in which we conduct business. We estimate income taxes in each of the jurisdictions in which we operate. This process involves determining income tax expense together with calculating the deferred income tax expense related to temporary differences resulting from the differing treatment of items for tax and accounting purposes. Deferred tax assets and liabilities are measured using enacted tax rates in effect for the year in which those temporary differences are expected to be recovered or settled. These temporary differences result in deferred tax assets and liabilities, which are included net as applicable within our balance sheets. For most of our recent years, we have incurred operating losses in Israel and the U.S., where we have recorded a full valuation allowance against our deferred tax assets in those jurisdictions.

RESULTS OF OPERATIONS

The following table sets forth financial data for the three and six months ended June 30, 2020 and 2019. Percentages may not add due to rounding.

	Three months ended June 30				Six months ended June 30			
	2020	**%**	**2019**	**%**	**2020**	**%**	**2019**	**%**
	Unaudited		**Unaudited**		**Unaudited**		**Unaudited**	
Revenues	$ 9,181	100%	$ 9,711	100%	$ 18,830	100%	$ 19,366	100%
Cost of revenues	3,778	41%	3,789	39%	7,376	39%	7,789	40%
Gross profit	5,403	59%	5,922	61%	11,454	61%	11,577	60%
Operating expenses:								
Research and development, net	4,151	45%	4,297	44%	7,495	40%	8,474	44%
Sales and marketing	3,146	34%	3,590	37%	6,182	33%	7,446	38%
General and administrative	2,476	27%	2,398	25%	4,690	25%	4,830	25%
Total operating expenses	9,773	106%	10,285	106%	18,367	98%	20,750	107%
Operating loss	(4,370)	(48)%	(4,363)	(45)%	(6,913)	(37)%	(9,173)	(47)%
Other income (expense), net	2	0%	17	0%	8	0%	265	1%
Financial expense, net	(290)	(3)%	(268)	(3)%	(521)	(3)%	(321)	(2)%
Loss before taxes	(4,658)	(51)%	(4,614)	(48)%	(7,426)	(39)%	(9,229)	(48)%
Tax benefit	44	0%	41	0%	61	0%	80	0%
Net loss	**$ (4,614)**	**(50)%**	**$ (4,573)**	**(47)%**	**$ (7,365)**	(39)%	**$ (9,149)**	(47)%

Three and Six Months Ended June 30, 2020 Compared to the Three and Six Months Ended June 30, 2019

Revenues. Revenues for the three and six months ended June 30, 2020 decreased $0.5 million, or 5%, and $0.5 million or 3%, respectively, as compared to the corresponding periods last year. The decrease was primarily driven by renewals of customer contracts at lower values, a one-time revenue item in the first quarter of 2020 and a small number of customer terminations in the Threat Intelligence and Enterprise businesses, but overall contract renewal rates were consistent with prior periods.

Cost of Revenues. Cost of revenues for the three and six months ended June 30, 2020 was consistent with three months ended June 30, 2019 and for the six months ended June 30, 2020 cost of revenues decreased $0.4 million or 5%, respectively, as compared to the corresponding period last year.

For the three months ended June 30, 2020, cost of revenues represented 41% of revenue, compared to 39% during the prior year, and accordingly gross margins for the period were 59% for the three months ended June 30, 2020 compared to 61% for the same period in the prior year. For the six months ended June 30, 2020 cost of revenues represented 39% of revenue, compared to 40% during the prior year, and accordingly gross margins for the period were 61% for the six months ended June 30, 2020 compared to 60% for the same period in the prior year. The decrease on a year to date basis is driven by a decrease in amortization of capitalized development expenses and intangible assets of $0.6 million, a decrease of $0.1 million in payroll and related costs primarily driven by lower headcount and a $0.1 million decrease in the use of outside services and consultants. Offsetting the overall decrease, was an increase of $0.4 million related to our continued investment in our global network and data centers as well as depreciation associated with investments in data center assets.

Operating Expenses. Total operating expenses for the three and six months ended June 30, 2020 decreased $0.5 million, or 5%, and $2.4 million or 11%, respectively, as compared to the corresponding periods last year.

Operating expenses for the three months ended June 30, 2020 and 2019 represented 106% of revenue, respectively. For the six months ended June 30, 2020, operating expenses represented 98% of revenue, compared to 107% during the prior year. The decrease in operating expenses was primarily due to a decrease in employee headcount, which totalled 229 employees at the end of June 30, 2020, compared to 265 employees at the end of June 30, 2019.

Research and Development, Net. Research and development expenses, net decreased $0.1 million, or 3%, and $1.0 million, or 12%, respectively, for the three and six months ended June 30, 2020, as compared to the corresponding periods last year. R&D expense, net for the three months ending June 30, 2020 represented 45% of revenue, compared to 44% a year ago. For the six months ending June 30, 2020, R&D expense, net represented 40% of revenue compared to 44% a year ago. R&D headcount was 119 employees as of June 30, 2020 compared to 136 as of June 30, 2019.

Capitalization of technology development, which reduces R&D expenses, decreased to $0.4 million for the three months ended June 30, 2020 from $0.7 million for the three months ended June 30, 2019 due to the launch of a new product in April 2020. The decrease in R&D expense, net is mainly driven by reduced employee headcount leading to lower payroll and related costs of $0.3 million and a decrease in travel of $0.1 million.

Capitalization of technology development, which reduces expenses, increased to $1.6 million for the six months ended June 30, 2020 from $1.4 million for the six months ended June 30, 2019 primarily driven by increased development late in 2019 and early 2020 in advance of the new product launch in April 2020. The decrease in R&D expense, net is also driven by reduced employee headcount leading to lower payroll and related costs of $0.6 million and a decrease in travel of $0.1 million.

Sales and Marketing. Sales and marketing expenses decreased $0.4 million, or 12%, and $1.3 million, or 17%, respectively, for the three and six months ended June 30, 2020, as compared to the corresponding periods last year. Sales and marketing expense for the three months ending June 30, 2020 represented 34% of revenue, compared to 37% a year ago. For the six months ending June 30, 2020, sales and marketing expense represented 33% of revenue compared to 38% a year ago. The decrease in sales and marketing expense was due to a reduction of overall sales and marketing headcount from 56 employees to 42 employees at the end of the second quarter of 2020 compared to the second quarter of 2019, as well as a reduction in overall marketing spend primarily related to travel, advertising and industry trade shows.

General and Administrative. General and administrative (G&A) expenses increased $0.1 million, or 3% for the three months ended June 30, 2020 and decreased $0.1 million, or 3%, for the six months ended June 30, 2020, as compared to the corresponding periods last year. G&A expense for the three months ending June 30, 2020 represented 27% of revenue, compared to 25% a year ago. For the six months ending June 30, 2020 and 2019, G&A expense represented 25% of revenue.

For the three months ended June 30, 2020 compared to the same period a year ago, stock-based compensation expense increased by $0.2 million due to new equity awards, payroll and other compensation costs increased by $0.1 million. These increases were offset by a decrease in one-time severance costs in 2019 of $0.2 million.

For the six months ended June 30, 2020 compared to the same period a year ago, stock-based compensation expense increased by $0.5 million due to new equity awards, payroll and other compensation costs increased by $0.1 million and costs associated with the use of outside services increased by $0.1 million. These increases were offset by a decrease in legal expenses of approximately $0.5 million related to the resolution of litigation in December 2019, lower bonus accruals compared to a year ago of $0.1 million and one-time severance costs in 2019 of $0.2 million.

Other Income (Expense), Net. Other income, net for the six months ended June 30, 2020 was $0.0 million, compared to an expense of $0.2 million for corresponding periods last year. During the first quarter of 2019, we reached a financial settlement with the former shareholders of eleven related to the legal dispute regarding the amount and timing of the earn-out payments related to the acquisition of eleven (the "eleven settlement"). Since the financial settlement was less than the accrued interest and the unpaid earn-out consideration on the Company's balance sheet, the difference was reflected as other income during the period. For additional information, please refer to Note 4 of the consolidated financial statements included elsewhere in this quarterly report on Form 10-Q (the "Quarterly Report").

Financial Expense, Net. Financial expenses, net, increased $0.02 million, or 8%, and $0.20 million, or 62%, respectively, for the three and six months ended June 30, 2020, respectively, as compared to the corresponding periods last year. The increase in expense is due mainly to an increase in interest expenses associated with the Convertible Debentures issued in March 2020. For additional information, please refer to Note 5 of the consolidated financial statements included elsewhere in this Quarterly Report. Interest expense, net, associated with the Convertible Notes and Debentures for the three and six months ended June 30, 2020 was $0.33 million and $0.49 million respectively, compared to $0.10 million and $0.21 million three and six months ended June 30, 2019. In addition, during the three and six months ended June 30, 2020 we also recorded income of $0.06 million and $0.01 million respectively, resulting from the effect of foreign currency exchange rate fluctuation compared to expense of $0.15 million and $0.10 million for three and six months ended June 30, 2019.

In addition, for the six months ended June 30, 2020, there was a $0.02 million decrease in interest income earned on our cash and cash equivalents compared to the six months ended June 30, 2019.

Effective Corporate Tax Rates

Corporate tax rates and real capital gains tax in Israel were 23% for the three months ended June 30, 2020 and 2019.

Our 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.

We do not provide deferred tax liabilities when we intend to reinvest earnings of foreign subsidiaries indefinitely. As of June 30, 2020, there are no undistributed earnings of foreign subsidiaries.

We may currently qualify as an "industrial company" within the definition of the Law for the Encouragement of Industry (Taxation) and, as such, we 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.

Net Operating Loss Carry-Forwards

As of December 31, 2019, the Israeli entity had net operating loss carryforwards for tax purposes of $91.7 million and capital loss carryforwards of $17.8 million which may be carried forward and offset against taxable income in the future, for an indefinite period.

As of December 31, 2019, the U.S. subsidiary had net operating loss carryforwards of $39.7 million for federal tax purposes and $11.1 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 2020 through 2039.

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.

LIQUIDITY AND CAPITAL RESOURCES

We finance our operations primarily from our cash and cash equivalents and cash from operations. As of June 30, 2020, and December 31, 2019, we had approximately $16.1 million and $11.6 million of cash and cash equivalents, respectively.

Our future capital requirements will depend on many factors, including, but not limited to our growth, market acceptance of our offerings, the timing and extent of spending to support our efforts to develop our platform and the expansion of sales and marketing activities. We may be required to seek additional equity or debt financing. In the event that additional financing is required from outside sources, we may not be able to raise it on terms acceptable to us or at all. If we are unable to raise additional capital when desired, our business, financial condition and results of operations could be adversely affected.

Outlook

During 2020, we expect to continue to incur capital expenditures associated with R&D and data center infrastructure. Over the past several years, the Company has devoted most of its effort to research and development, product development and increasing revenues through additional investments in sales & marketing. The Company generated a loss of $7.4 million and negative cash flow of $1.9 million from operating activities in the six-month period ended June 30, 2020 and has an accumulated deficit of $238.7 million as of June 30, 2020. The Company is planning to finance its operations from its existing and future working capital resources and to continue to evaluate additional sources of capital and financing. However, there is no assurance that additional capital and/or financing will be available to the Company, and even if available, whether it will be on terms acceptable to the Company or in amounts required. Accordingly, the Company's Board reviewed its contingency plan, to be effected if needed, in whole or in part, at its discretion, to allow the Company to continue its operations and meet its cash obligations. The contingency plan consists of cost reduction, which include mainly the following steps: reduction in consultants' expenses, headcount, compensation paid to key management personnel and capital expenditures. The Company and the Board believe that its existing capital resources and other future measures that may be implemented, if so required, will be adequate to satisfy its expected liquidity requirements for at least twelve months from the filing date.

Periodically, we have discussions with our customers regarding the renewal of their contracts and the renegotiation of the terms of such contracts at the time of renewal. For example, during the first quarter of 2020 we renewed a contract with one of our largest and most long-standing customers from an annual flat fee contract to a variable usage contract at a lower price per unit in return for a two-year extension. Also, during the second quarter of 2020 we renewed one of the contracts with our largest customer to another three-year term. However, the failure to renew future contracts, including the renewal of a large contract during the first half of 2021, could materially reduce our revenues and have a material adverse effect on our financial condition, results of operations and cash flow in 2021.

Cash Flows from Operating Activities

Cash used in operating activities was $1.9 million for the six months ended June 30, 2020 as compared to $0.5 million for the six months ended June 30, 2019.

For the six months ended June 30, 2020, the primary factors affecting our operating cash flows during the period were our net loss of $7.4 million, adjusted for non-cash items of $1.2 million of stock-based compensation expense, $0.9 million for amortization of our operating lease right-of-use assets, $2.5 million for depreciation and amortization of our property, equipment and intangible assets, and $0.8 million for amortization of deferred commissions. The primary drivers of the changes in operating assets and liabilities were a $2.0 million increase in deferred revenue, partially offset by an $1.0 million decrease in operating lease liabilities, and a $0.7 million decrease in capitalization of deferred commissions.

For the six months ended June 30, 2019, the primary factors affecting our operating cash flows during the period were our net loss of $9.1 million, adjusted for non-cash items of $0.6 million of stock-based compensation expense, $0.7 million for amortization of our operating lease right-of-use assets, $2.8 million for depreciation and amortization of our property, equipment and intangible assets, and $0.6 million for amortization of deferred commissions. The primary drivers of the changes in operating assets and liabilities were a $6.4 million increase in deferred revenue due to a 36-month upfront customer payment, $0.7 million in accounts receivable and $0.7 million in the capitalization of deferred commissions, partially offset by an $0.7 million decrease in operating lease liabilities, a $0.8 million decrease in prepaid expenses and other receivables capitalization of deferred commissions, and a decrease in trade payables of $0.8 million.

Cash Flows from Investing Activities

Cash used in investing activities was $3.0 million for the six months ended June 30, 2020 as compared to $2.4 million for the six months ended June 30, 2019. The increase of $0.6 million was primarily due to an increase in capital expenditures of $0.4 million and increased capitalization of technology of $0.2 million compared to the same period a year ago.

Cash Flows from Financing Activities

Cash provided by financing activities was $9.4 million for the six months ended June 30, 2020 as compared cash used in financing activities of $2.1 million for the six months ended June 30, 2019. The change of $11.5 million was primarily attributable to the Convertible Debentures issued in March 2020 with gross proceeds of $10.2 million, offset by payment of debt issuance costs of $0.8 million. This was offset by a payment of $2.7 million in conjunction with the eleven settlement which occurred in the first quarter of 2019. The eleven settlement was also offset by an increase in 2019 of $0.5 million generated from the exercise of stock options in the period.

Working Capital

As of June 30, 2020, and 2019, we had positive working capital of $3.1 million and $1.1 million, respectively. The increase in working capital during the six months ended June 30, 2020 as compared to the prior year was primarily due to the issuance of the Convertible Debentures in March 2020 (the "Convertible Debentures") offset by a significant upfront customer payment in the first quarter of 2019 for a multi-year agreement of which did not occur in the first quarter of 2020.

Financings

On December 5, 2018, the Company issued $10.0 million aggregate principal amount of convertible notes in a private placement to affiliates of an existing minority institutional shareholder (the "Convertible Notes"). The Convertible Notes are unsecured, unsubordinated obligations of Cyren and carry a 5.75% interest rate, payable semi-annually in (i) 50% cash and (ii) 50% cash or ordinary shares at Cyren's election. The Convertible Notes have a 3-year term and mature in December 2021, unless converted in accordance with their terms prior to maturity. The Convertible Notes were issued with a conversion price of $3.90 per share which was subject to adjustment using a weighted average ratchet mechanism based on the size and price of future equity offerings and the total shares outstanding.

On November 7, 2019, Cyren announced the closing of a rights offering that raised gross proceeds of $8.0 million. As a result of this offering, the conversion price of the Convertible Notes was adjusted to $3.73. In addition, the Convertible Notes would be subject to immediate conversion upon any change in control in the Company (or subject to repayment if the price in the change in control transaction is less than the conversion price).

On March 19, 2020, we issued $10.25 million aggregate principal amount of Convertible Debentures in a private placement to certain accredited investors (the "Purchasers"). The Convertible Debentures are guaranteed by two of our subsidiaries and carry a 5.75% interest rate, payable semi-annually in cash or, subject to the satisfaction of certain equity conditions, in ordinary shares. The Convertible Debentures mature in March 2024, unless converted in accordance with their terms prior to maturity. The Convertible Debentures have an initial conversion price of $0.75 per share, subject to adjustments. If the closing bid price of our ordinary shares is at least $2.25 (subject to adjustment) for at least 20 trading days during any 30 consecutive trading day period, and certain conditions are satisfied, we may force a conversion of all or any part of the outstanding principal amount of the Convertible Debentures, accrued and unpaid interest and any other amounts then owing, subject to certain conditions.

On June 11, 2020, one of the debenture holders converted $0.05 million of principal.

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. During 2017 and 2018, the Company continued to accrue interest on the unpaid earn-out consideration balance. In May 2018, the Company made a partial payment of the earn-out consideration to five of the six former shareholders, in an amount of $604 thousand. The earn-out consideration balance presented on the Company's balance sheet as of December 31, 2018 reflected the complete remaining liability relating to the earn-out, including accrued interest. In February 2019, the parties agreed to resolve all pending claims, and on February 28, 2019 the Company paid approximately $2.7 million to settle the earn-out consideration in full. For additional information, please refer to Note 4 of the consolidated financial statements included elsewhere in this Quarterly Report.

Registration Statements

In connection with our private placement to Warburg Pincus in November 2017, in which we issued approximately 10.6 million ordinary shares for $1.85 per share, we and Warburg Pincus 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 became exercisable as of August 6, 2018, subject to certain customary blackout periods.

In connection with the issuance of the Convertible Debentures, we entered into a Registration Rights Agreement with the Purchasers. Pursuant to that agreement, we filed a registration statement on Form S-3 with the SEC on May 14, 2020 to cover the resale of the shares of our ordinary shares that are issuable to the Purchasers upon any conversion of the Convertible Debentures or as interest payments.

On September 21, 2018, we filed a shelf registration statement on Form F-3 with the SEC, which we converted to a Form S-3 on August 16, 2019. This registration statement enables us to issue debt securities, ordinary shares, warrants or subscription rights up to an aggregate amount of $50 million. Under the rules governing shelf registration statements, we will file a prospectus supplement with the SEC which describes the amount and type of securities being offered each time we issue securities under this registration statement. No securities were issued under the registration statement on Form F-3. In November 2019, we issued shares as part of our rights offerings using our Form S-3 as described above.

Off-Balance Sheet Arrangements

As of June 30, 2020, we did not have any off-balance sheet arrangements.

Critical Accounting Policies and Estimates

Our significant accounting policies are discussed in Note 2. Significant Accounting Policies to our consolidated financial statements included in the Company's 2019 Annual Report. There have been no significant changes to these policies for the three months ended June 30, 2020, except as described in Note 2. Significant Accounting Policies to our condensed consolidated financial statements are included elsewhere in this Quarterly Report. The critical accounting policies requiring estimates, assumptions, and judgements that we believe have the most significant impact on our consolidated financial statements are described in Part II, Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations included in our 2019 Annual Report.

Recent Accounting Pronouncements

Please refer to Note 2. Significant Accounting Policies to our condensed consolidated financial statements included elsewhere in this Quarterly Report for a full description of recent accounting pronouncements.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Not required for smaller reporting companies.

Special Note Regarding Forward-Looking Statements

This Quarterly Report contains "forward-looking statements" within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act. These statements concern expectations, beliefs, projections, plans and strategies, anticipated events or trends and similar expressions concerning matters that are not historical facts. We urge you to consider that statements which use the terms "anticipate," "believe," "expect," "plan," "intend," "estimate", "will" and similar expressions are intended to identify forward-looking statements. Specifically, this Quarterly Report contains forward-looking statements regarding:

- our expectations that our utilization of out cloud infrastructure will increase and provide opportunity for improved gross margins;
- our expectations regarding our integrated offering and our partnership with Microsoft;
- our expectations regarding our future profitability and revenue growth;
- our expectations that R&D expenses, may decreases as we release new products during 2020 and that G&A expenses will continue to grow in absolute dollars as we continue our operational growth;
- our beliefs regarding the importance of R&D;
- our expectation to lower the rate of R&D investment as a percentage of revenue in the future and to drive more revenue from existing solutions rather than by adding new solutions;

- our expectations regarding reducing the historical rate of headcount growth and its resulting impact on our gross and operating margins over time;
- our expectations regarding our business strategies, including our contingency plan;
- our expectations regarding growth of our enterprise business and its expected impact on our business, including its contribution to our cash flow and return on investment;
- our expectations regarding our capital expenditures for 2020;
- our belief regarding the adequacy of our existing capital resources and other future measures to satisfy our expected liquidity requirements;
- our expectations regarding trends in the market for internet security and technology industry; and
- our expectations regarding existing and new threats, key challenges and opportunities in our industry and their impact on our business, including the impact of innovations in the technology industry.

These forward-looking statements reflect our current views about future events and are subject to risks, uncertainties and assumptions. We wish to caution readers that certain important factors may have affected and could in the future affect our actual results and could cause actual results to differ significantly from those expressed in any forward-looking statement. The most important factors that could prevent us from achieving our goals, and cause the assumptions underlying forward-looking statements and the actual results to differ materially from those expressed in or implied by those forward-looking statements include, but are not limited to, the following:

- our ability to execute our business strategies, including our sales and business development plan;
- our ability to timely and successfully enhance and improve our existing solutions and introduce our new solutions;
- the commercial success of such enhancements and new solutions;
- lack of demand for our solutions, including as a result of actual or perceived decreases in levels of advanced cyber attacks;
- our ability to manage our cost structure, avoid unanticipated liabilities and achieve profitability;
- our ability to grow our revenues, including the ability of existing solutions to drive sufficient revenue;
- our ability to attract new customers and increase revenue from existing customers;
- market acceptance of our existing and new product offerings;
- the success of our partnership with Microsoft, including our ability to successfully integrate our web security technology into its platform;
- our ability to adapt to changing technological requirements and shifting preferences of our customers and their users;
- the impact of the COVID-19 outbreak and related economic recovery;
- our continued listing on Nasdaq;
- our ability to successfully shift the focus of our product development and sales efforts to new products, while de-emphasizing our CWS offerings;

- loss of any of our large customers;
- the failure of one or more of our large customers to renew material contracts;
- adverse conditions in the national and global financial markets;
- the impact of currency fluctuations;
- political and other conditions in Israel that may limit our R&D activities;
- increased competition or our ability to anticipate or effectively react to competitive challenges;
- the ability of our brand development strategies to enhance our brand recognition;
- our ability to retain key personnel;
- performance of our OEM partners, service providers and resellers;
- our ability to successfully implement our contingency plan, if needed, and its ability to allow us to continue our operations and meet our cash obligations;
- our ability to successfully estimate the impact of regulatory and litigation matters;
- our ability to comply with applicable laws and regulations and the impact of changes in applicable laws and regulations, including tax legislation or policies;
- economic, regulatory and political risks associated with our international operations;
- the impact of cyber attacks or a security breach of our systems;
- our ability to protect our brand name and intellectual property rights;
- the impact of our controlling shareholder’s decisions, which may differ with respect to our strategic direction; and
- our ability to successfully estimate the impact of certain accounting and tax matters, including the effect on our company of adopting certain accounting pronouncements.

The foregoing list of important factors does not include all such factors, nor necessarily present them in order of importance. In addition, you should consult other disclosures made by us (such as in our other filings with the SEC or in company press releases) for other factors that may cause actual results to differ materially from those projected by us. Please refer to Part I. Item 1A. Risk Factors, of our 2019 Annual Report for additional information regarding factors that could affect our results of operations, financial condition and liquidity. 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.

Impact from the COVID-19 Outbreak

On March 11, 2020, the World Health Organization declared the outbreak of a respiratory disease caused by a new coronavirus as a "pandemic" which is now known as COVID-19. The outbreak has impacted thousands of individuals worldwide. In response, many countries have implemented measures to combat the outbreak which have impacted global business operations.

As of the date of issuance of this filing, the Company's operations have not been significantly impacted, however, the Company continues to monitor the situation. The ultimate extent of the impact of any epidemic, pandemic or other health crisis on our business, financial condition and results of operations will depend on future developments, which are highly uncertain and cannot be predicted, including new information that may emerge concerning the severity of such epidemic, pandemic or other health crisis and actions taken to contain or prevent their further spread, among others.

No impairments were recorded as of the balance sheet date as no triggering events or changes in circumstances had occurred as of year-end; however, due to significant uncertainty surrounding the situation, management's judgment regarding this could change in the future.

ITEM 4. CONTROLS AND PROCEDURES

Management's Evaluation of Disclosure Controls and Procedures

In order to ensure that the information we must disclose in our filings with the SEC is recorded, processed, summarized and reported on a timely basis, we have formalized our disclosure controls and procedures. Our principal executive officer and principal financial officer have reviewed and evaluated the effectiveness of our disclosure controls and procedures, as defined in Securities and Exchange Act Rules 13a-15(e) and 15d-15(e) as of June 30, 2020. Based on such evaluation, such officers have concluded that, as of June 30, 2020, our disclosure controls and procedures were effective.

Changes in Internal Control over Financial Reporting

There were no changes to our internal control over financial reporting, as defined in Securities and Exchange Act Rules 13a-15(f) and 15d-15(f), that occurred during the quarter ended June 30, 2020 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II – OTHER INFORMATION.

ITEM 6. EXHIBITS

Exhibit No.	Description of Exhibits
31.1	Certification by Chief Executive Officer, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification by Chief Financial Officer, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification by Chief Executive Officer and Chief Financial Officer, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS	XBRL Instance Document.
101.SCH	XBRL Taxonomy Extension Schema Document.
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.
101.LAB	XBRL Taxonomy Extension Label Linkbase Document.
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

	CYREN LTD.
August 12, 2020	/s/ Brett Jackson
	Brett Jackson Chief Executive Officer (Duly Authorized Officer)
August 12, 2020	/s/ J. Michael Myshrall
	J. Michael Myshrall Chief Financial Officer (Principal Financial Officer)

Exhibit 31.1

CERTIFICATION BY THE CHIEF EXECUTIVE OFFICER
PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Brett Jackson, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Cyren Ltd.

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report.

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report.

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

    a. designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    b. designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

    c. evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

    d. disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting.

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

    a. all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting, which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

    b. any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 12, 2020

By: /s/ Brett Jackson
Brett Jackson
Chief Executive Officer

Exhibit 31.2

CERTIFICATION BY THE CHIEF FINANCIAL OFFICER
PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, J. Michael Myshrall, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Cyren Ltd.

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report.

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report.

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

    a. designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    b. designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

    c. evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

    d. disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting.

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

    a. all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting, which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

    b. any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 12, 2020

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

Exhibit 32.1

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report on Form 10-Q of Cyren Ltd. (the “Company”) for the period ended June 30, 2020, as filed with the Securities and Exchange Commission on the date hereof (the “Report”), Brett Jackson, Chief Executive Officer, and J. Michael Myshrall, Chief Financial Officer, of the Company, do each certify, pursuant to Section 18 U.S.C. §1350, as adopted pursuant to §906 of the Sarbanes-Oxley Act of 2002, that, to his knowledge:

1. the Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

2. the information contained in the Report fairly presents, in all materials respects, the financial condition and results of operations of the Company.

Date: August 12, 2020

By: /s/ Brett Jackson
Brett Jackson
Chief Executive Officer

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