

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

FORM 10-Q

(Mark One)

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

For the quarterly period ended March 31, 2020

or

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

Commission File Number: 001-33852



VirnetX Holding Corporation

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

77-0390628

(I.R.S. Employer Identification No.)

308 Dorla Court, Suite 206 Zephyr Cove, Nevada
(Address of principal executive offices)

89448
(Zip Code)

Registrant's telephone number, including area code: (775) 548-1785

Former name, former address and former fiscal year, if changed since last report: N/A

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value \$0.0001 per share	VHC	NYSE American LLC

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

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, 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

Smaller reporting company

Non-accelerated filer

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

70,838,177 shares of Registrant's Common Stock were outstanding as of May 7, 2020.

SPECIAL NOTE REGARDING FORWARD LOOKING STATEMENTS

We have included or incorporated by reference in this Quarterly Report on Form 10-Q (including in the section entitled Management's Discussion and Analysis of Financial Condition and Results of Operations), and from time to time we may make statements that may constitute "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. These forward-looking statements are based upon our current expectations, estimates, assumptions and beliefs concerning future events and conditions and may discuss, among other things, anticipated future performance (including sales and earnings), expected growth, future business plans and costs and the impact of potential and ongoing litigation. Any statement that is not historical in nature is a forward-looking statement and may be identified by the use of words and phrases such as "anticipates," "believes," "estimates," "expects," "intends," "plans," "predicts," "projects," "will be," "will continue," "will likely result in," and similar expressions. These statements include our beliefs and statements regarding general industry and market conditions and growth rates, as well as general domestic and international economic conditions. Readers are cautioned not to place undue reliance on forward-looking statements. Forward-looking statements are necessarily subject to risks, uncertainties and other factors, many of which are outside our control, which could cause actual results to differ materially from such statements and from our historical results and experience. These risks, uncertainties and other factors include, but are not limited to those described in Item 1A - Risk Factors of this Quarterly Report and elsewhere in this Report and those described from time to time in our future reports filed with the Securities and Exchange Commission. Readers are cautioned that it is not possible to predict or identify all the risks, uncertainties and other factors that may affect future results and that the risks described herein should not be considered to be a complete list. Any forward-looking statement speaks only as of the date on which such statement is made, and we undertake no obligation to update or revise any forward-looking statement, whether as a result of new information, future events or otherwise.

Among others, the forward-looking statements appearing in this Quarterly Report that may not occur include statements that:

- In the *VirnetX Inc. v. Cisco Systems, Inc. et al.* (Case 6:10-CV-00417-LED) ("Apple I") litigation, we have been awarded total damages in the amount of \$439.8 million. On February 24, 2020, the United States Supreme Court denied Apple's petition for certiorari with respect to the final judgment awarded in that case. Under a stipulation filed in the case, Apple agreed to pay any payments then due under the judgment within 20 days of completion of any appeal from the judgment in this matter. Accordingly, on March 13, 2020, we received final payment of \$454,033,859.87 from Apple, representing the previously announced final judgment with interest in the case. Apple has filed a motion in the district court seeking to vacate the district court's final judgment and has indicated that it will seek restitution of the payment if relief is awarded. Although the Company believes Apple's motion is without merit, the district court has not yet ruled on this motion. We cannot assure that Apple will not continue to challenge and seek reimbursement of the payment.

- In the *VirnetX Inc. v. Apple, Inc.* (Case Nos. 6:11-cv-00563-RWS, 6:12-cv-00855-RWS) ("Apple II") litigation, in November 2019, the United States Court of Appeals for the Federal Circuit (the "Federal Circuit") affirmed-in-part and reversed-in-part the judgment issued by the United States District Court for the Eastern District of Texas (the "district court") in the case awarding VirnetX damages of \$595.9 million. The Federal Circuit affirmed the district court's ruling that Apple Inc. ("Apple") was precluded from challenging the validity of the asserted patents, and also affirmed the jury's finding of infringement with respect to Apple's VPN on Demand feature. The Federal Circuit reversed, however, the finding of infringement with respect to Apple's FaceTime feature. The Federal Circuit remanded to the district court for an assessment of whether, given that only VPN on Demand infringed. In its order, unsealed on May 1, 2020, the district court denied VirnetX's motion for entry of a new judgment based on the prior jury verdict and ordered a new jury trial on damages. The jury selection and trial has been scheduled on August 17, 2020. In addition, the patents in issue are being challenged in the United States Patent and Trademark Office. If those challenges are successful, they could also impact the award in the case. The continuation of this litigation, as well as the Apple I litigation discussed below, is distracting to our management and expensive, and this distraction and expense may continue.

- We have undertaken activities to commercialize our products and patent portfolio in and outside the United States. These statements may imply that the worldwide market for our commercialized products is large and will result in significant future revenues for us. However, commercialization of products such as ours are subject to significant obstacles and risks, including but not limited to a perception by some potential partners and customers that they should await the outcome of the Apple II litigations before entering or considering to enter any agreement with us, and that or other factors may lead us to be unsuccessful in obtaining further licensing agreements or making arrangements or entering contracts which create significant future revenues for us.

EXCEPT AS REQUIRED BY LAW, WE UNDERTAKE NO OBLIGATION TO UPDATE OR REVISE ANY FORWARD-LOOKING STATEMENT AS A RESULT OF NEW INFORMATION, FUTURE EVENTS OR OTHERWISE.

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PART I — FINANCIAL INFORMATION
ITEM 1- FINANCIAL STATEMENTS.

VIRNETX HOLDING CORPORATION
CONDENSED CONSOLIDATED BALANCE SHEETS
(in thousands, except share amounts)

ASSETS	As of March 31, 2020 (unaudited)	As of December 31, 2019
Current assets:		
Cash and cash equivalents	\$ 435,812	\$ 3,135
Investments available for sale	1,336	2,394
Accounts receivable	5	5
Prepaid expenses and other current assets	628	237
Total current assets	437,781	5,771
Prepaid expenses and other assets	1,601	1,711
Property and equipment, net	15	16
Deferred tax benefit	8,722	—
Total assets	\$ 448,119	\$ 7,498
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable and accrued liabilities	\$ 4,620	\$ 1,346
Accrued licensing costs	90,101	—
Accrued payroll and related expenses	223	287
Other liabilities, current	53	193
Income tax liability	41,481	—
Total current liabilities	136,478	1,826
Other liabilities	31	44
Total liabilities	136,509	1,870
Commitments and contingencies (Note 4)	—	—
Stockholders' equity:		
Preferred stock, par value \$0.0001 per share Authorized: 10,000,000 shares at March 31, 2020 and December 31, 2019, Issued and outstanding: 0 shares at March 31, 2020 and December 31, 2019	—	—
Common stock, par value \$0.0001 per share Authorized: 100,000,000 shares at March 31, 2020 and December 31, 2019, Issued and outstanding: 70,838,177 shares and 69,586,764 shares, at March 31, 2020 and December 31, 2019, respectively	7	7
Additional paid-in capital	229,271	223,237
Retained earnings (Accumulated deficit)	82,343	(217,602)
Accumulated other comprehensive loss	(11)	(14)
Total stockholders' equity	311,610	5,628
Total liabilities and stockholders' equity	\$ 448,119	\$ 7,498

See accompanying notes to condensed consolidated financial statements.

VIRNETX HOLDING CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS (Unaudited)
(in thousands, except per share amounts)

	Three Months Ended	
	March 31, 2020	March 31, 2019
Revenue	\$ 302,576	\$ 8
Operating expense:		
Licensing costs	90,101	—
Research and development	1,905	936
Selling, general and administrative	27,376	4,706
Total operating expense	119,382	5,642
Income (Loss) from operations	183,194	(5,634)
Gain	41,271	—
Interest and other income, net	108,239	28
Income (Loss) before taxes	332,704	(5,606)
Provision for income taxes	(32,759)	(2)
Net Income (loss)	\$ 299,945	\$ (5,608)
Basic income (loss) per share	\$ 4.26	\$ (0.08)
Diluted income (loss) per share	\$ 4.20	\$ (0.08)
Weighted average shares outstanding basic	70,365	67,596
Weighted average shares outstanding diluted	71,384	67,596

VIRNETX HOLDING CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS) (Unaudited)
(in thousands)

	Three Months Ended	
	March 31, 2020	March 31, 2019
Net income (loss)	\$ 299,945	\$ (5,608)
Other comprehensive income (loss), net of tax:		
Change in unrealized gain, net of tax	2	1
Change in foreign currency translation, net of tax	1	—
Total other comprehensive income (loss), net of tax	3	1
Comprehensive income (loss)	\$ 299,948	\$ (5,607)

See accompanying notes to condensed consolidated financial statements.

VIRNETX HOLDING CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY (Unaudited)
(in thousands, except per share amounts)

	Common Stock		Additional	Retained Earnings	Accumulated	Total
	Shares	Amount	Paid-in	(Accumulated	Other	Stockholders'
			Capital	Deficit)	Comprehensive	Equity
					Loss	(Deficit)
Balance at December 31, 2018	66,879,847	\$ 7	\$ 208,317	\$ (198,422)	\$ (14)	\$ 9,888
Stock issued for cash at \$5.05 - \$5.42						
per share, net	560,338		2,848			2,848
Stock-based compensation			785			785
Stock issued for options and RSUs, net	663,816		816			816
Comprehensive loss:						
Net loss				(5,608)		(5,608)
Change in unrealized gain, net					1	1
Comprehensive loss						(5,607)
Balance at March 31, 2019	68,104,001	\$ 7	\$ 212,766	\$ (204,030)	\$ (13)	\$ 8,730
Balance at December 31, 2019	69,586,764	\$ 7	\$ 223,237	\$ (217,602)	\$ (14)	\$ 5,628
Stock issued for cash at \$4.00 - \$4.96						
per share, net	1,049,382		4,488			4,488
Stock-based compensation			778			778
Stock issued for options and RSUs, net	202,031		768			768
Comprehensive income:						
Net income				299,945		299,945
Change in unrealized gain, net					2	2
Change in foreign currency translation, net					1	1
Comprehensive income						299,948
Balance at March 31, 2020	70,838,177	\$ 7	\$ 229,271	\$ 82,343	\$ (11)	\$ 311,610

VIRNETX HOLDING CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS (Unaudited)
(in thousands)

	Three Months Ended	
	March 31,	March 31,
	2020	2019
Cash flows from operating activities:		
Net income (loss)	\$ 299,945	\$ (5,608)
Adjustments to reconcile income (loss) to net cash from operating activities:		
Depreciation	1	2
Stock-based compensation	778	785
Changes in assets and liabilities:		
Accounts receivables	—	(2)
Prepaid expenses and other assets	(281)	(201)
Deferred tax benefit	(8,722)	—
Other liabilities	(153)	31
Accounts payable	3,274	229
Accrued licensing costs	90,101	—
Accrued payroll and related expenses	(64)	(54)
Income tax liability	41,481	(1)
Net cash provided by (used in) operating activities	<u>426,360</u>	<u>(4,819)</u>
Cash flows from investing activities:		
Purchase of investments	(200)	(2,283)
Proceeds from sale or maturity of investments	1,261	1,054
Net cash provided by (used in) investing activities	<u>1,061</u>	<u>(1,229)</u>
Cash flows from financing activities:		
Proceeds from exercise of options	768	816
Proceeds from sale of common stock	4,488	2,848
Net cash provided by financing activities	<u>5,256</u>	<u>3,664</u>
Net increase (decrease) in cash and cash equivalents	432,677	(2,384)
Cash and cash equivalents, beginning of period	3,135	7,611
Cash and cash equivalents, end of period	<u>\$ 435,812</u>	<u>\$ 5,227</u>
Cash paid for income taxes	<u>\$ —</u>	<u>\$ 2</u>

See accompanying notes to condensed consolidated financial statements.

VIRNETX HOLDING CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(in thousands, except litigation, share and per share amounts)
(Unaudited)

Note 1 — Business Description and Basis of Presentation

VirnetX Holding Corporation, which we refer to as “we”, “us”, “our”, “the Company” or “VirnetX”, is engaged in the business of commercializing a portfolio of patents. We seek to license our technology, including GABRIEL Connection Technology™, to various original equipment manufacturers, or OEMs, that use our technologies in the development and manufacturing of their own products within the IP-telephony, mobility, fixed-mobile convergence and unified communications markets. Since 2012 we had revenues from settlements of patent infringement disputes whereby we received consideration for past sales of licensees that utilized our technology, where there was no prior patent license agreement, as well as license agreement revenues from settlements providing licensing for the continued use of our technology (see “Revenue Recognition”).

Our portfolio of intellectual property is the foundation of our business model. We currently own approximately 194 total patents and pending applications, including 70 U.S. patents/patent applications and 124 foreign patents/validations/pending applications. Our patent portfolio is primarily focused on securing real-time communications over the Internet, as well as related services such as the establishment and maintenance of a secure domain name registry. Our patented methods also have additional applications in the key areas of device operating systems and network security for Cloud services, Machine-to-Machine (“M2M”), communications in areas including “Smart City,” “Connected Car” and “Connected Home.” All our U.S. and foreign patents and pending patent applications relate generally to securing communications over the internet and as such, cover all our technology and other products. Our issued U.S. and foreign patents expire at various times during the period from 2020 to 2024. Some of our issued patents and pending patent applications were acquired by our principal operating subsidiary, VirnetX, Inc., from Leidos, Inc. (“Leidos”) (f/k/a Science Applications International Corporation, or SAIC) in 2006 and we are required to make payments to Leidos based on cash or certain other values generated from those patents in certain circumstances. The amount of such payments depends upon the type of value generated and certain categories are subject to maximums and other limitations. During the three months ended March 31, 2020, the Company accrued \$90,101, in conjunction with proceeds received from Apple Inc., pursuant to a favorable court decision relating to a patent infringement case (see “Note 7— Litigation”).

Note 2 — Summary of Significant Accounting Policies

Unaudited Interim Financial Information

The accompanying Condensed Consolidated Balance Sheet as of March 31, 2020, the Condensed Consolidated Statements of Operations for the three months ended March 31, 2020 and 2019, the Condensed Consolidated Statements of Comprehensive Income (Loss) for the three months ended March 31, 2020 and 2019, the Condensed Consolidated Statements of Shareholders’ Equity for the three months ended March 31, 2020 and 2019, and the Condensed Consolidated Statements of Cash Flows for the three months ended March 31, 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”). In our opinion, the unaudited interim consolidated financial statements include all adjustments of a normal recurring nature necessary for the fair presentation of our financial position as of March 31, 2020, our results of operations for the three months ended March 31, 2020 and 2019, and our cash flows for the three months ended March 31, 2020 and 2019. The results of operations for interim periods are not necessarily indicative of the results to be expected for a full year.

These unaudited interim consolidated financial statements should be read in conjunction with the consolidated financial statements and related notes included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2019, filed with the SEC on March 16, 2020.

Use of Estimates

We prepare our consolidated financial statements in accordance with U.S. GAAP. In doing so, we must make estimates and assumptions that affect our reported amounts of assets, liabilities, revenues, and expenses, as well as related disclosure of contingent assets and liabilities. In some cases, we could reasonably have used different accounting policies and estimates. In some cases, changes in our accounting estimates are reasonably likely to occur. Accordingly, actual results could differ materially from our estimates. To the extent that there are material differences between these estimates and actual results, our financial condition or results of operations will be affected. We base our estimates on past experience and other assumptions that we believe are reasonable under the circumstances, at the time they are made, and we evaluate these estimates on an ongoing basis. We refer to accounting estimates of this type as critical accounting policies and estimates, which we discuss further below.

Reclassifications

Certain prior period amounts were reclassified to conform to the current year's presentation. None of these reclassifications had an impact on reported operating expenses, operating income or net income for any of the periods presented.

Basis of Consolidation

The consolidated financial statements include the accounts of VirnetX Holding Corporation and our wholly-owned subsidiaries. All intercompany balances and transactions have been eliminated.

Leases

The Company determines if an arrangement, giving the Company a right-of-use ("ROU") asset, is a lease at inception. Operating lease ROU assets are included in other assets on the Condensed Consolidated Balance Sheet. ROU assets represent the Company's right to use an underlying asset for the lease term and lease liabilities represent the Company's obligation to make lease payments arising from the lease. ROU assets and lease liabilities are recognized at the commencement date of the arrangement based on the present value of lease payments over the lease term. Other assets at March 31, 2020, includes an ROU asset related to a facility lease for corporate promotional and marketing purposes. The facility lease was paid in full at inception and the ROU is being amortized over the 10-year term of the lease. Other assets also include a ROU related to our office operating lease which expires in October 2021 (See Note 8 - Leases).

Revenue Recognition

The Company derives revenue from licensing and royalty fees from contracts with customers which often span several years. We account for this revenue in accordance with ASC Topic 606, Revenue from Contracts with Customers. A performance obligation is a promise in a contract to transfer a distinct good or service to the customer. A contract's transaction price is allocated to each distinct performance obligation and recognized as revenue when, or as, the performance obligation is satisfied. Our revenue arrangements may consist of multiple-element arrangements, with revenue for each unit of accounting recognized as the product or service is delivered to the customer.

With the licensing of our patents, performance obligations are generally satisfied at a point in time as work is complete when our patent rights are transferred to our customers. We generally have no further obligation to our customers regarding our technology.

Certain contracts may require our customers to enter into a hosting arrangement with us and for these arrangements, revenue is recognized over time, generally over the life of the servicing contract.

The Company actively monitors and enforces its intellectual property ("IP") rights, including seeking appropriate compensation from third parties that utilize the Company's IP without a license. As a result, the Company may, from time to time, receive payments as part of a settlement or compensation for a patent infringement dispute. Proceeds received are allocated to each element identified in the settlement or compensation, based on the fair value of each element. Generally, settlements and compensation may include the following elements: the value of a license or royalty agreement, cost reimbursement, damages and interest. Elements identified related to licensing and royalty are recognized as revenue. Elements identified as reimbursed costs are generally recorded as a reduction to the reported expenses. Elements identified as damages or interest are generally recorded in other income in the condensed consolidated statement of operations. During the quarter ended March 31, 2020, the Company collected a lump sum payment of \$454,034 from Apple, Inc., as a result of a favorable court decision relating to a patent infringement case. The court decision identified the following as the basis of the award: \$302,428 for past royalties, \$41,271 in damages for willful infringement, \$108,221 for interest, and \$2,114 in reimbursement for court costs and attorney's fees (see Note 7 - Litigation). Elements of the payment were recognized in the Company's condensed consolidated statement of operations as follows:

**Classification in the Company's Condensed Consolidated Statement of Operations for
the Three Months Ended March 31, 2020**

Revenue (royalties)	\$ 302,428
Operating expenses: selling, general and administrative (reimbursed litigation costs)	2,114
Other income: gain (willful infringement)	41,271

Other income: interest income (pre and post judgment interest)	108,221
Total cash received	<u>\$ 454,034</u>

Contingent Gains

Accounting Standards Codification Topic 450-30-25, Contingent Gains, prohibits recognition of contingent gains until realized. Accordingly, we do not record contingent gains ahead of such realization. Management generally considers any such gains as realized only upon the collection of cash.

Earnings (Loss) Per Share

Basic earnings (loss) per share are computed by dividing earnings (loss) available to common stockholders by the weighted average number of outstanding common shares during the period. Diluted earnings per share are computed by dividing net income by the weighted average number of shares outstanding during the period increased to include the number of additional shares of common stock that would have been outstanding if the potentially dilutive securities had been issued.

Concentration of Credit Risk and Other Risks and Uncertainties

Our cash and cash equivalents are primarily maintained at two major financial institutions in the United States. A portion of those balances are insured by the Federal Deposit Insurance Corporation. During the three months ended March 31, 2020, we had funds which were uninsured. We do not believe that we are subject to any unusual financial risk beyond the normal risk associated with commercial banking relationships with major financial institutions. We have not experienced any losses on our deposits of cash and cash equivalents.

Impairment of Long-Lived Assets

On an annual basis, we identify and record impairment losses on long-lived assets when events and changes in circumstances indicate that the carrying amount of an asset might not be recoverable. Recoverability is measured by comparison of the anticipated future net undiscounted cash flows to the related assets' carrying value. If such assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the assets exceeds the projected discounted future net cash flows arising from the asset.

Fair Value of Financial Instruments

Fair value is the price that would result from an orderly transaction between market participants at the measurement date. A fair value hierarchy prioritizes the inputs used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurement) and the lowest priority to unobservable inputs (Level 3 measurement). Level 2 measurements utilize either directly or indirectly observable inputs in markets other than quoted prices in active markets.

Our financial instruments are stated at amounts that equal, or approximate, fair value. When we estimate fair value, we utilize market data or assumptions that we believe market participants would use in pricing the financial instrument, including assumptions about risk and inputs to the valuation technique. We use valuation techniques, primarily the income and market approach, which maximizes the use of observable inputs and minimize the use of unobservable inputs for recurring fair value measurements.

Mutual Funds: Valued at the quoted net asset value of shares held.

U.S. agency securities: Fair value measured at the closing price reported on the active market on which the individual securities are traded.

The following tables show the adjusted cost, gross unrealized gains, gross unrealized losses and fair value of our securities by significant investment category as of March 31, 2020 and December 31, 2019.

	March 31, 2020					
	Adjusted Cost	Unrealized Gains	Unrealized Losses	Fair Value	Cash and Cash Equivalents	Investments Available for Sale
Cash	\$ 433,680	\$ —	\$ —	\$ 433,680	\$ 433,680	\$ —
Level 1:						
Mutual funds	1,532	—	—	1,532	1,532	—
U.S. agency securities	1,931	5	—	1,936	600	1,336
	<u>3,463</u>	<u>5</u>	<u>—</u>	<u>3,468</u>	<u>2,132</u>	<u>1,336</u>
Total	<u>\$ 437,143</u>	<u>\$ 5</u>	<u>\$ —</u>	<u>\$ 437,148</u>	<u>\$ 435,812</u>	<u>\$ 1,336</u>

	December 31, 2019					
	Adjusted Cost	Unrealized Gains	Unrealized Losses	Fair Value	Cash and Cash Equivalents	Investments Available for Sale
Cash	\$ 2,076	\$ —	\$ —	\$ 2,076	\$ 2,076	\$ —
Level 1:						
Mutual funds	613	—	—	613	613	—
U.S. agency securities	2,837	3	—	2,840	446	2,394
	<u>3,450</u>	<u>3</u>	<u>—</u>	<u>3,453</u>	<u>1,059</u>	<u>2,394</u>
Total	<u>\$ 5,526</u>	<u>\$ 3</u>	<u>\$ —</u>	<u>\$ 5,529</u>	<u>\$ 3,135</u>	<u>\$ 2,394</u>

New Accounting Pronouncements

In December 2019 the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Update (“ASU”) 2019-12 Income Taxes (Topic 740). The amendments in this ASU simplify the accounting for income taxes by removing certain exceptions to the general principles in Topic 740. The amendments also improve consistent application of and simplify GAAP for other areas of Topic 740 by clarifying and amending existing guidance. The amendments in this ASU are effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2020. We are currently evaluating the impact, if any this ASU will have on our consolidated financial statements and related disclosures.

In August 2018 the FASB issued ASU 2018-13 - Fair Value Measurement (Topic 820). The FASB is issuing the amendments in this ASU as part of its disclosure framework project. On March 4, 2014, the Board issued a proposed FASB Concepts Statement, Conceptual Framework for Financial Reporting—Chapter 8: Notes to Financial Statements, which the Board finalized on August 28, 2018. The disclosure framework project’s objective and primary focus are to improve the effectiveness of disclosures in the notes to financial statements by facilitating clear communication of the information required by GAAP that is most important to users of each entity’s financial statements. The amendments in this ASU are effective for all entities for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019. We adopted this guidance on January 1, 2020 with no material impact on our financial position and statement of operations.

In June 2016 the FASB issued Accounting Standards Update 2016-13 Financial Instruments—Credit Losses (Topic 326). The amendments in this Update require a financial asset (or a group of financial assets) measured at amortized cost basis to be presented at the net amount expected to be collected. The allowance for credit losses is a valuation account that is deducted from the amortized cost basis of the financial asset(s) to present the net carrying value at the amount expected to be collected on the financial asset. We adopted this guidance on January 1, 2020 and there was no material impact on our financial position or statement of operations.

Note 3 — Income Taxes

For the three months ended March 31, 2020, we recognized income tax expense of \$32,759 on income before taxes of \$332,704, which is an effective tax rate of 9.9%. For the three months ended March 31, 2019, income tax expense was \$2 on a loss before taxes of \$5,606 and an effective tax rate of 0.04%. The effective tax rate for the 2020 period was favorably impacted by the reversal of valuation allowance reserves totaling \$38,112 which were established in prior years on our deferred tax assets primarily associated with net operating loss (“NOL”) carryforwards. For the three months ended March 31, 2019, we had NOLs which generated deferred tax assets for NOL carryforwards. During 2019, we provided valuation allowances against the net deferred tax assets including the deferred tax assets for NOL carryforwards. As of March 31, 2020, we had deferred tax assets of \$8,722.

A valuation allowance is provided for deferred tax assets when, in our judgment, based upon currently available information and other factors, it is more likely than not that all or a portion of such deferred income tax assets will not be realized. The determination of the need for a valuation allowance is based on an on-going evaluation of current information including, among other things, historical operating results, estimates of future earnings in different taxing jurisdictions and the expected timing of the reversals of temporary differences. We believe the determination to record, or reduce, a valuation allowance associated with a deferred income tax asset is a significant accounting estimate because it is based, among other things, on an estimate of future taxable income in the United States and certain other jurisdictions, which is susceptible to change and may or may not occur, and because the impact of adjusting a valuation allowance may be material. In determining when to release the valuation allowance established against our net deferred income tax assets, we consider all available evidence, both positive and negative.

As a result of the significant taxable income recognized in the three months ended March 31, 2020, we determined that it was more likely than not that we will recover our deferred tax assets and accordingly the valuation allowances were reversed during the period. During 2019, consistent with our policy, and because of our history of operating losses, we did not recognize the benefit of our deferred tax assets, including NOL carryforwards, that may have been used to offset future taxable income. We continually assess our ability to generate sufficient taxable income during future periods in which our deferred tax assets may be realized.

Internal Revenue Code Section 382 places a limitation (the “Section 382 Limitation”) on the amount of net operating loss carryforwards that can be used to offset taxable income after a change in control (generally greater than 50% change in ownership) of a loss corporation. California, the state in which our headquarters was once located, has similar rules. Generally, after a control change, a loss corporation cannot deduct net operating loss carryforward generated in years prior to the deemed change of control under IRC Section 382 in excess of the Section 382 Limitation. Because we have concluded that the Company has not experienced a change in control under section 382, all NOL carryforwards were utilized to offset taxable income generated in the period.

Our tax years for 2005 and forward are subject to examination by the U.S. tax authority and various state tax authorities. These years are open due to NOLs and tax credits to be utilized from such years.

Our policy is to recognize interest and penalties accrued on uncertain tax positions as a component of income tax expense. As of March 31, 2020, we had accrued immaterial amounts of interest and penalties related to the uncertain tax positions.

Note 4 — Commitments and Related Party Transactions

We lease our offices under an operating lease with a third party which expires in October 2021 (see Note 8 - Leases).

We entered into a service agreement for the use of an aircraft from K2 Investment Fund LLC (“LLC”) for business travel for employees of the Company. We incurred approximately \$76 and \$559 in fees and reimbursements to the LLC during the three months ended March 31, 2020 and 2019, respectively. We pay for the Company’s usage of the aircraft and have no rights to purchase. Our Chief Executive Officer and Chief Administrative Officer are the managing partners of the LLC and control the equity interests of the LLC. We entered into a 12-month non-exclusive agreement with the LLC for use of the plane at a rate of \$8 per flight hour, with no minimum usage requirement. The agreement contains other terms and conditions and can be cancelled by either us or the LLC with 30 days’ notice. The agreement renews on an annual basis unless terminated by either party. Neither party has exercised their termination rights.

Note 5 — Stock Based Compensation

We have a stock incentive plan for employees and others called the “VirnetX Holding Corporation 2013 Equity Incentive Plan”, or the Plan, which has been approved by our stockholders. The Plan generally provides for the granting of up to 16,624,469 shares of our common stock, including stock options and stock purchase rights (“RSUs”), and will expire in 2024. As of March 31, 2020, 1,271,039 shares remained available for grant under the Plan.

Stock-based compensation expense included in general and administrative expense was \$348 and \$374, and in research and development expense was \$430 and \$411, for the three months ended March 31, 2020 and 2019, respectively.

During the three months ended March 31, 2020, we granted options for a total of 240,000 shares with a weighted average grant date fair value of \$4.30 per option. We estimated the fair value of the options on the date of grant utilizing the Black-Scholes valuation model with the following assumptions: (i) 0 percent dividend yield, (ii) 93.4 percent volatility, (iii) 0.8 percent risk free rate and (iv) 6.25 years expected term. There were no options granted during the three months ended March 31, 2019, and no RSUs granted during the three months ended March 31, 2020 or 2019.

As of March 31, 2020, the unrecognized stock-based compensation expense related to non-vested stock options and RSUs was \$4,088 and \$1,581, respectively, which will be amortized over an estimated weighted average period of approximately 2.24 and 2.08 years, respectively.

Note 6 — Equity

Common Stock

On July 30, 2018 we filed a \$100,000 universal shelf registration statement on SEC Form S-3 which was declared effective by the SEC on August 16, 2018. We also entered an at-the-market equity offering sales agreement (“ATM”) with Cowen & Company, LLC on August 31, 2018, under which we can offer and sell shares of our common stock having an aggregate value of up to \$50,000.

We use the ATM proceeds for GABRIEL product development, marketing and general corporate purposes, which may include working capital, capital expenditures, other corporate expenses and acquisitions of complementary products, technologies or businesses. As of March 31, 2020, common stock with an aggregate value of up to \$21,964 remained available for offer and sale under the ATM agreement.

During the three months ended March 31, 2020, we sold 1,049,382 shares under the ATM. The average sales price per common share was \$4.41 and the aggregate proceeds from the sales totaled \$4,627 during the period. Sales commissions, fees and other costs associated with the ATM totaled \$139. During the three months ended March 31, 2019, we sold 560,338 shares under the ATM. The average sales price per common share was \$5.24 and the aggregate proceeds from the sales totaled \$2,936 during the period. Sales commissions, fees and other costs associated with the ATM totaled \$88.

Warrants

In 2015 we issued warrants for the purchase of 25,000 shares of common stock at an exercise price of \$7 per share, which expired in April 2020.

Note 7 — Litigation

We have several intellectual property infringement lawsuits pending in the United States District Court for the Eastern District of Texas, Tyler Division (“USDC”), and United States Court of Appeals for the Federal Circuit (“USCAFC”).

VirnetX Inc. v. Cisco Systems, Inc. et al. (Case 6:10-CV-00417-LED) (“Apple I”)

On August 11, 2010, we filed a complaint against Aastra USA, Inc. (“Aastra”), Apple Inc. (“Apple”), Cisco Systems, Inc. (“Cisco”), and NEC Corporation (“NEC”) the USDC in which we alleged that these parties infringe on certain of our patents (U.S. Patent Nos. 6,502,135, 7,418,504, 7,921,211 and 7,490,151). We sought damages and injunctive relief. The cases against each defendant were separated by the judge. Aastra and NEC agreed to sign license agreements with us, and we dropped all accusations of infringement against them. A jury in USDC decided that our patents were not invalid and rendered a verdict of non-infringement by Cisco on March 4, 2013. Our motion for a new Cisco trial was denied and the case against Cisco was closed.

On November 6, 2012, a jury in the USDC awarded us over \$368,000 for Apple’s infringement of four of our patents, plus daily interest up to the final judgment.

Apple filed an appeal of the judgment to the USCAFC. On September 16, 2014, USCAFC affirmed the USDC jury’s finding that all four of our patents at issue are valid and confirmed the USDC jury’s finding of infringement of VPN on Demand under many of the asserted claims of our ‘135 and ‘151 patents, and the USDC’s decision to allow evidence about our license and royalty rates regarding the determination of damages. However, the USCAFC vacated the USDC jury’s damages award and some of the USDC’s claim construction with respect to parts of our ‘504 and ‘211 patents and remanded the damages award and determination of infringement with respect to FaceTime back to the USDC for further proceedings.

On September 30, 2016, pursuant to the 2014 remand from the USCAFC, a jury in the USDC awarded us \$302,400 for Apple’s infringement of four of our patents. On September 29, 2017, the USDC entered its final judgment, denied all of Apple’s post-trial motions, granted all our post-trial motions, including our motion for willful infringement and enhanced the royalty rate during the willfulness period from \$1.20 to \$1.80 per device, and awarded us costs, certain attorneys’ fees, and prejudgment interest. The total amount in the final judgment was \$439,700, including \$302,400 (jury verdict), \$41,300 (enhanced damages) and \$96,000 (costs, fees and interest).

On October 27, 2017 Apple appealed the final judgment entered on September 29, 2017 to the USCAFC. Oral arguments in this case were held on January 8, 2019. On January 15, 2019 the Court issued a Rule 36 order affirming the district court’s final judgment. Apple filed a petition for panel rehearing and rehearing en-banc in this matter on February 21, 2019. On October 1, 2019, USCAFC issued an order denying Apple’s petition. Apple filed a petition for a writ of certiorari with the U.S. Supreme Court, which was denied on February 24, 2020. Prior to the Supreme Court decision denying Apple’s petition for a writ of certiorari, on February 20, 2020, Apple filed a Rule 60(b) motion for relief from judgment with the USDC, seeking relief from the district court’s September 29, 2017 final judgment. VirnetX filed a responsive brief in opposition on March 5, 2020.

On March 13, 2020, the Company received payment of \$454,034 from Apple, representing the previously announced final judgment with interest in this case. Apple has indicated that it will seek restitution of the payment if relief sought in its Rule 60(b) motion is awarded. On April 16, 2020, the USDC ordered Apple to file a supplemental brief with respect to its Rule 60(b) motion within 7 days. The USDC has not ruled in this matter.

VirnetX Inc. v. Apple, Inc. (Case 6:12-CV-00855-LED) (“Apple II”)

This case began on November 6, 2012, when we had filed a complaint against Apple in USDC in which we alleged that Apple infringed on certain of our patents, (U.S. Patent Nos. 6,502,135, 7,418,504, 7,921,211 and 7,490,151). We sought damages and injunctive relief. The accused products include the iPhone 5, iPod Touch 5th Generation, iPad 4th Generation, iPad mini, and the latest Macintosh computers; these products were not included in the Apple I case because they were released after the Apple I case was initiated. Post-trial motions hearing was held on July 18, 2018. On August 31, 2018, the USDC entered a Final Judgment and issued its Memorandum Opinion and Order regarding post-trial motions, affirming the jury’s verdict of \$502,600 and granting VirnetX motions for supplemental damages, a sunset royalty and the royalty rate of \$1.20 per infringing iPhone, iPad and Mac products, pre-judgment and post-judgment interest and costs. On September 20, 2018, pursuant to a Court’s order, attorneys from VirnetX and Apple conferred and agreed, without dispute, to add an amount totaling \$93,300 for Bill of Costs and Prejudgment Interest to the \$502,600 jury verdict. The total amount in the final judgment in the Apple II case is now \$595,900. Apple has filed a notice of appeal with the USCAFC in the Apple II case.

On October 9, 2018, USCAFC docketed the appeal as Case No. 19-1050 - VirnetX Inc. v. Apple Inc. . On January 24, 2019 Apple filed its opening brief. We filed our response brief on March 1, 2019. Apple filed its reply brief on April 5, 2019. The oral arguments were heard on October 4, 2019. On November 22, 2019, the USCAFC issued an opinion affirming the district court’s findings that Apple is precluded from making certain invalidity arguments and that Apple infringed the ’135 and ’151 patents; reversing the district court’s finding that Apple infringed the ’504 and ’211 patents; and remanding the case for proceedings on damages. Apple sought panel and en banc rehearing, which the USCAFC denied on February 10, 2020.

On February 22, 2020, the USDC issued a scheduling order for the parties to brief the court about the need for a new trial for recalculating the damages. We filed our motion for entry of judgment on February 28, 2020. The arguments on this matter were heard on April 14, 2020. In its order, unsealed on May 1, 2020, the district court denied VirnetX’s motion for entry of a new judgment based on the prior jury verdict and ordered a new jury trial on damages. The jury selection and trial has been scheduled on August 17, 2020.

VirnetX Inc. v. Cisco Systems, Inc. (USCAFC Case 19-1671)

On March 18, 2018, we filed with the USCAFC an appeal of the invalidity findings by the PTAB in inter-partes reexamination no. 95/001,679 involving our U.S. Patent No. 6,502,135. We filed a motion to remand on August 23, 2019, which the USCAFC denied on October 1, 2019, directing the parties to address the issues in the merits briefs. On November 7, 2019, we filed another motion to vacate and remand in light of *Arthrex*. The USPTO intervened and opposed the remand. The USCAFC granted our motion on January 24, 2020. On March 9, 2020, Cisco and the USPTO both filed petitions for panel and en banc rehearing, which remain pending.

McKool Smith P.C. v. VirnetX, Inc., AAA Case No. 01-20-0003-7975

On March 23, 2020, the law firm of McKool Smith, P.C. (“McKool”) filed a Demand for Arbitration against VirnetX, Inc. with the American Arbitration Association (“AAA”). In its demand, McKool claims that a retention agreement it entered into in 2010 with VirnetX entitles it to a contingency fee arising from the recent 2020 payment made by Apple. McKool claims it is owed \$36.3 million (or 8% of the payment). We have filed a general response with AAA denying McKool’s claim and intend to vigorously contest the matter.

One or more potential intellectual property infringement claims may also be available to us against certain other companies who have the resources to defend against any such claims. Although we believe these potential claims are likely valid, commencing a lawsuit can be expensive and time-consuming, and there is no assurance that we could prevail on such potential claims if we made them. In addition, bringing a lawsuit may lead to potential counterclaims which may distract our management and our other resources, including capital resources, from efforts to successfully commercialize our products.

Currently, we are not a party to any other pending legal proceedings and are not aware of any proceeding threatened or contemplated against us.

Note 8 — Leases

We lease office space under an operating lease which expires in October 2021. We also entered into an operating lease for a facility used for corporate promotional and marketing purposes which was prepaid in full in a prior year and expires in 2024.

At January 1, 2019, we recorded an ROU asset in other assets and a lease liability in other liabilities of \$45 for the office lease; at March 31, 2020, the ROU asset and lease liability totaled \$84. For the three months ended March 31, 2020, we recorded lease expense of \$13. Adoption of the ASU had no impact on the Condensed Consolidated Statement of Operations.

Note 9 — Earnings Per Share

Basic earnings per share are based on the weighted average number of common shares outstanding for the period. Diluted earnings per share are based on the weighted average number of common shares and potentially dilutive common shares outstanding. Potential common shares outstanding principally include stock options, RSUs and warrants, excluding any potentially dilutive shares convertible at a price higher than the closing price of our stock at the end of each reporting period.

The following table shows the computation of basic and diluted earnings per share for the three-months ended March 31, 2020 and 2019 (in thousands):

	Three Months Ended March 31,	
	2020	2019
Numerator:		
Net income (loss)	\$ 299,945	\$ (5,608)
Denominator:		
Weighted-average basic shares outstanding	70,365	67,596
Effect of dilutive securities	1,019	—
Weighted-average diluted shares	<u>71,384</u>	<u>67,596</u>
Basic earnings per share	\$ 4.26	\$ (0.08)
Diluted earnings per share	\$ 4.20	\$ (0.08)

Potentially dilutive securities representing 2,161,955 shares of common stock were excluded from the computation of diluted earnings per share for the three months ended March 31, 2020, because their effect would have been antidilutive. We incurred a net loss for the three months ended March 31, 2019; therefore, all 5,865,014 potentially dilutive securities representing shares of common stock were excluded from the computation of diluted earnings per share for the quarter, because their effect would have been antidilutive.

Note 10 — Subsequent Events

On April 2, 2020, we issued 50,000 options to an employee with a weighted average grant date fair value of \$3.87 per option. On April 29, 2020 we issued 25,000 warrants with an exercise price per common share of \$5.75. These warrants will expire on April 29, 2025.

On May 8, 2020 the Company announced that its Board of Directors approved a \$1.00 per share special cash dividend on its common stock, payable on or about May 26, 2020, to stockholders of record as of the close of business on May 18, 2020.

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

Company Overview

We are an Internet security software and technology company with patented technology for secure communications including 5G and 4G LTE security. Our software and technology solutions, including our Secure Domain Name Registry and GABRIEL Connection Technology™, are designed to facilitate secure communications and provide the security platform required by next-generation Internet-based applications such as instant messaging, or IM, voice over Internet protocol, or VoIP, mobile services, streaming video, file transfer, remote desktop and Machine-to-Machine, or M2M communications. Our technology generates secure connections on a “zero-click” or “single-click” basis, significantly simplifying the deployment of secure real-time communication solutions by eliminating the need for end-users to enter any encryption information. Our portfolio of intellectual property is the foundation of our business model. We currently own approximately 194 total patents and pending applications, including 70 U.S. patents/patent applications and 124 foreign patents/validations/pending applications. Our patent portfolio is primarily focused on securing real-time communications over the Internet, as well as related services such as the establishment and maintenance of a secure domain name registry. Our patented methods also have additional applications in the key areas of device operating systems and network security for Cloud services, M2M communications in the new initiatives like “Smart City”, “Connected Car” and “Connected Home” that would connect everything from social services and citizen engagement to public safety, transportation and economic development to the internet to enable more productivity, features and efficiency in our everyday lives. The subject matter of all our U.S. and foreign patents and pending applications relates generally to securing communication over the internet, and as such covers all our technology and other products. Our issued U.S. and foreign patents expire at various times during the period from 2020 to 2024. Some of our issued patents and pending patent applications were acquired by our principal operating subsidiary; VirnetX, Inc., from Leidos, Inc., or Leidos, (f/k/a Science Applications International Corporation, or SAIC) in 2006 and we are required to make payments to Leidos, based on cash or certain other values generated from those patents. The amount of such payments depends upon the type of value generated, and certain categories are subject to maximums and other limitations.

Our product GABRIEL Secure Communication Platform™ includes a set of sophisticated software libraries with application interfaces available for securing third-party applications seamlessly across multiple operating system platforms. Unlike other collaboration and communication products and services on the market today, this product does not require access to user’s confidential data and reduces the threat of hacking and data mining. It enables individuals and organizations to maintain complete ownership and control over their personal and confidential data, secured within their own private network, while enabling authorized secure encrypted access from anywhere at any time.

Our GABRIEL Gateway product extends our Secure Communication Platform™ by allowing existing Networked Devices and Services to seamlessly join the “GABRIEL SECURED” network without requiring any modifications. All these devices or services, including cloud-based services, can now be assigned a VirnetX Secure Domain Name and use a fully authenticated secure communication channels for its communications.

Our GABRIEL Collaboration Suite™ is a set of communication tools that use our GABRIEL Secure Communication Platform™. It enables seamless and secure cross-platform communications between devices that are enrolled in our security fabric and have our software installed. Our GABRIEL Collaboration Suite™ is available for download and free trial, for Android, iOS, Windows, Linux and Mac OS X platforms, at <http://www.gabrielsecure.com/>. We continue to enhance our products and add new functionality to our products. We will provide updates to new and existing customers as they are released to the general public. A large number of small and medium businesses have installed our GABRIEL Secure Communication Platform™ and GABRIEL Collaboration Suite™ products in their corporate networks. We intend to continue to expand our customer base with targeted promotions and direct sales initiatives.

We are actively recruiting partners in various vertical markets including, healthcare, finance, government, etc., to help us rapidly expand our enterprise customer base. A number of International Association of Certified ISAO (IACI) including ISAO’s for Maritime & Ports ISAO, Credit Union ISAO, City of Chicago ISAO, Human Trafficking ISAO, have chosen to deploy our software as private and secure e-technology to protect their communications. Several other ISAOs are completing their evaluations before deploying our products within their networks.

We have executed a number of patent and technology licenses and intend to seek further licensees for our technology, including our GABRIEL Connection Technology™ to original equipment manufacturers, or OEMs, of chips, servers, smart phones, tablets,

We have submitted a declaration with the 3rd Generation Partnership Project, or 3GPP, identifying a group of our patents and patent applications that we believe are or may become essential to certain developing specifications in the 3GPP LTE, Systems Architecture Evolution, or SAE project. We have agreed to make available a non-exclusive patent license under fair, reasonable and non-discriminatory terms and conditions, with compensation, or FRAND, to 3GPP members desiring to implement the technical specifications identified by us. We believe that we are positioned to license our essential security patents to 3GPP members as they move into deploying 5G and 4G/LTE Advanced devices and solutions.

We have an ongoing GABRIEL Licensing Program under which we offer licenses to a portion of our patent portfolio, technology and software, including our secure domain name registry service, to domain infrastructure providers, communication service providers as well as to system integrators. Our GABRIEL Connection Technology™ License is offered to OEM customers who want to adopt the GABRIEL Connection Technology™ as their solution for establishing secure connections using secure domain names within their products. We have developed GABRIEL Connection Technology™ Software Development Kit (SDK) to assist with rapid integration of these techniques into existing software implementations with minimal code changes and include object libraries, sample code, testing and quality assurance tools and the supporting documentation necessary for a customer to implement our technology. Customers who want to develop their own implementation of the VirnetX patented techniques for supporting secure domain names, or other techniques that are covered by our patent portfolio for establishing secure communication links, can purchase a patent license. The number of patents licensed, and therefore the cost of the patent license to the customer, will depend upon which of the patents are used in a particular product or service. These licenses will typically include an initial license fee, as well as an ongoing royalty.

We have signed Patent License Agreements with Avaya Inc., Aastra USA, Inc., Microsoft Corporation, Mitel Networks Corporation, NEC Corporation and NEC Corporation of America, Siemens Enterprise Communications GmbH & Co. KG, and Siemens Enterprise Communications Inc. to license certain of our patents, for a one-time payment and/or an ongoing royalty for all future sales through the expiration of the licensed patents with respect to certain current and future IP-encrypted products.

We believe that the market opportunity for our software and technology solutions is large and expanding as secure domain names are now an integral part of securing the next generation 5G and 4G/LTE Advanced wireless networks and M2M communications in areas including Smart City, Connected Car and Connected Home. We also believe that all 5G and 4G/LTE Advanced mobile devices will require unique secure domain names and become part of a secure domain name registry.

We intend to continue to license our patent portfolio, technology and software, including our secure domain name registry service, to domain infrastructure providers, communication service providers as well as to system integrators. We intend to seek further license of our technology, including our GABRIEL Connection Technology™ to enterprise customers, developers and original equipment manufacturers, or OEMs, of chips, servers, smart phones, tablets, e-Readers, laptops, net books and other devices, within the IP-telephony, mobility, fixed-mobile convergence and unified communications markets including 5G and 4G/LTE.

Our employees include the core development team behind our patent portfolio, technology and software. This team has worked together for over ten years and is the same team that invented and developed this technology while working at Leidos, Inc. (“Leidos”). Leidos is a FORTUNE 500® scientific, engineering and technology applications company that uses its deep domain knowledge to solve problems of vital importance to the nation and the world, in national security, energy and the environment, critical infrastructure and health. The team has continued its research and development work started at Leidos and expanded the set of patents we acquired in 2006 from Leidos, into a larger portfolio of approximately 194 U.S. and foreign patents, patent validations and pending applications. This portfolio now serves as the foundation of our licensing business and planned service offerings and is expected to generate the majority of our future revenue in license fees and royalties. We intend to continue our research and development efforts to further strengthen and expand our patent portfolio.

We intend to continue using an outsourced and leveraged model to maintain efficiency and manage costs as we grow our licensing business by, for example, offering incentives to early licensing targets or asserting our rights for use of our patents. We also intend to expand our design pilot in participation with leading 5G and 4G/LTE companies (domain infrastructure providers, chipset manufacturers, service providers and others) and build our secure domain name registry.

New Accounting Pronouncements

In December 2019 the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Update (“ASU”) 2019-12 Income Taxes (Topic 740). The amendments in this ASU simplify the accounting for income taxes by removing certain exceptions to the general principles in Topic 740. The amendments also improve consistent application of and simplify GAAP for other areas of Topic 740 by clarifying and amending existing guidance. The amendments in this ASU are effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2020. We are currently evaluating the impact, if any this ASU will have on our consolidated financial statements and related disclosures.

In August 2018 the FASB issued ASU 2018-13 - Fair Value Measurement (Topic 820). The FASB is issuing the amendments in this ASU as part of the disclosure framework project. On March 4, 2014, the Board issued a proposed FASB Concepts Statement, Conceptual Framework for Financial Reporting—Chapter 8: Notes to Financial Statements, which the Board finalized on August 28, 2018. The disclosure framework project’s objective and primary focus are to improve the effectiveness of disclosures in the notes to financial statements by facilitating clear communication of the information required by GAAP that is most important to

users of each entity's financial statements. The amendments in this ASU are effective for all entities for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019. We adopted this guidance on January 1, 2020 which had no material impact on our financial position and statement of operations.

In June 2016 the FASB issued Accounting Standards Update 2016-13 Financial Instruments—Credit Losses (Topic 326). The amendments in this Update require a financial asset (or a group of financial assets) measured at amortized cost basis to be presented at the net amount expected to be collected. The allowance for credit losses is a valuation account that is deducted from the amortized cost basis of the financial asset(s) to present the net carrying value at the amount expected to be collected on the financial asset. We adopted this guidance on January 1, 2020 and there was no material impact on our financial position or statement of operations.

Results of Operation

Three Months Ended March 31, 2020 Compared with Three Months Ended March 31, 2019 (in thousands, except per share amounts)

Revenue

For the three months ended March 31, 2020 and 2019, we recognized revenue of \$302,576 and \$8, respectively. During the quarter ended March 31, 2020, the Company collected a lump sum payment of \$454,034 from Apple, Inc. (see “Legal Proceedings”), as a result of a favorable court decision relating to a patent infringement case. The one-time, payment includes past royalties, damages for willful infringement, interest, court costs and attorneys’ fees. The elements of the payment were recognized in the Company’s condensed consolidated statement of operations as follow:

Classification in the Company’s Condensed Consolidated Statement of Operations for the Three Months Ended March 31, 2020

Revenue (royalties)	\$ 302,428
Operating expenses: selling, general and administrative (reimbursed litigation costs)	2,114
Other income: gain (willful infringement)	41,271
Other income: interest income (pre and post judgment interest)	108,221
Total cash received	<u>\$ 454,034</u>

Licensing Costs

Included in operating expenses for the three months ended March 31, 2020, is \$90,101 in licensing costs we have accrued in conjunction with the proceeds received from Apple, Inc., pursuant to a favorable court decision relating to a patent infringement case.

Research and Development Expenses

Our research and development expenses increased by \$969 to \$1,905 for the three months ended March 31, 2020, from \$936 for the three months ended March 31, 2019. This increase was primarily due to increase in employee benefits.

Selling, General and Administrative Expenses

Our selling, general and administrative expenses increased by \$22,670 to \$27,376 for the three months ended March 31, 2020, from \$4,706 for the three months ended March 31, 2019. The increase is primarily due to an increase in legal fees of \$21,789 associated with our current patent infringement actions, after reflecting reimbursement of \$2,114 pursuant to a judgment collected from Apple.

Other Income and Expenses

For the three months ended March 31, 2020, we recognized a gain of \$41,271 and interest income of \$108,221 pursuant to a judgment collected from Apple.

Liquidity and Capital Resources

As of March 31, 2020, our cash and cash equivalents totaled approximately \$435,812 and our short-term investments totaled approximately \$1,336, compared to cash and cash equivalents of approximately \$3,135 and short-term investments of approximately \$2,394 at December 31, 2019, respectively. Working capital was \$301,303 at March 31, 2020, and \$3,945 at December 31, 2019. The increase in cash and investments during the three months ended March 31, 2020 was primarily attributed to receipt of Apple payment.

We expect that our cash and cash equivalents and short-term investments as of March 31, 2020, will be sufficient to fund our current level of selling, general and administration costs, including legal expenses and provide related working capital for the foreseeable future. Over the longer term, we expect to derive the majority of our future revenue from license fees and royalties associated with our patent portfolio, technology, software and secure domain name registry in the United States and other markets around the world.

Universal Shelf Registration Statement and ATM Offering

On July 30, 2018 we filed a \$100,000 universal shelf registration statement on SEC Form S-3 which was declared effective by the SEC on August 16, 2018. We also entered an at-the-market equity offering sales agreement (“ATM”) with Cowen & Company, LLC on August 31, 2018, under which we can offer and sell shares of our common stock having an aggregate value of up to \$50,000.

We use the ATM proceeds for GABRIEL product development, marketing and general corporate purposes, which may include working capital, capital expenditures, other corporate expenses and acquisitions of complementary products, technologies or businesses. As of March 31, 2020, common stock with an aggregate value of up to \$21,964 remained available for offer and sale under the ATM agreement.

During the three months ended March 31, 2020, we sold 1,049,382 shares under the ATM. The average sales price per common share was \$4.41 and the aggregate proceeds from the sales totaled \$4,627 during the period. Sales commissions, fees and other costs associated with the ATM totaled \$139.

Income Taxes

For the three months ended March 31, 2020, we recognized income tax expense of \$32,759 on income before taxes of \$332,704, which is an effective tax rate of 9.9%. For the three months ended March 31, 2019, income tax expense was \$2 on a loss before taxes of \$5,606 and an effective tax rate of 0.04%. The effective tax rate for the 2020 period was favorably impacted by the reversal of valuation allowance reserves totaling \$38,112 which were established in prior years on our deferred tax assets primarily associated with net operating loss (“NOL”) carryforwards. For the three months ended March 31, 2019, we had NOLs which generated deferred tax assets for NOL carryforwards. During 2019, we provided valuation allowances against the net deferred tax assets including the deferred tax assets for NOL carryforwards. As of March 31, 2020, we had deferred tax assets of \$8,722.

A valuation allowance is provided for deferred tax assets when, in our judgment, based upon currently available information and other factors, it is more likely than not that all or a portion of such deferred income tax assets will not be realized. The determination of the need for a valuation allowance is based on an on-going evaluation of current information including, among other things, historical operating results, estimates of future earnings in different taxing jurisdictions and the expected timing of the reversals of temporary differences. We believe the determination to record, or reduce, a valuation allowance associated with a deferred income tax asset is a significant accounting estimate because it is based, among other things, on an estimate of future taxable income in the United States and certain other jurisdictions, which is susceptible to change and may or may not occur, and because the impact of adjusting a valuation allowance may be material. In determining when to release the valuation allowance established against our net deferred income tax assets, we consider all available evidence, both positive and negative.

As a result of the significant taxable income recognized in the three months ended March 31, 2020, we determined that it was more likely than not that we will recover our deferred tax assets and accordingly the valuation allowances were reversed during the period. During 2019, consistent with our policy, and because of our history of operating losses, we did not recognize the benefit of our deferred tax assets, including NOL carryforwards, that may have been used to offset future taxable income. We continually assess our ability to generate sufficient taxable income during future periods in which our deferred tax assets may be realized.

Internal Revenue Code Section 382 places a limitation (the “Section 382 Limitation”) on the amount of net operating loss carryforwards that can be used to offset taxable income after a change in control (generally greater than 50% change in ownership) of a loss corporation. California, the state in which our headquarters was once located, has similar rules. Generally, after a control change, a loss corporation cannot deduct net operating loss carryforward generated in years prior to the deemed change of control under IRC Section 382 in excess of the Section 382 Limitation. Because we have concluded that the Company has not experienced a change in control under section 382, all NOL carryforwards were utilized to offset taxable income generated in the period.

Our tax years for 2005 and forward are subject to examination by the U.S. tax authority and various state tax authorities. These years are open due to NOLs and tax credits to be utilized from such years.

Our policy is to recognize interest and penalties accrued on uncertain tax positions as a component of income tax expense. As of March 31, 2020, we had accrued immaterial amounts of interest and penalties related to the uncertain tax positions.

Contractual Obligations

There have been no material changes to the contractual obligations disclosed in our Annual Report on Form 10-K for the fiscal year ended December 31, 2019.

Off-Balance Sheet Arrangements

None.

ITEM 3 — QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK.

Interest Rate Risk

We invest our excess cash primarily in highly liquid instruments including time deposits, money market, and U.S. agency securities. We seek to limit the amount of our credit exposure to any one issuer.

Investments in fixed rate instruments carry a degree of interest rate risk. Fixed rate securities may have their fair market value adversely impacted due to a rise in interest rates. Due in part to these factors, our income from investments may decrease in the future.

We considered the historical volatility of short-term interest rates and determined that it was reasonably possible that an adverse change of 100 basis points could be experienced in the near term but would have an immaterial impact in the fair value of our marketable securities, which generally mature within one year of March 31, 2020.

Other Market Risks

We considered the historical volatility of our stock prices and determined that it was reasonably possible that the fair market value of our stock price could increase or decrease substantially in the near term and could have a material impact to our consolidated balance sheets and statement of operations with respect to future stock-based compensation costs and other equity transactions.

ITEM 4 — CONTROLS AND PROCEDURES.

Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we conducted an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended, as of March 31, 2020.

The purpose of this evaluation was to determine whether as of March 31, 2020 our disclosure controls and procedures were effective to provide reasonable assurance that the information we are required to disclose in our filings with the SEC, (i) is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms and (ii) accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

Based on their evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that as of March 31, 2020, our disclosure controls and procedures were effective.

Changes in Internal Control Over Financial Reporting.

There were no changes in our internal control over financial reporting during the quarter ended March 31, 2020 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

We have not experienced any material impact to our internal controls over financial reporting despite the fact that most of our employees are working remotely due to the COVID-19 pandemic. We are continually monitoring and assessing the impact of the COVID-19 outbreak on our internal controls to minimize the impact on their design and operating effectiveness.

PART II — OTHER INFORMATION

ITEM 1 — LEGAL PROCEEDINGS

We have several intellectual property infringement lawsuits pending in the United States District Court for the Eastern District of Texas, Tyler Division (“USDC”), and United States Court of Appeals for the Federal Circuit (“USCAFC”).

VirnetX Inc. v. Cisco Systems, Inc. et al. (Case 6:10-CV-00417-LED) (“Apple I”)

On August 11, 2010, we filed a complaint against Aastra USA, Inc. (“Aastra”), Apple Inc. (“Apple”), Cisco Systems, Inc. (“Cisco”), and NEC Corporation (“NEC”) the USDC in which we alleged that these parties infringe on certain of our patents (U.S. Patent Nos. 6,502,135, 7,418,504, 7,921,211 and 7,490,151). We sought damages and injunctive relief. The cases against each defendant were separated by the judge. Aastra and NEC agreed to sign license agreements with us, and we dropped all accusations of infringement against them. A jury in USDC decided that our patents were not invalid and rendered a verdict of non-infringement by Cisco on March 4, 2013. Our motion for a new Cisco trial was denied and the case against Cisco was closed.

On November 6, 2012, a jury in the USDC awarded us over \$368,000 for Apple’s infringement of four of our patents, plus daily interest up to the final judgment.

Apple filed an appeal of the judgment to the USCAFC. On September 16, 2014, USCAFC affirmed the USDC jury’s finding that all four of our patents at issue are valid and confirmed the USDC jury’s finding of infringement of VPN on Demand under many of the asserted claims of our ‘135 and ‘151 patents, and the USDC’s decision to allow evidence about our license and royalty rates regarding the determination of damages. However, the USCAFC vacated the USDC jury’s damages award and some of the USDC’s claim construction with respect to parts of our ‘504 and ‘211 patents and remanded the damages award and determination of infringement with respect to FaceTime back to the USDC for further proceedings.

On September 30, 2016, pursuant to the 2014 remand from the USCAFC, a jury in the USDC awarded us \$302,400 for Apple’s infringement of four of our patents. On September 29, 2017, the USDC entered its final judgment, denied all of Apple’s post-trial motions, granted all our post-trial motions, including our motion for willful infringement and enhanced the royalty rate during the willfulness period from \$1.20 to \$1.80 per device, and awarded us costs, certain attorneys’ fees, and prejudgment interest. The total amount in the final judgment was \$439,700, including \$302,400 (jury verdict), \$41,300 (enhanced damages) and \$96,000 (costs, fees and interest).

On October 27, 2017 Apple appealed the final judgment entered on September 29, 2017 to the USCAFC. Oral arguments in this case were held on January 8, 2019. On January 15, 2019 the Court issued a Rule 36 order affirming the district court’s final judgment. Apple filed a petition for panel rehearing and rehearing en-banc in this matter on February 21, 2019. On October 1, 2019, USCAFC issued an order denying Apple’s petition. Apple filed a petition for a writ of certiorari with the U.S. Supreme Court, which was denied on February 24, 2020. Prior to the Supreme Court decision denying Apple’s petition for a writ of certiorari, on February 20, 2020, Apple filed a Rule 60(b) motion for relief from judgment with the USDC, seeking relief from the district court’s September 29, 2017 final judgment. VirnetX filed a responsive brief in opposition on March 5, 2020.

On March 13, 2020, the Company received payment of \$454,034 from Apple, representing the previously announced final judgment with interest in this case. Apple has indicated that it will seek restitution of the payment if relief sought in its Rule 60(b) motion is awarded. As ordered by the USDC, Apple filed its supplemental brief with respect to its Rule 60(b) motion on April 23, 2020. The USDC has not ruled in this matter.

VirnetX Inc. v. Apple, Inc. (Case 6:12-CV-00855-LED) (“Apple II”)

This case began on November 6, 2012, when we had filed a complaint against Apple in USDC in which we alleged that Apple infringed on certain of our patents, (U.S. Patent Nos. 6,502,135, 7,418,504, 7,921,211 and 7,490,151). We sought damages and injunctive relief. The accused products include the iPhone 5, iPod Touch 5th Generation, iPad 4th Generation, iPad mini, and the latest Macintosh computers; these products were not included in the Apple I case because they were released after the Apple I case was initiated. Post-trial motions hearing was held on July 18, 2018. On August 31, 2018, the USDC entered a Final Judgment and issued its Memorandum Opinion and Order regarding post-trial motions, affirming the jury’s verdict of \$502,600 and granting VirnetX motions for supplemental damages, a sunset royalty and the royalty rate of \$1.20 per infringing iPhone, iPad and Mac products, pre-judgment and post-judgment interest and costs. On September 20, 2018, pursuant to a Court’s order, attorneys from VirnetX and Apple conferred and agreed, without dispute, to add an amount totaling \$93,300 for Bill of Costs and Prejudgment Interest to the \$502,600 jury verdict. The total amount in the final judgment in the Apple II case is now \$595,900. Apple has filed a notice of appeal with the USCAFC in the Apple II case.

On October 9, 2018, USCAFC docketed the appeal as Case No. 19-1050 - VirnetX Inc. v. Apple Inc. On January 24, 2019 Apple filed its opening brief. We filed our response brief on March 1, 2019. Apple filed its reply brief on April 5, 2019. The oral arguments were heard on October 4, 2019. On November 22, 2019, the USCAFC issued an opinion affirming the district court’s findings that Apple is precluded from making certain invalidity arguments and that Apple infringed the ‘135 and ‘151 patents;

reversing the district court's finding that Apple infringed the '504 and '211 patents; and remanding the case for proceedings on damages. Apple sought panel and en banc rehearing, which the USCAFC denied on February 10, 2020.

On February 22, 2020, the USDC issued a scheduling order for the parties to brief the court about the need for a new trial for recalculating the damages. We filed our motion for entry of judgment on February 28, 2020. The arguments on this matter were heard on April 14, 2020. In its order, unsealed on May 1, 2020, the district court denied VirnetX's motion for entry of a new judgment based on the prior jury verdict and ordered a new jury trial on damages. The jury selection and trial has been scheduled on August 17, 2020.

VirnetX Inc. v. Cisco Systems, Inc. (USCAFC Case 19-1671)

On March 18, 2018, we filed with the USCAFC an appeal of the invalidity findings by the PTAB in inter-partes reexamination no. 95/001,679 involving our U.S. Patent No. 6,502,135. We filed a motion to remand on August 23, 2019, which the USCAFC denied on October 1, 2019, directing the parties to address the issues in the merits briefs. On November 7, 2019, we filed another motion to vacate and remand in light of *Arthrex*. The USPTO intervened and opposed the remand. The USCAFC granted our motion on January 24, 2020. On March 9, 2020, Cisco and the USPTO both filed petitions for panel and en banc rehearing, which remain pending.

McKool Smith P.C. v. VirnetX, Inc., AAA Case No. 01-20-0003-7975

On March 23, 2020, the law firm of McKool Smith, P.C. ("McKool") filed a Demand for Arbitration against VirnetX, Inc. with the American Arbitration Association ("AAA"). In its demand, McKool claims that a retention agreement it entered into in 2010 with VirnetX entitles it to a contingency fee arising from the recent 2020 payment made by Apple. McKool claims it is owed \$36.3 million (or 8% of the payment). We have filed a general response with AAA denying McKool's claim and intend to vigorously contest the matter.

One or more potential intellectual property infringement claims may also be available to us against certain other companies who have the resources to defend against any such claims. Although we believe these potential claims are likely valid, commencing a lawsuit can be expensive and time-consuming, and there is no assurance that we could prevail on such potential claims if we made them. In addition, bringing a lawsuit may lead to potential counterclaims which may distract our management and our other resources, including capital resources, from efforts to successfully commercialize our products.

Currently, we are not a party to any other pending legal proceedings and are not aware of any proceeding threatened or contemplated against us.

ITEM 1A — RISK FACTORS

Our operations and financial results are subject to various risks and uncertainties, including those described below, which could adversely affect our business, financial condition, results of operations, cash flows, and the trading price of our common and capital stock. You should carefully consider the risks and uncertainties described below in addition to the other information set forth in this Quarterly Report on Form 10-Q, including the section titled “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and our consolidated financial statements and related notes, before making any investment in our common stock. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties not presently known to us or that we currently believe to be immaterial may also adversely affect our business. If any of these risk factors occur, you could lose substantial value or your entire investment in our shares.

Risks Related to Our Business and Our Financial Reporting

We are involved and will continue to be involved in litigation defending our patent portfolio, which can be time-consuming and costly, and we cannot anticipate the results.

We spend a significant amount of our financial and management resources to pursue our current litigation. We believe that this litigation and others that we may pursue in the future could continue for years and consume significant financial and management resources. The counterparties to our litigation include large, well-financed companies with substantially greater resources than us. Patent litigation is risky, and the outcome is uncertain, and we cannot assure you that any of our current or future litigation matters will result in a favorable outcome for us. In addition, even if we obtain favorable interim rulings or verdicts, they may be inconsistent with the ultimate resolution of the dispute. Also, we cannot assure you that we will not be exposed to claims or sanctions against us which may be costly or impossible for us to defend. Unfavorable or adverse outcomes may result in losses, exhaustion of financial resources or other adverse effects, which could encumber our ability to develop and commercialize our products.

We may not be able to capitalize on market opportunities related to our licensing strategy or our patent portfolio.

Our business strategy includes licensing our patents and technology to other companies in order to reach a larger end-user base than we could reach through direct sales and marketing efforts; as such, our business strategy and revenues will depend on intellectual property licensing fees and royalties for the majority of our revenues. We currently derive minimal revenue from licensing activities, and royalties, and we cannot assure you that we will successfully capitalize on our market opportunities or that our current business strategy will succeed. Factors that may affect our ability to execute our current business strategy include, but are not limited to, the following:

Although to date we have entered into a limited number of settlement and license agreements, we may not be successful in entering into further licensing relationships, or if we are successful in entering into such relationships, the acquisition of them may be expensive, and they, as well as our existing settlement and our existing and pending license agreements may not generate the financial results we expect;

- Third parties may challenge the validity of our patents.
- The pendency of our various litigations may cause potential licensees not to do business with us;
- We face, and we expect to continue to face, intense competition from new and established competitors who may have superior products and services or better marketing, financial or other capacities than we do; and
- It is possible that one or more of our potential customers or licensees develops or otherwise sources products or technologies similar to, competitive with or superior to ours.

If we are not able to adequately protect our patent rights, our business would be negatively impacted.

We believe our patents are valid, enforceable and valuable. Notwithstanding this belief, third parties may make claims of infringement or invalidity claims with respect to our patents and such claims could give rise to material cost for defense or settlement or both, jeopardize or substantially delay a successful outcome of litigation we are or may become involved in, divert resources away from our other activities, limit or cease our revenues related to such patents, or otherwise materially and adversely affect our business. Similar challenges could also prevent us from obtaining additional patents in the future. Additionally, several of our patents are currently, and other patents may in the future be, subject to United States Patent and Trademark Office (“USPTO”) post-grant inter partes review proceedings (“IPR”) which may result in all or part of these patents being invalidated, or the claims of our patents being limited. Unfavorable or adverse outcomes in our litigation or IPRs may result in losses, exhaustion of financial resources, reduction in our ability to enforce our intellectual property rights, or other adverse effects, which could encumber our ability to develop and commercialize our products. Even if we are successful in enforcing our intellectual property rights, our patents may not ultimately provide us with any competitive advantages and may be less valuable than we currently expect. These risks may be heightened in countries other than the United States where laws regarding patent protection are less developed and may be negatively affected by the fact that legal standards in the United States and elsewhere for protection of intellectual property rights in Internet-related businesses are uncertain and still evolving. In

addition, there are a significant number of United States and foreign patents and patent applications in our areas of interest, and we expect that significant litigation in these areas will continue and will add uncertainty to the value of certain patents and other intellectual property rights in our areas of interest. If we are unable to protect our intellectual property rights or otherwise realize value from them, our business would be negatively affected.

We can provide no assurances that the licensing of our essential security patents under FRAND will be successful.

At the request of the European Telecommunications Standards Institute (“ETSI”), and the Alliance for Telecommunications Industry Solutions (“ATIS”), we agreed to update our licensing declaration to ETSI and ATIS under their respective Intellectual Property Rights policies. This was in response to our Statement of Patent Holder identifying a group of our patents and patent applications that we believe are or may become essential to certain developing specifications in the 3rd Generation Partnership Project Long Term Evolution (“LTE”), Systems Architecture Evolution project. We will make available a non-exclusive patent license under FRAND (fair, reasonable and non-discriminatory terms and conditions, with compensation) for the patents identified by us that are or become essential to applicants desiring to implement the Technical Specifications identified by us, as set forth in the updated licensing declaration under the ATIS and ETSI Intellectual Property Rights policies. Our licensing declarations under the ATIS and ETSI Intellectual Property Rights policies may limit our flexibility in determining royalties and license terms for certain of our patents. Consequently, we cannot assure you that the licensing of the essential security patents will be successful or that third parties will be willing to enter into licenses with us on reasonable terms or at all, which could have an adverse effect on our business and harm our competitive position.

Because our business is conducted or expected to be conducted in an environment that is subject to rapid change, we may be subject to various developments in regulation, law and consumer preferences to which we may not be able to adapt successfully.

The current regulatory environment for our products and services remains unclear. We can give no assurance that our planned product offerings will be in compliance with laws and regulations of local, state, United States federal or foreign authorities. Further, we can give no assurance that we will not unintentionally violate such laws or regulations or that such laws or regulations will not be modified, or that new laws or regulations will be enacted in the future which would cause us to be in violation of such laws or regulations. For example, Voice-Over-Internet Protocol (“VoIP”) services are not currently subject to all the same regulations that apply to traditional telephony, but it is possible that similar regulations may be applied to VoIP in the future and that these could result in substantial costs to us which could adversely affect the marketability of our products and planned products related to VoIP. For further example, the use of the Internet and private Internet Protocol (“IP”) networks for communication is largely unregulated within the United States, but may become regulated in the future; additionally, several foreign governments have enacted measures that could restrict or prohibit voice communications services over the Internet or private IP networks.

Our business depends on the growth of instant messaging, VoIP, mobile services, streaming video, file transfer and remote desktop and other next-generation Internet-based applications. A decline in the use of these applications due to complexity or cost of these applications relative to alternate traditional or newly developed communications channels, or development of alternative technologies, could cause a material decline in the number of users in these areas.

More aggressive domestic or international regulation of the Internet in general, and Internet telephony providers and services specifically may materially and adversely affect our business, financial condition, operating results and future prospects.

Our exposure to outside influences beyond our control, including new legislation, court rulings or actions by the United States Patent and Trademark Office, could adversely affect our licensing and enforcement activities and results of operations.

Our licensing and enforcement activities are subject to numerous risks from outside influences, including the following:

- New legislation, regulations or rules related to obtaining patents or enforcing patents could significantly increase our operating costs and decrease our revenue. For instance, the United States Supreme Court has modified some tests used by the USPTO in granting patents during the past 20 years which may decrease the likelihood that we will be able to obtain patents and increase the likelihood of challenge of any patents we obtain or license. In addition, in 2012 the United States enacted sweeping changes to the United States patent system under the Leahy-Smith America Invents Act, including changes that transition the United States from a “first-to-invent” system to a “first to file” system and alter the processes for challenging issued patents;
- More patent applications are filed each year resulting in longer delays in getting patents issued by the USPTO;
- Federal courts are becoming more crowded, and as a result, patent enforcement litigation is taking longer; and
- As patent enforcement becomes more prevalent, it may become more difficult for us to voluntarily license our patents.

New legislation, regulations or court rulings related to enforcing patents could harm our business and operating results.

Intellectual property is the subject of intense scrutiny by the courts, legislatures and executive branches of governments around the world. Various patent offices, governments or intergovernmental bodies may implement new legislation, regulations or rulings that impact the patent enforcement process, or the rights of patent holders and such changes could negatively affect licensing efforts and/or litigations. For example, limitations on the ability to bring patent enforcement claims, limitations on potential liability for patent infringement, lower evidentiary standards for invalidating patents, increases in the cost to resolve patent disputes and other similar developments could negatively affect our ability to assert our patent or other intellectual property rights.

It is impossible to determine the extent of the impact of any new laws, regulations or initiatives that may be proposed, or whether any of the proposals will become enacted as laws. Compliance with any new or existing laws or regulations could be difficult and expensive, affect the manner in which we conduct our business and negatively impact our business, prospects, financial condition and results of operations.

We may need to raise additional capital to support our business growth, and this capital will be dilutive, may cause our stock price to drop or may not be available on acceptable terms, if at all.

We may need to raise additional capital, which may not be available to us when needed or may not be available on terms acceptable to us, to support our business growth or to respond to business opportunities, challenges or unforeseen circumstances, including sales under our ATM or our universal shelf registration statement. Our ability to obtain additional capital, if and when required, will depend on our business plans, investor demand, our operating performance, the condition of the capital markets, the terms of our current contractual obligations and other factors. If we raise additional funds through the issuance of equity, equity-linked or debt securities, including those under our ATM or our Universal Shelf Registration Statement, those securities may have rights, preferences, or privileges senior to the rights of our common stock, and our existing stockholders may experience dilution. Additionally, we are unable to predict the future success of our ATM offering or any other offering. Sales of a substantial number of shares of our common stock in the public market, or the perception that these sales or other financings might occur, could depress the market price of our common stock and could also impair our ability to raise capital through the sale of additional equity securities. If we issue debt securities or incur indebtedness, we could experience increased future payment obligations and a need to comply with restrictive covenants, such as limitations on our ability to incur additional debt, limitations on our ability to acquire, sell or license intellectual property rights and other operating restrictions that could adversely impact our ability to conduct our business. If we are unable to obtain additional capital or are unable to obtain additional capital on satisfactory terms, our ability to continue to support our business growth or to respond to business opportunities, challenges, or other circumstances could be adversely affected, and our business may be harmed.

If we experience security breaches, we could be exposed to liability and our reputation and business could suffer.

We expect to retain certain confidential and proprietary customer information in our secure data centers and secure domain name registry, as well as personal data and other confidential and proprietary information relating to our business. It will be critical to our business strategy that our facilities and infrastructure remain secure and are perceived by the marketplace to be secure. Our secure domain name registry operations will also depend on our ability to maintain our computer and telecommunications equipment in effective working order and to reasonably protect our systems against interruption, and potentially depend on protection by other registrars in the shared registration system. The secure domain name servers that we will operate will be critical hardware to our registry services operations. Therefore, we expect to have to expend significant time and money to maintain or increase the security of our products, facilities and infrastructure. Security technologies are constantly being tested by computer professionals, academics and “hackers.” Advances in computer capabilities and the techniques for attacking security solutions, new discoveries in the field of cryptography or other events or developments could result in compromises or breaches of our security measures and could make some or all our products obsolete or unmarketable. Likewise, if any of our products are found to have significant security vulnerabilities, then we may need to dedicate engineering and other resources to eliminate the vulnerabilities and to repair or replace products already sold or licensed to our customers. Despite the security measures that we and our service providers utilize, our infrastructure and that of our service providers may be vulnerable to physical break-ins, computer viruses, attacks by hackers, phishing attacks, social engineering, or similar disruptive problems. It is possible that we may have to expend additional financial and other resources to address such problems. As a provider of Internet security software and technology, we may be the target of dedicated efforts by hackers and other third parties to overcome or defeat our security measures. Any physical or electronic break-in or other security breach or compromise of the information stored at our secure data centers and domain name registration systems, including any compromise due to human error or employee or contractor malfeasance, may jeopardize the security of information stored on our premises or in the computer systems and networks of our customers. In such an event, we could face significant liability and current or potential customers could be reluctant to use our services. Additionally, any such data security incident, or the perception that one has occurred could also result in adverse publicity, harm to our reputation and competitive position, and therefore adversely affect the market’s perception of the security of electronic commerce and communications over IP networks as well as the security or reliability of our services.

A security breach or other security incident could require a substantial level of financial resources to rectify and otherwise respond to, may be difficult to identify or address in a timely manner, and could result in claims, investigations, and inquiries by private parties or governmental entities that may divert management’s attention and require the expenditure of significant time and resources, and which may cause us to incur substantial fines, penalties, or other liability and related legal and other costs. Any actual or perceived security breach or other security incident may also harm our reputation and make it more difficult or impossible for us to successfully market to others. Any of the foregoing matters could harm our operating results and financial condition.

Privacy and data security concerns, and data collection and transfer restrictions and related domestic or foreign regulations may limit the use and adoption of our solutions and adversely affect our business.

Personal privacy, information security, and data protection are significant issues in the United States, Europe and many other jurisdictions where we have operations or offer our products. The regulatory framework governing the collection, processing, storage and use of confidential and proprietary business information and personal data is rapidly evolving. The United States federal and various state and foreign governments have adopted or proposed requirements regarding the collection, distribution, use, security and storage of personally identifiable information and other data relating to individuals, and federal and state consumer protection laws are being applied to enforce regulations related to the online collection, use and dissemination of data.

Further, many foreign countries and governmental bodies, including the European Union (“EU”), where we conduct business, have laws and regulations concerning the collection and use of personal data obtained from their residents or by businesses operating within their jurisdiction. These laws and regulations often are more restrictive than those in the United States. Laws and regulations in these jurisdictions apply broadly to the collection, use, storage, disclosure and security of data that identifies or may be used to identify or locate an individual, such as names, email addresses and, in some jurisdictions, IP addresses.

We also expect that there will continue to be new proposed laws, regulations and industry standards concerning privacy, data protection and information security in the United States, the EU, and other jurisdictions. For example, the European Commission adopted a General Data Protection Regulation (the “GDPR”) that became fully effective on May 25, 2018, superseding prior EU data protection legislation, imposing more stringent EU data protection requirements, and providing for greater penalties for noncompliance. The United Kingdom enacted a Data Protection Act that substantially implements the GDPR. We are evaluating obligations imposed on us by the GDPR and we may be required to incur substantial expense in order to make significant changes to our product and business operations in connection with obtaining and maintaining compliance with the GDPR and similar legislation, such as the UK Data Protection Act, all of which may adversely affect our revenue and product sales. Additionally, California recently enacted legislation, the California Consumer Privacy Act (the “CCPA”) that, among other things, requires covered companies to provide new disclosures to California consumers, and afford such consumers new abilities to opt-out of certain sales of personal information. We cannot fully predict the impact of the CCPA on our business or operations, but it may require us to modify our data processing practices and policies and to incur substantial costs and expenses in an effort to comply. More generally, we cannot yet fully determine the impact these or future laws, regulations and standards may have on our business. Privacy, data protection and information security laws and regulations are often subject to differing interpretations, may be inconsistent among jurisdictions, and may be alleged to be inconsistent with our current or future practices. Additionally, we may be bound by contractual requirements applicable to our collection, use, processing, and disclosure of various types of data, including personal data, and may be bound by, or voluntarily comply with, self-regulatory or other industry standards relating to these matters. These and other requirements could reduce demand for our products, increase our costs, impair our ability to grow our business, or restrict our ability to store and process data or, in some cases, impact our ability to offer our service in some locations and may subject us to liability. Any failure or perceived failure to comply with applicable laws, regulations, industry standards, and contractual obligations may adversely affect our business. Further, in view of new or modified federal, state or foreign laws and regulations, industry standards, contractual obligations and other legal obligations, or any changes in their interpretation, we may find it necessary or desirable to fundamentally change our business activities and practices or to expend significant resources to modify our product and otherwise adapt to these changes. We may be unable to make such changes and modifications in a commercially reasonable manner or at all, and our ability to develop new products and features could be limited.

The costs of compliance with and other burdens imposed by laws, regulations and standards may limit the use and adoption of our service and reduce overall demand for it, or lead to significant fines, penalties or liabilities for any noncompliance. Privacy, information security, and data protection concerns, whether valid or not valid, may inhibit market adoption of our platform, particularly in certain industries and foreign countries.

We expect that we will experience long and unpredictable sales cycles, which may impact our operating results.

The sales cycle between initial customer contact and execution of a contract or license agreement with a customer or purchaser of our products can vary widely. We expect that our sales cycles will be long and unpredictable due to several factors, including but not limited to:

- The need to educate potential customers about our patent rights and our product and service capabilities;

The impact of the COVID-19 pandemic on our potential customers and their business operations, including their budgetary constraints and resources devoted to adopting new products.

- Our customers’ willingness to invest potentially substantial resources and modify their network infrastructures to take advantage of our products;
- Our customers’ budgetary constraints;
- The timing of our customers’ budget cycles;
- Delays caused by customers’ internal review processes; and
- Long sales cycles that may increase the risk that our financial resources are exhausted before we are able to generate significant revenue.

In addition, potential customers of our products include local, state, federal and foreign government authorities. Sales to government authorities can be extended and unpredictable. Government authorities generally have complex budgeting, purchasing, and regulatory processes that govern their capital spending, and their spending is likely to be adversely impacted by economic conditions, including impacts from the COVID-19 pandemic. In addition, in many instances, sales to government authorities may require field trials and may be delayed by the time it takes for government officials to evaluate multiple competing bids, negotiate terms, and award contracts.

For these reasons the sales cycle associated with our products is subject to a number of significant risks that are beyond our control. Consequently, if our forecasted customer orders are not realized or delayed, our revenues and results of operations could be materially and adversely affected.

If we are unable to expand our revenue sources or establish, sustain, grow or replace relationships with a diversified customer base, our revenues may be limited.

We currently generate revenue from a limited number of customers that have entered Settlement and License Agreements. Our GABRIEL Collaboration Suite™ is currently generating limited revenue, it will take time for us to grow our installed user base and generate new customers. Additionally, there is no guarantee that we will be able to derive revenue from new customers, sustain or increase revenue from existing customers or replace customers from whom we currently generate revenue. As a result, our revenue may be limited or static.

We have limited technical resources and are at an early stage in commercialization of our GABRIEL Collaboration Suite™.

Part of our business includes the internal development of commercial products we seek to monetize. This aspect of our business may require significant capital, time and resources and we cannot guarantee that it will be successful or meet our expectations. We currently have only one commercial product, the GABRIEL Collaboration Suite™. As such, we have a small technical team, which may limit our ability to rapidly adapt our product to customer requirements or add new product features to maintain our competitive edge and drive adoption. Based on the scale of our technical resources, our limited historical financial data upon which to base our projected revenue or planned operating expenses related to our GABRIEL Collaboration Suite™, we may not be able to effectively:

- Generate revenues or profit from product sales;
- Drive adoption of our products;
- Attract and retain customers for our products;
- Provide appropriate levels of customer training and support for our products;
- Implement an effective marketing strategy to promote awareness of our products;
- Focus our research and development efforts in areas that generate returns on our efforts;
- Anticipate and adapt to changes in our market; or
- Protect our products from any system failures or other breaches.

In addition, a high percentage of our expenses are and will continue to be fixed. Accordingly, if we do not generate revenue as and when anticipated, our losses may be greater than expected and our operating results will suffer.

Our products are highly technical and may contain undetected errors, which could cause harm to our reputation and adversely affect our business.

Our products are highly technical and complex and, when deployed, may contain errors or defects. Despite testing, some errors in our products may only be discovered after a product has been installed and used by customers. Any errors or defects discovered in our products after commercial release could result in failure to achieve market acceptance, loss of revenue or delay in revenue recognition, loss of customers and increased service and warranty cost, any of which could adversely affect our business, operating results and financial condition. In addition, we could face claims for product liability, tort or breach of warranty, including claims relating to changes to our products made by our channel partners. The performance of our products could have unforeseen or unknown adverse effects on the networks over which they are delivered as well as on third-party applications and services that utilize our services, which could result in legal claims against us, harming our business. Furthermore, we expect to provide implementation, consulting and other technical services in connection with the implementation and ongoing maintenance of our products, which typically involves working with sophisticated software, computing and communications systems. We expect that our contracts with customers will contain provisions relating to warranty disclaimers and liability limitations, which may not be upheld. Defending a lawsuit, regardless of its merit, is costly and may divert management's attention and adversely affect the market's perception of us and our products. In addition, if our business liability insurance coverage proves inadequate

or future coverage is unavailable on acceptable terms or at all, our business, operating results and financial condition could be adversely impacted.

Malfunctions of third-party communications infrastructure, hardware and software expose us to a variety of risks that we cannot control.

Our business will depend upon, among other things, the capacity, reliability, security and unimpeded access of the infrastructure owned by third parties that we will use to deploy our offerings. We have no control over the operation, quality or maintenance of a significant portion of that infrastructure or whether those third parties will upgrade or improve their equipment. We depend on these companies to maintain the operational integrity of our connections. If one or more of these companies is unable or unwilling to supply or expand its levels of service to us in the future, our operations could be severely interrupted. Also, to the extent that the number of users of networks utilizing our current or future products suddenly increases, the technology platform and secure hosting services which will be required to accommodate a higher volume of traffic may result in slower response times or service interruptions. System interruptions or increases in response time could result in a loss of potential or existing users and, if sustained or repeated, could reduce the appeal of the networks to users. In addition, users depend on real-time communications; outages caused by increased traffic could result in delays and system failures. These types of occurrences could cause users to perceive that our solution does not function properly and could therefore adversely affect our ability to attract and retain licensees, strategic partners and customers.

System failure or interruption or our failure to meet increasing demands on our systems could harm our business.

The success of our license and service offerings will depend on the uninterrupted operation of various systems, secure data centers and other computer and communication networks that we establish. To the extent, the number of users of networks utilizing our future products suddenly increases, the technology platform and hosting services which will be required to accommodate a higher volume of traffic may result in slower response times, service interruptions or delays or system failures. Our systems and operations will also be vulnerable to damage or interruption from, among other things:

- Power loss, transmission cable cuts and other telecommunications failures;
- Damage or interruption caused by fire, earthquake, and other natural disasters;
- Computer viruses or software defects; and
- Physical or electronic break-ins, sabotage, intentional acts of vandalism, terrorist attacks and other events beyond our control.

System interruptions or failures and increases or delays in response time could result in a loss of potential or existing users and, if sustained or repeated, could reduce the appeal of the networks to users. These types of occurrences could cause users to perceive that our solution does not function properly and could therefore adversely affect our ability to attract and retain licensees, strategic partners and customers.

Any significant problem with our systems or operations could result in lost revenue, customer dissatisfaction or lawsuits against us. A failure in the operation of our secure domain name registration system could result in the inability of one or more registrars to register and maintain secure domain names for a period of time. A failure in the operation or update of the master directory that we plan to maintain could result in deletion or discontinuation of assigned secure domain names for a period of time. The inability of the registrar systems we establish, including our back-office billing and collections infrastructure, and telecommunications systems to meet the demands of an increasing number of secure domain name requests could result in substantial degradation in our customer support service and our ability to process registration requests in a timely manner.

Our ability to sell our solutions will be dependent on the quality of our technical support, and our failure to deliver high-quality technical support services could have a material adverse effect on our sales and results of operations.

If we do not effectively assist our customers in deploying our products, succeed in helping our customers quickly resolve post-deployment issues and provide effective ongoing support, or if potential customers perceive that we may not be able achieve to the foregoing, our ability to sell our products would be adversely affected, and our reputation with current and potential customers could be harmed. In addition, as we expand our operations internationally, our technical support team will face additional challenges, including those associated with delivering support, training and documentation in languages other than English. Our failure to deliver and maintain high-quality technical support services to our customers could result in customers choosing to use our competitors' products and support services instead of ours in the future.

Telephone carriers have petitioned governmental agencies to enforce regulatory tariffs, which, if granted, would increase the cost of online communication, and such increase in cost may impede the growth of online communication and adversely affect our business.

Use of the Internet has over-burdened existing telecommunications infrastructures, and many high traffic areas have begun to experience interruptions in service. As a result, certain local telephone carriers have petitioned governmental agencies to enforce regulatory tariffs on IP telephony traffic that crosses over their traditional telephone networks. If the relief sought in these petitions is granted, the costs of communicating via online could increase substantially, potentially adversely affecting the growth in the use of online secure communications. Any of these developments could have an adverse effect on our business.

The departure of Kendall Larsen, our Chief Executive Officer and President, and/or other key personnel could compromise our ability to execute our strategic plan and may result in additional severance costs to us.

Our success largely depends on the skills, experience and performance of our key personnel. Due to the specialized nature of our business and limited staff, we are particularly dependent on Kendall Larsen, our Chief Executive Officer and President. We have no employment agreements with any of our key executives that prevent them from leaving us at any time. In addition, we do not maintain key person life insurance for any of our officers or key employees. The loss of Mr. Larsen, or our failure to retain other key personnel or failure to adequately plan for the succession of key personnel, would jeopardize our ability to execute our strategic plan and materially harm our business.

We will need to recruit and retain additional qualified personnel to successfully grow our business.

Our future success will depend, in part, on our ability to attract and retain qualified engineering, operations, marketing, sales and executive personnel. Inability to attract and retain such personnel could adversely affect our business. Competition for engineering, operations, marketing, sales and executive personnel is intense, particularly in the technology and Internet sectors and in the regions where we conduct our business. We may need to invest significant amounts of cash and equity to attract and retain employees and expend significant time and resources to identify, recruit, train and integrate such employees, and we may never realize returns on these investments. Additionally, we can provide no assurance that we will attract or retain such personnel.

Our international expansion will subject us to additional costs and risks, and our plans may not be successful.

We expect to expand our presence internationally in Japan and elsewhere through, third party arrangements such as international partnerships, joint ventures and potentially establishing international subsidiaries and offices. Our international expansion may present challenges and risks, including those inherent in international operations, to us and may require significant attention from management. For example, the COVID-19 pandemic could disrupt and slow our international expansion and partnership efforts, as our international partners' businesses could be disrupted. We may not be successful in our international partnerships, expansion efforts, and we may incur significant operating expenses in our efforts to expand internationally.

We have incurred and will continue to incur significant increased costs as a result of operating as a public company, and our management will be required to continue to devote substantial time to various compliance initiatives.

The Sarbanes-Oxley Act of 2002, the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, as well as other rules implemented by the SEC and the New York Stock Exchange ("NYSE"), impose various requirements on public companies, including requiring changes in corporate governance practices. These and proposed corporate governance laws and regulations under consideration may further increase our compliance costs. If compliance with these various legal and regulatory requirements diverts our management's attention from other business concerns, it could have a material adverse effect on our business, financial condition and operating results. The Sarbanes-Oxley Act requires, among other things, that we assess the effectiveness of our internal control over financial reporting annually and disclosure controls and procedures quarterly. If we are unable to assert in any future reporting periods that our internal control over financial reporting is effective (or if our independent registered public accounting firm is unable to express an opinion on the effectiveness of our internal controls), we could lose investor confidence in the accuracy and completeness of our financial reports, which would have an adverse effect on our share price.

Although we believe that we currently maintain effective control over our disclosures and procedures and internal control over financial reporting, we may in the future identify deficiencies regarding the design and effectiveness of our system of internal control over financial reporting. If we experience any material weaknesses in our internal control over financial reporting in the future or are unable to provide unqualified management or attestation reports about our internal controls, we may be unable to meet financial and other reporting deadlines and may incur costs associated with remediation, and any of which could cause our share price to decline. Moreover, if we identify deficiencies in our internal control over financial reporting that are deemed to be material weaknesses in future periods, the market price of our ordinary shares could decline, and we could be subject to potential delisting by the NYSE and review by the NYSE, the SEC, or other regulatory authorities, which would require the expenditure by us of additional financial and management resources. As a result, our shareholders could lose confidence in our financial reporting, which would harm our business and the market price of our ordinary shares.

There are inherent uncertainties involved in estimates, judgments and assumptions used in the preparation of financial statements in accordance with U.S. GAAP. Any changes in estimates, judgments and assumptions could have a material adverse effect on our business, financial condition and operating results.

The preparation of financial statements in accordance with U.S. GAAP involves making estimates, judgments and assumptions that affect reported amounts of assets (including intangible assets), liabilities and related reserves, revenues, expenses and income. Estimates, judgments and assumptions are inherently subject to change in the future, and any such changes could result in corresponding changes to the amounts of assets, liabilities, revenues, expenses and income. Any such changes could have a material adverse effect on our business, financial condition and operating results.

Our results of operations and financial condition could be materially affected by the enactment of legislation implementing changes in the U.S. or foreign taxation of international business activities or the adoption of other tax reform policies.

As we expand the scale of our international business activities, any changes in the U.S. or foreign taxation of such activities may increase our worldwide effective tax rate and harm our business, results of operations, and financial condition. For example, in December 2017, the legislation commonly referred to as the Tax Cuts and Jobs Act (the “Tax Act”) was enacted, which contained significant changes to U.S. tax law, including, but not limited to, a reduction in the corporate tax rate and a transition to a new territorial system of taxation. The impact of future changes to U.S. and foreign tax law on our business is uncertain and could be adverse, and we will continue to monitor and assess the impact of any such changes.

War, terrorism, other acts of violence, or natural or manmade disasters may affect the markets in which the Company operates, the Company’s clients and the Company’s service delivery.

The Company’s business may be adversely affected by instability, disruption or destruction in a geographic region in which it operates, regardless of cause, including war, terrorism, riot, civil insurrection or social unrest, and natural or manmade disasters, including famine, flood, fire, earthquake, storm or pandemic events and spread of disease, such as the COVID-19 pandemic. Such events may cause our customers to delay their decisions on spending for the services provided by the Company and give rise to sudden significant changes in regional and global economic conditions and cycles. These events may also pose risks to the Company’s personnel and to physical facilities and operations, which could adversely affect the Company’s financial results.

The global COVID-19 pandemic may harm our business, financial condition and results of operations.

In December 2019, a novel coronavirus, COVID-19 was reported in China and in March 2020, the World Health Organization declared it a pandemic. This contagious disease outbreak has continued to spread across the globe and is impacting worldwide economic activity and financial markets. In light of the uncertain and rapidly evolving situation relating to the spread of COVID-19, we have taken precautionary measures intended to minimize the risk of the virus to our employees, our customers, and other third parties with whom we interact. We are requiring all employees to work remotely and have also suspended all non-essential travel worldwide for our employees. While we have a distributed workforce and our employees are accustomed to working remotely or working with other remote employees, our workforce is not fully remote. Our employees and consultants travel frequently to establish and maintain relationships with one another, our customers and prospective customers, partners, and investors. Although we continue to monitor the situation and may adjust our current policies as more information and public health guidance becomes available, temporarily suspending travel and restricting the ability to do business in person could negatively affect our customer success efforts, sales and marketing efforts, challenge our ability to enter into customer contracts in a timely manner, slow down our recruiting efforts, or create operational or other challenges, any of which could harm our business, financial condition and results of operations. Furthermore, if a natural disaster, power outage, connectivity issue, or other event occurred that impacted our employees’ ability to work remotely, it may be difficult or, in certain cases, not possible, for us to continue our business for a substantial period of time. The increase in remote working may also result in consumer privacy, IT security and fraud concerns as well as increase our exposure to potential wage and hour issues. In addition, the COVID-19 pandemic may disrupt the operations of our customers, partners, suppliers and other third-party providers for an indefinite period of time, including as a result of travel restrictions, adverse effects on budget planning processes, and/or business shutdowns, all of which could negatively impact our business, financial condition and results of operations. More generally, the COVID-19 pandemic could adversely affect economies and financial markets globally, potentially leading to an economic downturn, which could decrease technology spending and adversely affect our business. It is not possible at this time to estimate the impact that the COVID-19 pandemic could have on our business, as the impact will depend on future developments, which are highly uncertain and cannot be predicted.

Risks Related to Our Common Stock

Trading in our common stock is limited and the price of our common shares may be subject to substantial volatility.

Our common stock is listed on the NYSE American LLC (formerly the NYSE MKT LLC). Over the past years, the market price of our common stock has experienced significant fluctuations. Between April 1, 2019, and March 31, 2020, the reported last adjusted closing price on NYSE American LLC for our common stock ranged between \$3.40 and \$7.63 per share. The price of our common stock may continue to be volatile as a result of several factors, some of which are beyond our control. These factors include, but not limited to, the following:

- Developments or lack thereof in any then-outstanding litigation;
- Quarterly variations in our operating results;
- Large purchases or sales of common stock or derivative transactions related to our stock;
- Actual or anticipated announcements of new products or services by us or competitors;
- General conditions in the markets in which we compete; and
- General social, political, economic and financial conditions, including the significant volatility in the global financial markets, and impacts from the COVID-19 pandemic.

In addition, we believe there has been and may continue to be substantial trading in derivatives of our stock, including short selling activity or related similar activities, which are beyond our control and which may be beyond the full control of the SEC and Financial Institutions Regulatory Authority or “FINRA”. While the SEC and FINRA rules prohibit some forms of short selling and other activities that may result in stock price manipulation, such activity may nonetheless occur without detection or enforcement. We have held conversations with regulators concerning trading activity in our stock; however, there can be no assurance that should there be any illegal manipulation in the trading of our stock, it will be detected, prosecuted or successfully eradicated. Significant short selling market manipulation could cause our stock trading price to decline, to become more volatile, or both.

The market price of our common stock has been and may continue to be volatile, and you could lose all or part of your investment.

The trading price of our common stock has been volatile since our initial public offering and is likely to continue to be volatile.

Factors that could cause fluctuations in the market price of our common stock include, but are not limited to the following:

- Price and volume fluctuations in the overall stock market from time to time, including fluctuations due to general economic uncertainty or negative market sentiment, in particular related to the COVID-19 pandemic;
- Volatility in the market prices and trading volumes of companies in our industry or companies that investors consider comparable;
- Changes in operating performance and stock market valuations of other companies generally, or those in our industry;
- Sales of shares of our common stock by us or our stockholders;
- Failure of securities analysts to maintain coverage of us, changes in financial estimates by securities analysts who follow us, or our failure to meet these estimates or the expectations of investors;
- The financial projections we may provide to the public, any changes in those projections or our failure to meet those projections;
- Announcements by us or our competitors of new products or services;
- The public’s reaction to our press releases, other public announcements and filings with the SEC;
- Rumors and market speculation involving us or other companies in our industry;
- Actual or anticipated changes in our results of operations;
- Actual or anticipated developments in our business, our competitors’ businesses or the competitive landscape generally;

- Litigation involving us, our industry or both, or investigations by regulators into our operations or those of our competitors;

- Announced or completed acquisitions of businesses or technologies by us or our competitors;
- New laws or regulations or new interpretations of existing laws or regulations applicable to our business;
- Changes in accounting standards, policies, guidelines, interpretations or principles;
- Any significant change in our management; and
- General economic conditions and slow or negative growth of our markets, including any economic downturn from the COVID-19 pandemic;

Further, in recent years the stock markets have experienced extreme price and volume fluctuations that have affected and continue to affect the market prices of equity securities of many companies. These fluctuations often have been unrelated or disproportionate to the operating performance of those companies. In addition, the stock prices of many technology companies have experienced wide fluctuations that have often been unrelated to the operating performance of those companies. These broad market and industry fluctuations, as well as general economic, political and market conditions such as recessions, government shutdowns, global pandemics (such as the COVID-19 pandemic), interest rate changes the stability of the EU and the exit of the United Kingdom or international currency fluctuations, may cause the market price of our common stock to decline. In the past, following periods of volatility in the overall market and the market price of a particular company's securities, securities class action litigation has often been instituted against these companies.

We have broad discretion in how we apply our funds, and we may not use these funds effectively, which could affect our results of operations and cause our stock price to decline.

Our management will have broad discretion in the application of our existing cash, cash equivalents and marketable securities and could spend these funds in ways that do not improve our results of operations or enhance the value of our common stock. Pending their use, we may invest our available funds in a manner that does not produce income or that loses value. The failure by our management to apply our available funds effectively could result in financial losses that could cause the price of our common stock to decline and delay the development of our products.

In addition, an entity that, among other things, is or holds itself out as being engaged primarily, or proposes to engage primarily, in the business of investing, reinvesting, owning, trading, or holding certain types of securities would be deemed an Investment Company under the Investment Company Act of 1940 (the "1940 Act"). If we do not manage our investments and business in a manner that meets the requirements for an exemption under the 1940 Act, we may be deemed to be an investment company under the 1940 Act and subject to additional limitations on operating our business including limitations on the issuance of securities, which may make it difficult for us to raise capital.

We do not regularly pay dividends on our common stock and thus stockholders must look to appreciation of our common stock to realize a gain on their investments.

Our dividend policy is within the discretion of our Board of Directors and will depend upon various factors, including our business, financial condition, results of operations, capital requirements, and investment opportunities. We therefore cannot make assurances that our Board of Directors will determine to pay regular or special dividends in the future. Accordingly, unless our Board of Directors determines to pay dividends, stockholders will be required to look to appreciation of our common stock to realize a gain on their investment. This appreciation may not occur.

The exercise of our outstanding stock options, restricted stock units and issuance of new shares would result in a dilution of our current stockholders' voting power and an increase in the number of shares eligible for future resale in the public market which may negatively impact the market price of our stock.

The exercise of our outstanding vested stock options would dilute the ownership interests of our existing stockholders. As of March 31, 2020, we had outstanding options to purchase an aggregate of 5,365,021 shares of common stock representing approximately 8% of our total shares outstanding of which 3,810,479 were vested and therefore exercisable. To the extent outstanding stock options are exercised, additional shares of common stock will be issued, existing stockholders' percentage voting interests will decline and the number of shares eligible for resale in the public market will increase. Such increase may have a negative effect on the value or market trading price of our common stock.

The market price of our common stock may decline because our operating results may not be consistent and may be difficult to predict.

Our reported net income has fluctuated in the past due to several factors. We expect that our future operating results may also fluctuate due to the same or similar factors. While we had net income of \$299.9 million for the quarter ended March 31, 2020, we had net losses of \$19.2 million for 2019 and \$25.4 million for 2018, and through the quarter end March 31, 2020, we had retained earnings of \$82.3 million. The following include some of the factors that may cause our operating results to fluctuate:

- The outcome of actions to enforce our intellectual property rights currently in progress or that we may undertake in the future, and the timing thereof;
- The impact of the COVID-19 pandemic on our sales cycle and results;
- The amount and timing of receipt of license fees from potential infringers, licensees or customers;
- The rate of adoption of our patented technologies;
- The number of new license arrangements we may execute, or that may expire, within a particular period and the scope of those licenses, including the number of our patents which are licensed, the extent of prior infringement of our patent rights, royalty rates, timing of payment obligations, expiration date etc.;
- The success of a licensee in selling products that use our patented technologies; and
- The amount and timing of expenses related to our patent filings and enforcement proceedings, including litigation, related to our intellectual property rights.

These fluctuations may make our business particularly difficult to manage, adversely affect our business and operating results, make our operating results difficult for investors to predict and, further, cause our results to fall below investor's expectations and adversely affect the market price of our common stock.

Because ownership of our common stock is concentrated, investors may have limited influence on stockholder decisions.

As of December 31, 2019, our executive officers and directors beneficially owned approximately 13.2% of our outstanding common stock. In addition, a group of stockholders that, as of December 31, 2007, held 4,766,666 shares, or approximately 8% of our outstanding common stock, have entered into a voting agreement with us that requires them to vote all of their shares of our voting stock in favor of the director nominees approved by our Board of Directors at each director election going forward, and in a manner that is proportional to the votes cast by all other voting shares as to any other matters submitted to the stockholders for a vote. However, we cannot be certain how many shares of our common stock this group of stockholders currently owns. Because of their beneficial ownership interest, our officers and directors could significantly influence stockholder actions of which you disapprove or that are contrary to your interests. This ability to exercise significant influence could prevent or significantly delay another company from acquiring or merging with us.

Our protective provisions in our amended and restated certificate of incorporation and bylaws could make it difficult for a third party to successfully acquire us even if you would like to sell your stock to them.

We have a number of protective provisions in our amended and restated certificate of incorporation and bylaws that could delay, discourage or prevent a third party from acquiring control of us without the approval of our Board of Directors. These protective provisions include:

- ***A staggered Board of Directors:*** This means that only one or two directors (since we have a five-person Board of Directors) will be up for election at any given annual meeting. This has the effect of delaying the ability of stockholders to affect a change in control of us because it would take two annual meetings to effectively replace a majority of the Board of Directors.
- ***Blank check preferred stock:*** Our Board of Directors has the authority to establish the rights, preferences and privileges of our 10,000,000 authorized, but unissued, shares of preferred stock. Therefore, this stock may be issued at the discretion of our Board of Directors with preferences over your shares of our common stock in a manner that is materially dilutive to you. In addition, blank check preferred stock can be used to create a "poison pill" which is designed to deter a hostile bidder from buying a controlling interest in our stock without the approval of our Board of Directors. We have not adopted such a "poison pill," but our Board of Directors has the ability to do so in the future, very rapidly and without stockholder approval.
- ***Advance notice requirements for director nominations and for new business to be brought up at stockholder meetings:*** Stockholders wishing to submit director nominations or raise matters to a vote of the stockholders must provide notice to us within very specific date windows and in very specific form in order to have the matter voted on at a stockholder meeting. This has the effect of giving our Board of Directors and management more time to react to stockholder proposals generally and could also have the effect of disregarding a stockholder proposal or deferring it to a subsequent meeting to the extent such proposal is not raised properly.
- ***No stockholder actions by written consent:*** No stockholder or group of stockholders may take actions rapidly and without prior notice to our Board of Directors and management or to the minority stockholders. Along with the advance notice requirements described above, this provision also gives our Board of Directors and management more time to react to proposed stockholder actions.
- ***Super majority requirement for stockholder amendments to the bylaws:*** Stockholder proposals to alter or amend our bylaws or to adopt new bylaws can only be approved by the affirmative vote of at least 66 2/3% of the outstanding shares of our common stock.
- ***No ability of stockholders to call a special meeting of the stockholders:*** Only the Board of Directors or management can call special meetings of the stockholders. This could mean that stockholders, even those who represent a significant percentage of our shares of common stock, may need to wait for the annual meeting before nominating directors or raising other business proposals to be voted on by the stockholders.

In addition, the provisions of Section 203 of the Delaware General Corporate Law govern us. These provisions may prohibit large stockholders, particularly those owning 15% or more of our outstanding voting stock, from merging or combining with us for a certain period of time.

These and other provisions in our amended and restated certificate of incorporation, our bylaws and under Delaware law could discourage potential takeover attempts, reduce the price that investors might be willing to pay for shares of our common stock in the future and result in the market price being lower than it would be without these provisions

Our amended and restated bylaws designate a state or federal court located within the State of Delaware as the exclusive forum for substantially all disputes between us and our stockholders, which could limit our stockholders' ability to choose the judicial forum for disputes with us or our directors, officers, or employees.

Our amended and restated bylaws provide that, unless we consent in writing to the selection of an alternative forum, the sole and exclusive forum for (1) any derivative action or proceeding brought on our behalf, (2) any action asserting a claim of breach of a fiduciary duty owed by any of our directors, stockholders, officers, or other employees to us or our stockholders, (3) any action arising pursuant to any provision of the Delaware General Corporation Law, or our amended and restated certificate of incorporation or amended and restated bylaws or (4) any other action asserting a claim that is governed by the internal affairs doctrine shall be the Court of Chancery of the State of Delaware (or, if the Court of Chancery does not have jurisdiction, another State court in Delaware or the federal district court for the District of Delaware), in all cases subject to the court having jurisdiction over indispensable parties named as defendants.

However, notwithstanding the exclusive forum provisions, our amended and restated bylaws explicitly state that they would not preclude the filing of claims brought to enforce any liability or duty created under federal securities laws, including the Securities Act of 1933 or the Securities Exchange Act of 1934.

Any person or entity purchasing or otherwise acquiring any interest in any of our securities shall be deemed to have notice of and consented to this provision. This exclusive-forum provision may limit a stockholder's ability to bring a claim in a judicial forum of its choosing for disputes with us or our directors, officers, or other employees, which may discourage lawsuits against us and our directors, officers, and other employees. If a court were to find this exclusive-forum provision in our amended and restated bylaws to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving the dispute in other jurisdictions, which could harm our results of operations.

ITEM 5 — OTHER INFORMATION

Amended and Restated Bylaws

On May 7, 2020, our Board of Directors adopted amended and restated bylaws (the "Amended and Restated Bylaws") to add exclusive forum provisions to provide that (a) unless we consent in writing to the selection of an alternative forum, the sole and exclusive forum for (1) any derivative action or proceeding brought on our behalf, (2) any action asserting a claim of breach of a fiduciary duty owed by any of our directors, stockholders, officers, or other employees to us or our stockholders, (3) any action arising pursuant to any provision of the Delaware General Corporation Law, or our amended and restated certificate of incorporation or Amended and Restated Bylaws or (4) any other action asserting a claim that is governed by the internal affairs doctrine shall be the Court of Chancery of the State of Delaware (or, if the Court of Chancery does not have jurisdiction, another State court in Delaware or the federal district court for the District of Delaware), in all cases subject to the court having jurisdiction over indispensable parties named as defendants and (b) unless we consent in writing to the selection of an alternative forum, the federal district courts of the United States of America shall be the exclusive forum for the resolution of any claims under the Securities Act of 1933, as amended.

The foregoing summary description of the Amended and Restated Bylaws is qualified in its entirety by reference to the full text of the Amended and Restated Bylaws, a copy of which is filed as Exhibit 3.1 to this Quarterly Report on Form 10-Q and incorporated herein by reference.

ITEM 6 — EXHIBITS

Exhibit Number	Description
3.1	Bylaws of VirnetX Holding Corporation (As Amended and Restated Effective May 7, 2020)
31.1	Certification of the President and Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of the Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1*	Certification of the President and Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2*	Certification of the Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101	Interactive Data Files

* This exhibit is furnished herewith, but not deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to liability under that section. Such certifications will not be deemed to be incorporated by reference in any filing under the Securities Act or the Exchange Act, except to the extent that we explicitly incorporate them by reference.

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.

VIRNETX HOLDING CORPORATION

By: /s/ Kendall Larsen

Name Kendall Larsen

Chief Executive Officer (Principal Executive Officer)

By: /s/ Richard H. Nance

Name Richard H. Nance

Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)

Date: May 11, 2020

**BYLAWS
OF
VIRNETX HOLDING CORPORATION**

(As Amended and Restated Effective May 7, 2020)

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**BYLAWS
OF
VIRNETX HOLDING CORPORATION**

**ARTICLE I
CORPORATE OFFICES**

Section 1.1 REGISTERED OFFICE. The address of the Corporation's registered office in the State of Delaware is 2711 Centerville Road, Suite 400, Wilmington, County of New Castle. The name of its registered agent at such address is Corporation Service Company.

Section 1.2 OTHER OFFICES. The Board of Directors may at any time establish other offices at any place or places where the Corporation is qualified to do business.

**ARTICLE II
MEETINGS OF STOCKHOLDERS**

Section 2.1 PLACE OF MEETINGS. Meetings of stockholders shall be held at any place, within or outside the State of Delaware, designated by the Board of Directors. In the absence of any such designation, stockholders' meetings shall be held at the registered office of the Corporation.

Section 2.2 ANNUAL MEETING.

(a) The annual meeting of stockholders shall be held each year on a date and at a time designated by resolution of the Board of Directors. At the meeting, directors shall be elected and any other proper business may be transacted.

(b) Nominations of persons for election to the Board of Directors of the Corporation and the proposal of business to be transacted by the stockholders may be made at an annual meeting of stockholders (i) pursuant to the Corporation's notice with respect to such meeting, (ii) by or at the direction of the Board of Directors or (iii) by any stockholder of the Corporation who was a stockholder of record at the time of giving of the notice provided for in this Section 2.2, who is entitled to vote at the meeting and who has complied with the notice procedures set forth in this Section 2.2.

(c) For nominations or other business to be properly brought before an annual meeting by a stockholder pursuant to clause (iii) of paragraph (b) of this Section 2.2, the stockholder must have given timely notice thereof in writing to the secretary of the Corporation, as provided in Section 2.5, and such business must be a proper matter for stockholder action under the General Corporation Law of Delaware (the "DGCL").

(d) Only such business shall be conducted at an annual meeting of stockholders as shall have been brought before the meeting in accordance with the procedures set forth in these Bylaws. The chairman of the meeting shall determine whether a nomination or any business proposed to be transacted by the stockholders has been properly brought before the meeting and, if any proposed nomination or business has not been properly brought before the meeting, the chairman shall declare that such proposed business or nomination shall not be presented for stockholder action at the meeting.

(e) For purposes of this Section 2.2, "public announcement" shall mean disclosure in a press release reported by the Dow Jones News Service, Associated Press or a comparable national news service.

(f) Nothing in this Section 2.2 shall be deemed to affect any rights of stockholders to request inclusion of proposals in the Corporation's proxy statement pursuant to Rule 14a-8 under the Exchange Act.

Section 2.3 SPECIAL MEETING.

(a) A special meeting of the stockholders may be called at any time by the Board of Directors, or by the chairman of the board, or by the president.

(b) Nominations of persons for election to the Board of Directors may be made at a special meeting of stockholders at which directors are to be elected pursuant to such notice of meeting (i) by or at the direction of the Board of Directors or (ii) by any stockholder of the Corporation who is a stockholder of record at the time of giving of notice provided for in Section 2.5, who shall be entitled to vote at the meeting and who complies with the notice procedures set forth in Section 2.5.

Section 2.4 NOTICE OF STOCKHOLDER'S MEETINGS; AFFIDAVIT OF NOTICE. All notices of meetings of stockholders shall be in writing and shall be sent or otherwise given in accordance with this Section 2.4 of these Bylaws not less than 10 nor more than 60 days before the date of the meeting to each stockholder entitled to vote at such meeting (or such longer or shorter time as is required by Section 2.5 of these Bylaws, if applicable). The notice shall specify the place, date, and hour of the meeting, and, in the case of a special meeting, the purpose or purposes for which the meeting is called. Written notice of any meeting of stockholders, if mailed, is given when deposited in the United States mail, postage prepaid, directed to the stockholder at his address as it appears on the records of the Corporation. An affidavit of the secretary or an assistant secretary or of the transfer agent of the Corporation that the notice has been given shall, in the absence of fraud, be prima facie evidence of the facts stated therein.

Section 2.5 ADVANCE NOTICE OF STOCKHOLDER NOMINEES AND OTHER STOCKHOLDER PROPOSALS. Only persons who are nominated in accordance with the procedures set forth in this Section 2.5 shall be eligible for election as directors. Nominations of persons for election to the Board of Directors of the Corporation may be made at a meeting of stockholders by or at the direction of the Board of Directors or by any stockholder of the Corporation entitled to vote for the election of directors at the meeting who complies with the notice procedures set forth in this Section 2.5. Such nominations, other than those made by or at the direction of the Board of Directors, shall be made pursuant to timely notice in writing to the secretary of the Corporation. Stockholders may bring other business before the annual meeting, provided that timely notice is provided to the secretary of the Corporation in accordance with this Section 2.5, and provided further that such business is a proper matter for stockholder action under the DGCL. To be timely, a stockholder's notice shall be delivered to or mailed and received at the principal executive offices of the Corporation not less than 90 days nor more than 120 days prior to the anniversary date of the prior year's meeting; provided, however, that in the event that (i) the date of the annual meeting is more than 30 days prior to or more than 60 days after such anniversary date, and (ii) less than 60 days notice or prior public disclosure of the date of the meeting is given or made to stockholders, notice by the stockholder to be timely must be so received not later than the close of business on the 10th day following the day on which such notice of the date of the meeting was mailed or such public disclosure was made. Such stockholder's notice shall set forth (a) as to each person whom the stockholder proposes to nominate for election or re-election as a directors, (i) the name, age, business address and residence address of such person, (ii) the principal occupation or employment of such person, (iii) the class and number of shares of the Corporation which are beneficially owned by such person and (iv) any other information relating to such person that is required to be disclosed in solicitations of proxies for election of directors, or is otherwise required, in each case pursuant to Regulation 14A under the Securities Exchange Act of 1934 (the "1934 Act") (including, without limitation, such person's written consent to being name in the proxy statement as a nominee and to serving as a director if elected); (b) as to any other business that the stockholder proposes to bring before the meeting, a brief description of such business, the reasons for conducting such business at the meeting and any material interest in such business of such stockholder and the beneficial owner, if any, on whose behalf the proposal is made; and (c) as to the stockholder giving the notice and the beneficial owner, if any, on whose behalf the proposal is made (i) the name and address of the stockholder, as they appear on the Corporation's books, and of such beneficial owner and (ii) the class and number of shares of the Corporation which are owned of record by such stockholder and beneficially by such beneficial owner. At the request of the Board of Directors any person nominated by the Board of Directors for election as a director shall furnish to the secretary of the Corporation that information required to be set forth in a stockholder's notice of nomination which pertains to the nominee. No person shall be eligible for election as a director of the Corporation unless nominated in accordance with the procedures set forth in this Section 2.5. The chairman of the meeting shall, if the facts warrant, determine and declare to the meeting that a nomination was not made in accordance with the procedures prescribed by the Bylaws, and if he or she should so determine, he or she shall so declare to the meeting and the defective nomination shall be disregarded.

Section 2.6 QUORUM. The holders of a majority of the stock issued and outstanding and entitled to vote thereat, present in person or represented by proxy, shall constitute a quorum at all meetings of the stockholders for the transaction of business except as otherwise provided by statute or by the Certificate of Incorporation. If, however, such quorum is not present or represented at any meeting of the stockholders, then either (a) the chairman of the meeting or (b) the stockholders entitled to vote thereat, present in person or represented by proxy, shall have power to adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum is present or represented. At such adjourned meeting at which a quorum is present or represented, any business may be transacted that might have been transacted at the meeting as originally noticed.

Section 2.7 ADJOURNED MEETING; NOTICE. When a meeting is adjourned to another time or place, unless these Bylaws otherwise require, notice need not be given of the adjourned meeting if the time and place thereof are announced at the meeting at which the adjournment is taken. At the adjourned meeting the Corporation may transact any business that might have been transacted at the original meeting. If the adjournment is for more than 30 days, or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting.

Section 2.8 CONDUCT OF BUSINESS. The chairman of any meeting of stockholders shall determine the order of business and the procedure at the meeting, including the manner of voting and the conduct of business.

Section 2.9 VOTING.

(a) The stockholders entitled to vote at any meeting of stockholders shall be determined in accordance with the provisions of Section 2.11 of these Bylaws, subject to the provisions of Sections 217 and 218 of the DGCL (relating to voting rights of fiduciaries, pledgors and joint owners of stock and to voting trusts and other voting agreements).

(b) Except as may be otherwise provided in the Certificate of Incorporation, each stockholder shall be entitled to one vote for each share of capital stock held by such stockholder.

Section 2.10 WAIVER OF NOTICE. Whenever notice is required to be given under any provision of the DGCL or of the Certificate of Incorporation or these Bylaws, a written waiver thereof, signed by the person entitled to notice, whether before or after the time stated therein, shall be deemed equivalent to notice. Attendance of a person at a meeting shall constitute a waiver of notice of such meeting, except when the person attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the stockholders need be specified in any written waiver of notice unless so required by the Certificate of Incorporation or these Bylaws.

Section 2.11 RECORD DATE FOR STOCKHOLDER NOTICE; VOTING. In order that the Corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof or entitled to receive payment of any dividend or other distribution or allotment of any rights, or entitled to exercise any rights in respect of any change, conversion or exchange of stock or for the purpose of any other lawful action, the Board of Directors may fix, in advance, a record date, which shall not be more than 60 nor less than 10 days before the date of such meeting, nor more than 60 days prior to any other action. If the Board of Directors does not so fix a record date:

(a) The record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the day next preceding the day on which notice is given, or, if notice is waived, at the close of business on the day next preceding the day on which the meeting is held.

(b) The record date for determining stockholders for any other purpose shall be at the close of business on the day on which the Board of Directors adopts the resolution relating thereto.

A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; provided, however, that the Board of Directors may fix a new record date for the adjourned meeting.

Section 2.12 PROXIES. Each stockholder entitled to vote at a meeting of stockholders may authorize another person or persons to act for such stockholder by a written proxy, signed by the stockholder and filed with the secretary of the Corporation, but no such proxy shall be voted or acted upon after three years from its date, unless the proxy provides for a longer period. A proxy shall be deemed signed if the stockholder's name is placed on the proxy (whether by manual signature, typewriting, electronic or telegraphic transmission or otherwise) by the stockholder or the stockholder's attorney-in-fact. The revocability of a proxy that states on its face that it is irrevocable shall be governed by the provisions of Section 212(e) of the DGCL.

ARTICLE III DIRECTORS

Section 3.1 POWERS. Subject to the provisions of the DGCL and any limitations in the Certificate of Incorporation or these Bylaws relating to action required to be approved by the stockholders or by the outstanding shares, the business and affairs of the Corporation shall be managed and all corporate powers shall be exercised by or under the direction of the Board of Directors.

Section 3.2 NUMBER OF DIRECTORS. The number of directors constituting the entire Board of Directors shall be five.

Thereafter, this number may be changed by a resolution of the Board of Directors or of the stockholders, subject to Section 3.4 of these Bylaws. No reduction of the authorized number of directors shall have the effect of removing any director before such director's term of office expires.

Section 3.3 ELECTION, QUALIFICATION AND TERM OF OFFICE OF DIRECTORS. Except as provided in Section 3.4 of these Bylaws, directors shall be elected at each annual meeting of stockholders to hold office until the next annual meeting. Directors need not be stockholders unless so required by the Certificate of Incorporation or these Bylaws, wherein other qualifications for directors may be prescribed. Each director, including a director elected to fill a vacancy, shall hold office until his or her successor is elected and qualified or until his or her earlier resignation or removal.

Section 3.4 RESIGNATION AND VACANCIES. Any director may resign at any time upon written notice to the attention of the secretary of the Corporation. When one or more directors so resigns and the resignation is effective at a future date, a majority of the directors then in office, including those who have so resigned, shall have power to fill such vacancy or vacancies, the vote thereon to take effect when such resignation or resignations shall become effective, and each director so chosen shall hold office as provided in this Section 3.4 in the filling of other vacancies. A vacancy created by the removal of a director by the vote of the stockholders or by court order may be filled only by the affirmative vote of a majority of the shares represented and voting at a duly held meeting at which a quorum is present (which shares voting affirmatively also constitute a majority of the quorum). Each director so elected shall hold office until the next annual meeting of the stockholders and until a successor has been elected and qualified.

Unless otherwise provided in the Certificate of Incorporation or these Bylaws:

(a) Vacancies and newly created directorships resulting from any increase in the authorized number of directors elected by all of the stockholders having the right to vote as a single class may be filled by a majority of the directors then in office, although less than a quorum, or by a sole remaining director.

(b) Whenever the holders of any class or classes of stock or series thereof are entitled to elect one or more directors by the provisions of the Certificate of Incorporation, vacancies and newly created directorships of such class or classes or series may be filled by a majority of the directors elected by such class or classes or series thereof then in office, or by a sole remaining director so elected.

If at any time, by reason of death or resignation or other cause, the Corporation should have no directors in office, then any officer or any stockholder or an executor, administrator, trustee or guardian of a stockholder, or other fiduciary entrusted with like responsibility for the person or estate of a stockholder, may call a special meeting of stockholders in accordance with the provisions of the Certificate of Incorporation or these Bylaws, or may apply to the Court of Chancery for a decree summarily ordering an election as provided in Section 211 of the DGCL.

If, at the time of filling any vacancy or any newly created directorship, the directors then in office constitute less than a majority of the whole Board of Directors (as constituted immediately prior to any such increase), then the Court of Chancery may, upon application of any stockholder or stockholders holding at least 10% of the total number of the shares at the time outstanding having the right to vote for such directors, summarily order an election to be held to fill any such vacancies or newly created directorships, or to replace the directors chosen by the directors then in office as aforesaid, which election shall be governed by the provisions of Section 211 of the DGCL as far as applicable.

Section 3.5 PLACE OF MEETINGS; MEETINGS BY TELEPHONE. The Board of Directors of the Corporation may hold meetings, both regular and special, either within or outside the State of Delaware. Unless otherwise restricted by the Certificate of Incorporation or these Bylaws, members of the Board of Directors, or any committee designated by the Board of Directors, may participate in a meeting of the Board of Directors, or any committee, by means of conference telephone or similar communications equipment by means of which all persons participating in the meeting can hear each other, and such participation in a meeting shall constitute presence in person at the meeting.

Section 3.6 REGULAR MEETINGS. Regular meetings of the Board of Directors may be held without notice at such time and at such place as shall from time to time be determined by the Board of Directors.

Section 3.7 SPECIAL MEETINGS; NOTICE. Special meetings of the board of directors for any purpose or purposes may be called at any time by the chairman of the board, the president, any vice president, the secretary or any two (2) directors.

Notice of the time and place of special meetings shall be delivered personally or by telephone to each director or sent by first-class mail or telegram, charges prepaid, addressed to each director at that director's address as it is shown on the records of the Corporation. If the notice is mailed, it shall be deposited in the United States mail at least four (4) days before the time of the holding of the meeting. If the notice is delivered personally or by telephone, telecopy, telegram, telex or other similar means of communication, it shall be delivered at least twenty-four (24) hours before the time of the holding of the meeting, or on such shorter notice as the person or persons calling such meeting may deem necessary and appropriate in the circumstances. Any oral notice given personally or by telephone may be communicated either to the director or to a person at the office of the director who the person giving the notice has reason to believe will promptly communicate it to the director. The notice need not specify the purpose of the place of the meeting, if the meeting is to be held at the principal executive office of the Corporation.

Section 3.8 QUORUM. At all meetings of the Board of Directors, a majority of the authorized number of directors shall constitute a quorum for the transaction of business and the act of a majority of the directors present at any meeting at which there is a quorum shall be the act of the Board of Directors, except as may be otherwise specifically provided by statute or by the Certificate of Incorporation. If a quorum is not present at any meeting of the Board of Directors, then the directors present thereat may adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum is present.

A meeting at which a quorum is initially present may continue to transact business notwithstanding the withdrawal of directors, if any action taken is approved by at least a majority of the required quorum for that meeting.

Section 3.9 WAIVER OF NOTICE. Whenever notice is required to be given under any provision of the DGCL or of the Certificate of Incorporation or these Bylaws, a written waiver thereof, signed by the person entitled to notice, whether before or after the time stated therein, shall be deemed equivalent to notice. Attendance of a person at a meeting shall constitute a waiver of notice of such meeting, except when the person attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the directors, or members of a committee of directors, need be specified in any written waiver of notice unless so required by the Certificate of Incorporation or these Bylaws.

Section 3.10 BOARD ACTION BY WRITTEN CONSENT WITHOUT A MEETING. Unless otherwise restricted by the Certificate of Incorporation or these Bylaws, any action required or permitted to be taken at any meeting of the Board of Directors, or of any committee thereof, may be taken without a meeting if all members of the Board of Directors or committee, as the case may be, consent thereto in writing and the writing or writings are filed with the minutes of proceedings of the Board of Directors or committee. Written consents representing actions taken by the board or committee may be executed by telex, telecopy or other facsimile transmission, and such facsimile shall be valid and binding to the same extent as if it were an original.

Section 3.11 FEES AND COMPENSATION OF DIRECTORS. Unless otherwise restricted by the Certificate of Incorporation or these Bylaws, the Board of Directors shall have the authority to fix the compensation of directors. No such compensation shall preclude any director from serving the Corporation in any other capacity and receiving compensation therefor.

Section 3.12 APPROVAL OF LOANS TO OFFICERS. The Corporation may lend money to, or guarantee any obligation of, or otherwise assist any officer or other employee of the Corporation or of its subsidiary, including any officer or employee who is a director of the Corporation or its subsidiary, whenever, in the judgment of the directors, such loan, guaranty or assistance may reasonably be expected to benefit the Corporation. The loan, guaranty or other assistance may be with or without interest and may be unsecured, or secured in such manner as the Board of Directors shall approve, including, without limitation, a pledge of shares of stock of the Corporation. Nothing in this Section 3.12 contained shall be deemed to deny, limit or restrict the powers of guaranty or warranty of the Corporation at common law or under any statute.

Section 3.13 REMOVAL OF DIRECTORS. Unless otherwise restricted by statute, by the Certificate of Incorporation or by these Bylaws, any director or the entire Board of Directors may be removed, with or without cause, by the holders of a majority of the shares then entitled to vote at an election of directors; provided, however, that if the stockholders of the Corporation are entitled to cumulative voting, if less than the entire Board of Directors is to be removed, no director may be removed without cause if the votes cast against his removal would be sufficient to elect him if then cumulatively voted at an election of the entire Board of Directors.

No reduction of the authorized number of directors shall have the effect of removing any director prior to the expiration of such director's term of office.

Section 3.14 CHAIRMAN OF THE BOARD OF DIRECTORS. The Corporation may also have, at the discretion of the Board of Directors, a Chairman of the Board of Directors who shall not be considered an officer of the Corporation.

ARTICLE IV COMMITTEES

Section 4.1 COMMITTEES OF DIRECTORS. The Board of Directors may, by resolution passed by a majority of the whole Board of Directors, designate one or more committees, with each committee to consist of one or more of the directors of the Corporation. The Board of Directors may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee. In the absence or disqualification of a member of a committee, the member or members thereof present at any meeting and not disqualified from voting, whether or not such member or members constitute a quorum, may unanimously appoint another member of the Board of Directors to act at the meeting in the place of any such absent or disqualified member. Any such committee, to the extent provided in the resolution of the Board of Directors or in the Bylaws of the Corporation, shall have and may exercise all the powers and authority of the Board of Directors in the management of the business and affairs of the Corporation, and may authorize the seal of the Corporation to be affixed to all papers that may require it; but no such committee shall have the power or authority to (a) amend the Certificate of Incorporation (except that a committee may, to the extent authorized in the resolution or resolutions providing for the issuance of shares of stock adopted by the Board of Directors as provided in Section 151(a) of the DGCL, fix the designations and any of the preferences or rights of such shares relating to dividends, redemption, dissolution, any distribution of assets of the Corporation or the conversion into, or the exchange of such shares for, shares of any other class or classes or any other series of the same or any other class or classes of stock of the Corporation or fix the number of shares of any series of stock or authorize the increase or decrease of the shares of any series), (b) adopt an agreement of merger or consolidation under Sections 251 or 252 of the DGCL, (c) recommend to the stockholders the sale, lease or exchange of all or substantially all of the Corporation's property and assets, (d) recommend to the stockholders a dissolution of the Corporation or a revocation of a dissolution, or (e) amend the Bylaws of the Corporation; and, unless the board resolution establishing the committee, the Bylaws or the Certificate of Incorporation expressly so provide, no such committee shall have the power or authority to declare a dividend, to authorize the issuance of stock, or to adopt a certificate of ownership and merger pursuant to Section 253 of the DGCL.

Section 4.2 COMMITTEE MINUTES. Each committee shall keep regular minutes of its meetings and report the same to the Board of Directors when required.

Section 4.3 MEETINGS AND ACTION OF COMMITTEES. Meetings and actions of committees shall be governed by, and held and taken in accordance with, the provisions of Section 3.5 (place of meetings and meetings by telephone), Section 3.6 (regular meetings), Section 3.7 (special meetings and notice), Section 3.8 (quorum), Section 3.9 (waiver of notice), and Section 3.10 (action without a meeting) of these Bylaws, with such changes in the context of such provisions as are necessary to substitute the committee and its members for the Board of Directors and its members; provided, however, that the time of regular meetings of committees may be determined either by resolution of the Board of Directors or by resolution of the committee, that special meetings of committees may also be called by resolution of the Board of Directors and that notice of special meetings of committees shall also be given to all alternate members, who shall have the right to attend all meetings of the committee. The Board of Directors may adopt rules for the government of any committee not inconsistent with the provisions of these Bylaws.

ARTICLE V OFFICERS

Section 5.1 OFFICERS. The officers of the Corporation shall be a chief executive officer, a president, a secretary, and a chief financial officer. The Corporation may also have, at the discretion of the Board of Directors, one or more vice presidents, one or more assistant secretaries, one or more assistant treasurers, and any such other officers as may be appointed in accordance with the provisions of Section 5.3 of these Bylaws. Any number of offices may be held by the same person.

Section 5.2 APPOINTMENT OF OFFICERS. The officers of the Corporation, except such officers as may be appointed in accordance with the provisions of Sections 5.3 or 5.5 of these Bylaws, shall be appointed by the Board of Directors, subject to the rights, if any, of an officer under any contract of employment.

Section 5.3 SUBORDINATE OFFICERS. The Board of Directors may appoint, or empower the chief executive officer or the president to appoint, such other officers and agents as the business of the Corporation may require, each of whom shall hold office for such period, have such authority, and perform such duties as are provided in these Bylaws or as the Board of Directors may from time to time determine.

Section 5.4 REMOVAL AND RESIGNATION OF OFFICERS. Subject to the rights, if any, of an officer under any contract of employment, any officer may be removed, either with or without cause, by an affirmative vote of the majority of the Board of Directors at any regular or special meeting of the Board of Directors or, except in the case of an officer chosen by the Board of Directors, by any officer upon whom such power of removal may be conferred by the Board of Directors.

Any officer may resign at any time by giving written notice to the attention of the secretary of the Corporation. Any resignation shall take effect at the date of the receipt of that notice or at any later time specified in that notice; and, unless otherwise specified in that notice, the acceptance of the resignation shall not be necessary to make it effective. Any resignation is without prejudice to the rights, if any, of the Corporation under any contract to which the officer is a party.

Section 5.5 VACANCIES IN OFFICES. Any vacancy occurring in any office of the Corporation shall be filled by the Board of Directors.

Section 5.6 CHIEF EXECUTIVE OFFICER. Subject to such supervisory powers, if any, as may be given by the Board of Directors to the chairman of the board, if any, the chief executive officer of the Corporation shall, subject to the control of the Board of Directors, have general supervision, direction, and control of the business and the officers of the Corporation. He or she shall preside at all meetings of the stockholders and, in the absence or nonexistence of a chairman of the board, at all meetings of the Board of Directors and shall have the general powers and duties of management usually vested in the office of chief executive officer of a corporation and shall have such other powers and duties as may be prescribed by the Board of Directors or these Bylaws.

Section 5.7 PRESIDENT. Subject to such supervisory powers, if any, as may be given by the Board of Directors to the chairman of the board (if any) or the chief executive officer, the president shall have general supervision, direction, and control of the business and other officers of the Corporation. He or she shall have the general powers and duties of management usually vested in the office of president of a corporation and such other powers and duties as may be prescribed by the Board of Directors or these Bylaws.

Section 5.8 VICE PRESIDENTS. In the absence or disability of the chief executive officer and president, the vice presidents, if any, in order of their rank as fixed by the Board of Directors or, if not ranked, a vice president designated by the Board of Directors, shall perform all the duties of the president and when so acting shall have all the powers of, and be subject to all the restrictions upon, the president. The vice presidents shall have such other powers and perform such other duties as from time to time may be prescribed for them respectively by the Board of Directors, these Bylaws, the president or the chairman of the board.

Section 5.9 SECRETARY. The secretary shall keep or cause to be kept, at the principal executive office of the Corporation or such other place as the Board of Directors may direct, a book of minutes of all meetings and actions of directors, committees of directors, and stockholders. The minutes shall show the time and place of each meeting, the names of those present at directors' meetings or committee meetings, the number of shares present or represented at stockholders' meetings, and the proceedings thereof.

The secretary shall keep, or cause to be kept, at the principal executive office of the Corporation or at the office of the Corporation's transfer agent or registrar, as determined by resolution of the Board Of Directors, a share register, or a duplicate share register, showing the names of all stockholders and their addresses, the number and classes of shares held by each, the number and date of certificates evidencing such shares, and the number and date of cancellation of every certificate surrendered for cancellation.

The secretary shall give, or cause to be given, notice of all meetings of the stockholders and of the Board of Directors required to be given by law or by these Bylaws. He or she shall keep the seal of the Corporation, if one be adopted, in safe custody and shall have such other powers and perform such other duties as may be prescribed by the Board of Directors or by these Bylaws.

Section 5.10 CHIEF FINANCIAL OFFICER. The chief financial officer shall keep and maintain, or cause to be kept and maintained, adequate and correct books and records of accounts of the properties and business transactions of the Corporation, including accounts of its assets, liabilities, receipts, disbursements, gains, losses, capital retained earnings, and shares. The books of account shall at all reasonable times be open to inspection by any director.

The chief financial officer shall deposit all moneys and other valuables in the name and to the credit of the Corporation with such depositories as may be designated by the Board of Directors. He or she shall disburse the funds of the Corporation as may be ordered by the Board of Directors, shall render to the president, the chief executive officer, or the directors, upon request, an account of all his or her transactions as chief financial officer and of the financial condition of the Corporation, and shall have other powers and perform such other duties as may be prescribed by the Board of Directors or the Bylaws.

Section 5.11 REPRESENTATION OF SHARES OF OTHER CORPORATIONS. The chairman of the board, the chief executive officer, the president, any vice president, the chief financial officer, the secretary or assistant secretary of this Corporation, or any other person authorized by the Board of Directors or the chief executive officer or the president or a vice president, is authorized to vote, represent, and exercise on behalf of this Corporation all rights incident to any and all shares of any other corporation or corporations standing in the name of this Corporation. The authority granted herein may be exercised either by such person directly or by any other person authorized to do so by proxy or power of attorney duly executed by the person having such authority.

Section 5.12 AUTHORITY AND DUTIES OF OFFICERS. In addition to the foregoing authority and duties, all officers of the Corporation shall respectively have such authority and perform such duties in the management of the business of the Corporation as may be designated from time to time by the Board of Directors or the stockholders.

ARTICLE VI INDEMNIFICATION OF DIRECTORS, OFFICERS, EMPLOYEES, AND OTHER AGENTS

Section 6.1 INDEMNIFICATION OF DIRECTORS AND OFFICERS. The Corporation shall, to the maximum extent and in the manner permitted by the DGCL, indemnify each of its directors and officers against expenses (including attorneys' fees), judgments, fines, settlements and other amounts actually and reasonably incurred in connection with any proceeding, arising by reason of the fact that such person is or was an agent of the Corporation. For purposes of this Section 6.1, a "director" or "officer" of the Corporation includes any person (a) who is or was a director or officer of the Corporation, (b) who is or was serving at the request of the Corporation as a director or officer of another corporation, partnership, joint venture, trust or other enterprise, or (c) who was a director or officer of a Corporation which was a predecessor corporation of the Corporation or of another enterprise at the request of such predecessor corporation.

Section 6.2 INDEMNIFICATION OF OTHERS. The Corporation shall have the power, to the maximum extent and in the manner permitted by the DGCL, to indemnify each of its employees and agents (other than directors and officers) against expenses (including attorneys' fees), judgments, fines, settlements and other amounts actually and reasonably incurred in connection with any proceeding, arising by reason of the fact that such person is or was an agent of the Corporation. For purposes of this Section 6.2, an "employee" or "agent" of the Corporation (other than a director or officer) includes any person (a) who is or was an employee or agent of the Corporation, (b) who is or was serving at the request of the Corporation as an employee or agent of another corporation, partnership, joint venture, trust or other enterprise, or (c) who was an employee or agent of a corporation which was a predecessor corporation of the Corporation or of another enterprise at the request of such predecessor corporation.

Section 6.3 PAYMENT OF EXPENSES IN ADVANCE. Expenses incurred in defending any action or proceeding for which indemnification is required pursuant to Section 6.1 or for which indemnification is permitted pursuant to Section 6.2 following authorization thereof by the Board of Directors shall be paid by the Corporation in advance of the final disposition of such action or proceeding upon receipt of an undertaking by or on behalf of the indemnified party to repay such amount if it shall ultimately be determined that the indemnified party is not entitled to be indemnified as authorized in this Article VI.

Section 6.4 INDEMNITY NOT EXCLUSIVE. The indemnification provided by this Article VI shall not be deemed exclusive of any other rights to which those seeking indemnification may be entitled under any Bylaw, agreement, vote of shareholders or disinterested directors or otherwise, both as to action in an official capacity and as to action in another capacity while holding such office, to the extent that such additional rights to indemnification are authorized in the Certificate of Incorporation.

Section 6.5 INSURANCE. The Corporation may purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the Corporation, or is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against him or her and incurred by him or her in any such capacity, or arising out of his or her status as such, whether or not the Corporation would have the power to indemnify him or her against such liability under the provisions of the DGCL.

Section 6.6 CONFLICTS. No indemnification or advance shall be made under this Article VI, except where such indemnification or advance is mandated by law or the order, judgment or decree of any court of competent jurisdiction, in any circumstance where it appears:

(a) That it would be inconsistent with a provision of the Certificate of Incorporation, these Bylaws, a resolution of the stockholders or an agreement in effect at the time of the accrual of the alleged cause of the action asserted in the proceeding in which the expenses were incurred or other amounts were paid, which prohibits or otherwise limits indemnification; or

(b) That it would be inconsistent with any condition expressly imposed by a court in approving a settlement.

ARTICLE VII RECORDS AND REPORTS

Section 7.1 MAINTENANCE AND INSPECTION OF RECORDS. The Corporation shall, either at its principal executive offices or at such place or places as designated by the Board of Directors, keep a record of its stockholders listing their names and addresses and the number and class of shares held by each stockholder, a copy of these Bylaws as amended to date, accounting books, and other records.

Any stockholder of record, in person or by attorney or other agent, shall, upon written demand under oath stating the purpose thereof, have the right during the usual hours for business to inspect for any proper purpose the Corporation's stock ledger, a list of its stockholders, and its other books and records and to make copies or extracts therefrom. A proper purpose shall mean a purpose reasonably related to such person's interest as a stockholder. In every instance where an attorney or other agent is the person who seeks the right to inspection, the demand under oath shall be accompanied by a power of attorney or such other writing that authorizes the attorney or other agent to so act on behalf of the stockholder. The demand under oath shall be directed to the Corporation at its registered office in Delaware or at its principal place of business.

Section 7.2 INSPECTION BY DIRECTORS. Any director shall have the right to examine the Corporation's stockledger, a list of its stockholders, and its other books and records for a purpose reasonably related to his or her position as a director. The Court of Chancery is hereby vested with the exclusive jurisdiction to determine whether a director is entitled to the inspection sought. The Court may summarily order the Corporation to permit the director to inspect any and all books and records, the stock ledger, and the stock list and to make copies or extracts therefrom. The Court may, in its discretion, prescribe any limitations or conditions with reference to the inspection, or award such other and further relief as the Court may deem just and proper.

Section 7.3 ANNUAL STATEMENT TO STOCKHOLDERS. The Board of Directors shall present at each annual meeting, and at any special meeting of the stockholders when called for by vote of the stockholders, a full and clear statement of the business and condition of the Corporation.

ARTICLE VIII GENERAL MATTERS

Section 8.1 CHECKS. From time to time, the Board of Directors shall determine by resolution which person or persons may sign or endorse all checks, drafts, other orders for payment of money, notes or other evidences of indebtedness that are issued in the name of or payable to the Corporation, and only the persons so authorized shall sign or endorse those instruments.

Section 8.2 EXECUTION OF CORPORATE CONTRACTS AND INSTRUMENTS. The Board of Directors, except as otherwise provided in these Bylaws, may authorize any officer or officers, or agent or agents, to enter into any contract or execute any instrument in the name of and on behalf of the Corporation; such authority may be general or confined to specific instances. Unless so authorized or ratified by the Board of Directors or within the agency power of an officer, no officer, agent or employee shall have any power or authority to bind the Corporation by any contract or engagement or to pledge its credit or to render it liable for any purpose or for any amount.

Section 8.3 STOCK CERTIFICATES; PARTLY PAID SHARES. The shares of the Corporation shall be represented by certificates, provided that the Board of Directors of the Corporation may provide by resolution or resolutions that some or all of any or all classes or series of its stock shall be uncertificated shares. Any such resolution shall not apply to shares represented by a certificate until such certificate is surrendered to the Corporation. Notwithstanding the adoption of such a resolution by the Board of Directors, every holder of stock represented by certificates and upon request every holder of uncertificated shares shall be entitled to have a certificate signed by, or in the name of the Corporation by the chairman or vice-chairman of the Board of Directors, or the chief executive officer or the president or vice-president, and by the chief financial officer or an assistant treasurer, or the secretary or an assistant secretary of the Corporation representing the number of shares registered in certificate form. Any or all of the signatures on the certificate may be a facsimile. In case any officer, transfer agent or registrar who has signed or whose facsimile signature has been placed upon a certificate has ceased to be such officer, transfer agent or registrar before such certificate is issued, it may be issued by the Corporation with the same effect as if he or she were such officer, transfer agent or registrar at the date of issue.

The Corporation may issue the whole or any part of its shares as partly paid and subject to call for the remainder of the consideration to be paid therefor. Upon the face or back of each stock certificate issued to represent any such partly paid shares, upon the books and records of the Corporation in the case of uncertificated partly paid shares, the total amount of the consideration to be paid therefor and the amount paid thereon shall be stated. Upon the declaration of any dividend on fully paid shares, the Corporation shall declare a dividend upon partly paid shares of the same class, but only upon the basis of the percentage of the consideration actually paid thereon.

Section 8.4 SPECIAL DESIGNATION ON CERTIFICATES. If the Corporation is authorized to issue more than one class of stock or more than one series of any class, then the powers, the designations, the preferences, and the relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights shall be set forth in full or summarized on the face or back of the certificate that the Corporation shall issue to represent such class or series of stock; provided, however, that, except as otherwise provided in Section 202 of the DGCL, in lieu of the foregoing requirements there may be set forth on the face or back of the certificate that the Corporation shall issue to represent such class or series of stock a statement that the Corporation will furnish without charge to each stockholder who so requests the powers, the designations, the preferences, and the relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights.

Section 8.5 LOST CERTIFICATES. Except as provided in this Section 8.5, no new certificates for shares shall be issued to replace a previously issued certificate unless the latter is surrendered to the Corporation and canceled at the same time. The Corporation may issue a new certificate of stock or uncertificated shares in the place of any certificate previously issued by it, alleged to have been lost, stolen or destroyed, and the Corporation may require the owner of the lost, stolen or destroyed certificate, or the owner's legal representative, to give the Corporation a bond sufficient to indemnify it against any claim that may be made against it on account of the alleged loss, theft or destruction of any such certificate or the issuance of such new certificate or uncertificated shares.

Section 8.6 CONSTRUCTION; DEFINITIONS. Unless the context requires otherwise, the general provisions, rules of construction, and definitions in the DGCL shall govern the construction of these Bylaws. Without limiting the generality of this provision, the singular number includes the plural, the plural number includes the singular, and the term "person" includes both a corporation and a natural person.

Section 8.7 DIVIDENDS. The directors of the Corporation, subject to any restrictions contained in (a) the DGCL or (b) the Certificate of Incorporation, may declare and pay dividends upon the shares of its capital stock. Dividends may be paid in cash, in property, or in shares of the Corporation's capital stock.

The directors of the Corporation may set apart out of any of the funds of the Corporation available for dividends a reserve or reserves for any proper purpose and may abolish any such reserve. Such purposes shall include but not be limited to equalizing dividends, repairing or maintaining any property of the Corporation, and meeting contingencies.

Section 8.8 FISCAL YEAR. The fiscal year of the Corporation shall be fixed by resolution of the Board of Directors and may be changed by the Board of Directors.

Section 8.9 SEAL. The Corporation may adopt a corporate seal, which may be altered at pleasure, and may use the same by causing it or a facsimile thereof, to be impressed or affixed or in any other manner reproduced.

Section 8.10 TRANSFER OF STOCK. Upon surrender to the Corporation or the transfer agent of the Corporation of a certificate for shares duly endorsed or accompanied by proper evidence of succession, assignation or authority to transfer, it shall be the duty of the Corporation to issue a new certificate to the person entitled thereto, cancel the old certificate, and record the transaction in its books.

Section 8.11 **STOCK TRANSFER AGREEMENTS.** The Corporation shall have power to enter into and perform any agreement with any number of stockholders of any one or more classes of stock of the Corporation to restrict the transfer of shares of stock of the Corporation of any one or more classes owned by such stockholders in any manner not prohibited by the DGCL.

Section 8.12 **REGISTERED STOCKHOLDERS.** The Corporation shall be entitled to recognize the exclusive right of a person registered on its books as the owner of shares to receive dividends and to vote as such owner, shall be entitled to hold liable for calls and assessments the person registered on its books as the owner of shares, and shall not be bound to recognize any equitable or other claim to or interest in such share or shares on the part of another person, whether or not it shall have express or other notice thereof, except as otherwise provided by the laws of Delaware.

ARTICLE IX EXCLUSIVE FORUM

To the fullest extent permitted by applicable law:

(a) unless the Corporation consents in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware (or, if the Court of Chancery does not have jurisdiction, another State court in Delaware or the federal district court for the District of Delaware) shall, to the fullest extent permitted by law, be the sole and exclusive forum for (i) any derivative action or proceeding brought on behalf of the Corporation, (ii) any action asserting a claim of breach of a fiduciary duty owed by any director, stockholder, officer or other employee of the Corporation to the Corporation or the Corporation's stockholders, (iii) any action arising pursuant to any provision of the DGCL or the Certificate of Incorporation or these Bylaws (as either may be amended from time to time) or (iv) any action asserting a claim governed by the internal affairs doctrine, except for, as to each of (i) through (iv) above, any claim as to which such court determines that there is an indispensable party not subject to the jurisdiction of such court (and the indispensable party does not consent to the personal jurisdiction of such court within 10 days following such determination), which is vested in the exclusive jurisdiction of a court or forum other than such court or for which such court does not have subject matter jurisdiction. Any person or entity purchasing or otherwise acquiring any interest in any security of the Corporation shall be deemed to have notice of and consented to the provisions of this Article IX. For the avoidance of doubt, this Article IX, Part (a) shall not apply to any action brought to enforce a duty or liability created by the Securities Act of 1933 or the 1934 Act.

(b) unless the Corporation consents in writing to the selection of an alternative forum, the federal district courts of the United States of America shall be the exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act of 1933. Any person or entity purchasing or otherwise acquiring or holding any interest in any security of the Corporation shall be deemed to have notice of and consented to this Article IX, Part (b).

**ARTICLE X
AMENDMENTS**

The Bylaws of the Corporation may be adopted, amended or repealed by the stockholders entitled to vote, as specified in the Certificate of Incorporation; provided, however, that the Corporation may, in its Certificate of Incorporation, confer the power to adopt, amend or repeal Bylaws upon the directors. The fact that such power has been so conferred upon the directors shall not divest the stockholders of the power, nor limit their power to adopt, amend or repeal Bylaws.

CERTIFICATIONS

I, Kendall Larsen, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of VirnetX Holding Corporation for the quarter ended March 31, 2020;
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 that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
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.

/s/ Kendall Larsen

Kendall Larsen

President and Chief Executive Officer

(Principal Executive Officer)

Date: May 11, 2020

CERTIFICATIONS

I, Richard H. Nance, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of VirnetX Holding Corporation for the quarter ended March 31, 2020;
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 that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
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.

/s/ Richard H. Nance

Richard H. Nance

Chief Financial Officer

(Principal Financial Officer and Principal Accounting Officer)

Date: May 11, 2020

**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 of VirnetX Holding Corporation (the “Company”) on Form 10-Q for the quarter ended March 31, 2020 as filed with the Securities and Exchange Commission on May 11, 2020 (the “Report”), I, Kendall Larsen, President and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

/s/ Kendall Larsen

Kendall Larsen

President and Chief Executive Officer

(Principal Executive Officer)

Date: May 11, 2020

**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 of VirnetX Holding Corporation (the “Company”) on Form 10-Q for the quarter ended March 31, 2020 as filed with the Securities and Exchange Commission on May 11, 2020 (the “Report”), I, Richard H. Nance, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

/s/ Richard H. Nance

Richard H. Nance

Chief Financial Officer

(Principal Financial Officer and Principal Accounting Officer)

Date: May 11, 2019
