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

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**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
- TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**  
For the transition period from to

Commission File Number 001-38267

**RIBBON COMMUNICATIONS INC.**

(Exact name of Registrant as specified in its charter)

**DELAWARE**

(State or other jurisdiction of  
incorporation or organization)

**82-1669692**

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

**4 Technology Park Drive, Westford, Massachusetts 01886**

(Address of principal executive offices) (Zip code)

**(978) 614-8100**

(Registrant's telephone number, including area code)

N/A

(Former name, former address and former fiscal year, if changed since last report)

**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	RBBN	The Nasdaq Global Select Market

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§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, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

Emerging growth company

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

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

As of May 4, 2020, there were 144,771,217 shares of the registrant's common stock, \$0.0001 par value per share, outstanding.

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RIBBON COMMUNICATIONS INC.  
FORM 10-Q  
QUARTERLY PERIOD ENDED MARCH 31, 2020  
TABLE OF CONTENTS

Item	Page
<a href="#"><u>Cautionary Note Regarding Forward-Looking Statements</u></a>	<a href="#"><u>3</u></a>
<a href="#"><u>Presentation of Information</u></a>	<a href="#"><u>3</u></a>
<b>PART I FINANCIAL INFORMATION</b>	
<a href="#"><u>1. Financial Statements</u></a>	
<a href="#"><u>Condensed Consolidated Balance Sheets as of March 31, 2020 and December 31, 2019 (unaudited)</u></a>	<a href="#"><u>4</u></a>
<a href="#"><u>Condensed Consolidated Statements of Operations for the Three Months Ended March 31, 2020 and 2019 (unaudited)</u></a>	<a href="#"><u>5</u></a>
<a href="#"><u>Condensed Consolidated Statements of Comprehensive Loss for the Three Months Ended March 31, 2020 and 2019 (unaudited)</u></a>	<a href="#"><u>6</u></a>
<a href="#"><u>Condensed Consolidated Statements of Equity for the Three Months March 31, 2020 and 2019 (unaudited)</u></a>	<a href="#"><u>7</u></a>
<a href="#"><u>Condensed Consolidated Statements of Cash Flows for the Three Months Ended March 31, 2020 and 2019 (unaudited)</u></a>	<a href="#"><u>9</u></a>
<a href="#"><u>Notes to Condensed Consolidated Financial Statements (unaudited)</u></a>	<a href="#"><u>11</u></a>
<a href="#"><u>2. Management's Discussion and Analysis of Financial Condition and Results of Operations</u></a>	<a href="#"><u>39</u></a>
<a href="#"><u>3. Quantitative and Qualitative Disclosures About Market Risk</u></a>	<a href="#"><u>52</u></a>
<a href="#"><u>4. Controls and Procedures</u></a>	<a href="#"><u>53</u></a>
<b>PART II OTHER INFORMATION</b>	
<a href="#"><u>1. Legal Proceedings</u></a>	<a href="#"><u>53</u></a>
<a href="#"><u>1A. Risk Factors</u></a>	<a href="#"><u>53</u></a>
<a href="#"><u>2. Unregistered Sales of Equity Securities and Use of Proceeds</u></a>	<a href="#"><u>58</u></a>
<a href="#"><u>5. Other Information</u></a>	<a href="#"><u>58</u></a>
<a href="#"><u>6. Exhibits</u></a>	<a href="#"><u>59</u></a>
<a href="#"><u>Signatures</u></a>	<a href="#"><u>60</u></a>

### Cautionary Note Regarding Forward-Looking Statements

This Quarterly Report on Form 10-Q contains "forward-looking statements" within the meaning of the U.S. Private Securities Litigation Reform Act of 1995, which are subject to a number of risks and uncertainties. All statements other than statements of historical facts contained in this Quarterly Report on Form 10-Q, including statements regarding our future expenses, results of operations and financial position, integration activities, potential stock repurchases, remaining settlement payments, beliefs about our market capitalization, business strategy, statements about the potential impact of the merger and acquisition transactions described herein, plans and objectives of management for future operations, plans for future cost reductions, changes to our operating segments, if any, restructuring activities and plans for future product offerings, development and manufacturing are forward-looking statements. Without limiting the foregoing, the words "anticipates", "believes", "could", "estimates", "expects", "intends", "may", "plans", "seeks" and other similar language, whether in the negative or affirmative, are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. Forward-looking statements are based on our current expectations and assumptions regarding our business, the economy and other future conditions. Because forward-looking statements relate to the future, they are subject to inherent uncertainties, risks and changes in circumstances that are difficult to predict. These statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements including, but not limited to, risks related to the COVID-19 pandemic on the global economy and financial markets as well as on the Company, our customers and suppliers, which may impact our sales, gross margin, customer demand and our ability to supply our products to our customers; risks that the businesses of ECI Telecom Group Ltd. ("ECI") will not be integrated successfully or that the combined companies will not realize estimated cost savings; failure to realize anticipated benefits of the merger with ECI; potential litigation relating to the merger with ECI and disruptions from the integration efforts that could harm our business; integration activities with respect to ECI and our other acquisitions; our ability to realize the benefits from mergers and acquisitions; the effects of disruption from mergers and acquisitions, making it more difficult to maintain relationships with employees, customers, business partners or government entities; unpredictable fluctuations in quarterly revenue and operating results; failure to compete successfully against telecommunications equipment and networking companies; failure to grow our customer base or generate recurring business from our existing customers; consolidation in the telecommunications industry; credit risks; the timing of customer purchasing decisions and our recognition of revenues; economic conditions; our ability to recruit and retain key personnel; difficulties supporting our strategic focus on channel sales; difficulties retaining and expanding our customer base; difficulties leveraging market opportunities; the impact of restructuring and cost-containment activities; litigation; actions taken by significant stockholders; difficulties providing solutions that meet the needs of customers; market acceptance of our products and services; rapid technological and market change; our ability to protect our intellectual property rights and obtain necessary licenses; our ability to maintain partner, reseller, distribution and vendor support and supply relationships; our negotiating position relative to our large customers; the limited supply of certain components of our products; the potential for defects in our products; risks related to the terms of our credit agreement; higher risks in international operations and markets; the impact of increased competition; increases in tariffs, trade restrictions or taxes on our products; currency fluctuations; changes in the market price of our common stock; and/or failure or circumvention of our controls and procedures. We therefore caution you against relying on any of these forward-looking statements.

Important factors that could cause actual results to differ materially from those in these forward-looking statements are also discussed in Part I, Item 2, "Management's Discussion and Analysis of Financial Condition and Results of Operations" of this Quarterly Report on Form 10-Q and Part I, Item 1A and Part II, Item 7A, "Risk Factors" and "Quantitative and Qualitative Disclosures About Market Risk," respectively, of our Annual Report on Form 10-K for the year ended December 31, 2019 as updated by Part II, Item 1A, "Risk Factors" of this Quarterly Report on Form 10-Q for the quarter ended March 31, 2020. Also, any forward-looking statement made by us in this Quarterly Report on Form 10-Q speaks only as of the date on which this Quarterly Report on Form 10-Q was first filed. We undertake no obligation to publicly update any forward-looking statement, whether as a result of new information, future developments or otherwise.

## PART I FINANCIAL INFORMATION

## Item 1. Financial Statements

**RIBBON COMMUNICATIONS INC.**  
**Condensed Consolidated Balance Sheets**  
(in thousands, except share and per share data)  
(unaudited)

	March 31, 2020	December 31, 2019
<b>Assets</b>		
Current assets:		
Cash and cash equivalents	\$ 96,830	\$ 44,643
Restricted cash	13,238	—
Accounts receivable, net	205,793	192,706
Inventory	67,067	14,800
Other current assets	45,904	27,146
Total current assets	428,832	279,295
Property and equipment, net	46,903	28,976
Intangible assets, net	452,930	213,366
Goodwill	414,389	224,896
Deferred income taxes	6,225	4,959
Operating lease right-of-use assets	66,295	36,654
Other assets	56,915	26,762
	<u>\$ 1,472,489</u>	<u>\$ 814,908</u>
<b>Liabilities and Stockholders' Equity</b>		
Current liabilities:		
Current portion of term debt	\$ 13,500	\$ 2,500
Revolving credit facility	—	8,000
Accounts payable	89,323	31,412
Accrued expenses and other	136,019	56,700
Operating lease liabilities	18,201	7,719
Deferred revenue	113,699	100,406
Total current liabilities	370,742	206,737
Long-term debt, net of current	381,743	45,995
Operating lease liabilities, net of current	55,857	37,202
Deferred revenue, net of current	25,911	20,482
Deferred income taxes	17,443	4,648
Other long-term liabilities	67,089	16,589
Total liabilities	918,785	331,653
Commitments and contingencies (Note 18)		
Stockholders' equity:		
Preferred stock, \$0.01 par value per share; 10,000,000 shares authorized, none issued and outstanding	—	—
Common stock, \$0.0001 par value per share; 240,000,000 shares authorized; 144,351,304 shares issued and outstanding at March 31, 2020; 110,471,995 shares issued and outstanding at December 31, 2019	14	11
Additional paid-in capital	1,860,150	1,747,784
Accumulated deficit	(1,300,237)	(1,267,067)
Accumulated other comprehensive (loss) income	(6,223)	2,527
Total stockholders' equity	553,704	483,255
	<u>\$ 1,472,489</u>	<u>\$ 814,908</u>

See notes to the unaudited condensed consolidated financial statements.

**RIBBON COMMUNICATIONS INC.**  
**Condensed Consolidated Statements of Operations**  
(in thousands, except per share data)  
(unaudited)

	Three months ended	
	March 31, 2020	March 31, 2019
Revenue:		
Product	\$ 75,899	\$ 47,480
Service	82,083	71,448
Total revenue	157,982	118,928
Cost of revenue:		
Product	44,933	33,147
Service	31,479	29,192
Total cost of revenue	76,412	62,339
Gross profit	81,570	56,589
Operating expenses:		
Research and development	42,295	35,933
Sales and marketing	36,351	30,059
General and administrative	17,205	18,694
Acquisition- and integration-related	12,384	3,199
Restructuring and related	2,075	4,932
Total operating expenses	110,310	92,817
Loss from operations	(28,740)	(36,228)
Interest expense, net	(3,395)	(1,364)
Other (expense) income, net	(844)	7,774
Loss before income taxes	(32,979)	(29,818)
Income tax provision	(191)	(1,014)
Net loss	\$ (33,170)	\$ (30,832)
Loss per share:		
Basic	\$ (0.27)	\$ (0.29)
Diluted	\$ (0.27)	\$ (0.29)
Weighted average shares used to compute loss per share:		
Basic	120,992	108,167
Diluted	120,992	108,167

See notes to the unaudited condensed consolidated financial statements.

**RIBBON COMMUNICATIONS INC.**  
**Condensed Consolidated Statements of Comprehensive Loss**  
(in thousands)  
(unaudited)

	Three months ended	
	March 31, 2020	March 31, 2019
Net loss	\$ (33,170)	\$ (30,832)
Other comprehensive income (loss), net of tax:		
Unrealized loss on interest rate swap	(9,527)	—
Foreign currency translation adjustments	777	(8)
Unrealized gain on available-for sale marketable securities, net of reclassification adjustments for realized amounts	—	13
Employee retirement benefits	—	32
Other comprehensive (loss) income, net of tax	(8,750)	37
Comprehensive loss	\$ (41,920)	\$ (30,795)

See notes to the unaudited condensed consolidated financial statements.

**RIBBON COMMUNICATIONS INC.**  
**Condensed Consolidated Statements of Stockholders' Equity**  
(in thousands, except shares)  
(unaudited)

**Three months ended March 31, 2020**

	Common stock				Accumulated other comprehensive income (loss)	Total stockholders' equity
	Shares	Amount	Additional paid-in capital	Accumulated deficit		
Balance at January 1, 2020	110,471,995	\$ 11	\$ 1,747,784	\$ (1,267,067)	\$ 2,527	\$ 483,255
Exercise of stock options	3,014		5			5
Vesting of restricted stock awards and units	1,016,982					—
Vesting of performance-based stock units	315,866					—
Shares of restricted stock returned to the Company under net share settlements to satisfy tax withholding obligations	(273,104)		(792)			(792)
Shares issued as consideration in connection with the acquisition of ECI Telecom Group Ltd.	32,500,000	3	108,547			108,550
Shares issued as consideration in connection with the acquisition of Anova Data, Inc.	316,551		1,630			1,630
Stock-based compensation expense			2,976			2,976
Other comprehensive loss					(8,750)	(8,750)
Net loss				(33,170)		(33,170)
Balance at March 31, 2020	<u>144,351,304</u>	<u>\$ 14</u>	<u>\$ 1,860,150</u>	<u>\$ (1,300,237)</u>	<u>\$ (6,223)</u>	<u>\$ 553,704</u>

**RIBBON COMMUNICATIONS INC.**  
**Condensed Consolidated Statements of Stockholders' Equity (continued)**  
(in thousands, except shares)  
(unaudited)

**Three months ended March 31, 2019**

	Common stock		Additional paid-in capital	Accumulated deficit	Accumulated other comprehensive income	Total stockholders' equity
	Shares	Amount				
Balance at January 1, 2019	106,815,636	\$ 11	\$ 1,723,576	\$ (1,136,992)	\$ 3,703	\$ 590,298
Exercise of stock options	88,354		151			151
Vesting of restricted stock awards and units	806,813					—
Vesting of performance-based stock units	9,466					—
Shares of restricted stock returned to the Company under net share settlements to satisfy tax withholding obligations	(181,428)		(968)			(968)
Shares issued as consideration in connection with the acquisition of Anova Data, Inc.	2,948,793		15,186			15,186
Reclassification of liability to equity for bonuses converted to stock			1,052			1,052
Stock-based compensation expense			4,139			4,139
Other comprehensive income					37	37
Net loss				(30,832)		(30,832)
Balance at March 31, 2019	<u>110,487,634</u>	<u>\$ 11</u>	<u>\$ 1,743,136</u>	<u>\$ (1,167,824)</u>	<u>\$ 3,740</u>	<u>\$ 579,063</u>

See notes to the unaudited condensed consolidated financial statements.

**RIBBON COMMUNICATIONS INC.**  
**Condensed Consolidated Statements of Cash Flows**  
(in thousands)  
(unaudited)

	Three months ended	
	March 31, 2020	March 31, 2019
<b>Cash flows from operating activities:</b>		
Net loss	\$ (33,170)	\$ (30,832)
<b>Adjustments to reconcile net loss to cash flows provided by operating activities:</b>		
Depreciation and amortization of property and equipment	3,474	2,921
Amortization of intangible assets	14,334	11,922
Amortization of debt issuance costs	1,854	88
Stock-based compensation	2,976	4,139
Deferred income taxes	(99)	347
Reduction in deferred purchase consideration	(69)	(8,124)
Foreign currency exchange losses	854	352
<b>Changes in operating assets and liabilities:</b>		
Accounts receivable	46,156	53,854
Inventory	4,468	3,692
Other operating assets	(478)	(762)
Accounts payable	(27,029)	(6,999)
Accrued expenses and other long-term liabilities	22,310	(13,095)
Deferred revenue	4,351	2,076
Net cash provided by operating activities	39,932	19,579
<b>Cash flows from investing activities:</b>		
Purchases of property and equipment	(6,017)	(3,766)
Business acquisitions, net of cash acquired	(346,852)	—
Maturities of marketable securities	—	5,295
Proceeds from the sale of fixed assets	43,500	—
Net cash (used in) provided by investing activities	(309,369)	1,529
<b>Cash flows from financing activities:</b>		
Borrowings under revolving line of credit	—	37,000
Principal payments on revolving line of credit	(8,000)	(35,000)
Proceeds from issuance of term debt	403,500	—
Principal payments of long-term debt	(48,750)	—
Payment of deferred purchase consideration	—	(21,876)
Principal payments of finance leases	(338)	(230)
Payment of debt issuance costs	(10,573)	—
Proceeds from the exercise of stock options	5	151
Payment of tax withholding obligations related to net share settlements of restricted stock awards	(792)	(968)
Net cash provided by (used in) financing activities	335,052	(20,923)
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(190)	59
Net increase in cash, cash equivalents and restricted cash	65,425	244
Cash and cash equivalents, beginning of year	44,643	43,694
Cash, cash equivalents and restricted cash, end of period	\$ 110,068	\$ 43,938

**RIBBON COMMUNICATIONS INC.**  
**Condensed Consolidated Statements of Cash Flows (continued)**  
(in thousands)  
(unaudited)

	Three months ended	
	March 31, 2020	March 31, 2019
<b>Supplemental disclosure of cash flow information:</b>		
Interest paid	\$ 688	\$ 831
Income taxes paid	\$ 1,259	\$ 777
Income tax refunds received	\$ —	\$ 100
<b>Supplemental disclosure of non-cash investing activities:</b>		
Capital expenditures incurred, but not yet paid	\$ 6,300	\$ 399
Acquisition purchase consideration - deferred payments	\$ —	\$ 1,700
Shares of common stock issued as purchase consideration	\$ 110,180	\$ 15,186
<b>Supplemental disclosure of non-cash financing activities:</b>		
Total fair value of restricted stock awards, restricted stock units and performance-based stock units on date vested	\$ 3,182	\$ 4,334

See notes to the unaudited condensed consolidated financial statements.

**RIBBON COMMUNICATIONS INC.**  
**Notes to Condensed Consolidated Financial Statements**  
**(unaudited)**

**(1) BASIS OF PRESENTATION**

***Business***

Ribbon is a leading provider of next generation software solutions to telecommunications, wireless and cable service providers and enterprises of all sizes across industry verticals. With the March 3, 2020 completion of the merger with ECI Telecom Group Ltd ("ECI"), Ribbon now also provides optical and packet networking products and software-defined solutions to service providers and critical infrastructure sectors like utilities, government and defense. With over 1,000 customers around the globe, including some of the largest telecommunications service providers, enterprises and utilities in the world, Ribbon enables its customers to evolve and modernize their communications networks and packet optical networking infrastructures through software and hardware. By securing and enabling reliable and scalable Internet Protocol ("IP") and packet optical networks and applications, Ribbon helps its customers adopt the next generation of software-, cloud- and edge-based technologies to drive new, incremental revenue, while protecting their existing revenue streams. Ribbon's software solutions provide a secure way for its customers to connect and leverage multivendor, multiprotocol communications systems and applications across their networks and the cloud in a rapidly changing ecosystem of IP-enabled devices, such as smartphones and tablets. In addition, Ribbon's software solutions secure cloud-based delivery of unified communications ("UC") solutions - both for service providers transforming to a cloud-based network and for enterprises using cloud-based UC - and support the increasing demand on network infrastructure created by ongoing IP traffic growth and the forecast demand and build-outs to be created by increased traffic from 5G applications and devices. Ribbon sells its products and solutions through both direct sales and indirect channels, leveraging the assistance of resellers, and provides ongoing support to its customers through a global services team with experience in design, deployment and maintenance of some of the world's largest software IP networks.

***Basis of Presentation***

In the opinion of management, the accompanying unaudited condensed consolidated financial statements include all adjustments, consisting only of normal recurring items, necessary for their fair presentation with accounting principles generally accepted in the United States of America ("GAAP") and with the rules and regulations of the U.S. Securities and Exchange Commission ("SEC").

On March 3, 2020 (the "ECI Merger Date"), the Company merged with ECI Telecom Group Ltd. ("ECI") (the "ECI Merger"). The financial results of ECI are included in the Company's condensed consolidated financial statements for the period subsequent to the ECI Merger Date.

On February 28, 2019 (the "Anova Acquisition Date"), the Company acquired the business and technology assets of Anova Data, Inc. ("Anova"). The financial results of Anova are included in the Company's condensed consolidated financial statements for the period subsequent to the Anova Acquisition Date.

Interim results are not necessarily indicative of results for a full year or any future interim period. The information included in this Quarterly Report on Form 10-Q should be read in conjunction with the Company's Annual Report on Form 10-K for the year ended December 31, 2019 (the "Annual Report"), which was filed with the SEC on February 28, 2020.

***Significant Accounting Policies***

The Company's significant accounting policies are disclosed in Note 2 to the Consolidated Financial Statements included in the Annual Report. There were no material changes to the significant accounting policies during the three months ended March 31, 2020, with the exception of policies on transfers of financial assets and warranty costs:

*Transfers of Financial Assets.* The Company's recently acquired subsidiary, ECI Telecom Group Ltd. ("ECI"), maintains customer receivables factoring agreements with a number of financial institutions. Under the terms of these agreements, the Company may transfer receivables to the financial institutions, on a non-recourse basis, provided that the financial institutions approve the receivables in advance. The Company maintains credit insurance policies from major insurance providers or obtains letters of credit from the customers for a majority of its factored trade receivables. In some cases, the Company maintains some recourse obligations, limited to events of commercial disputes, such as product defects, which are not covered under the credit insurance policy, and are unrelated to the credit worthiness of the customer. The Company does not expect any

**RIBBON COMMUNICATIONS INC.**  
**Notes to Condensed Consolidated Financial Statements (Continued)**  
**(unaudited)**

recourse to take place in the foreseeable future due to commercial disputes. The Company accounts for the factoring of its financial assets as a sale of the assets and records the factoring fees, when incurred, as a component of interest expense in the condensed consolidated statements of operations and the proceeds from the sales of receivables are included in cash from operating activities in the condensed consolidated statements of cash flows. During the three months ended March 31, 2020, the Company received \$15.1 million of cash from the sale of certain accounts receivable and recorded \$0.1 million of interest expense in connection with these transactions.

*Warranty.* The Company records warranty liabilities for estimated costs of fulfilling its obligations under standard limited hardware and software warranties at the time of sale. The liability for standard warranties is included in Accrued expenses and other and Other non-current liabilities in the condensed consolidated balance sheet at March 31, 2020. The specific warranty terms and conditions vary depending upon the country in which the Company does business, but generally includes material costs, technical support, labor and associated overhead over a period ranging from one to three years. The Company's liability for product warranties was \$15.7 million, of which \$6.7 million was current and included in Accrued expenses and other and \$9.0 million was long-term and included in Other long-term liabilities in the Company's condensed consolidated balance sheet at March 31, 2020. The Company did not have a warranty accrual at December 31, 2019.

***Principles of Consolidation***

The condensed consolidated financial statements include the accounts of Ribbon and its wholly-owned subsidiaries. Intercompany transactions and balances have been eliminated in consolidation.

***Use of Estimates and Judgments***

The preparation of financial statements in conformity with GAAP requires Ribbon to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting periods. Significant estimates and judgments relied upon in preparing these condensed consolidated financial statements include accounting for business combinations, revenue recognition for multiple element arrangements, inventory valuations, assumptions used to determine the fair value of stock-based compensation, intangible asset and goodwill valuations, including impairments, legal contingencies and recoverability of Ribbon's net deferred tax assets and the related valuation allowances. Ribbon regularly assesses these estimates and records changes in estimates in the period in which they become known. Ribbon bases its estimates on historical experience and various other assumptions that it believes to be reasonable under the circumstances. Actual results could differ from those estimates.

***Reclassifications***

Certain reclassifications, not affecting previously reported net loss, have been made to the previously issued financial statements to conform to the current period presentation.

***Restricted Cash***

The Company classifies as restricted cash all cash pledged as collateral to secure long-term obligations and all cash whose use is otherwise limited by contractual provisions. At March 31, 2020, the Company had \$13.2 million of restricted cash, comprised of \$8.4 million restricted in connection with a tax payment on certain fixed assets formerly held by ECI that were sold in connection with the ECI Merger, and \$4.8 million restricted short-term bank deposits pledged to secure certain performance and financial bonds as security for the Company's obligations under tenders, contracts and to one of its main subcontractors.

***Fair Value of Financial Instruments***

The carrying amounts of the Company's financial instruments approximate their fair values and include cash equivalents, accounts receivable, borrowings under a revolving credit facility, accounts payable and long-term debt.

**RIBBON COMMUNICATIONS INC.**  
**Notes to Condensed Consolidated Financial Statements (Continued)**  
**(unaudited)**

**Operating Segments**

The Company currently operates in a single segment, as the chief operating decision maker made decisions and assessed performance at the company level. The Company's chief operating decision maker is its President and Chief Executive Officer, who began his employment with the Company effective March 1, 2020. From January 1, 2020 to March 1, 2020, the Company's chief operating decision makers were its former Interim Co-Presidents and Chief Executive Officers. Operating segments are identified as components of an enterprise about which separate discrete financial information is utilized for evaluation by the chief operating decision maker in making decisions regarding resource allocation and assessing performance. To date, the chief operating decision maker has made such decisions and assessed performance at the company level as one segment. However, with the acquisition of ECI, the Company's chief operating decision maker is currently assessing the appropriate separate discrete financial information he will utilize for making such decisions. Accordingly, the Company is reporting one operating segment for the three months ended March 31, 2020.

**Fair Value Hierarchy**

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or a liability. The three-tier fair value hierarchy is based on the level of independent, objective evidence surrounding the inputs used to measure fair value. A financial instrument's categorization within the fair value hierarchy is based upon the lowest level of input that is significant to the fair value measurement. The fair value hierarchy is as follows:

*Level 1.* Level 1 applies to assets or liabilities for which there are quoted prices in active markets for identical assets or liabilities.

*Level 2.* Level 2 applies to assets or liabilities for which there are inputs that are directly or indirectly observable in the marketplace, such as quoted prices for similar assets or liabilities in active markets or quoted prices for identical assets or liabilities in markets with insufficient volume or infrequent transactions (less active markets).

*Level 3.* Level 3 applies to assets or liabilities for which there are unobservable inputs to the valuation methodology that are significant to the measurement of the fair value of the assets or liabilities.

**Recent Accounting Pronouncements**

The Financial Accounting Standards Board ("FASB") has issued the following accounting pronouncements, all of which became effective for the Company in 2020 and none of which had a material impact on the Company's condensed consolidated financial statements:

In March 2020, the FASB issued Accounting Standards Update ("ASU") 2020-04, *Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting* ("ASU 2020-04"), which provides optional expedients and exceptions for applying generally accepted accounting principles to contract modifications and hedging relationships, subject to meeting certain criteria that reference LIBOR or another reference rate expected to be discontinued.

In March 2020, the FASB issued ASU 2020-03, *Codification Improvements to Financial Instruments* ("ASU 2020-03"), which makes narrow-scope amendments related to topics regarding fair value option disclosures, applicability of the portfolio exception in Accounting Standards Codification ("ASC") 820 to nonfinancial items, disclosures for depository and lending institutions, cross reference to guidance in ASC 470-50 on line of credit or revolving debt arrangements, cross reference to net asset value practical expedient in ASC 820-10, interaction between ASC 842 and ASC 326 and between ASC 326 and ASC 860-20.

In August 2018, the FASB issued ASU 2018-15, *Intangibles - Goodwill and Other - Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract* ("ASU 2018-15"), which provides guidance on implementation costs incurred in a cloud computing arrangement ("CCA") that is a service contract. ASU 2018-15 amends ASC 350, *Intangibles - Goodwill and Other* ("ASC 350") to include in its scope implementation costs of a CCA that is a service contract and clarifies that a customer should apply the guidance in

**RIBBON COMMUNICATIONS INC.**  
**Notes to Condensed Consolidated Financial Statements (Continued)**  
**(unaudited)**

ASC 350-40 to determine which implementation costs should be capitalized in such a CCA.

In August 2018, the FASB issued ASU 2018-14, *Compensation - Retirement Benefits - Defined Benefit Plans - General (Subtopic 715-20): Disclosure Framework - Changes to the Disclosure Requirements for Defined Benefit Plans* ("ASU 2018-14"), which amends ASC 715, *Compensation - Retirement Benefits*, to add, remove and clarify disclosure requirements related to defined benefit pension and other postretirement plans.

In August 2018, the FASB issued ASU 2018-13, *Fair Value Measurement (Topic 820): Disclosure Framework - Changes to the Disclosure Requirements for Fair Value Measurement* ("ASU 2018-13"), which changes the fair value measurement requirements of ASC 820, *Fair Value Measurement*.

In June 2016, the FASB issued ASU 2016-13, *Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments* ("ASU 2016-13"), which adds an impairment model that is based on expected losses rather than incurred losses. Under ASU 2016-13, an entity recognizes as an allowance its estimate of expected credit losses, which the FASB believes will result in more timely recognition of such losses. In April and May 2019, the FASB issued ASU 2019-04, *Codification Improvements to Topic 326, Financial Instruments - Credit Losses, Topic 815, Derivatives and Hedging, and Topic 825, Financial Instruments* ("ASU 2019-04") and ASU 2019-05 *Financial Instruments - Credit Losses (Topic 326): Targeted Transition Relief* ("ASU 2019-05"), respectively. ASU 2019-04 provides transition relief for entities adopting ASU 2016-13 and ASU 2019-05 clarifies certain aspects of the accounting for credit losses, hedging activities and financial instruments in connection with the adoption of ASU 2016-13.

The FASB has issued the following accounting pronouncement which becomes effective for the Company in 2021, which the Company does not believe will have a material impact on its condensed consolidated financial statements upon adoption:

In December 2019, the FASB issued ASU 2019-12, *Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes* ("ASU 2019-12"), which modifies ASC 740 to simplify the accounting for income taxes. ASU 2019-12 addresses the accounting for hybrid tax regimes, tax basis step-up in goodwill obtained in a transaction that is not a business combination, separate financial statements of legal entities not subject to tax, intraperiod tax allocation exception to incremental approach, ownership changes in investments - changes from a subsidiary to an equity method investment, ownership changes in investments - changes from an equity method investment to a subsidiary, interim period accounting for enacted changes in tax law and year-to-date loss limitation in interim period tax accounting.

## **(2) BUSINESS ACQUISITIONS**

### **ECI**

On the ECI Merger Date, Ribbon completed its previously announced merger transaction with ECI in accordance with the terms of the Agreement and Plan of Merger, dated as of November 14, 2019, by and among Ribbon, ECI, an indirect wholly-owned subsidiary of Ribbon ("Merger Sub"), Ribbon Communications Israel Ltd. and ECI Holding (Hungary) kft, pursuant to which Merger Sub merged with and into ECI, with ECI surviving such merger as a wholly-owned subsidiary of Ribbon. Prior to the ECI Merger Date, ECI was a privately-held global provider of end-to-end packet-optical transport and software-defined networking ("SDN") and network function virtualization ("NFV") solutions for service providers, enterprises and data center operators. Ribbon believes the ECI Merger positions the Company for growth and enhances its competitive strengths by expanding its product portfolio beyond solutions primarily supporting voice applications to include data applications and optical networking.

As consideration for the ECI Merger, Ribbon issued the ECI shareholders and certain others 32.5 million shares of Ribbon common stock with a fair value of \$108.6 million (the "Stock Consideration") and paid \$322.5 million of cash, comprised of \$183.3 million to repay ECI's outstanding debt, including both principal and interest, and \$139.2 million paid to ECI's selling shareholders (the "Cash Consideration"). In addition, ECI shareholders received \$33.4 million from the sale of certain of ECI's real estate assets. Cash Consideration was financed through cash on hand and committed debt financing consisting of a new \$400 million term loan facility (the "2020 Term Loan") and new \$100 million revolving credit facility (together, the "2020 Credit Facility"), which was undrawn at the ECI Merger Date.

**RIBBON COMMUNICATIONS INC.**  
**Notes to Condensed Consolidated Financial Statements (Continued)**  
**(unaudited)**

The ECI Merger has been accounted for as a business combination and the financial results of ECI have been included in the Company's condensed consolidated financial statements for the period subsequent to the ECI Merger. The Company's financial results for the three months ended March 31, 2020 include \$30.0 million of revenue and \$3.3 million of net loss attributable to ECI for the period subsequent to the ECI Merger Date.

As of March 31, 2020, the valuation of acquired assets, identifiable intangible assets and certain assumed liabilities was preliminary. The Company is continuing the process of investigating the facts and circumstances existing as of the ECI Merger Date in order to finalize its valuation. Included in the additional work required to finalize the valuation of assets acquired and liabilities assumed, the Company is assessing the impact of the COVID-19 pandemic on the estimated future revenue and cash flows. This assessment could result in significant changes between the preliminary valuations of the individual identifiable intangible assets and goodwill. The Company expects to finalize the valuation of the assets acquired and liabilities assumed by the first quarter of 2021.

A summary of the preliminary allocation of the purchase consideration for ECI is as follow (in thousands):

<b>Fair value of consideration transferred:</b>	
Cash consideration:	
Repayment of ECI outstanding debt obligations	\$ 183,266
Cash paid to selling shareholders	139,244
Payment to selling shareholders from sale of ECI real estate assets	33,400
Less cash and restricted cash acquired	(9,058)
Net cash consideration	346,852
Fair value of Ribbon stock issued	108,550
Fair value of total consideration	<u>\$ 455,402</u>
<b>Fair value of assets acquired and liabilities assumed:</b>	
Current assets, net of cash and restricted cash acquired	\$ 131,447
Property and equipment	55,207
Intangible assets:	
In-process research and development	31,000
Developed technology	106,900
Customer relationships	114,000
Trade names	2,000
Goodwill	189,493
Other noncurrent assets	56,204
Deferred revenue	(7,731)
Other current liabilities	(143,873)
Deferred revenue, net of current	(6,641)
Deferred tax liability	(13,308)
Other long-term liabilities	(59,296)
	<u>\$ 455,402</u>

The preliminary allocation of purchase consideration to the fair value of assets acquired and liabilities assumed includes a noncurrent asset of \$5.7 million, which represents an indemnification receivable from ECI's selling shareholders for certain liabilities for uncertain tax positions in accordance with the Agreement and Plan of Merger.

The Company is still evaluating the fair value of acquired assets and assumed liabilities, the values of which may be subject to change based on the finalization of their respective fair values. The valuation of the acquired intangible assets is inherently subjective and relies on significant unobservable inputs. The Company used an income approach to value the acquired in-process research and development, developed technology, customer relationships and trade name intangible assets. The Company is still evaluating the forecast and the value of these assets could change materially as the Company finalizes the

**RIBBON COMMUNICATIONS INC.**  
**Notes to Condensed Consolidated Financial Statements (Continued)**  
**(unaudited)**

forecast and other inputs used to value these assets. The valuation for each of these intangible assets was based on estimated projections of expected cash flows to be generated by the assets, discounted to the present value at discount rates commensurate with perceived risk. The valuation assumptions take into consideration the Company's estimates of customer attrition, technology obsolescence and revenue growth projections. The Company is amortizing the identifiable intangible assets arising from the ECI Merger in relation to the expected cash flows from the individual intangible assets over their respective useful lives, which have a weighted average life of 12.44 years (see Note 5). Goodwill results from assets that are not separately identifiable as part of the transaction and is not deductible for tax purposes.

*Pro Forma Results*

The following unaudited pro forma information presents the condensed combined results of operations of Ribbon and ECI for the three months ended March 31, 2020 and 2019 as if the ECI Merger had been completed on January 1, 2019, with adjustments to give effect to pro forma events that are directly attributable to the ECI Merger. These pro forma adjustments include an increase in research and development expense related to the conformance of ECI's cost capitalization policy to Ribbon's, additional amortization expense for the acquired identifiable intangible assets, a decrease in historical ECI interest expense reflecting the extinguishment of certain of ECI's debt as a result of the ECI Merger, and an increase in interest expense reflecting the new debt entered into by the Company in connection with the ECI Merger. Pro forma adjustments also include the elimination of acquisition- and integration-related costs directly attributable to the acquisition from the three months ended March 31, 2020 and inclusion of such costs in the three months ended March 31, 2019.

The unaudited pro forma results do not reflect any operating efficiencies or potential cost savings that may result from the consolidation of the operations of Ribbon and ECI. Accordingly, these unaudited pro forma results are presented for illustrative purposes and are not intended to represent or be indicative of the actual results of operations of the combined company that would have been achieved had the ECI Merger occurred at January 1, 2019, nor are they intended to represent or be indicative of future results of operations (in thousands, except per share amounts):

	Three months ended	
	March 31, 2020	March 31, 2019
Revenue	\$ 183,189	\$ 208,947
Net loss	\$ (39,129)	\$ (63,699)
Loss per share	\$ (0.25)	\$ (0.45)

*Anova Data, Inc.*

On the Anova Acquisition Date, the Company acquired the business and technology assets of Anova, a private company headquartered in Westford, Massachusetts that provides advanced analytics solutions (the "Anova Acquisition"). The Anova Acquisition was completed in accordance with the terms and conditions of an asset purchase agreement, dated as of January 31, 2019 (the "Anova Asset Purchase Agreement"). As consideration for the Anova Acquisition, Ribbon issued 2.9 million shares of Ribbon common stock with a fair value of \$15.2 million to Anova's sellers and equity holders on the Anova Acquisition Date and held back an additional 330,000 shares with a fair value of \$1.7 million (the "Anova Deferred Consideration"), of which 316,551 shares were issued after post-closing adjustments on March 4, 2020. The Anova Deferred Consideration was included as a component of Accrued expenses and other current liabilities in the Company's condensed consolidated balance sheet at December 31, 2019.

The Anova Acquisition was accounted for as a business combination and the financial results of Anova have been included in the Company's condensed consolidated financial statements for the period subsequent to the Anova Acquisition Date. The results for the three months ended March 31, 2019 were not significant to the Company's condensed consolidated financial statements and accordingly, the Company has not provided pro forma financial information. As of March 31, 2020, the valuation of acquired assets, identifiable intangible assets and assumed liabilities was final, as the Company finalized the valuation of the assets acquired and liabilities assumed in the fourth quarter of 2019. The purchase consideration aggregating \$16.9 million was allocated to \$11.2 million of identifiable intangible assets with a weighted average life of 6.25 years (see Note 5) and working capital items aggregating \$0.1 million of net assets acquired. The remaining unallocated amount of \$5.5

**RIBBON COMMUNICATIONS INC.**  
**Notes to Condensed Consolidated Financial Statements (Continued)**  
**(unaudited)**

million was recorded as goodwill. The goodwill is deductible for tax purposes.

**Acquisition- and Integration-Related Expenses**

Acquisition- and integration-related expenses include those expenses related to acquisitions that would otherwise not have been incurred by the Company, including professional and services fees such as legal, audit, consulting, paying agent and other fees. These amounts include costs related to prior acquisitions, as well as nominal amounts related to acquisitive activities. Integration-related expenses represent incremental costs related to combining the Company and its business acquisitions, such as third-party consulting and other third-party services related to merging previously separate companies' systems and processes. The acquisition-related costs in the three months ended March 31, 2020 primarily relate to the ECI Merger; the acquisition-related costs in the three months ended March 31, 2019 primarily relate to the Anova Acquisition.

The Company's acquisition- and integration-related expenses for the three months ended March 31, 2020 and 2019 were as follows (in thousands):

	Three months ended	
	March 31, 2020	March 31, 2019
Professional and services fees (acquisition-related)	\$ 12,374	\$ 1,505
Integration-related expenses	10	1,694
	<u>\$ 12,384</u>	<u>\$ 3,199</u>

**(3) EARNINGS (LOSS) PER SHARE**

Basic earnings (loss) per share is computed by dividing net income (loss) by the weighted average number of shares outstanding during the period. For periods in which the Company reports net income, diluted net earnings per share is determined by using the weighted average number of common and dilutive common equivalent shares outstanding during the period unless the effect is antidilutive.

The calculations of shares used to compute earnings (loss) per share were as follows (in thousands):

	Three months ended	
	March 31, 2020	March 31, 2019
Weighted average shares outstanding—basic	120,992	108,167
Potential dilutive common shares	—	—
Weighted average shares outstanding—diluted	<u>120,992</u>	<u>108,167</u>

Options to purchase the Company's common stock and unvested shares of restricted and performance-based stock and stock units aggregating 11.7 million shares have not been included in the computation of diluted loss per share for the three months ended March 31, 2020 because their effect would have been antidilutive. Options to purchase the Company's common stock, unvested shares of restricted and performance-based stock and stock units, and shares in connection with future purchases under the Company's Amended and Restated 2000 Employee Stock Purchase Plan, as amended (the "ESPP"), aggregating 4.5 million shares have not been included in the computation of diluted loss per share for the three months ended March 31, 2019 because their effect would have been antidilutive.

**RIBBON COMMUNICATIONS INC.**  
**Notes to Condensed Consolidated Financial Statements (Continued)**  
**(unaudited)**

**(4) INVENTORY**

Inventory at March 31, 2020 and December 31, 2019 consisted of the following (in thousands):

	March 31, 2020	December 31, 2019
On-hand final assemblies and finished goods inventories	\$ 71,964	\$ 13,283
Deferred cost of goods sold	4,167	2,441
	76,131	15,724
Less noncurrent portion (included in other assets)	(9,064)	(924)
Current portion	\$ 67,067	\$ 14,800

**(5) INTANGIBLE ASSETS AND GOODWILL**

The Company's intangible assets at March 31, 2020 and December 31, 2019 consisted of the following (in thousands):

<u>March 31, 2020</u>	Weighted average amortization period (years)	Cost	Accumulated amortization	Net carrying value
In-process research and development	*	\$ 36,600	\$ —	\$ 36,600
Developed technology	7.92	295,780	109,714	186,066
Customer relationships	11.83	266,140	38,507	227,633
Trade names	3.60	4,000	1,369	2,631
Internal use software	3.00	730	730	—
	9.13	\$ 603,250	\$ 150,320	\$ 452,930

<u>December 31, 2019</u>	Weighted average amortization period (years)	Cost	Accumulated amortization	Net carrying value
In-process research and development	*	\$ 5,600	\$ —	\$ 5,600
Developed technology	6.79	188,880	100,760	88,120
Customer relationships	9.46	152,140	33,350	118,790
Trade names	5.20	2,000	1,144	856
Internal use software	3.00	730	730	—
	7.82	\$ 349,350	\$ 135,984	\$ 213,366

\* An in-process research and development intangible asset has an indefinite life until the product is generally available, at which time such asset is typically reclassified to developed technology.

Amortization expense for intangible assets for the three months ended March 31, 2020 and 2019 was as follows (in thousands):

	Three months ended		Statement of operations classification
	March 31, 2020	March 31, 2019	
Developed technology	\$ 8,954	\$ 9,645	Cost of revenue - product
Customer relationships	5,156	2,130	Sales and marketing
Trade names	224	147	Sales and marketing
	\$ 14,334	\$ 11,922	

**RIBBON COMMUNICATIONS INC.**  
**Notes to Condensed Consolidated Financial Statements (Continued)**  
**(unaudited)**

Estimated future amortization expense for the Company's intangible assets at March 31, 2020 was as follows (in thousands):

<u>Years ending December 31,</u>		
Remainder of 2020	\$	44,869
2021		64,323
2022		58,153
2023		51,445
2024		43,477
Thereafter		190,663
	\$	<u>452,930</u>

The changes in the carrying value of the Company's goodwill in the three months ended March 31, 2020 and 2019 were as follows (in thousands):

	2020	2019
Balance at January 1		
Goodwill	\$ 392,302	\$ 386,761
Accumulated impairment losses	(167,406)	(3,106)
	224,896	383,655
Acquisition of ECI	189,493	—
Acquisition of Anova	—	5,541
Balance at March 31	<u>\$ 414,389</u>	<u>\$ 389,196</u>
Balance at March 31		
Goodwill	\$ 581,795	\$ 392,302
Accumulated impairment losses	(167,406)	(3,106)
	<u>\$ 414,389</u>	<u>\$ 389,196</u>

**(6) ACCRUED EXPENSES**

Accrued expenses at March 31, 2020 and December 31, 2019 consisted of the following (in thousands):

	<u>March 31,</u> <u>2020</u>	<u>December 31,</u> <u>2019</u>
Employee compensation and related costs	\$ 51,718	\$ 27,166
Professional fees	12,875	13,331
Taxes payable	18,424	842
Other	53,002	15,361
	<u>\$ 136,019</u>	<u>\$ 56,700</u>

**(7) RESTRUCTURING AND FACILITIES CONSOLIDATION INITIATIVES**

The Company recorded restructuring and related expense aggregating \$2.1 million and \$4.9 million in the three months ended March 31, 2020 and 2019, respectively. Restructuring and related expense includes both restructuring expense (primarily severance and related costs), estimated future variable lease costs for vacated properties with no intent or ability of sublease, and accelerated rent amortization expense.

For restructuring events that involve lease assets and liabilities, the Company applies lease reassessment and modification guidance and evaluates the right-of-use assets for potential impairment. If the Company plans to exit all or

RIBBON COMMUNICATIONS INC.

Notes to Condensed Consolidated Financial Statements (Continued)

(unaudited)

distinct portions of a facility and does not have the ability or intent to sublease, the Company will accelerate the amortization of each of those lease components through the vacate date. The accelerated amortization is recorded as a component of Restructuring and related expense in the Company's condensed consolidated statements of operations. Related variable lease expenses will continue to be expensed as incurred through the vacate date, at which time the Company will reassess the liability balance to ensure it appropriately reflects the remaining liability associated with the premises and record a liability for the estimated future variable lease costs.

The components of Restructuring and related expense for the three months ended March 31, 2020 and 2019 were as follows (in thousands):

	Three months ended	
	March 31, 2020	March 31, 2019
Severance and related costs	\$ 1,771	\$ 4,919
Variable and other facilities-related costs	234	13
Accelerated amortization of lease assets due to cease-use	70	—
	<u>\$ 2,075</u>	<u>\$ 4,932</u>

**ECI Executive Severance**

In connection with the ECI Merger, the Company is releasing three former executives of ECI and recorded \$1.1 million of restructuring and related expense for severance for these individuals in accordance with their respective employment and related agreements in the three months ended March 31, 2020. At March 31, 2020, these amounts had not yet been paid. The Company expects these amounts will be paid by the end of 2020.

**2019 Restructuring and Facilities Consolidation Initiative**

In June 2019, the Company implemented a restructuring plan to further streamline the Company's global footprint, improve its operations and enhance its customer delivery (the "2019 Restructuring Initiative"). The 2019 Restructuring Initiative includes facility consolidations, refinement of the Company's research and development activities, and a reduction in workforce. In connection with this initiative, the Company expects to reduce its focus on hardware and appliance-based development over time and to increase its development focus on software virtualization, functional simplicity and important customer requirements. The facility consolidations under the 2019 Restructuring Initiative (the "Facilities Initiative") include a consolidation of the Company's North Texas sites into a single campus, housing engineering, customer training and support, and administrative functions, as well as a reduction or elimination of certain excess and duplicative facilities worldwide. In addition, the Company intends to substantially consolidate its global software laboratories and server farms into two lower cost North American sites. The Company continues to evaluate its properties included in the Facilities Initiative for accelerated amortization and/or right-of-use asset impairment. The Company expects that the actions under the Facilities Initiative will be completed by the end of 2020.

In connection with the 2019 Restructuring Initiative, the Company recorded restructuring expense and related expense of \$1.0 million in the three months ended March 31, 2020, comprised of \$0.7 million for severance and related costs for five employees and \$0.3 million related to facilities. The Company expects that it will record nominal additional Restructuring and related expense related to severance and related costs under the 2019 Restructuring Initiative. A summary of the 2019 Restructuring Initiative accrual activity for severance and related costs for the three months ended March 31, 2020 is as follows (in thousands):

**RIBBON COMMUNICATIONS INC.**  
**Notes to Condensed Consolidated Financial Statements (Continued)**  
**(unaudited)**

	Balance at January 1, 2020	Initiatives charged to expense	Reclassify accelerated amortization to operating lease liabilities	Cash payments	Balance at March 31, 2020
Severance	\$ 2,110	\$ 655	\$ —	\$ (1,253)	\$ 1,512
Facilities	991	304	(70)	(272)	953
	<u>\$ 3,101</u>	<u>\$ 959</u>	<u>\$ (70)</u>	<u>\$ (1,525)</u>	<u>\$ 2,465</u>

Accelerated rent amortization is recognized from the date that the Company commences the plan to fully or partially vacate a facility, for which there is no intent or ability to enter into a sublease, through the final vacate date. The accelerated rent amortization recorded in connection with the Facilities Initiative reduced the value of the Company's Operating lease right-of-use assets recorded in the Company's condensed consolidated balance sheets at March 31, 2020 and December 31, 2019, respectively. The liability for the total lease payments for each respective facility is included as a component of Operating lease liabilities in the Company's condensed consolidated balance sheets, both current and noncurrent (see Note 17). The Company may incur additional future expense if it is unable to sublease other locations included in the Facilities Initiative.

***GENBAND Merger Restructuring Initiative***

In connection with the merger in 2017 between Sonus Networks, Inc. and GENBAND (the "GENBAND Merger"), the Company implemented a restructuring plan in the fourth quarter of 2017 to eliminate certain redundant positions and facilities within the combined companies (the "GENBAND Merger Restructuring Initiative"). In connection with this initiative, the Company recorded \$4.9 million in the three months ended March 31, 2019, virtually all of which was for severance and related costs for approximately 40 employees. The GENBAND Merger Restructuring Initiative is substantially complete, and the Company anticipates that it will record nominal future expense, if any, in connection with this initiative, with amounts accrued at March 31, 2020 to be paid by the end of 2020.

A summary of the GENBAND Merger Restructuring Initiative accrual activity for the three months ended March 31, 2020 is as follows (in thousands):

	Balance at January 1, 2020	Cash payments	Balance at March 31, 2020
Severance	\$ 409	\$ (351)	\$ 58

***Balance Sheet Classification***

The current portions of accrued restructuring are included as a component of Accrued expenses and the long-term portions of accrued restructuring are included as a component of Other long-term liabilities in the condensed consolidated balance sheets. The long-term portions of accrued restructuring totaled \$0.9 million at both March 31, 2020 and December 31, 2019.

**RIBBON COMMUNICATIONS INC.**  
**Notes to Condensed Consolidated Financial Statements (Continued)**  
**(unaudited)**

**(8) WARRANTY ACCRUALS**

The changes in the Company's accrual balance in the three months ended March 31, 2020 were as follows (in thousands):

Balance at January 1, 2020	\$	—
Assumed liability in connection with ECI Merger		15,706
Current period provisions		502
Settlements		(528)
Balance at March 31, 2020	\$	<u>15,680</u>

Of the amount recorded at March 31, 2020, \$6.7 million was current and included as a component of Accrued expenses and other and \$9.0 million was long-term and included as a component of Other long-term liabilities in the Company's condensed consolidated balance sheet. The Company did not have a warranty accrual during the three months ended March 31, 2019.

**(9) DEBT**

**Senior Secured Credit Facility**

On December 21, 2017, the Company entered into a Senior Secured Credit Facilities Credit Agreement (the "Credit Facility"), by and among the Company, as a guarantor, Sonus Networks, Inc., as the borrower ("Borrower"), Silicon Valley Bank ("SVB"), as administrative agent (in such capacity, the "Administrative Agent"), issuing lender, swingline lender and lead arranger and the lenders party thereto (each referred to individually as a "Lender", and collectively, the "Lenders"), which refinanced the prior credit agreement with SVB that the Company had assumed in connection with the GENBAND Merger. The Credit Facility included \$100 million of commitments, the full amount of which was available for revolving loans, a \$15 million sublimit that was available for letters of credit and a \$15 million sublimit that was available for swingline loans. On June 24, 2018, the Company amended the Credit Facility to, among other things, permit the August 2018 acquisition of Edgewater Networks, Inc. and related transactions.

**2019 Credit Facility**

On April 29, 2019, the Company entered into a syndicated, amended and restated Credit Facility (the "2019 Credit Facility"). The 2019 Credit Facility provided for a \$50 million term loan facility that was advanced in full on April 29, 2019 and a \$100 million revolving line of credit. The 2019 Credit Facility also included procedures for additional financial institutions to become syndicate lenders, or for any existing lender to increase its commitment under either the term loan facility or the revolving loan facility, subject to an aggregate increase of \$75 million for incremental commitments under the 2019 Credit Facility. The 2019 Credit Facility was scheduled to mature in April 2024. At December 31, 2019, the Company had an outstanding term loan debt balance of \$48.8 million and an outstanding revolving line of credit balance of \$8 million with a combined average interest rate of 3.30%, and \$5.4 million of outstanding letters of credit at an interest rate of 1.50%.

The indebtedness and other obligations under the 2019 Credit Facility were unconditionally guaranteed on a senior secured basis by the Company and each other material U.S. domestic subsidiary of the Company (collectively, the "Guarantors"). The 2019 Credit Facility was secured by first-priority liens on substantially all of the assets of the Borrower and the Guarantors, including the Company.

The 2019 Credit Facility required periodic interest payments on any outstanding borrowings under the facility. The Borrower could prepay all revolving loans under the 2019 Credit Facility at any time without premium or penalty (other than customary LIBOR breakage costs), subject to certain notice requirements.

Revolving loans under the 2019 Credit Facility bore interest at the Borrower's option at either the Eurodollar (LIBOR) rate plus a margin ranging from 1.50% to 3.00% per year or the base rate (the highest of the Federal Funds rate plus 0.50%, or

RIBBON COMMUNICATIONS INC.

Notes to Condensed Consolidated Financial Statements (Continued)

(unaudited)

the prime rate announced from time to time in The Wall Street Journal) plus a margin ranging from 0.50% to 2.00% per year (such margins being referred to as the "Applicable Margin"). The Applicable Margin varied depending on the Company's consolidated leverage ratio (as defined in the 2019 Credit Facility). The base rate and the LIBOR rate were each subject to a zero percent floor.

The 2019 Credit Facility required compliance with certain financial covenants, including a minimum consolidated quick ratio, minimum consolidated fixed charge coverage ratio and maximum consolidated leverage ratio, all of which were defined in the 2019 Credit Facility and tested on a quarterly basis. The Company was in compliance with all covenants of the 2019 Credit Facility at December 31, 2019.

In addition, the 2019 Credit Facility contained various covenants that, among other restrictions, limited the Company's and its subsidiaries' ability to enter into certain types of transactions, including, but not limited to: incurring or assuming indebtedness; granting or assuming liens; making acquisitions or engaging in mergers; making dividend and certain other restricted payments; making investments; selling or otherwise transferring assets; engaging in transactions with affiliates; entering into sale and leaseback transactions; entering into burdensome agreements; changing the nature of its business; modifying its organizational documents; and amending or making prepayments on certain junior debt.

The 2019 Credit Facility contained events of default that are customary for a secured credit facility. If an event of default relating to bankruptcy or other insolvency events with respect to a borrower occurred, all obligations under the 2019 Credit Facility would immediately become due and payable. If any other event of default existed under the 2019 Credit Facility, the lenders could accelerate the maturity of the obligations outstanding under the 2019 Credit Facility and exercise other rights and remedies, including charging a default rate of interest equal to 2.00% per year above the rate that would otherwise be applicable. In addition, if any event of default existed under the New Credit Facility, the lenders could commence foreclosure or other actions against the collateral.

If any default existed under the 2019 Credit Facility, or if the Borrower was unable to make any of the representations and warranties as stated in the 2019 Credit Facility at the applicable time, the Borrower would be unable to borrow funds or have letters of credit issued under the 2019 Credit Facility, which, depending on the circumstances prevailing at that time, could have had a material adverse effect on the Borrower's liquidity and working capital.

**2020 Credit Facility**

On March 3, 2020, the Company entered into a Senior Secured Credit Facilities Credit Agreement (the "2020 Credit Agreement"), by and among the Company, as a guarantor, Ribbon Communications Operating Company, Inc., as the borrower ("Borrower"), Citizens Bank, N.A., as administrative agent, a lender, issuing lender, swingline lender, joint lead arranger and bookrunner, Santander Bank, N.A., as a lender, joint lead arranger and bookrunner, and the other lenders party thereto (each, together with Citizens Bank, N.A. and Santander Bank, N.A., referred to individually as a "Lender", and collectively, the "Lenders"). The proceeds of the Credit Agreement were used, in part, to pay off in full all obligations of the Company under the 2019 Credit Facility.

The 2020 Credit Agreement provides for \$500 million of commitments from the lenders to the Borrower, comprised of a \$400 million term loan (the "2020 Term Loan Facility") and a \$100 million facility available for revolving loans (the "2020 Revolving Credit Facility" and together with the 2020 Term Loan Facility, the "2020 Credit Facility"). Under the 2020 Revolving Credit Facility, a \$30 million sublimit is available for letters of credit and a \$20 million sublimit is available for swingline loans. The 2020 Credit Facility is scheduled to mature in March 2025. Under the 2020 Credit Agreement, the Company is required to make quarterly principal payments aggregating \$10 million over the next twelve months, \$20 million per year for the following three years, and \$30 million in the last year, with a \$300 million final payment due on the maturity date. The 2020 Credit Agreement includes procedures for additional financial institutions to become lenders thereunder, or for any existing lender to fund one or more new tranches of term loans, or increase its commitment under the 2020 Term Loan Facility or the 2020 Revolving Credit Facility, subject, in each case, to an aggregate dollar limit equal to 100% of the Company's Consolidated Adjusted EBITDA (as defined in the 2020 Credit Agreement) as of the most recently ended quarter for which financial statements have been delivered to the lenders, plus additional amounts, so long as the Borrower's Consolidated Net Leverage Ratio (as defined in the 2020 Credit Agreement) does not exceed 2.75:1.00.

**RIBBON COMMUNICATIONS INC.**

**Notes to Condensed Consolidated Financial Statements (Continued)**

**(unaudited)**

The indebtedness and other obligations under the 2020 Credit Facility are unconditionally guaranteed on a senior secured basis by the Company, Edgewater Networks, Inc., a wholly-owned subsidiary of the Company, and Genband Inc., a wholly-owned subsidiary of the Company (together, the "Guarantors"). The 2020 Credit Facility is secured by first-priority liens on substantially all of the assets of the Borrower and the Guarantors, including substantially all of the assets of the Company.

The 2020 Credit Agreement requires periodic interest payments until maturity. The Borrower may prepay all loans under the 2020 Credit Agreement at any time without premium or penalty (other than customary LIBOR breakage costs), subject to certain notice requirements.

Loans incurred under the 2020 Credit Facility bear interest at the Borrower's option at either the LIBOR rate plus a margin ranging from 1.50% to 3.50% per year, or the base rate (the highest of the Federal Funds Effective Rate (as defined in the Credit Agreement) plus 0.5%, or the prime rate announced from time to time in The Wall Street Journal) plus a margin ranging from 0.50% to 2.50% per year (the "Applicable Margin"). The Applicable Margin varies depending on the Company's Consolidated Net Leverage Ratio (as defined in the 2020 Credit Agreement). The base rate and the LIBOR rate are each subject to a zero percent floor.

The 2020 Credit Agreement requires compliance with certain financial covenants, including a minimum Consolidated Fixed Charge Coverage Ratio and a maximum Consolidated Net Leverage Ratio (each as defined in the 2020 Credit Agreement, and each tested on a quarterly basis). The Company was in compliance with all covenants of the 2020 Credit Agreement at March 31, 2020.

In addition, the 2020 Credit Agreement contains various covenants that, among other restrictions, limit the Company's and its subsidiaries' ability to incur or assume indebtedness; grant or assume liens; make acquisitions or engage in mergers; sell, transfer, assign or convey assets; repurchase equity and make dividend and certain other restricted payments; make investments; engage in transactions with affiliates; enter into sale and leaseback transactions; enter into burdensome agreements; change the nature of its business; modify their organizational documents; and amend or make prepayments on certain junior debt.

The 2020 Credit Agreement contains events of default that are customary for a secured credit facility. If an event of default relating to bankruptcy or other insolvency events with respect to the Company or any of its subsidiaries occurs, all obligations under the 2020 Credit Agreement will immediately become due and payable. If any other event of default exists under the 2020 Credit Agreement, the lenders may accelerate the maturity of the obligations outstanding under the Credit Agreement and exercise other rights and remedies, including charging a default rate of interest equal to 2.00% per year above the rate that would otherwise be applicable. In addition, if any event of default exists under the 2020 Credit Agreement, the lenders may commence foreclosure or other actions against the collateral.

At March 31, 2020, the Company had an outstanding 2020 Term Loan Facility balance of \$400 million at an average interest rate of 3.9%. The 2020 Revolving Credit Facility did not have an outstanding balance but had \$5.6 million of letters of credit outstanding with an interest rate of 3.0%.

**Short-Term Loans**

The Company has three outstanding uncommitted and unsecured short-term loans aggregating \$3.5 million which it uses for financing exports in China, two of which are with China Zheshang Bank and one of which is with Bank of Communications Hangzhou Branch. These short term loans were all entered into in March 2020 and expire at various dates in June and July 2020. At March 31, 2020, these short-term loans had a weighted average interest rate of 3.97%.

**Letters of Credit and Performance and Bid Bonds**

The Company uses letters of credit, performance and bid bonds in the course of its business. As of March 31, 2020, the Company had \$33.3 million of letters of credit, bank guarantees, performance and bid bonds outstanding (collectively, "Guarantees"), comprised of the \$5.6 million of letters of credit under the 2020 Credit Agreement described above, and \$27.7 million of Guarantees under various uncommitted facilities. At March 31, 2020, the Company had cash collateral of \$4.7 million supporting the Guarantees under its uncommitted facilities. This cash collateral is included in Restricted cash in the condensed consolidated balance sheet at March 31, 2020.

**RIBBON COMMUNICATIONS INC.**  
**Notes to Condensed Consolidated Financial Statements (Continued)**  
**(unaudited)**

**(10) DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES**

The Company is exposed to financial market risk related to foreign currency fluctuations and changes in interest rates. These exposures are actively monitored by management. To manage the volatility related to the exposure to changes in interest rates, the Company has entered into a derivative financial instrument. Management's objective is to reduce, where it is deemed appropriate to do so, fluctuations in earnings and cash flows associated with changes in interest rates. Ribbon's policies and practices are to use derivative financial instruments only to the extent necessary to manage exposures. Ribbon does not hold or issue derivative financial instruments for trading or speculative purposes.

The Company records derivatives on the balance sheet at fair value. The accounting for changes in the fair value of derivatives depends on the intended use of the derivative, whether the Company has elected to designate a derivative in a hedging relationship and apply hedge accounting and whether the hedging relationship has satisfied the criteria necessary to apply hedge accounting. Derivatives designated and qualifying as a hedge of the exposure to changes in the fair value of an asset, liability, or firm commitment attributable to a specific risk, such as interest rate risk, are considered fair value hedges. Derivatives designated and qualifying as a hedge of the exposure to variability in expected future cash flows, or other types of forecasted transactions, are considered cash flow hedges. Derivatives may also be designated as hedges of the foreign currency exposure of a net investment in a foreign operation. Hedge accounting generally provides for the matching of the timing of gain or loss recognition on the hedging instrument with the recognition of the changes in the fair value of the hedged asset or liability that are attributable to the hedged risk in a fair value hedge, or the earnings effect of the hedged forecasted transactions in a cash flow hedge. The Company may enter into derivative contracts that are intended to economically hedge certain of its risk even though hedge accounting does not apply or the Company elects not to apply hedge accounting.

***Cash Flow Hedge of Interest Rate Risk***

The 2020 Credit Facility is comprised of the 2020 Term Loan Facility and the 2020 Revolving Credit Facility. The 2020 Term Loan Facility had an outstanding balance of \$400 million at March 31, 2020. The 2020 Revolving Credit Facility was undrawn at March 31, 2020. The 2020 Credit Facility has variable interest rates based on LIBOR (see Note 9). As a result of exposure to interest rate movements, during March 2020, the Company entered into an interest rate swap arrangement, which effectively converted its \$400 million term loan with its variable-rate interest based upon one-month LIBOR to an aggregate fixed rate of 0.904%, plus a leverage-based margin as defined in the 2020 Credit Facility. The notional amount of this swap as of March 31, 2020 was \$400 million and the swap matures on March 3, 2025, the same date the 2020 Credit Facility matures.

The Company's objectives in using interest rate derivatives are to add stability to interest expense and to manage its exposure to interest rate movements. To accomplish this objective, the Company is using an interest rate swap as part of its interest rate risk management strategy. Interest rate swaps designated as cash flow hedges involve the receipt of variable amounts from a counterparty in exchange for the Company making fixed-rate payments over the life of the agreements without exchange of the underlying notional amount.

The effective portion of changes in the fair value of derivatives designated and that qualify as cash flow hedges is recorded in accumulated other comprehensive income in the condensed consolidated balance sheet and is subsequently reclassified into earnings in the period that the hedged forecasted transactions affect earnings. During the three months ended March 31, 2020, such a derivative was used to hedge the variable cash flows associated with the 2020 Credit Facility. Any ineffective portion of the change in fair value of the derivative would be recognized directly in earnings. However, during the three months ended March 31, 2020, there was no hedge ineffectiveness recorded by the Company.

Amounts reported in accumulated other comprehensive income related to the Company's derivative will be reclassified to interest expense as interest is accrued on the Company's variable-rate debt. Based upon projected forward rates, the Company estimates as of March 31, 2020 that \$2.4 million may be reclassified as an increase to interest expense over the next twelve months.

The impact of the Company's derivative financial instrument on its condensed consolidated statement of comprehensive loss for the three months ended March 31, 2020 was as follows (in thousands):

**RIBBON COMMUNICATIONS INC.**  
**Notes to Condensed Consolidated Financial Statements (Continued)**  
**(unaudited)**

Loss recognized in other comprehensive loss on derivative (effective portion)	\$	(9,717)
Amount reclassified from accumulated other comprehensive loss to interest expense (effective portion)	\$	190

The Company's derivative liability designed as a hedging instrument and the related fair values and locations in the condensed consolidated balance sheet at March 31, 2020 are as follows (in thousands):

	Balance sheet location	
Interest rate derivative - liability derivative	Accrued expenses and other	\$ (238)
Interest rate derivative - liability derivative	Other long-term liabilities	\$ (9,289)

The Company has classified the interest rate derivative aggregating \$9.5 million at March 31, 2020 as a Level 2 within the fair value hierarchy (see Note 1).

**(11) REVENUE RECOGNITION**

The Company accounts for revenue in accordance with ASC 606, *Revenue from Contracts with Customers* ("ASC 606"), which it adopted on January 1, 2018 using the modified retrospective method.

The Company derives revenues from two primary sources: products and services. Product revenue includes the Company's hardware and software that function together to deliver the products' essential functionality. Software and hardware are also sold on a standalone basis. Services include customer support (software updates, upgrades and technical support), consulting, design services, installation services and training. Generally, contracts with customers contain multiple performance obligations, consisting of products and services. For these contracts, the Company accounts for individual performance obligations separately if they are considered distinct.

When an arrangement contains more than one performance obligation, the Company will generally allocate the transaction price to each performance obligation on a relative standalone selling price basis. The best evidence of a standalone selling price is the observable price of a good or service when the entity sells that good or service separately in similar circumstances and to similar customers. If the good or service is not sold separately, an entity must estimate the standalone selling price by using an approach that maximizes the use of observable inputs. Acceptable estimation methods include but are not limited to: (1) adjusted market assessment; (2) expected cost plus a margin; and (3) a residual approach (when the standalone selling price is not directly observable and is either highly variable or uncertain).

The Company's software licenses typically provide a perpetual right to use the Company's software. The Company also sells term-based software licenses that expire and Software-as-a-Service ("SaaS")-based software which are referred to as subscription arrangements. The Company does not customize its software nor are installation services required, as the customer has a right to utilize internal resources or a third-party service company. The software and hardware are delivered before related services are provided and are functional without professional services or customer support. The Company has concluded that its software licenses are functional intellectual property that are distinct, as the user can benefit from the software on its own. The product revenue is typically recognized upon transfer of control or when the software is made available for download, as this is the point that the user of the software can direct the use of, and obtain substantially all of the remaining benefits from, the functional intellectual property. The Company does not recognize software revenue related to the renewal of subscription software licenses earlier than the beginning of the subscription period. Hardware product is generally sold with software to provide the customer solution.

Services revenue includes revenue from customer support and other professional services. The Company offers warranties on its products. Certain of the Company's warranties are considered to be assurance-type in nature and do not cover anything beyond ensuring that the product is functioning as intended. Based on the guidance in ASC 606, assurance-type warranties do not represent separate performance obligations. The Company also sells separately-priced maintenance service

**RIBBON COMMUNICATIONS INC.**  
**Notes to Condensed Consolidated Financial Statements (Continued)**  
**(unaudited)**

contracts, which qualify as service-type warranties and represent separate performance obligations. The Company does not allow and has no history of accepting product returns.

Customer support includes software updates on a when-and-if-available basis, telephone support, integrated web-based support and bug fixes or patches. The Company sells its customer support contracts at a percentage of list or net product price related to the support. Customer support revenue is recognized ratably over the term of the customer support agreement, which is typically one year.

The Company's professional services include consulting, technical support, resident engineer services, design services and installation services. Because control transfers over time, revenue is recognized based on progress toward completion of the performance obligation. The method to measure progress toward completion requires judgment and is based on the nature of the products or services to be provided. The Company generally uses the input method to measure progress for its contracts because it believes such method best depicts the transfer of assets to the customer, which occurs as the Company incurs costs for the contracts. Under the cost-to-cost measure of progress, the progress toward completion is measured based on the ratio of costs incurred to date to the total estimated costs at completion of the performance obligation. When the measure of progress is based upon expended labor, progress toward completion is measured as the ratio of labor time expended to date versus the total estimated labor time required to complete the performance obligation. Revenue is recorded proportionally as costs are incurred or labor is expended. Costs to fulfill these obligations include internal labor as well as subcontractor costs.

Customer training includes courses offered by the Company. The related revenue is typically recognized as the training services are performed.

The Company's typical performance obligations include the following:

<b>Performance Obligation</b>	<b>When Performance Obligation is Typically Satisfied</b>	<b>When Payment is Typically Due</b>
<b>Software and Product Revenue</b>		
Software licenses (perpetual or term)	Upon transfer of control; typically, when made available for download (point in time)	Generally, within 30 days of invoicing except for term licenses, which may be paid for over time
Software licenses (subscription)	Upon activation of hosted site (over time)	Generally, within 30 days of invoicing
Appliances	When control of the appliance passes to the customer; typically, upon delivery (point in time)	Generally, within 30 days of invoicing
Software upgrades	Upon transfer of control; typically, when made available for download (point in time)	Generally, within 30 days of invoicing
<b>Customer Support Revenue</b>		
Customer support	Ratably over the course of the support contract (over time)	Generally, within 30 days of invoicing
<b>Professional Services</b>		
Other professional services (excluding training services)	As work is performed (over time)	Generally, within 30 days of invoicing (upon completion of services)
Training	When the class is taught (point in time)	Generally, within 30 days of services being performed

**RIBBON COMMUNICATIONS INC.**  
**Notes to Condensed Consolidated Financial Statements (Continued)**  
**(unaudited)**

**Significant Judgments**

The Company's contracts with customers often include promises to transfer multiple products and services to the customer. Determining whether products and services are considered distinct performance obligations that should be accounted for separately versus together may require significant judgment.

Judgment is required to determine the standalone selling price ("SSP") for each distinct performance obligation. The Company typically has more than one SSP for individual products and services due to the stratification of those products and services by customers and circumstances. In these instances, the Company may use information such as the size of the customer and geographic region in determining the SSP.

**Deferred Revenue**

Deferred revenue is a contract liability representing amounts collected from or invoiced to customers in excess of revenue recognized. This results primarily from the billing of annual customer support agreements where the revenue is recognized over the term of the agreement. The value of deferred revenue will increase or decrease based on the timing of recognition of revenue.

**Disaggregation of Revenue**

The Company disaggregates its revenue from contracts with customers based on the nature of the products and services and the geographic regions in which each customer is domiciled. The Company's revenue for the three months ended March 31, 2020 and 2019 was disaggregated as follows:

Three months ended March 31, 2020	Product revenue	Service revenue (maintenance)	Service revenue (professional services)	Total revenue
United States	\$ 36,365	\$ 31,466	\$ 10,566	\$ 78,397
Europe, Middle East and Africa	20,365	14,810	4,015	39,190
Japan	4,952	2,874	2,614	10,440
Asia Pacific	9,991	4,637	2,264	16,892
Other	4,226	7,281	1,556	13,063
	<u>\$ 75,899</u>	<u>\$ 61,068</u>	<u>\$ 21,015</u>	<u>\$ 157,982</u>

Three months ended March 31, 2019	Product revenue	Service revenue (maintenance)	Service revenue (professional services)	Total revenue
United States	\$ 28,446	\$ 32,787	\$ 7,343	\$ 68,576
Europe, Middle East and Africa	6,458	10,723	2,849	20,030
Japan	3,961	2,913	1,562	8,436
Asia Pacific	4,675	3,663	869	9,207
Other	3,940	6,903	1,836	12,679
	<u>\$ 47,480</u>	<u>\$ 56,989</u>	<u>\$ 14,459</u>	<u>\$ 118,928</u>

The Company's product revenue from indirect sales through its channel partner program and from its direct sales program for the three months ended March 31, 2020 and 2019 was as follows (in thousands):

RIBBON COMMUNICATIONS INC.

Notes to Condensed Consolidated Financial Statements (Continued)

(unaudited)

	Three months ended	
	March 31, 2020	March 31, 2019
Indirect sales through channel partner program	\$ 28,604	\$ 19,174
Direct sales	47,295	28,306
	<u>\$ 75,899</u>	<u>\$ 47,480</u>

The Company's product revenue from sales to enterprise customers and from sales to service provider customers for the three months ended March 31, 2020 and 2019 was as follows (in thousands):

	Three months ended	
	March 31, 2020	March 31, 2019
Sales to enterprise customers	\$ 27,281	\$ 14,755
Sales to service provider customers	48,618	32,725
	<u>\$ 75,899</u>	<u>\$ 47,480</u>

**Revenue Contract Balances**

The timing of revenue recognition, billings and cash collections results in billed accounts receivable; unbilled receivables, which are contract assets; and customer advances and deposits, which are contract liabilities, in the Company's condensed consolidated balance sheets. Amounts are billed as work progresses in accordance with agreed-upon contractual terms, either at periodic intervals or upon achievement of contractual milestones. Completion of services and billing may occur subsequent to revenue recognition, resulting in contract assets. The Company may receive advances or deposits from its customers before revenue is recognized, resulting in contract liabilities that are classified as deferred revenue. These assets and liabilities are reported in the Company's condensed consolidated balance sheets on a contract-by-contract basis as of the end of each reporting period. Changes in the contract asset and liability balances during the three months ended March 31, 2020 were not materially impacted by any factors other than billing and revenue recognition. Nearly all of the Company's deferred revenue balance is related to services revenue, primarily customer support contracts. Unbilled receivables stem primarily from engagements where services have been performed; however, billing cannot occur until services are completed.

In some arrangements, the Company allows customers to pay for term-based software licenses and products over the term of the software license. The Company also sells SaaS-based software under subscription arrangements, with payment terms over the term of the SaaS agreement. Amounts recognized as revenue in excess of amounts billed are recorded as unbilled receivables. Unbilled receivables that are anticipated to be invoiced in the next twelve months are included in Accounts receivable on the Company's condensed consolidated balance sheets. The changes in the Company's accounts receivable, unbilled receivables and deferred revenue balances for the three months ended March 31, 2020 were as follows (in thousands):

	Accounts receivable	Unbilled accounts receivable	Deferred revenue (current)	Deferred revenue (long-term)
Balance at January 1, 2020	\$ 168,502	\$ 24,204	\$ 100,406	\$ 20,482
Increase (decrease), net	1,286	11,801	13,293	5,429
Balance at March 31, 2020	<u>\$ 169,788</u>	<u>\$ 36,005</u>	<u>\$ 113,699</u>	<u>\$ 25,911</u>

The Company recognized approximately \$41 million of revenue in the three months ended March 31, 2020 that was recorded as deferred revenue at December 31, 2019 and approximately \$33 million of revenue in the three months ended March 31, 2019 that was recorded as deferred revenue at December 31, 2018. Of the Company's deferred revenue reported as long-term in its condensed consolidated balance sheet at March 31, 2020, the Company expects that approximately \$12 million will

**RIBBON COMMUNICATIONS INC.**  
**Notes to Condensed Consolidated Financial Statements (Continued)**  
**(unaudited)**

be recognized as revenue in 2021, approximately \$8 million will be recognized as revenue in 2022 and approximately \$6 million will be recognized as revenue in 2023 and beyond.

All freight-related customer invoicing is recorded as revenue, while the shipping and handling costs that occur after control of the promised goods or services transfer to the customer are reported as fulfillment costs, a component of Cost of revenue - product in the Company's condensed consolidated statements of operations.

***Deferred Commissions Cost***

Sales commissions earned by the Company's employees are considered incremental and recoverable costs of obtaining a contract with a customer. Expense related to commission payments has been deferred on our condensed consolidated balance sheet and is being amortized over the expected life of the customer contract, which averages five years. At both March 31, 2020 and December 31, 2019, the Company had \$3.6 million of deferred sales commissions capitalized.

**(12) COMMON STOCK REPURCHASES**

In the second quarter of 2019, the Board approved a stock repurchase program (the "Repurchase Program") pursuant to which the Company may repurchase up to \$75 million of the Company's common stock prior to April 18, 2021. Repurchases under the Repurchase Program may be made in the open market, in privately negotiated transactions or otherwise, with the amount and timing of repurchases depending on market conditions and corporate discretion. The Repurchase Program does not obligate the Company to acquire any particular amount of common stock and may be extended, modified, suspended or discontinued at any time at the Board's discretion. The stock repurchases are being funded using the Company's working capital. The Company did not repurchase any stock during the three months ended March 31, 2020. At March 31, 2020, the Company had \$70.5 million remaining under the Repurchase Program for future repurchases.

**(13) STOCK-BASED COMPENSATION PLANS**

***2019 Stock Incentive Plan***

The Company's 2019 Incentive Award Plan (the "2019 Plan") provides for the award of options to purchase the Company's common stock ("stock options"), stock appreciation rights ("SARs"), restricted stock awards ("RSAs"), performance-based stock awards ("PSAs"), restricted stock units ("RSUs"), performance-based stock units ("PSUs") and other stock- or cash-based awards. Awards can be granted under the 2019 Plan to the Company's employees, officers and non-employee directors, as well as consultants and advisors of the Company and its subsidiaries.

***2007 Plan***

The Company's 2007 Plan provided for the award of stock options, SARs, RSAs, RSU, PSAs, PSUs and other stock-based awards to employees, officers, non-employee directors, consultants and advisors of the Company and its subsidiaries. On and following June 5, 2019, with the exception of shares underlying awards outstanding as of that date, no additional shares may be granted under the 2007 Plan.

***Assumed Stock Plans***

In connection with the Edgewater Acquisition, the Company assumed Edgewater's Amended and Restated 2002 Stock Option Plan (the "Edgewater Plan") to the extent of the shares underlying the options outstanding under the Edgewater Plan as of the Edgewater Acquisition Date (the "Edgewater Options"). The Edgewater Options were converted to Ribbon stock options (the "Ribbon Replacement Options") which are vesting under the same schedules as the respective Edgewater Options.

In connection with the Company's acquisitions of Performance Technologies Inc. ("PT") in 2014, and Network Equipment Technologies, Inc. ("NET") in 2012, the Company assumed their stock plans (collectively, the "Assumed Plans"). Any outstanding awards under the Assumed Plans that in the future expire, terminate, are cancelled or surrendered, or are

**RIBBON COMMUNICATIONS INC.**  
**Notes to Condensed Consolidated Financial Statements (Continued)**  
**(unaudited)**

repurchased by the Company will be returned to the 2019 Plan. Accordingly, at March 31, 2020, no additional shares may be granted under the Assumed Plans.

***Executive Equity Arrangements***

***Inducement Awards***

In connection with his appointment as President and Chief Executive Office of Ribbon, and as an inducement for Bruce McClelland's ("Mr. McClelland") commencement of employment, the Company awarded Mr. McClelland sign-on equity grants, comprised of an RSU grant and a PSU grant with both market and service conditions (the "Inducement PSUs") on March 16, 2020. Subject to Mr. McClelland's continued employment, 462,963 RSUs are eligible to vest on the earlier of March 16, 2021 or the date of the consummation of a change in control of the Company and, upon vesting, will be settled in shares of Ribbon's common stock. The RSUs had a fair market value of \$1.0 million on the date of grant. Subject to Mr. McClelland's continued employment, the PSUs are eligible to vest and be settled in up to 4,750,000 shares of Ribbon common stock upon the achievement of specified share price thresholds on or prior to September 1, 2024. These grants are reported in the applicable tables below.

***Other Performance-Based Stock Grants***

In addition to granting RSAs and RSUs to its executives and certain of its employees, the Company also grants PSUs to certain of its executives, including the Inducement PSUs granted to Mr. McClelland as described above.

**2019 PSU Grants.** In March and April 2019, the Company granted certain of its executives an aggregate of 872,073 PSUs, of which 523,244 PSUs had both performance and service conditions (the "Performance PSUs") and 348,829 PSUs had both market and service conditions (the "Market PSUs").

Each executive's Performance PSU grant is comprised of three consecutive fiscal year performance periods from 2019 through 2021 (each, a "Fiscal Year Performance Period"), with one-third of the Performance PSUs attributable to each Fiscal Year Performance Period. The number of shares that will vest for each Fiscal Year Performance Period will be based on the achievement of certain metrics related to the Company's financial performance for the applicable year on a standalone basis (each, a "Fiscal Year Performance Condition"). In the third quarter of 2019, the Company adjusted the 2019 Performance PSU goals to reflect the changes to the Company's calculation of certain metrics. There was no incremental expense in connection with this modification. In March 2020, the Compensation Committee determined that the performance metrics for the 2019 Performance PSUs had been achieved at the 30.493% level. The Company's achievement of the 2019 Fiscal Year Performance Conditions (and the number of shares of Company common stock to vest as a result thereof) was measured on a linear sliding scale in relation to specific threshold, target and stretch performance conditions. The Company is recording stock-based compensation expense for the Performance PSUs based on its assessment of the probability that each performance condition will be achieved and the level, if any, of such achievement. As of March 31, 2020, the Company determined that the grant date criteria for the 2020 and 2021 Fiscal Year Performance Periods had not been met, as the 2020 and 2021 Fiscal Year Performance Conditions had not been established by the Company. Accordingly, the stock-based compensation expense recorded in the three months ended March 31, 2020 in connection with the Performance PSUs is related only to those number of shares representing the final achievement level for the PSUs with 2019 Fiscal Year Performance Conditions. The Compensation Committee will determine the number of shares earned, if any, after the Company's financial results for each Fiscal Year Performance Period are finalized. Upon the determination by the Compensation Committee of the number of shares that will be received upon vesting of the Performance PSUs, such number of shares will become fixed and the unamortized expense will be recorded through the remainder of the service period that ends March 15, 2022, at which time the total Performance PSUs earned, if any, will vest, pending each executive's continued employment with the Company through that date. The number of shares of common stock to be achieved upon vesting of the Performance PSUs will in no event exceed 200% of the Performance PSUs. Shares subject to the Performance PSUs that fail to be earned will be forfeited.

The Market PSUs have one three-year performance period which will end on December 31, 2021 (the "Market Performance Period"). The number of shares subject to the Market PSUs that will vest, if any, on March 15, 2022, will be dependent upon the Company's total shareholder return ("TSR") compared with the TSR of the companies included in the Nasdaq Telecommunications Index for the same Market Performance Period, measured by the Compensation Committee after

RIBBON COMMUNICATIONS INC.

Notes to Condensed Consolidated Financial Statements (Continued)

(unaudited)

the Market Performance Period ends. The shares determined to be earned will vest on March 15, 2022, pending each executive's continued employment with the Company through that date. The number of shares of common stock to be achieved upon vesting of the Market PSUs will in no event exceed 200% of the Market PSUs. Shares subject to the Market PSUs that fail to be earned will be forfeited.

**2018 PSU Grant.** In May 2018, the Company granted Franklin Hobbs, the Company's former President and Chief Executive Officer ("Mr. Hobbs"), 195,000 PSUs with both performance and service conditions (the "2018 PSUs"). Of the 195,000 2018 PSUs, one-half of such PSUs were eligible to vest based on the achievement of two separate metrics related to the Company's 2018 financial performance (the "2018 Performance Conditions"). The Company's achievement of the 2018 Performance Conditions (and the number of shares of Company common stock to be received upon vesting as a result thereof) were measured on a linear sliding scale in relation to specific threshold, target and stretch performance conditions. The number of shares of common stock to be received upon vesting of the 2018 PSUs would in no event exceed 150% of the 2018 PSUs. The Compensation Committee determined that the performance metrics for all of the 2018 PSUs had been achieved at the 150% level, for a total of 292,500 shares eligible to be issued. In connection with Mr. Hobbs' separation from the Company effective December 31, 2019, the vesting schedule for the 2018 Shares earned was accelerated and the shares were released on January 30, 2020.

**Accounting for PSUs with Market Conditions.** PSUs that include a market condition require the use of a Monte Carlo simulation approach to model future stock price movements based upon the risk-free rate of return, the date of return, the volatility of each entity and the pair-wise covariance between each entity. These results are then used to calculate the grant date fair values of the respective PSUs. The Company is required to record expense for the PSUs with market conditions through their respective final vesting dates, regardless of the number of shares that are ultimately earned. As of March 31, 2020, the calculation of the grant date fair value of the Inducement PSUs had not been completed. The Company used a grant date fair value of \$2.16, the closing stock price on the date of grant, to calculate expense attributable to the three months ended March 31, 2020 for the Inducement PSUs. The Company is also using this stock price for PSU activity reported in the PSU table below. Upon completion of the Monte Carlo analysis and finalization of the grant date fair value of the Inducement PSUs, which it expects to complete in the second quarter of 2020, the Company will record a cumulative adjustment to expense and adjust their grant date fair value for subsequent reporting. The Company does not expect the cumulative adjustment to expense will have a material impact on its consolidated financial statements.

**Stock Options**

The activity related to the Company's outstanding stock options for the three months ended March 31, 2020 was as follows:

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (years)	Aggregate Intrinsic Value (in thousands)
Outstanding at January 1, 2020	297,124	\$ 11.55		
Granted	—	\$ —		
Exercised	(3,014)	\$ 1.74		
Forfeited	(1,470)	\$ 1.80		
Expired	(4,920)	\$ 18.10		
Outstanding at March 31, 2020	287,720	\$ 11.59	4.33	\$ 109
Vested or expected to vest at March 31, 2020	285,559	\$ 11.66	4.31	\$ 108
Exercisable at March 31, 2020	260,307	\$ 12.58	4.03	\$ 85

Additional information regarding the Company's stock options for the three months ended March 31, 2020 was as follows (in thousands):

Total intrinsic value of stock options exercised	\$ 5
Cash received from the exercise of stock options	\$ 5

**RIBBON COMMUNICATIONS INC.**  
**Notes to Condensed Consolidated Financial Statements (Continued)**  
**(unaudited)**

**Restricted Stock Awards and Units**

The activity related to the Company's RSAs for the three months ended March 31, 2020 was as follows:

	Shares	Weighted Average Grant Date Fair Value
Unvested balance at January 1, 2020	487,976	\$ 6.87
Granted	—	\$ —
Vested	(89,920)	\$ 7.04
Forfeited	(4,499)	\$ 7.04
Unvested balance at March 31, 2020	393,557	\$ 6.83

The activity related to the Company's RSUs for the three months ended March 31, 2020 was as follows:

	Shares	Weighted Average Grant Date Fair Value
Unvested balance at January 1, 2020	2,790,060	\$ 5.11
Granted	4,123,151	\$ 2.22
Vested	(927,062)	\$ 4.81
Forfeited	(237,818)	\$ 4.69
Unvested balance at March 31, 2020	5,748,331	\$ 3.10

The total grant date fair value of shares of restricted stock granted under RSAs and RSUs that vested during the three months ended March 31, 2020 was \$5.1 million.

**Performance-Based Stock Units**

The activity related to the Company's PSUs for the three months ended March 31, 2020 was as follows:

	Shares	Weighted Average Grant Date Fair Value
Unvested balance at January 1, 2020	1,067,073	\$ 5.94
Granted	4,847,500	\$ 2.23
Vested	(315,866)	\$ 5.53
Forfeited	(359,777)	\$ 5.51
Unvested balance at March 31, 2020	5,238,930	\$ 2.52

The total grant date fair value of shares of restricted stock granted under PSUs that vested during the three months ended March 31, 2020 was \$1.7 million.

**Employee Stock Purchase Plan**

The Company's Amended and Restated 2000 Employee Stock Purchase Plan ("ESPP") is designed to provide eligible employees of the Company and its participating subsidiaries an opportunity to purchase common stock of the Company through accumulated payroll deductions. The ESPP provides for six-month offering periods with the purchase price of the stock equal to 85% of the lesser of the closing market price on the first or last day of the offering period. The maximum number of shares

**RIBBON COMMUNICATIONS INC.**  
**Notes to Condensed Consolidated Financial Statements (Continued)**  
**(unaudited)**

of common stock an employee may purchase during each offering period is 500, subject to certain adjustments pursuant to the ESPP. The last purchase under the ESPP purchase period ended on November 30, 2019.

**Stock-Based Compensation**

The condensed consolidated statements of operations include stock-based compensation for the three months ended March 31, 2020 and 2019 as follows (in thousands):

	Three months ended	
	March 31, 2020	March 31, 2019
Product cost of revenue	\$ 27	\$ 14
Service cost of revenue	130	92
Research and development	558	507
Sales and marketing	752	984
General and administrative	1,509	2,542
	<u>\$ 2,976</u>	<u>\$ 4,139</u>

There was no income tax benefit for employee stock-based compensation expense for the three months ended March 31, 2020 or 2019 due to the valuation allowance recorded.

At March 31, 2020, there was \$26.3 million, net of expected forfeitures, of unrecognized stock-based compensation expense related to unvested stock options, stock awards and stock units. This expense is expected to be recognized over a weighted average period of approximately three years.

**(14) MAJOR CUSTOMERS**

The following customers contributed 10% or more of the Company's revenue in the three months ended March 31, 2020 and 2019:

	Three months ended	
	March 31, 2020	March 31, 2019
Verizon Communications Inc.	13%	15%
AT&T Inc.	10%	10%

At March 31, 2020, there were no customers that accounted for 10% or more of the Company's accounts receivable balance. At December 31, 2019, one customer accounted for 10% or more of the Company's accounts receivable balance, representing approximately 22% of total accounts receivable. The Company performs ongoing credit evaluations of its customers and generally does not require collateral on accounts receivable, although in some instances the Company may require letters of credit to support customer outstanding accounts receivable balances. The Company maintains an allowance for doubtful accounts and such losses have been within management's expectations.

**(15) RELATED PARTY TRANSACTIONS**

As a portion of the consideration for the GENBAND Merger, on October 27, 2017, the Company issued a Promissory Note for \$22.5 million to certain of GENBAND's equity holders who, following the GENBAND Merger, owned greater than five percent of the Company's outstanding shares. As described in Note 9, the Promissory Note did not amortize and the principal thereon was payable in full on the third anniversary of its execution. Interest on the Promissory Note was payable quarterly in arrears and accrued at a rate of 7.5% per year for the first six months after issuance, and thereafter at a rate of 10% per year. The failure to make any payment under the Promissory Note when due and, with respect to payment of any interest,

**RIBBON COMMUNICATIONS INC.**  
**Notes to Condensed Consolidated Financial Statements (Continued)**  
**(unaudited)**

the continuation of such failure for a period of thirty days thereafter, constituted an event of default under the Promissory Note. If an event of default occurred under the Promissory Note, the payees could declare the entire balance of the Promissory Note due and payable (including principal and accrued and unpaid interest) within five business days of the payees' notification to the Company of such acceleration. On April 29, 2019, the Company repaid in full all outstanding amounts under the Promissory Note, aggregating \$24.7 million. The Company did not incur any early termination penalties in connection with this repayment.

**(16) INCOME TAXES**

The Company's income tax provisions for the three months ended March 31, 2020 and 2019 reflect the Company's estimates of the effective rates expected to be applicable for the respective full years, adjusted for any discrete events, which are recorded in the period that they occur. These estimates are reevaluated each quarter based on the Company's estimated tax expense for the full year. The estimated effective tax rate includes the impact of valuation allowances in various jurisdictions.

The Company continues to evaluate the impact of various COVID-19 relief packages offered by various countries, including the Coronavirus Aid, Relief, and Economic Security ("CARES") Act, which was enacted into law on March 27, 2020. At this time, the Company does not anticipate any material tax impacts.

**(17) LEASES**

The Company has operating and finance leases for corporate offices, research and development facilities, and certain equipment. Operating leases are reported separately in the Company's condensed consolidated balance sheets. Assets acquired under finance leases are included in Property and equipment, net, in the condensed consolidated balance sheets.

The Company determines if an arrangement is a lease at inception. A contract is determined to contain a lease component if the arrangement provides the Company with a right to control the use of an identified asset. Lease agreements may include lease and non-lease components. In such instances for all classes of underlying assets, the Company does not separate lease and non-lease components but rather, accounts for the entire arrangement under leasing guidance. Leases with an initial term of 12 months or less are not recorded on the balance sheet and lease expense for these leases is recognized on a straight-line basis over the lease term.

Right-of-use assets and lease liabilities are initially measured based on the present value of the future minimum fixed lease payments (i.e., fixed payments in the lease contract) over the lease term at the commencement date. As the Company's existing leases do not have a readily determinable implicit rate, the Company uses its incremental borrowing rate based on the information available at the commencement date in determining the present value of future minimum fixed lease payments. The Company calculates its incremental borrowing rate to reflect the interest rate that it would have to pay to borrow on a collateralized basis an amount equal to the lease payments in a similar economic environment over a similar term and considers its historical borrowing activities and market data from entities with comparable credit ratings in this determination. The measurement of the right-of-use asset also includes any lease payments made prior to the commencement date (excluding any lease incentives) and initial direct costs incurred. The Company assessed its right-of-use assets for impairment as of March 31, 2020 and December 31, 2019 and determined no impairment has occurred.

Lease terms may include options to extend or terminate the lease and the Company incorporates such options in the lease term when it has the unilateral right to make such an election and it is reasonably certain that the Company will exercise that option. In making this determination, the Company considers its prior renewal and termination history and planned usage of the assets under lease, incorporating expected market conditions.

For operating leases, lease expense for minimum fixed lease payments is recognized on a straight-line basis over the lease term. The expense for finance leases includes both interest and amortization expense components, with the interest component calculated based on the effective interest method and the amortization component calculated based on straight-line amortization of the right-of-use asset over the lease term. Lease contracts may contain variable lease costs, such as common area maintenance, utilities and tax reimbursements that vary over the term of the contract. Variable lease costs are not included

**RIBBON COMMUNICATIONS INC.**  
**Notes to Condensed Consolidated Financial Statements (Continued)**  
**(unaudited)**

in minimum fixed lease payments and as a result, are excluded from the measurement of the right-of-use assets and lease liabilities. The Company expenses all variable lease costs as incurred.

In connection with the 2019 Restructuring Initiative, certain lease assets related to facilities will be partially or fully vacated as the Company consolidates its facilities. The Company has no plans to enter into sublease agreements for certain facilities. The Company ceased use of these facilities in the first quarter of 2020 and the third quarter of 2019. Accordingly, the Company accelerated the amortization of the associated lease assets through the planned cease-use date of each facility, resulting in additional amortization expense of \$0.1 million in the three months ended March 31, 2020. The Company previously recorded \$3.7 million of additional amortization expense in the year ended December 31, 2019. The Company did not record additional amortization expense in the three months ended March 31, 2019. The Company recorded nominal expense in the three months ended March 31, 2020 for estimated future variable lease costs. The Company did not record expense for future variable lease costs in the three months ended March 31, 2019 but recorded \$0.9 million in the aggregate in the year ended December 31, 2019. All of these amounts were recorded as Restructuring and related expense in the Company's consolidated statements of operations. At both March 31, 2020 and December 31, 2019, the Company had accruals of \$0.9 million for all future anticipated variable lease costs related to these facilities. The Company may incur additional future expense if it is unable to sublease other locations included in the Facilities Initiative.

The Company leases its corporate offices and other facilities under operating leases, which expire at various times through 2029. The Company's corporate headquarters is located in a leased facility in Westford, Massachusetts under a lease that expires in August 2028. The Company's finance leases primarily consist of equipment.

At March 31, 2020, the Company had 107,800 square feet of building space in North Dallas, Texas under construction as part of the Facilities Initiative. The Company's leased Plano, Texas facility will be vacated upon completion of the construction of the North Dallas, Texas site. At that time, employees will relocate to the new site as part of the Facilities Initiative. The construction of the new North Dallas, Texas site is expected to be completed in 2020.

The Company's right-of-use lease assets and lease liabilities at March 31, 2020 and December 31, 2019 were as follows (in thousands):

	Classification	March 31, 2020	December 31, 2019
<b>Assets</b>			
Operating lease assets	Operating lease right-of-use assets	\$ 66,295	\$ 36,654
Finance lease assets*	Property and equipment, net	2,093	2,420
<b>Total leased assets</b>		<b>\$ 68,388</b>	<b>\$ 39,074</b>
<b>Liabilities</b>			
<b>Current</b>			
Operating	Operating lease liabilities	\$ 18,201	\$ 7,719
Finance	Accrued expenses and other	1,376	1,005
<b>Noncurrent</b>			
Operating	Operating lease liabilities, net of current	55,857	37,202
Finance	Other long-term liabilities	1,436	2,144
<b>Total lease liabilities</b>		<b>\$ 76,870</b>	<b>\$ 48,070</b>

\* Finance lease assets were recorded net of accumulated depreciation of \$2.3 million and \$2.0 million at March 31, 2020 and December 31, 2019, respectively.

The components of lease expense for the three months ended March 31, 2020 and 2019 were as follows (in thousands):

**RIBBON COMMUNICATIONS INC.**  
**Notes to Condensed Consolidated Financial Statements (Continued)**  
**(unaudited)**

	Three months ended	
	March 31, 2020	March 31, 2019
Operating lease cost*	\$ 3,344	\$ 2,441
Finance lease cost		
Amortization of leased assets	319	244
Interest on lease liabilities	55	64
Short-term lease cost	5,523	4,671
Variable lease costs (costs excluded from minimum fixed lease payments)	637	601
Net lease cost	<u>\$ 9,878</u>	<u>\$ 8,021</u>

\* Operating lease cost for the three months ended March 31, 2020 includes \$0.1 million of accelerated amortization for certain assets partially or fully vacated in 2020 with no intent or ability to sublease.

Other information related to the Company's leases as of and for the three months ended March 31, 2020 and 2019 was as follows (in thousands, except lease terms and percentages):

	Three months ended	
	March 31, 2020	March 31, 2019
Cash paid for amounts included in the measurement of lease liabilities		
Operating cash flows for operating leases	\$ 3,113	\$ 2,355
Operating cash flows for finance leases	\$ 55	\$ 64
Financing cash flows for finance leases	\$ 338	\$ 230
	March 31, 2020	December 31, 2019
Weighted average remaining lease term (years)		
Operating leases	5.36	6.73
Finance leases	2.19	2.35
Weighted average discount rate		
Operating leases	5.58%	6.50%
Finance leases	7.49%	7.54%

Future minimum fixed lease payments under noncancelable leases at March 31, 2020 and December 31, 2019 were as follows (in thousands):

	March 31, 2020	
	Operating leases	Finance leases
Remainder of 2020	\$ 16,251	\$ 1,214
2021	19,067	1,179
2022	15,345	587
2023	12,889	36
2024	6,692	—
2025 and beyond	16,127	—
Total lease payments	<u>86,371</u>	<u>3,016</u>
Less: interest	<u>(12,313)</u>	<u>(204)</u>
Present value of lease liabilities	<u>\$ 74,058</u>	<u>\$ 2,812</u>

**RIBBON COMMUNICATIONS INC.**  
**Notes to Condensed Consolidated Financial Statements (Continued)**  
**(unaudited)**

	December 31, 2019	
	Operating leases	Finance leases
2020	\$ 10,290	\$ 1,644
2021	9,468	1,159
2022	7,665	581
2023	7,067	—
2024	5,303	—
2025 and beyond	15,738	—
Total lease payments	55,531	3,384
Less: interest	(10,610)	(235)
Present value of lease liabilities	\$ 44,921	\$ 3,149

**(18) COMMITMENTS AND CONTINGENCIES**

***Litigation Settlement***

As previously disclosed, the Company was involved in six lawsuits (together, the "Lawsuits") with Metaswitch Networks Ltd., Metaswitch Networks Corp. and Metaswitch Inc. (collectively, "Metaswitch"). In five of the Lawsuits, the Company was the plaintiff and, in three of those five lawsuits, the Company was also a counterclaim defendant. In the sixth case, the Company was the defendant.

On April 22, 2019, the Company and Metaswitch agreed to a binding mediator's proposal that resolved the six Lawsuits between the Company and Metaswitch (the "Lawsuits"). The Company and Metaswitch signed a Settlement and Cross-License Agreement on May 29, 2019 (the "Royalty Agreement"). Pursuant to the terms of the Royalty Agreement, Metaswitch has agreed to pay the Company an aggregate amount of \$63.0 million, which includes cash payments of \$37.5 million during the second quarter of 2019 and \$25.5 million payable in three installments annually, beginning June 26, 2020, with such installment payments accruing interest at a rate of 4% per year. As part of the Royalty Agreement, the Company and Metaswitch (i) have released the other from all claims and liabilities; (ii) have licensed each party's existing patent portfolio to the other party; and (iii) have requested the applicable courts to dismiss the Lawsuits.

The Company received \$37.5 million of aggregate payments from Metaswitch in the second quarter of 2019 and recorded notes receivable for future payments of \$25.5 million, comprised of \$8.5 million in Other current assets and \$17.0 million in Other assets in the condensed consolidated balance sheets at both March 31, 2020 and December 31, 2019.

***Contingencies***

On November 8, 2018, Ron Miller, a purported stockholder of the Company, filed a Class Action Complaint (the "Miller Complaint") in the United States District Court for the District of Massachusetts (the "Massachusetts District Court") against the Company and three of its former officers (collectively, the "Defendants"), claiming to represent a class of purchasers of Sonus common stock during the period from January 8, 2015 through March 24, 2015 and alleging violations of the federal securities laws. Similar to a previous complaint entitled *Sousa et al. vs. Sonus Networks, Inc. et al.*, which was dismissed with prejudice by an order dated June 6, 2017, the Miller Complaint claims that the Defendants made misleading forward-looking statements concerning Sonus' expected fiscal first quarter of 2015 financial performance, which statements were also the subject of an August 7, 2018 Securities and Exchange Commission Cease and Desist Order, whose findings the Company neither admitted nor denied. The Miller plaintiffs are seeking monetary damages.

After the Miller Complaint was filed, several parties filed and briefed motions seeking to be selected by the Massachusetts District Court to serve as a Lead Plaintiff in the action. On June 21, 2019, the Massachusetts District Court appointed a group as Lead Plaintiffs and the Lead Plaintiffs filed an amended complaint on July 19, 2019. On August 30, 2019, the Defendants filed a motion to dismiss the Miller Complaint and, on October 4, 2019, the Lead Plaintiffs filed an opposition to the motion to dismiss. There was an oral argument on the motion to dismiss on February 12, 2020.

**RIBBON COMMUNICATIONS INC.**  
**Notes to Condensed Consolidated Financial Statements (Continued)**  
**(unaudited)**

In addition, the Company is often a party to disputes and legal proceedings that it considers routine and incidental to its business. Management does not expect the results of any of these actions to have a material effect on the Company's business or condensed consolidated financial statements.

**Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations**

*The following discussion of the financial condition and results of operations of Ribbon Communications Inc. should be read in conjunction with the condensed consolidated financial statements and the related notes thereto included elsewhere in this Quarterly Report on Form 10-Q and the audited financial statements and notes thereto and Management's Discussion and Analysis of Financial Condition and Results of Operations included in our Annual Report on Form 10-K for the year ended December 31, 2019, which was filed with the U.S. Securities and Exchange Commission on February 28, 2020.*

**Overview**

We are a leading provider of next generation software solutions to telecommunications, wireless and cable service providers and enterprises of all sizes across industry verticals. With the March 3, 2020 completion of the merger with ECI Telecom Group Ltd ("ECI"), we now also provide optical and packet networking products and software-defined solutions to service providers and critical infrastructure sectors like utilities, government and defense. With over 1,000 customers around the globe, including some of the largest telecommunications service providers, enterprises and utilities in the world, we enable our customers to evolve and modernize their communications networks and packet optical networking infrastructures through software and hardware. By securing and enabling reliable and scalable Internet Protocol ("IP") and packet optical networks, we help our customers adopt the next generation of software-, cloud- and edge-based technologies to drive new, incremental revenue, while protecting their existing revenue streams. Our software solutions provide a secure way for our customers to connect and leverage multivendor, multiprotocol communications systems and applications across their networks and the cloud, in a rapidly changing ecosystem of IP-enabled devices, such as smartphones and tablets. In addition, our software solutions secure cloud-based delivery of unified communications ("UC") solutions - both for service providers transforming to a cloud-based network and for enterprises using cloud-based UC - and support the increasing demand on network infrastructure created by ongoing IP traffic growth and the forecast demand and build-outs to be created by increased traffic from 5G applications and devices. We sell our products and solutions through both direct sales and indirect channels, leveraging the assistance of resellers, and provide ongoing support to its customers through a global services team with experience in design, deployment and maintenance of some of the world's largest software IP networks.

**Impact of COVID-19 on Our Business**

In December 2019, a novel strain of the coronavirus (COVID-19) was reported to have been detected in Wuhan, China and on March 11, 2020, it was declared by the World Health Organization to be a global pandemic. The COVID-19 pandemic has had a negative effect on the global economy, disrupting the various manufacturing, commodity and financial markets and increasing volatility, and has impeded global supply chains, including that of our recently acquired subsidiary, ECI. Dampened global economic conditions as a result of the COVID-19 pandemic may cause our customers to restrict spending or delay purchases for an indeterminate period of time and consequently cause our revenues to decline. In addition, our ability to deliver our solutions as agreed upon with our customers depends on the ability of our global contract manufacturers, vendors, licensors and other business partners to deliver products or perform services we have procured from them. If the COVID-19 pandemic impairs the ability of our business partners to support us on a timely basis, or negatively impacts the demand for our customers' other products and services, our ability to perform our customer contracts as well as the demand for our solutions may suffer. In addition, disruptions from the COVID-19 pandemic could include, and with respect to ECI have included, disruption of logistics necessary to import, export and deliver our solutions. The COVID-19 pandemic may also place limitations on the ability of our associates to perform their work due to illness caused by the pandemic or local, state or federal orders requiring associates to remain at home. Concerns over the economic impact of the COVID-19 pandemic have also caused extreme volatility in financial and other capital markets which has and may continue to adversely impact our stock price. Such volatility may also adversely impact our ability to access capital markets if and when we would be required to do so. The degree to which the COVID-19 pandemic ultimately impacts our business, financial position and results of operations will depend on

future developments beyond our control, including the severity of the pandemic, the extent of actions to contain or treat the virus, how quickly and to what extent normal economic and operating conditions can resume, and the severity and duration of the global economic downturn that results from the pandemic.

As a response to the ongoing COVID-19 pandemic, we have implemented plans to manage our costs. We have significantly limited the addition of new employees and third party contracted services, eliminated all travel except where necessary to meet customer or regulatory needs, and acted to limit discretionary spending. To the extent the business disruption continues for an extended period, additional cost management actions will be considered. Any future asset impairment charges, increases in allowance for doubtful accounts or restructuring charges could be more likely and will be dependent on the severity and duration of this crisis.

### **Presentation**

Unless otherwise noted, all financial amounts, excluding tabular information, in this Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A") are rounded to the nearest thousand dollar amount, and all percentages, excluding tabular information, are rounded to the nearest percentage point.

### **Business Acquisitions**

#### *ECI Telecom Group Ltd*

On March 3, 2020 ("ECI Merger Date"), we completed the merger transaction with ECI in accordance with the terms of the Agreement and Plan of Merger, dated as of November 14, 2019, by and among Ribbon, an indirect wholly-owned subsidiary of Ribbon ("Merger Sub"), Ribbon Communications Israel Ltd., ECI, and ECI Holding (Hungary) kft, pursuant to which Merger Sub merged with and into ECI, with ECI surviving such merger as a wholly-owned subsidiary of Ribbon (the "ECI Merger"). Prior to the ECI Merger Date, ECI was a privately-held global provider of end-to-end packet-optical transport and SDN/NFV solutions for service providers, enterprises and data center operators. Ribbon believes the ECI Merger positions the Company for growth and enhances its competitive strengths by expanding its product portfolio beyond solutions primarily supporting voice applications to include data applications and optical networking.

As consideration for the ECI Merger, we issued the ECI shareholders and certain others 32.5 million shares of Ribbon common stock with a fair value of \$108.6 million (the "Stock Consideration") and paid \$322.5 million of cash, comprised of \$183.3 million to repay ECI's outstanding debt, including both principal and interest, and \$139.2 million paid to ECI's selling shareholders (the "Cash Consideration"). In addition, ECI shareholders received \$33.4 million from the sale of certain of ECI's real estate assets. Cash Consideration was financed through cash on hand and committed debt financing consisting of a new \$400 million term loan facility (the "2020 Term Loan") and new \$100 million revolving credit facility (together, the "2020 Credit Facility"), which was undrawn at the ECI Merger Date.

#### *Anova Data, Inc.*

On February 28, 2019 (the "Anova Acquisition Date"), we acquired the business and technology assets of Anova Data, Inc. ("Anova"), a private company headquartered in Westford, Massachusetts (the "Anova Acquisition"). Anova is a provider of advanced analytics solutions and its next generation products provide a cloud-native, streaming analytics platform for network and subscriber optimization and monetization. The Company believes that the Anova Acquisition will reinforce and extend Ribbon's strategy to expand into network optimization, security and data monetization via big data analytics and machine learning.

As consideration for the Anova Acquisition, we issued 2.9 million shares of our common stock with a fair value of \$15.2 million to Anova's sellers and equity holders on the Anova Acquisition Date and held back an additional 330,000 shares of our common stock with a fair value of \$1.7 million (the "Deferred Purchase Consideration"), of which 316,551 shares were issued after post-closing adjustments on March 4, 2020. The Deferred Purchase Consideration was included as a component of Accrued expenses and other current liabilities in our condensed consolidated balance sheet at December 31, 2019. The Anova Acquisition has been accounted for as a business combination and the financial results of Anova have been included in our consolidated financial statements for the period subsequent to the Anova Acquisition Date.

## **Financial Overview**

### **Financial Results**

We reported losses from operations of \$29 million and \$36 million for the three months ended March 31, 2020 and 2019, respectively. Our revenue was \$158 million and \$119 million in the three months ended March 31, 2020 and 2019, respectively.

Our gross profit was \$82 million and \$57 million in the three months ended March 31, 2020 and 2019, respectively. Our gross profit as a percentage of revenue ("total gross margin") was 52% and 48% in the three months ended March 31, 2020 and 2019, respectively.

Our operating expenses were \$110 million and \$93 million in the three months ended March 31, 2020 and 2019, respectively. Operating expenses for the three months ended March 31, 2020 included \$12 million of acquisition- and integration-related expense and \$2 million of restructuring and related expense. Operating expenses for the three months ended March 31, 2019 included \$3 million of acquisition- and integration-related expense and \$5 million of restructuring and related expense.

We recorded stock-based compensation expense of \$3 million and \$4 million in the three months ended March 31, 2020 and 2019, respectively. These amounts are included as components of both Cost of revenue and Operating expenses in our condensed consolidated statements of operations.

See "Results of Operations" in this MD&A for a discussion of the changes in our revenue and expenses for the three months ended March 31, 2020 compared with the three months ended March 31, 2019.

### **Restructuring and Cost Reduction Initiatives**

In connection with the ECI Merger, we are releasing three former executives of ECI and recorded \$1 million of restructuring and related expense for severance for these individuals in accordance with their respective employment and related agreements in the three months ended March 31, 2020. At March 31, 2020, these amounts had not yet been paid. We expect these amounts will be paid by the end of 2020.

In June 2019, we implemented a restructuring plan to further streamline our global footprint, improve our operations and enhance our customer delivery (the "2019 Restructuring Initiative"). The 2019 Restructuring Initiative includes facility consolidations, refinement of our research and development activities, and a reduction in workforce. In connection with this initiative, we expect to reduce our focus on hardware and appliance-based development over time and to increase our development focus on software virtualization, functional simplicity and important customer requirements. The facility consolidations under the 2019 Restructuring Initiative (the "Facilities Initiative") include a consolidation of our North Texas sites into a single campus, housing engineering, customer training and support, and administrative functions, as well as a reduction or elimination of certain excess and duplicative facilities worldwide. In addition, we intend to substantially consolidate our global software laboratories and server farms into two lower cost North American sites. We continue to evaluate our properties included in the Facilities Initiative for accelerated amortization and/or right-of-use asset impairment. We expect that the actions under the Facilities Initiative will be completed by the end of 2020.

In connection with the 2019 Restructuring Initiative, we recorded restructuring and related expense of \$1 million in the three months ended March 31, 2020, comprised of \$0.7 million for severance and related costs for 5 employees and \$0.3 million related to facilities. We expect that nearly all of the amount accrued for severance and related costs at March 31, 2020 will be paid by the end of 2020. We estimate that we will record nominal, if any, additional restructuring and related expense related to severance and related costs under the 2019 Restructuring Initiative.

Accelerated rent amortization is recognized from the date that we commence the plan to fully or partially vacate a facility, for which there is no intent or ability to enter into a sublease, through the final vacate date. We recorded \$0.1 million of accelerated rent amortization in the three months ended March 31, 2020 and had previously recorded \$4 million of accelerated rent amortization in the second half of 2019 as components of restructuring and related expense. The accelerated rent amortization recorded in connection with the 2019 Restructuring Initiative reduced our Operating lease right-of-use assets in our condensed consolidated balance sheets at March 31, 2020 and December 31, 2019. We continue to evaluate our properties included in the Facilities Initiative for accelerated amortization and/or right-of-use asset impairment. We may incur additional future expense if we are unable to sublease other locations included in the Facilities Initiative.

In connection with the Sonus-GENBAND merger (the "GENBAND Merger") in 2017, we implemented a restructuring plan in the fourth quarter of 2017 to eliminate certain redundant positions and facilities within the combined companies (the "GENBAND Merger Restructuring Initiative"). We recorded restructuring and related expense of \$5 million in the three months ended March 31, 2019 under this initiative, primarily for severance and related costs for approximately 40 employees. We did not record expense in connection with the GENBAND Merger Restructuring Initiative in the three months ended March 31, 2020. The GENBAND Merger Restructuring Initiative is substantially complete, and we anticipate that we will record nominal future expense, if any, in connection with this initiative, with amounts at March 31, 2020 to be paid by the end of 2020.

### Critical Accounting Policies and Estimates

Management's discussion and analysis of financial condition and results of operations is based upon our condensed consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America ("GAAP"). The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. We base our estimates and judgments on historical experience, knowledge of current conditions and beliefs of what could occur in the future given available information. We consider the following accounting policies to be both those most important to the portrayal of our financial condition and those that require the most subjective judgment: revenue recognition, valuation of inventory, warranty accruals, loss contingencies and reserves, stock-based compensation, business combinations, goodwill and intangible assets, accounting for leases and accounting for income taxes. If actual results differ significantly from management's estimates and projections, there could be a material effect on our condensed consolidated financial statements. There were no significant changes to our critical accounting policies from December 31, 2019 through March 31, 2020 with the exception of warranty accruals. For a further discussion of our other critical accounting policies and estimates, please refer to our Annual Report on Form 10-K for the year ended December 31, 2019.

**Warranty Accruals.** We record warranty liabilities for estimated costs of fulfilling our obligations under standard limited hardware and software warranties at the time of sale. The liability for standard warranties is included in Accrued expenses and other and Other non-current liabilities in our condensed consolidated balance sheet at March 31, 2020. The specific warranty terms and conditions vary depending upon the country in which the Company does business, but generally includes material costs, technical support, labor and associated overhead over a period ranging from one to three years. We provide for the estimated costs to fulfill customer warranty obligations for certain of our products upon recognition of the related revenue. Estimated warranty costs include estimates for material costs, technical support, labor and associated overhead. Warranty is included as a component of Cost of revenue in our condensed consolidated statements of operations, and is determined based on actual warranty cost experience, estimates of component failure rates and our management's industry experience. Our sales contracts do not permit the right of return of the product by the customer after the product has been accepted.

### Results of Operations

#### Three months ended March 31, 2020 and 2019

**Revenue.** Revenue for the three months ended March 31, 2020 and 2019 was as follows (in millions, except percentages):

	Three months ended		Increase from prior year	
	March 31, 2020	March 31, 2019	\$	%
Product	\$ 75.9	\$ 47.5	\$ 28.4	59.9%
Service	82.1	71.4	10.7	14.9%
Total revenue	\$ 158.0	\$ 118.9	\$ 39.1	32.8%

Our product revenue is generated from sales of software with attached appliances, software licenses and software subscription fees. Certain of our products may be included in more than one of our solutions (i.e., session control solutions, network transformation solutions, and applications and security solutions), depending upon the configuration of the individual customer solutions sold. Our software with attached appliances and software license revenues are primarily comprised of our media gateway, call controller, signaling, virtual mobile core and management (i.e., analytics, assurance, billing, etc.) products. Our software subscription fees revenue is primarily comprised of sales of our UC-related (i.e., application server, media server, etc.), Kandy Cloud and Ribbon Protect products. Each of our solutions portfolios addresses both the service provider and enterprise markets and are sold through both our direct sales program and from indirect sales through our

channel partner program. In addition, with the recent acquisition of ECI, we had one month of additional product and software revenue from our end-to-end Packet-Optical transport, SDN and NFV solutions.

The increase in product revenue in the three months ended March 31, 2020 compared with the three months ended March 31, 2019 was primarily due to the inclusion of \$22 million of product revenue from ECI for the period since the ECI Merger Date, coupled with \$10 million of higher sales of Ribbon software licenses and subscriptions. These increases were partially offset by \$3 million of lower sales of Ribbon software with attached appliances.

Revenue from indirect sales through our channel partner program was approximately 38% and 40% of our product revenue in the three months ended March 31, 2020 and 2019, respectively.

Our product revenue from sales to enterprise customers was approximately 36% and 31% of our product revenue in the three months ended March 31, 2020 and 2019, respectively. These sales were made both through our direct sales team and indirect sales channel partners. The increase in revenue from sales to enterprise customers as a percentage of product revenue in the three months ended March 31, 2020 compared to three months ended March 31, 2019 was primarily attributable to the inclusion of ECI's product revenue for the period since the ECI Merger Date, of which more than half was from sales to enterprises.

The timing of the completion of customer projects and revenue recognition criteria satisfaction may cause our product revenue to fluctuate from one period to the next.

Service revenue is primarily comprised of appliance and software maintenance and support ("maintenance revenue") and network design, installation and other professional services ("professional services revenue").

Service revenue for the three months ended March 31, 2020 and 2019 was comprised of the following (in millions, except percentages):

	Three months ended		Increase from prior year	
	March 31, 2020	March 31, 2019	\$	%
Maintenance	\$ 61.1	\$ 57.0	\$ 4.1	7.2%
Professional services	21.0	14.4	6.6	45.3%
	<u>\$ 82.1</u>	<u>\$ 71.4</u>	<u>\$ 10.7</u>	<u>14.9%</u>

The increase in maintenance revenue in the three months ended March 31, 2020 compared to the three months ended March 31, 2019 was primarily due to the inclusion of \$5 million of maintenance revenue from ECI for the period since the ECI Merger Date. The increase in professional services revenue was primarily due to the inclusion of \$3 million of professional services revenue from ECI for the period since the ECI Merger Date, coupled with the timing and related revenue recognition of certain projects in the three months ended March 31, 2020 compared to the three months ended March 31, 2019.

The following customers contributed 10% or more of our revenue in the three months ended March 31, 2020 and 2019:

Customer	Three months ended	
	March 31, 2020	March 31, 2019
Verizon Communications Inc.	13%	15%
AT&T Inc.	10%	10%

Revenue earned from customers domiciled outside the United States was 50% and 42% of revenue in the three months ended March 31, 2020 and 2019, respectively. Due to the timing of project completions, we expect that the domestic and international components as a percentage of revenue may fluctuate from quarter to quarter and year to year. In addition, as a result of the ECI Merger, we expect that the domestic and international revenue as a percentage of revenue in future periods will change, as virtually all of ECI's revenue has historically been recognized from customers outside the United States.

Our deferred product revenue was \$13 million and \$5 million at March 31, 2020 and December 31, 2019, respectively. Our deferred service revenue was \$127 million and \$116 million at March 31, 2020 and December 31, 2019, respectively. Of

the \$19 million increase in deferred revenue at March 31, 2020 compared to December 31, 2019, \$14 million was attributable to the ECI Merger. Our deferred revenue balance may fluctuate because of the timing of revenue recognition, customer payments, maintenance contract renewals, contractual billing rights and maintenance revenue deferrals included in multiple element arrangements.

We expect that our total revenue in 2020 will increase compared to 2019, primarily due to the ECI Merger. At this time, we are unable to determine the full impact the COVID-19 pandemic may have on our total revenue; however, it is possible that our total revenue will be lower in 2020 compared to the sum of the respective Ribbon and ECI revenues for the 2019 fiscal year.

**Cost of Revenue/Gross Margin.** Our cost of revenue consists primarily of amounts paid to third-party manufacturers for purchased materials and services, royalties, inventory valuation adjustments, warranty costs, and manufacturing and services personnel and related costs. Our cost of revenue and gross margins for the three months ended March 31, 2020 and 2019 were as follows (in millions, except percentages):

	Three months ended		Increase from prior year	
	March 31, 2020	March 31, 2019	\$	%
<b>Cost of revenue</b>				
Product	\$ 44.9	\$ 33.1	\$ 11.8	35.6%
Service	31.5	29.2	2.3	7.8%
Total cost of revenue	\$ 76.4	\$ 62.3	\$ 14.1	22.6%
<b>Gross margin</b>				
Product	40.8%	30.2%		
Service	61.6%	59.1%		
Total gross margin	51.6%	47.6%		

The increase in product gross margin in the three months ended March 31, 2020 compared with the three months ended March 31, 2019 was primarily attributable to the effect of higher product revenue on our fixed costs. Our purchases of materials and components were \$25 million and \$16 million in the three months ended March 31, 2020 and 2019, respectively. We expect that our future purchases of materials and components will increase as a result of the ECI Merger, partially offset by the increase in software content of legacy Ribbon products, both in absolute terms and as a percentage of revenue.

The increase in service gross margin in the three months ended March 31, 2020 compared to the three months ended March 31, 2019 was primarily attributable to the effect of higher revenue on our fixed costs, which increased our service gross margin by approximately four percentage points, partially offset by higher costs related to customer installations, which decreased our service gross margin by approximately two percentage points.

We believe that our total gross margin will decrease in 2020 compared with 2019, primarily due to the higher hardware content of or packet and optical products acquired through the ECI Merger.

**Research and Development Expenses.** Research and development expenses consist primarily of salaries and related personnel expenses and prototype costs for the design, development, testing and enhancement of our products. Research and development expenses for the three months ended March 31, 2020 and 2019 were as follows (in millions, except percentages):

	March 31, 2020	March 31, 2019	Increase from prior year	
			\$	%
	\$ 42.3	\$ 35.9	\$ 6.4	17.7%

The increase in research and development expenses in the three months ended March 31, 2020 compared with the three months ended March 31, 2019 was primarily attributable to \$6 million of ECI research and development expenses for the period since the ECI Merger Date.

Some aspects of our research and development efforts require significant short-term expenditures, the timing of which may cause significant variability in our expenses. We believe that rapid technological innovation is critical to our long-term

success, and we are tailoring our investments to meet the requirements of our customers and market. We believe that our research and development expenses in 2020 will increase, primarily due to the acquisition of ECI.

**Sales and Marketing Expenses.** Sales and marketing expenses primarily consist of salaries and related personnel costs, commissions, travel and entertainment expenses, promotions, customer trial and evaluations inventory and other marketing and sales support expenses. Sales and marketing expenses for the three months ended March 31, 2020 and 2019 were as follows (in millions, except percentages):

March 31, 2020	March 31, 2019	Increase from prior year	
		\$	%
\$ 36.4	\$ 30.1	\$ 6.3	20.9%

The increase in sales and marketing expenses in the three months ended March 31, 2020 compared with the three months ended March 31, 2019 was primarily attributable to \$4 million of ECI sales and marketing expenses for the period since the ECI Merger Date. We believe that our sales and marketing expenses will increase in 2020 compared with 2019, primarily due to the ECI acquisition.

**General and Administrative Expenses.** General and administrative expenses consist primarily of salaries and related personnel costs for executive and administrative personnel, and audit, legal and other professional fees. General and administrative expenses for the three months ended March 31, 2020 and 2019 were as follows (in millions, except percentages):

March 31, 2020	March 31, 2019	Decrease from prior year	
		\$	%
\$ 17.2	\$ 18.7	\$ (1.5)	(8.0)%

The decrease in general and administrative expenses in the three months ended March 31, 2020 compared with the three months ended March 31, 2019 was primarily attributable to the absence of \$6 million of fees in connection with litigation with Metaswitch, with whom we reached a settlement in the second quarter of 2019, partially offset by \$3 million of litigation-related expense in connection with litigation with a former business partner of GENBAND regarding amounts loaned to such former business partner that were never repaid and \$2 million of ECI general and administrative expenses, primarily employee-related, for the period since the ECI Merger Date. We believe that our general and administrative expenses will increase in 2020 compared with 2019, primarily due to the acquisition of ECI.

**Acquisition- and Integration-Related Expenses.** Acquisition- and integration-related expenses include those expenses related to acquisitions that we would otherwise not have incurred. Acquisition-related expenses include professional and services fees, such as legal, audit, consulting, paying agent and other fees, and expenses related to cash payments to certain former executives of acquired businesses in connection with their employment agreements. Integration-related expenses represent incremental costs related to combining the Company's systems and processes with those of acquired businesses, such as third-party consulting and other third-party services.

We recorded acquisition- and integration-related expenses of \$12 million in the three months ended March 31, 2020, virtually all of which was for professional fees primarily in connection with the ECI Merger. We recorded acquisition- and integration-related expense of \$3 million in the three months ended March 31, 2019, which was equally comprised of acquisition-related professional and services fees related to the Anova Acquisition, and integration-related expenses.

**Restructuring and Related Expense.** We have been committed to streamlining operations and reducing operating costs by closing and consolidating certain facilities and reducing our worldwide workforce. Please see the additional discussion of our restructuring initiatives in the "Restructuring and Cost Reduction Initiatives" section of the Overview of this Management's Discussion and Analysis of Financial Condition and Results of Operations.

We recorded restructuring and related expense of \$2 million in the three months ended March 31, 2020, which was equally attributable to our 2019 Restructuring Initiative and severance for certain former ECI executives, and \$5 million in the three months ended March 31, 2019, primarily in connection with our GENBAND Merger Restructuring Initiative.

Although we have eliminated positions as part of our restructuring initiatives, we continue to hire in certain areas that we believe are important to our future growth. Restructuring and related expense is reported separately in the condensed consolidated statements of operations.

**Interest Expense, Net.** Interest income and interest expense for the three and three months ended March 31, 2020 and 2019 were as follows (in millions, except percentages):

	Three months ended		Increase from prior year	
	March 31, 2020	March 31, 2019	\$	%
Interest income*	\$ 0.3	\$ —	\$ 0.3	100.0%
Interest expense	(3.7)	(1.4)	2.3	164.3%
	<u>\$ (3.4)</u>	<u>\$ (1.4)</u>	<u>\$ 2.0</u>	<u>142.9%</u>

\* Amount reported for the three months ended March 31, 2019 rounds to less than \$0.1 million.

Interest income in the three months ended March 31, 2020 primarily represents interest earned on the outstanding note receivable from Metaswitch in accordance with terms of the recently settled litigation. Interest expense in the three months ended March 31, 2020 was comprised of interest and debt issuance costs in connection with the 2020 Credit Facility, the write-off of debt issuance costs in connection with the retirement of the 2019 Credit Facility and interest on other borrowings and finance leases.

Interest income in the three months ended March 31, 2019 was nominal and consisted of interest earned on our cash equivalents, marketable securities and investments. Interest expense in the three months ended March 31, 2019 was primarily comprised of interest on the related party promissory note issued in connection with the GENBAND Merger, interest on the outstanding balances under the 2019 Credit Facility, amortization of debt issuance costs and interest on finance lease obligations.

**Income Taxes.** We recorded provisions for income taxes of \$0.2 million and \$1 million in the three months ended March 31, 2020 and 2019, respectively. These amounts reflect our estimates of the effective rates expected to be applicable for the respective full fiscal years, adjusted for any discrete events, which are recorded in the period that they occur. These estimates are reevaluated each quarter based on our estimated tax rate for the full fiscal year. The estimated effective tax rate includes the impact of valuation allowances in various jurisdictions.

#### Off-Balance Sheet Arrangements

We have no off-balance sheet arrangements that have or are reasonably likely to have a current or future material effect on our financial position, changes in financial position, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources.

#### Contractual Obligations

On March 3, 2020, we entered into a Senior Secured Credit Facilities Credit Agreement (the "2020 Credit Agreement"). The proceeds of the Credit Agreement were used, in part, to pay off in full all obligations of the Company under the 2019 Credit Facility. See "Liquidity and Capital Resources" in this MD&A for a description of the terms and conditions of the 2020 Credit Agreement. At March 31, 2020, the Company had an outstanding 2020 Term Loan Facility balance of \$400 million at an average interest rate of 3.9%. The 2020 Revolving Credit Facility did not have any outstanding borrowings at March 31, 2020 but had \$5.6 million of letters of credit outstanding at an interest rate of 3.0%. The principal and interest payments for the 2020 Credit Agreement long-term debt is included in the table below.

In connection with the ECI Merger, we assumed certain contractual obligations related to operating leases, future purchases, employee postretirement defined benefit plans and uncertain tax positions as included in the table below.

Our contractual obligations at March 31, 2020 consisted of the following (in millions):

	Payments due by period				
	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
Operating lease obligations	\$ 28.9	\$ 10.2	\$ 7.4	\$ 6.1	\$ 5.2
Purchase obligations	61.9	61.5	0.4	—	—
Debt obligations - principal *	400.0	10.0	40.0	350.0	—
Debt obligations - interest	70.3	15.7	29.5	25.1	—
Employee postretirement defined benefit plans	8.6	—	—	—	8.6
Uncertain tax positions **	11.4	11.4	—	—	—
	<u>\$ 581.1</u>	<u>\$ 108.8</u>	<u>\$ 77.3</u>	<u>\$ 381.2</u>	<u>\$ 13.8</u>

\* Debt obligations - principal represents the outstanding balance on our 2020 Credit Facility of \$400.0 million at March 31, 2020, representing the outstanding term loan principal.

\*\* This liability is not subject to fixed payment terms and the amount and timing of payments, if any, that we will make related to this liability are not known.

Except for the material changes above in connection with the 2020 Credit Agreement and the ECI Merger, there have been no material changes, outside of the ordinary course of business, to our contractual obligations as previously disclosed in our Annual Report on Form 10-K for the year ended December 31, 2019.

### Liquidity and Capital Resources

Our condensed consolidated statements of cash flows are summarized as follows (in millions):

	Three months ended		Change
	March 31, 2020	March 31, 2019	
Net loss	\$ (33.2)	\$ (30.8)	\$ (2.4)
Adjustments to reconcile net loss to cash flows provided by operating activities	23.3	11.6	11.7
Changes in operating assets and liabilities	49.8	38.8	11.0
Net cash provided by operating activities	<u>\$ 39.9</u>	<u>\$ 19.6</u>	<u>\$ 20.3</u>
Net cash (used in) provided by investing activities	<u>\$ (309.4)</u>	<u>\$ 1.5</u>	<u>\$ (310.9)</u>
Net cash provided by (used in) financing activities	<u>\$ 335.1</u>	<u>\$ (20.9)</u>	<u>\$ 356.0</u>

Our cash, cash equivalents and restricted cash aggregated \$110 million at March 31, 2020. We had cash of \$45 million at December 31, 2019. We had cash and restricted cash aggregating \$32 million at March 31, 2020 and cash aggregating \$12 million at December 31, 2019 held by our non-U.S. subsidiaries. If we elected to repatriate all excess funds held by our non-U.S. subsidiaries as of March 31, 2020, we do not believe that the amounts of potential withholding taxes that would arise from the repatriation would have a material effect on our liquidity.

On December 21, 2017, we entered into a Senior Secured Credit Agreement (the "2017 Credit Facility") with Silicon Valley Bank ("SVB"), which refinanced the prior credit agreement with SVB that the Company had assumed in connection with the GENBAND Merger. On June 24, 2018, we amended the 2017 Credit Facility to, among other things, permit the Edgewater Acquisition and related transactions (the "2018 Credit Facility").

On April 29, 2019, we, as guarantor, and Ribbon Communications Operating Company, Inc., as borrower, entered into a syndicated, amended and restated credit facility (the "2019 Credit Facility") with SVB, as lead agent, which replaced the 2018 Credit Facility. The 2019 Credit Facility provided for a \$50 million term loan facility that was advanced in full on April 29,

2019, and a \$100 million revolving line of credit. The 2019 Credit Facility also included procedures for additional financial institutions to become syndicate lenders, or for any existing lender to increase its commitment under either the term loan facility or the revolving loan facility, subject to an aggregate increase of \$75 million for all incremental commitments under the 2019 Credit Facility. The 2019 Credit Facility was scheduled to mature in 2024. At December 31, 2019, we had an outstanding term loan debt balance of \$49 million and an outstanding revolving line of credit balance of \$8 million with a combined average interest rate of 3.30%, and \$5 million of outstanding letters of credit at an interest rate of 1.50%.

The indebtedness and other obligations under the 2019 Credit Facility were unconditionally guaranteed on a senior secured basis by us and each of our other material U.S. domestic subsidiaries (collectively, the "Guarantors"). The 2019 Credit Facility was secured by first-priority liens on substantially all of our assets.

The 2019 Credit Facility required periodic interest payments on outstanding borrowings under the facility until maturity. We could prepay all revolving loans under the 2019 Credit Facility at any time without premium or penalty (other than customary LIBOR breakage costs), subject to certain notice requirements.

Revolving loans under the 2019 Credit Facility bore interest at our option at either the Eurodollar (LIBOR) rate plus a margin ranging from 1.50% to 3.00% per year or the base rate (the highest of the Federal Funds rate plus 0.50%, or the prime rate announced from time to time in The Wall Street Journal) plus a margin ranging from 0.50% to 2.00% per year (such margins being referred to as the "Applicable Margin"). The Applicable Margin varied depending on our consolidated leverage ratio (as defined in the 2019 Credit Facility). The base rate and the LIBOR rate were each subject to a zero percent floor.

On March 3, 2020, we entered into a Senior Secured Credit Facilities Credit Agreement (the "2020 Credit Agreement"), by and among us, as a guarantor, Ribbon Communications Operating Company, Inc., as the borrower ("Borrower"), Citizens Bank, N.A., as administrative agent, a lender, issuing lender, swingline lender, joint lead arranger and bookrunner, Santander Bank, N.A., as a lender, joint lead arranger and bookrunner, and the other lenders party thereto (each, together with Citizens Bank, N.A. and Santander Bank, N.A., referred to individually as a "Lender", and collectively, the "Lenders"). The proceeds of the Credit Agreement were used, in part, to pay off in full all obligations of the Company under the 2019 Credit Facility.

The 2020 Credit Agreement provides for \$500 million of commitments from the lenders to the Borrower, comprised of a \$400 million term loan (the "2020 Term Loan Facility") and a \$100 million facility available for revolving loans (the "2020 Revolving Credit Facility" and together with the 2020 Term Loan Facility, the "2020 Credit Facility"). Under the 2020 Revolving Credit Facility, a \$30 million sublimit is available for letters of credit and a \$20 million sublimit is available for swingline loans. The 2020 Credit Facility is scheduled to mature in March 2025. The 2020 Credit Agreement includes procedures for additional financial institutions to become lenders thereunder, or for any existing lender to fund one or more new tranches of term loans, or increase its commitment under the 2020 Term Loan Facility or the 2020 Revolving Credit Facility, subject, in each case, to an aggregate dollar limit equal to 100% of the Company's Consolidated Adjusted EBITDA (as defined in the 2020 Credit Agreement) as of the most recently ended quarter for which financial statements have been delivered to the lenders, plus additional amounts, so long as the Borrower's Consolidated Net Leverage Ratio (as defined in the 2020 Credit Agreement) does not exceed 2.75:1.00.

The indebtedness and other obligations under the 2020 Credit Facility are unconditionally guaranteed on a senior secured basis by the Company, Edgewater Networks, Inc., a wholly-owned subsidiary of the Company, and Genband Inc., a wholly-owned subsidiary of the Company (together, the "Guarantors"). The 2020 Credit Facility is secured by first-priority liens on substantially all of the assets of the Borrower and the Guarantors, including substantially all of the assets of the Company.

The 2020 Credit Agreement requires periodic interest payments until maturity. The Borrower may prepay all loans under the 2020 Credit Agreement at any time without premium or penalty (other than customary LIBOR breakage costs), subject to certain notice requirements.

Loans incurred under the 2020 Credit Facility bear interest at the Borrower's option at either the LIBOR rate plus a margin ranging from 1.50% to 3.50% per year, or the base rate (the highest of the Federal Funds Effective Rate (as defined in the Credit Agreement) plus 50%, or the prime rate announced from time to time in The Wall Street Journal) plus a margin ranging from 0.50% to 2.50% per year (the "Applicable Margin"). The Applicable Margin varies depending on the Company's Consolidated Net Leverage Ratio (as defined in the 2020 Credit Agreement). The base rate and the LIBOR rate are each subject to a zero percent floor.

The 2020 Credit Agreement requires compliance with certain financial covenants, including a minimum Consolidated Fixed Charge Coverage Ratio and a maximum Consolidated Net Leverage Ratio (each as defined in the 2020 Credit

Agreement, and each tested on a quarterly basis). The Company was in compliance with all covenants of the 2020 Credit Facility at March 31, 2020.

In addition, the 2020 Credit Agreement contains various covenants that, among other restrictions, limit the Company's and its subsidiaries' ability to incur or assume indebtedness; grant or assume liens; make acquisitions or engage in mergers; sell, transfer, assign or convey assets; repurchase equity and make dividend and certain other restricted payments; make investments; engage in transactions with affiliates; enter into sale and leaseback transactions; enter into burdensome agreements; change the nature of its business; modify their organizational documents; or amend or make prepayments on certain junior debt.

The 2020 Credit Agreement contains events of default that are customary for a secured credit facility. If an event of default relating to bankruptcy or other insolvency events with respect to the Company or any of its subsidiaries occurs, all obligations under the 2020 Credit Agreement will immediately become due and payable. If any other event of default exists under the 2020 Credit Agreement, the lenders may accelerate the maturity of the obligations outstanding under the Credit Agreement and exercise other rights and remedies, including charging a default rate of interest equal to 2.00% per year above the rate that would otherwise be applicable. In addition, if any event of default exists under the 2020 Credit Agreement, the lenders may commence foreclosure or other actions against the collateral.

At March 31, 2020, the Company had an outstanding 2020 Term Loan Facility balance of \$400 million at an average interest rate of 3.9%. The 2020 Revolving Credit Facility did not have any outstanding borrowings at March 31, 2020 but had \$5.6 million of letters of credit outstanding at an interest rate of 3.0%.

The Company is exposed to financial market risk related to foreign currency fluctuations and changes in interest rates. These exposures are actively monitored by management. To manage the volatility related to the exposure to changes in interest rates, the Company has entered into a derivative financial instrument. Management's objective is to reduce, where it is deemed appropriate to do so, fluctuations in earnings and cash flows associated with changes in interest rates. Ribbon's policies and practices are to use derivative financial instruments only to the extent necessary to manage exposures. Ribbon does not hold or issue derivative financial instruments for trading or speculative purposes.

As a result of exposure to interest rate movements, during March 2020, we entered into an interest rate swap arrangement, which effectively converted our \$400 million term loan with its variable-rate interest based upon one-month LIBOR to an aggregate fixed rate of 0.904%, plus a leverage-based margin as defined in the 2020 Credit Facility. The notional amount of this swap as of March 31, 2020 was \$400 million and the swap matures on March 3, 2025, the same date the 2020 Credit Facility matures.

Our objectives in using interest rate derivatives are to add stability to interest expense and to manage its exposure to interest rate movements. To accomplish this objective, we are using an interest rate swap as part of its interest rate risk management strategy. Interest rate swaps designated as cash flow hedges involve the receipt of variable amounts from a counterparty in exchange for making fixed-rate payments over the life of the agreements without exchange of the underlying notional amount.

The effective portion of changes in the fair value of derivatives designated and that qualify as cash flow hedges is recorded in accumulated other comprehensive income in the condensed consolidated balance sheet and is subsequently reclassified into earnings in the period that the hedged forecasted transactions affect earnings. During the three months ended March 31, 2020, such a derivative was used to hedge the variable cash flows associated with the 2020 Credit Facility. Any ineffective portion of the change in fair value of the derivative would be recognized directly in earnings. However, during the three months ended March 31, 2020, we recorded no hedge ineffectiveness.

Amounts reported in accumulated other comprehensive loss related to our derivative will be reclassified to interest expense as interest is accrued on our variable-rate debt. Based upon projected forward rates, we estimate as of March 31, 2020 that \$2.4 million may be reclassified as an increase to interest expense over the next 12 months.

We have three outstanding uncommitted and unsecured short-term loans aggregating \$3.5 million which we use for financing exports in China, two of which are with China Zheshang Bank and one of which is with Bank of Communications Hangzhou Branch. These short term loans were all entered into in March 2020 and expire at various dates in June and July 2020. At March 31, 2020, these short-term loans had a weighted average interest rate of 3.97%.

We use letters of credit, performance and bid bonds in the course of its business. As of March 31, 2020, we had \$33.3 million of letters of credit, bank guarantees, performance and bid bonds outstanding (collectively, "Guarantees"), comprised of

the \$5.6 million of letters of credit under the 2020 Credit Agreement described above, and \$27.7 million of Guarantees under various uncommitted facilities. At March 31, 2020, we had cash collateral of \$4.7 million supporting the Guarantees under our uncommitted facilities. This cash collateral is included in Restricted cash in our condensed consolidated balance sheet at March 31, 2020.

In connection with the GENBAND Merger, on October 27, 2017, we issued a promissory note for approximately \$23 million to certain of GENBAND's equity holders (the "Promissory Note"). The Promissory Note did not amortize and the principal thereon was payable in full on the third anniversary of its execution. Interest on the promissory note was payable quarterly in arrears and accrued at a rate of 7.5% per year for the first six months after issuance, and thereafter at a rate of 10% per year. Interest that was not paid on the interest payment date increased the principal amount of the Promissory Note. The failure to make any payment under the Promissory Note when due and, with respect to payment of any interest, the continuation of such failure for a period of thirty days thereafter, constituted an event of default under the Promissory Note. If an event of default occurred under the Promissory Note, the payees could declare the entire balance of the Promissory Note due and payable (including principal and accrued and unpaid interest) within five business days of the payees' notification to us of such acceleration. Interest that was not paid on the interest payment date increased the principal amount of the Promissory Note. On April 29, 2019, concurrently with the closing of the 2019 Credit Facility as discussed above, we repaid in full all outstanding amounts under the Promissory Note, totaling \$24.7 million and comprised of \$22.5 million of principal plus \$2.2 million of interest converted to principal. We did not incur any early termination penalties in connection with this repayment.

In the second quarter of 2019, our Board of Directors (the "Board") approved a stock repurchase program pursuant to which we may repurchase up to \$75 million of the Company's common stock prior to April 18, 2021. Repurchases under the program may be made in the open market, in privately negotiated transactions or otherwise, with the amount and timing of repurchases depending on the market conditions and corporate discretion. This program does not obligate us to acquire any particular amount of common stock and the program may be extended, modified, suspended or discontinued at any time at the Board's discretion. No shares were repurchased under this program during the three months ended March 31, 2020. At March 31, 2020, there was \$70.5 million available for the repurchase of shares under the repurchase program.

Our operating activities provided \$40 million and \$20 million of cash in the three months ended March 31, 2020 and 2019, respectively.

Cash provided by operating activities in the three months ended March 31, 2020 was primarily the result of lower accounts receivable and inventory, coupled with higher accrued expenses and other long-term liabilities, and deferred revenue. These amounts were partially offset by our net loss, non-cash activities, lower accounts payable and higher other operating assets. Our lower accounts receivable was due to the collection in the quarter of seasonally higher amounts outstanding at December 31, 2019, as our revenue is historically higher in the fourth quarter of each year.

Cash provided by operating activities in the three months ended March 31, 2019 was primarily the result of lower accounts receivable and inventory and higher deferred revenue. These amounts were partially offset by our net loss, non-cash activities, the reduction in the Edgewater Deferred Consideration, lower accrued expenses and other long-term liabilities, and accounts payable. The decrease in accrued expenses and other long-term liabilities was primarily related to employee compensation and related costs, including payments made in connection with our company-wide cash bonus program. Our lower accounts receivable primarily reflected collections on sales made in the prior year and our focused collection efforts, coupled with lower invoicing in the first quarter of 2019 compared to the fourth quarter of 2018.

Our investing activities used \$309 million of cash in the three months ended March 31, 2020, comprised of \$347 million of cash paid as cash consideration for ECI and \$6 million of investments in property and equipment. These amounts were partially offset by \$43 million of cash proceeds from the sale of land in connection with the Merger.

Our investing activities provided \$2 million of cash in the three months ended March 31, 2019, comprised of slightly over \$5 million of maturities of marketable securities, partially offset by slightly under \$4 million of investments in property and equipment.

Our financing activities provided \$335 million of cash in the three months ended March 31, 2020, primarily due to \$403 million of proceeds from term debt, which was comprised of \$400 million of proceeds from the 2020 Credit Facility and \$3 million of proceeds from short-term loans in China for the financing of certain export activities. These proceeds were partially offset by the repayment of amounts outstanding under the 2019 Credit Facility aggregating \$57 million at the time we entered into the 2020 Credit Facility, \$11 million for the payment of debt issuance costs in connection with the 2020 Credit Facility, and \$1 million in the aggregate for the payment of tax withholding obligations related to the net share settlement of restricted stock awards upon vesting and principal payments of finance leases.

Our financing activities used \$21 million of cash in the three months ended March 31, 2019. We borrowed \$37 million and repaid \$35 million under the then-outstanding credit facility in the three months ended March 31, 2019. We used \$22 million to pay deferred purchase consideration in connection with the Edgewater Acquisition and \$1 million to pay withholding obligations related to the net share settlement of restricted stock awards upon vesting.

Based on our current expectations, we believe our current cash and available borrowings under the 2020 Credit Facility will be sufficient to meet our anticipated cash needs for working capital and capital expenditures for at least twelve months. We further believe that our financial resources, along with managing discretionary expenses, will allow us to manage the anticipated impact of COVID-19 on our business operations. Looking ahead, we have developed contingency plans to reduce costs further if the situation deteriorates. The challenges posed by COVID-19 on our business are evolving rapidly. Consequently, we will continue to evaluate our financial position in light of future developments, particularly those relating to COVID-19. However, it is difficult to predict future liquidity requirements with certainty, and our cash and available borrowings under the 2020 Credit Facility may not be sufficient to meet our future needs, which would require us to refinance our debt and/or obtain additional financing. We may not be able to refinance our debt or obtain additional financing on favorable terms or at all.

## Recent Accounting Pronouncements

The Financial Accounting Standards Board ("FASB") has issued the following accounting pronouncements, all of which became effective for us in 2020 and none of which had a material impact on our condensed consolidated financial statements:

In March 2020, the FASB issued Accounting Standard Updates ("ASU") 2020-04, *Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting* ("ASU 2020-04"), which provides optional expedients and exceptions for applying generally accepted accounting principles to contract modifications and hedging relationships, subject to meeting certain criteria that reference LIBOR or another reference rate expected to be discontinued.

In March 2020, the FASB issued ASU 2020-03, *Codification Improvements to Financial Instruments* ("ASU 2020-03"), which makes narrow-scope amendments related to topics regarding fair value option disclosures, applicability of the portfolio exception in Accounting Standards Codification ("ASC") 820 to nonfinancial items, disclosures for depository and lending institutions, cross reference to guidance in ASC 470-50 on line of credit or revolving debt arrangements, cross reference to net asset value practical expedient in ASC 820-10, interaction between ASC 842 and ASC 326 and between ASC 326 and ASC 860-20.

In August 2018, the FASB issued ASU 2018-15, *Intangibles - Goodwill and Other - Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract* ("ASU 2018-15"), which provides guidance on implementation costs incurred in a cloud computing arrangement ("CCA") that is a service contract. ASU 2018-15 amends ASC 350, *Intangibles - Goodwill and Other* ("ASC 350") to include in its scope implementation costs of a CCA that is a service contract and clarifies that a customer should apply the guidance in ASC 350-40 to determine which implementation costs should be capitalized in such a CCA.

In August 2018, the FASB issued ASU 2018-14, *Compensation - Retirement Benefits - Defined Benefit Plans - General (Subtopic 715-20): Disclosure Framework - Changes to the Disclosure Requirements for Defined Benefit Plans* ("ASU 2018-14"), which amends ASC 715, *Compensation - Retirement Benefits*, to add, remove and clarify disclosure requirements related to defined benefit pension and other postretirement plans.

In August 2018, the FASB issued ASU 2018-13, *Fair Value Measurement (Topic 820): Disclosure Framework - Changes to the Disclosure Requirements for Fair Value Measurement* ("ASU 2018-13"), which changes the fair value measurement requirements of ASC 820, *Fair Value Measurement*.

In June 2016, the FASB issued ASU 2016-13, *Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments* ("ASU 2016-13"), which adds an impairment model that is based on expected losses rather than incurred losses. Under ASU 2016-13, an entity recognizes as an allowance its estimate of expected credit losses, which the FASB believes will result in more timely recognition of such losses. In April and May 2019, the FASB issued ASU 2019-04, *Codification Improvements to Topic 326, Financial Instruments - Credit Losses, Topic 815, Derivatives and Hedging, and Topic 825, Financial Instruments* ("ASU 2019-04") and ASU 2019-05 *Financial Instruments - Credit Losses (Topic 326): Targeted Transition Relief* ("ASU 2019-05"), respectively. ASU 2019-04 provides transition relief for entities adopting ASU

2016-13 and ASU 2019-05 clarifies certain aspects of the accounting for credit losses, hedging activities and financial instruments in connection with the adoption of ASU 2016-13.

The FASB has issued the following accounting pronouncement which becomes effective for us in 2021, which we do not believe will have a material impact on our condensed consolidated financial statements upon adoption:

The FASB issued ASU 2019-12, *Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes* ("ASU 2019-12"), which modifies ASC 740 to simplify the accounting for income taxes. ASU 2019-12 addresses the accounting for hybrid tax regimes, tax basis step-up in goodwill obtained in a transaction that is not a business combination, separate financial statements of legal entities not subject to tax, intraperiod tax allocation exception to incremental approach, ownership changes in investments - changes from a subsidiary to an equity method investment, ownership changes in investments - changes from an equity method investment to a subsidiary, interim period accounting for enacted changes in tax law and year-to-date loss limitation in interim period tax accounting.

### **Item 3. Quantitative and Qualitative Disclosures About Market Risk**

We are exposed to financial market risk related to foreign currency fluctuations and changes in interest rates. Except as presented below, there have been no material changes in market risk from the information provided in Item 7A. Quantitative and Qualitative Disclosures About Market Risk of our Annual Report on Form 10-K, for the year ended December 31, 2019.

To manage the volatility related to the exposure to changes in interest rates, we have entered into a derivative financial instrument. Our objective is to reduce, where it is deemed appropriate to do so, fluctuations in earnings and cash flows associated with changes in interest rates. Our policies and practices are to use derivative financial instruments only to the extent necessary to manage exposures. We do not hold or issue derivative financial instruments for trading or speculative purposes.

Amounts reported in accumulated other comprehensive income related to our derivative will be reclassified to interest expense as interest is accrued on our variable-rate debt. The fair value of our derivative was a liability of \$9.5 million at March 31, 2020. Based upon projected forward rates, we estimate as of March 31, 2020 that \$2.4 million may be reclassified as an increase to interest expense over the next twelve months.

## Item 4. Controls and Procedures

### Disclosure Controls and Procedures

*Evaluation of Disclosure Controls and Procedures.* Our management, with the participation of our principal executive officer and principal financial officer, evaluated the effectiveness 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 (the "Exchange Act")) as of the end of the period covered by this Quarterly Report on Form 10-Q. Based on this evaluation, our principal executive officer and principal financial officer concluded that our disclosure controls and procedures were effective as of March 31, 2020.

*Changes in Internal Control over Financial Reporting.* As discussed elsewhere in this Quarterly Report on Form 10-Q, we completed the Merger transaction with ECI Telecom Group Ltd ("ECI") on March 3, 2020 (the "ECI Merger"). The ECI Merger was accounted for as a business combination, and the financial results of ECI have been included in our condensed consolidated financial statements for the period subsequent to the ECI Merger. As a result of the timing and complexity of the ECI Merger, and based on Securities and Exchange Commission staff guidance, we are taking a period of time to incorporate the acquired entity into our evaluation of internal control over financial reporting. The internal control over financial reporting of ECI will be excluded from management's assessment of internal control over financial reporting as of December 31, 2020. Other than the above, there have been no changes in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) during the fiscal quarter ended March 31, 2020 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

## PART II OTHER INFORMATION

### Item 1. Legal Proceedings

On November 8, 2018, Ron Miller, a purported stockholder of ours, filed a Class Action Complaint (the "Miller Complaint") in the United States District Court for the District of Massachusetts (the "Massachusetts District Court") against us and three of our former officers, Raymond P. Dolan, Mark T. Greenquist and Michael Swade (collectively, the "Defendants"), claiming to represent a class of purchasers of Sonus common stock during the period from January 8, 2015 through March 24, 2015 and alleging violations of the federal securities laws. Similar to a previous complaint entitled Sousa et al. vs. Sonus Networks, Inc. et al., which was dismissed with prejudice by an order dated June 6, 2017, the Miller Complaint claims that the Defendants made misleading forward-looking statements concerning Sonus' expected fiscal first quarter of 2015 financial performance, which statements were also the subject of an August 7, 2018 Securities and Exchange Commission Cease and Desist Order, whose findings we neither admitted nor denied. The Miller plaintiffs are seeking monetary damages.

After the Miller Complaint was filed, several parties filed and briefed motions seeking to be selected by the Massachusetts District Court to serve as a Lead Plaintiff in the action. On June 21, 2019, the Massachusetts District Court appointed a group as Lead Plaintiffs and the Lead Plaintiffs filed an amended complaint on July 19, 2019. On August 30, 2019, the Defendants filed a motion to dismiss the Miller Complaint and, on October 4, 2019, the Lead Plaintiffs filed an opposition to the motion to dismiss. The Defendants filed a reply to such opposition on November 1, 2019. There was an oral argument on the motion to dismiss on February 12, 2020.

In addition, we are often a party to disputes and legal proceedings that we consider routine and incidental to our business. Management does not expect the results of any of these actions to have a material effect on our business or consolidated financial statements.

### Item 1A. Risk Factors

*Our business faces significant risks and uncertainties, which may have a material adverse effect on our business prospects, financial condition and results of operations, and you should carefully consider them. There have been no material changes in the three months ended March 31, 2020 to the risk factors described in Part I, Item 1A. of our Annual Report on Form 10-K for the year ended December 31, 2019, with the exception of the risk factors below.*

## **Risks Related to the ECI Telecom Group Ltd. Merger**

***Combining Ribbon and ECI may be more difficult, costly or time-consuming than expected and the anticipated benefits and cost savings of the ECI Merger may not be realized.***

On March 3, 2020, we completed our previously announced merger transaction with ECI in accordance with the terms of the Agreement and Plan of Merger, dated as of November 14, 2019, by and among Ribbon, ECI, an indirect wholly-owned subsidiary of Ribbon ("Merger Sub"), Ribbon Communications Israel Ltd., ECI, and ECI Holding (Hungary) kft, pursuant to which Merger Sub merged with and into ECI, with ECI surviving such merger as a wholly-owned subsidiary of Ribbon (the "Merger").

The success of the ECI Merger, including anticipated benefits and cost savings, will depend, in part, on our ability to successfully combine and integrate the businesses. It is possible that the integration process could result in the loss of key employees, higher than expected costs, diversion of management attention, the disruption of our ongoing businesses or inconsistencies in standards, controls, procedures and policies that adversely affect the combined company's ability to maintain relationships with customers, vendors and employees or to achieve the anticipated benefits and cost savings of the ECI Merger.

We have incurred and will incur additional transaction fees, including legal, regulatory and other costs associated with closing the transaction, as well as expenses relating to formulating and implementing integration plans, including facilities and systems consolidation costs and employment-related costs. We continue to assess the magnitude of these costs, and additional unanticipated costs may be incurred in the ECI Merger and the integration of the two companies' businesses. While we expect that the elimination of duplicative costs as well as the realization of other efficiencies related to the integration of the businesses should allow us to offset integration-related costs over time, this net benefit may not be achieved in the near term or at all. As part of the integration process, we may also attempt to divest certain assets of the combined company, which may not be possible on favorable terms, or at all, or if successful, may change the profile of the combined company. If we experience difficulties with the integration process, the anticipated benefits of the ECI Merger may not be realized fully or at all, or may take longer to realize than anticipated. The actual cost savings of the ECI Merger could be less than expected.

## **Risks Related to the COVID-19 Pandemic**

***The COVID-19 pandemic and resulting deteriorations in global economic conditions may have a material adverse impact on our business, financial position and results of operations.***

In December 2019, a novel strain of the coronavirus (COVID-19) was reported to have been detected in Wuhan, China and on March 11, 2020 it was declared by the World Health Organization to be a global pandemic. The COVID-19 pandemic has had a negative effect on the global economy, disrupting the various manufacturing, commodity and financial markets and increasing volatility, and has impeded global supply chains, including that of our recently acquired subsidiary, ECI Telecom Group Ltd. Dampened global economic conditions as a result of the COVID-19 pandemic may cause our customers to restrict spending or delay purchases for an indeterminate period of time. In addition, our ability to deliver our solutions as agreed with our customers depends on the ability of our global contract manufacturers, vendors, licensors, and other business partners to deliver products or perform services we have procured from them. If the COVID-19 pandemic impairs the ability of our business partners to support us on a timely basis, or negatively impacts the demand for our customers' other products and services, our ability to perform our customer contracts as well as the demand for our solutions may suffer. In addition, disruptions from the COVID-19 pandemic could include the closures of our contract manufacturers' facilities and of those of our vendors and suppliers, the inability to obtain key components of our products, the disruption of logistics necessary to import, export and deliver our solutions, limitations on the ability of our customers to perform or make timely payments, and/or workforce disruptions due to illness, quarantines, government actions, facility closures, partial work permits limiting the capacity of production facilities, or other restrictions.

Concerns over the economic impact of COVID-19 pandemic have also caused extreme volatility in financial and other capital markets which has and may continue to adversely impact our stock price. Such volatility may also adversely impact our ability to access capital markets if and when we would be required to do so.

Actions taken globally in response to the COVID-19 pandemic have created significant dislocation in demand and pricing for oil, which has subsequently impacted a variety of currencies around the world. These fluctuations in the relative value of currencies could have a significant impact on demand for our products and the net sales price and profitability.

The degree to which the COVID-19 pandemic ultimately impacts our business, financial position and results of operations will depend on future developments beyond our control, including the severity of the pandemic; the extent of actions to contain or treat the virus; how quickly and to what extent normal economic and operating conditions can resume; the health of and the effect on our workforce, particularly if members of our workforce are quarantined as a result of exposure, worker absenteeism as a result of illness or other factors, social distancing measures including work from home measures and other travel, health-related, business, government or other restrictions in connection with pandemics or disease outbreaks; and the severity and duration of the global economic downturn that results from the pandemic.

#### **Risks Related to our Business and Industry**

*The terms of our credit agreement could adversely affect our operating flexibility and pose risks of default, which would negatively impact our liquidity and operations.*

The terms of our credit agreement could adversely affect our operating flexibility and pose risks of default which would negatively impact our liquidity and operations. In addition, we may not be able to refinance our debt or obtain additional financing on favorable terms, or at all.

Our syndicated credit facility with Citizens Bank N.A, as Administrative Agent, provides \$500 million of commitments, comprised of a \$400 million term loan and a \$100 million revolving facility, a \$30 million sublimit that is available for letters of credit and a \$20 million sublimit that is available for swingline loans. The senior secured credit facility is scheduled to mature in March 2025. The credit agreement includes procedures for additional financial institutions to become lenders, or for any existing lender to fund one or more new tranches of term loans, or increase its commitment under the facility, subject, in each case, to an aggregate dollar limit equal to 100% of the Company's Consolidated Adjusted EBITDA (as defined in the 2020 Credit Agreement) so long as the Borrowers Consolidated Net Leverage Ratio (as defined in the Credit Agreement) does not exceed 2.75:1.00. Provisions in the credit agreement impose limitations on our ability to, among other things, incur additional indebtedness, create liens, make acquisitions or engage in mergers, enter into transactions with affiliates, dispose of assets, make certain investments and amend or repay certain junior debt.

In addition, we are required to meet certain financial covenants customary for financings of this type. Our failure to comply with these covenants may result in the declaration of an event of default, which could cause us to be unable to borrow under the credit facility or result in the acceleration of the maturity of indebtedness outstanding under the credit facility at such time. If the maturity of our indebtedness is accelerated, we may not have sufficient funds available for repayment or we may not have the ability to borrow or obtain sufficient funds to replace the accelerated indebtedness on terms acceptable to us, or at all.

The United Kingdom's Financial Conduct Authority, which regulates the London Inter-bank Offered Rate ("LIBOR"), has announced that it intends to stop encouraging or requiring banks to submit LIBOR rates after 2021, and it is unclear if LIBOR will cease to exist or if new methods of calculating LIBOR will evolve. We have the option under our current credit facility to determine our interest rate that includes either the LIBOR rate or the base rate. If LIBOR ceases to exist or the methods of calculating LIBOR change from their current form, we may no longer have the ability to elect the LIBOR rate option under our current credit facility, and our current or future indebtedness may be adversely affected. This could impact our interest costs and our ability to borrow additional funds under our current credit facility.

If we are prevented from borrowing or if we are unable to extend, renew or replace the credit facility by the maturity date of March 2025, on favorable terms, or at all, this could have a material adverse effect on our liquidity and cause our business, operations and financial condition to suffer. In addition, we may not have sufficient funds available for repayment or we may not have the ability to borrow or obtain sufficient funds to replace the indebtedness on terms acceptable to us, or at all.

We cannot be sure that our current cash and available borrowings under our 2020 Credit Facility will be sufficient to meet our future needs. If we are unable to generate sufficient cash flows in the future, and if availability under our current facility is not sufficient to support our operations, we may need to refinance our debt or obtain additional financing. We may not be able to refinance our debt or obtain additional financing on favorable terms or at all.

#### **Risks Related to ECI**

*If the market for 5G network solutions and Cloud-based applications does not evolve in the way the Company anticipates, it may not be able to realize a key part of its business strategy.*

A material part of the Company's research and development is invested in developing networking products and solutions to deliver major new features supported by the 5G standards, and a key part of the Company's growth strategy depends on its

ability to gain market share for these networking products and solutions. Deployment of wide-scale commercial 5G networks will occur at a variety of different timing depending on the unique attributes and priorities of each region, communication service provider, and government regulatory environment, if at all. For these reasons, the development of the market for the Company's 5G networking products and solutions may be mis-timed with the market opportunity, and any significant delays could have a materially adverse effect on the Company's growth strategy.

In addition, part of the Company's growth strategy involves taking advantage of the shift towards Cloud-based applications and services. The Cloud-based service delivery paradigm continues to evolve and grow, and is beginning to include a new Mobile Edge Computing (MEC) approach that shifts the workload to the edge of the mobile network to take advantage of the speeds and reduce latency of the new 5G network. The pace at which these new architectures are adopted are difficult to predict and will have a direct impact on our growth. While it is expected that 5G will help accelerate the demand for and use of Cloud-based and MEC applications, this will only be known once 5G is widely implemented. If the market for 5G products and solutions or Cloud-based applications, or the impact of 5G on the demand for Cloud-based applications, does not evolve in the way the Company anticipates, or if customers do not adopt the Company's 5G networking products and solutions or its Cloud-based applications, a key part of the Company's growth strategy may not materialize which could have a material adverse effect on the Company's business, results of operations, financial condition, cash flows and prospects.

***The Israel Innovation Authority (IIA) government grants received by the Company for research and development expenditures have been significantly reduced in the last few years and may be reduced further or eliminated due to government budget cuts or reallocation of the government's resources. These grants also place certain limitations on the Company's ability to manufacture products and transfer or license know-how outside of Israel and require the Company to satisfy specified conditions.***

The Company currently receives grants from the Government of Israel through the IIA for the financing of a portion of the Company's research and development expenditures in Israel pursuant to the Encouragement of Research, Development and Technological Innovation in the Industry Law 5744-1984 (together with its predecessor legislation, the "Innovation Law"). In the last few years these grants have been substantially reduced, as a result of changes in the policy of the IIA. The IIA may reallocate or further reduce or eliminate these grants in the future, which could require the Company to directly fund a larger portion of research and development in Israel, reducing the overall profitability of the Company.

The Company is required to repay the grants received from the IIA in the form of royalties paid on proceeds from the sale of products that were developed using this funding and services associated with such products. The royalties are payable in an amount of up to 100% of the U.S. dollar-linked value of the amount of the grant (which may be increased under certain circumstances) (referred to as the "royalty ceiling") plus interest at the rate of 12-month LIBOR on the date that the grant application is made. The Company's royalty rates are generally between 1.3% and 5% of the proceeds from the sale of relevant products and services.

The terms of the IIA grants generally require that products developed with grants be manufactured in Israel, unless approval for transferring such manufacturing outside Israel is received from the IIA, however, such approval is not required for the transfer of manufacturing outside Israel of up to 10% of the manufacturing. Such approval may be provided by the IIA in connection with the approval of the grant application itself (as the Company has requested in its grant applications since 2013), in which case the royalty repayment rate is increased by 1% with respect to any such approved percentage. If manufacturing of IIA-funded products is transferred outside Israel (subject to IIA approval) in excess of the percentage approved by the IIA in connection with the grant approval, then the repayment rate is increased by 1% and the royalty repayment amount with respect to such products may be increased to up to three times the amount of the grants received (plus interest at the rate of 12-month LIBOR on the date that the grant application is made).

IIA prior approval is also required for the sale, licensing, distribution or other transfer (referred to as a transfer) of know-how created, in whole or in part, in connection with an IIA-funded project to a third party outside Israel. If such IIA approval is received and the know-how is transferred outside Israel, a redemption fee is typically required to be paid to the IIA, which is calculated according to a formula provided under the Innovation Law, up to a maximum redemption fee of no more than either (i) three times (if certain prescribed research and development activities are retained in Israel); or (ii) six times the amount of the grants received (plus accrued interest) for the applicable know-how being transferred, subject to the deduction of royalties previously paid to the IIA. If the IIA implements additional or more stringent restrictions on transfer of manufacturing activities and transfer of funded know-how outside Israel under the Innovation Law, it could have a material adverse effect on the Company's business, results of operations, financial condition, cash flows and prospects.

## **Risks Relating to our International Operations**

### ***Conditions in Israel may materially and adversely affect the Company's business.***

ECI Telecom Ltd., is organized under Israeli law, and a material number of the Company's employees are located in the State of Israel. Accordingly, political, economic and military conditions in Israel may directly affect the Company's business. Since Israel was established in 1948, a number of armed conflicts have occurred between Israel and its neighboring countries. In recent years, these have included hostilities between Israel and Hezbollah in Lebanon and Hamas in the Gaza Strip, both of which resulted in rockets being fired into Israel, causing casualties and disruption of economic activities. Popular uprisings in various countries in the Middle East and North Africa are affecting the political stability of those countries and have led to a decline in the regional security situation. Such instability may also lead to deterioration in the political and trade relationships that exist between Israel and these countries. Any armed conflicts, terrorist activities or political instability involving Palestinian entities or other countries in the region could adversely affect the Company's business, results of operations, financial condition, cash flows and prospects. Although the Israeli Government currently covers the reinstatement value of direct damages that are caused by terrorist attacks or acts of war, the Company cannot assure prospective investors that this coverage will be maintained or will be adequate in the event the Company submits a claim.

A number of countries, principally in the Middle East, still restrict doing business with Israel and Israeli companies, and additional countries may impose restrictions on doing business with Israel and Israeli companies if hostilities in Israel or political instability in the region continue or increase. In addition, there have been increased efforts by activists to cause companies and consumers to boycott Israeli goods based on Israeli Government policies. Such actions, particularly if they become more widespread, may adversely impact the Company's ability to sell its products. Any hostilities involving Israel or the interruption or curtailment of trade between Israel and its present trading partners, or significant downturn in the economic or financial condition of Israel, could have a material adverse effect on the Company's business, results of operations, financial condition, cash flows and prospects.

The Company's operations could also be disrupted by the absence for significant periods of one or more of its executive officers, key employees or a significant number of other employees because of military service. Some of the Company's employees in Israel are obliged to perform military reserve duty, which generally accumulates over a period of three years from several days to up to a maximum of 84 days (and up to 108 days, in special circumstances specified under applicable law) and, in certain emergency circumstances, employees may be called to immediate and unlimited active duty. In response to increases in terrorist activity, there have been periods of significant call-ups of military reservists and it is possible that there will be similar large-scale military reserve duty call-ups in the future.

Any of these circumstances could have a material adverse effect on the Company's business, results of operations, financial condition, cash flows and prospects.

### ***Impact of Assessment of Adjusted Gross revenue dues in India.***

A dispute has arisen in India between the large telecommunications service providers and the Department of Telecommunications ("DoT") regarding how to compute the Adjusted Gross Revenue ("AGR") due from the former to the DoT. The service providers claim that AGR should only comprise of revenue accrued from core services. The DoT has argued that AGR includes all revenues (before discounts) from both telecommunications and non-telecommunications services. The Supreme Court of India recently issued a judgment accepting the position of the DoT, requiring private telecommunications service providers to pay out the higher sums towards license fee and spectrum usage fee, plus interest and penalties, which are dependent on the value of their AGR. If this judgment stands, the sums that the telecommunications operators owe the Indian government will include back charges, interest and penalties, which may be substantial.

The telecommunications service providers are appealing the decision, requesting various forms of relief from the Indian government, including delayed payments. Until such time as this matter resolved, including approval of any settlement by the Supreme Court of India, telecommunications service providers are generally reducing their capital investments in India to preserve cash. Unless such issue is resolved expeditiously, this matter could have a material impact on the Company.

## Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

### (c) Issuer Purchases of Equity Securities

The following table provides information with respect to the shares of common stock repurchased by us for the periods indicated:

<u>Period</u>	<u>Total Number of Shares Purchased (1)</u>	<u>Average Price Paid per Share</u>	<u>Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs (2)</u>	<u>Approximate Dollar Value of Shares that May Yet be Purchased Under the Plans or Programs (3)</u>
January 1, 2020 to January 31, 2020	254,819	\$ 2.88	—	\$ 70,463,973
February 1, 2020 to February 29, 2020	—	\$ —	—	\$ 70,463,973
March 1, 2020 to March 31, 2020	18,285	\$ 3.04	—	\$ 70,463,973
Total	273,104	\$ 2.89	—	\$ 70,463,973

(1) Upon vesting of restricted stock awards, certain of our employees surrender to us a portion of the newly vested shares of common stock to satisfy the tax withholding obligations that arise in connection with such vesting. During the first quarter of 2020, 273,104 shares of restricted stock were returned to us by employees to satisfy tax withholding obligations arising in connection with vesting of restricted stock, which shares are included in this column.

(2) On May 2, 2019, we announced a stock repurchase program, under which our Board of Directors has authorized the repurchase of up to \$75 million of our common stock from time to time on the open market or in privately negotiated transactions prior to April 18, 2021 (the "Repurchase Program"). We did not repurchase any shares of our common stock under the program during the first quarter of 2020. At March 31, 2020, we had \$70.5 million remaining under the Repurchase Program for future repurchases. The timing and amount of any shares repurchased will be determined by our management based on its evaluation of market conditions and other factors. We may elect to implement a 10b5-1 repurchase program, which would permit shares to be repurchased when we might otherwise be precluded from doing so under insider trading laws. The Repurchase Program may be suspended or discontinued at any time. The Repurchase Program is being funded using our working capital.

(3) Represents amounts available for repurchases under the Repurchase Program.

## Item 5. Other Information

None.

**Item 6. Exhibits**

<b>Exhibit No.</b>	<b>Description</b>
<a href="#">2.1</a>	Agreement and Plan of Merger, dated as of November 14, 2019, by and among the Registrant, Ribbon Communications Israel Ltd., Eclipse Communications Ltd., ECI Telecom Group Ltd. and ECI Holding (Hungary) Korlátolt Felelősségű Társaság (incorporated by reference to Exhibit 2.1 to the Registrant's Current Report on Form 8-K, filed November 14, 2019 with the SEC).
<a href="#">3.1</a>	Restated Certificate of Incorporation of the Registrant (incorporated by reference to Exhibit 3.2 to the Registrant's Current Report on Form 8-K12B, filed October 30, 2017 with the SEC).
<a href="#">3.2</a>	Certificate of Amendment of the Restated Certificate of Incorporation of the Registrant (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K, filed November 28, 2017 with the SEC).
<a href="#">3.3</a>	Amended and Restated By-Laws of the Registrant (incorporated by reference to Exhibit 3.3 to the Registrant's Annual Report on Form 10-K, filed March 8, 2018 with the SEC).
<a href="#">10.1</a>	First Amended and Restated Stockholders Agreement, dated as of March 3, 2020, by and among the Registrant, JPMC Heritage Parent LLC, Heritage PE (OEP) III, L.P. and ECI Holding (Hungary) Kft (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K, filed March 3, 2020 with the SEC).
<a href="#">10.2</a>	First Amended and Restated Registration Rights Agreement, dated as of March 3, 2020, by and among the Registrant, JPMC Heritage Parent LLC, Heritage PE (OEP) III, L.P. and ECI Holding (Hungary) Kft (incorporated by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K, filed March 3, 2020 with the SEC).
<a href="#">10.3</a>	Senior Secured Credit Facilities Credit Agreement, dated March 3, 2020, among the Registrant, as a guarantor, Ribbon Communications Operating Company, Inc., as the borrower, Citizens Bank, N.A., as administrative agent, a lender, issuing lender, swingline lender, joint lead arranger and bookrunner, Santander Bank, National Association, as a lender, joint lead arranger and bookrunner, and the other lenders party thereto (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K, filed March 4, 2020 with the SEC).
<a href="#">10.4</a> *	Employment Agreement between the Registrant and Justin K. Ferguson, accepted February 5, 2018.
<a href="#">10.5</a> *	Severance Agreement between the Registrant and John McCready, accepted January 29, 2020.
<a href="#">10.6</a>	Restricted Stock Unit Award Agreement with Bruce McClelland (Time Vesting), dated March 16, 2020 (incorporated by reference to Exhibit 99.1 to the Registrant's Registration Statement on Form S-8, filed March 16, 2020 with the SEC).
<a href="#">10.7</a>	Restricted Stock Unit Award Agreement with Bruce McClelland (Performance Vesting), dated March 16, 2020 (incorporated by reference to Exhibit 99.2 to the Registration Statement on Form S-8, filed March 16, 2020 with the SEC).
<a href="#">31.1</a> *	Certificate of Ribbon Communications Inc. Chief Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
<a href="#">31.2</a> *	Certificate of Ribbon Communications Inc. Chief Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
<a href="#">32.1</a> #	Certificate of Ribbon Communications Inc. Chief Executive Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
<a href="#">32.2</a> #	Certificate of Ribbon Communications Inc. Chief Financial Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema
101.CAL	XBRL Taxonomy Extension Calculation Linkbase
101.DEF	XBRL Taxonomy Extension Definition Linkbase
101.LAB	XBRL Taxonomy Extension Label Linkbase
101.PRE	XBRL Taxonomy Extension Presentation Linkbase

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\* Filed herewith.

# Furnished herewith.

**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.

Date: May 8, 2020

RIBBON COMMUNICATIONS INC.

By: /s/ Daryl E. Raiford

\_\_\_\_\_

Daryl E. Raiford

Executive Vice President and Chief Financial Officer (Principal Financial Officer)



January 31, 2018

Justin Ferguson  
Via email

Dear Justin,

On behalf of Sonus Networks, Inc. d/b/a Ribbon Communications Operating Company ("Ribbon Communications" or "the Company"), I am pleased to offer you in this letter (this "Agreement") employment with Ribbon Communications as EVP, General Counsel, reporting to the Company's Chief Executive Officer.

1. Compensation.

(a) *Base Salary.* Your initial base salary ("Base Salary") will be at the annualized rate of \$325,000, less applicable state and federal withholdings, paid bi-weekly in accordance with the Company's normal payroll practices.

(c) *Sign On Bonus.* You will receive an initial cash sign on bonus of \$50,000, less applicable state and federal withholdings, paid at the first payroll date following the Commencement Date.

(d) *Target Bonus.* You will be eligible to receive target variable compensation of \$175,000 annually based on corporate and individual objectives ("Target Bonus"). Specific objectives to achieve your Target Bonus will be agreed upon after the Commencement Date, and then periodically thereafter. Your annual Target Bonus, if any, shall be paid as soon as practicable following the Company's public disclosure of its financial results for the applicable bonus period.

(e) *Restricted Shares.* Subject to Board of Director approval at the next meeting, you will be granted 75,000 restricted shares of the Company's common stock under the Company's Amended and Restated Stock Incentive Plan, which you will receive under separate cover. The grant date will be the earliest 15<sup>th</sup> day of a month following Board of Director approval, or the first business day thereafter if that day is not a business day. These restricted shares will vest over a three year period as follows: 33% on the one year anniversary of the date of grant with the remaining shares vesting in equal installments semi-annually over the subsequent twenty-four (24) months. You will be required to enter into a restricted stock agreement on the Company's standard form once you have received your grant. The Company will not release any vested shares until it has received your electronically signed restricted stock agreement.

You may elect under Section 83(b) of the Internal Revenue Code of 1986, as amended, to be taxed at the time the Restricted Shares are acquired on the Restricted Stock Grant Date ("Section 83(b) Election"). A Section 83(b) Election, if made, must be filed with the Internal Revenue Service within thirty (30) days of the Restricted Stock Grant Date. You are obligated to pay to the Company the amount of any federal, state, local or other taxes of any kind required by law to be withheld with respect to the granting (if a Section 83(b) Election is made) or vesting (if a Section 83(b) Election is not made) of the shares. If you do not make a Section 83(b) Election, you shall satisfy such tax withholding obligations by delivery to the Company, on each date on which shares vest, such number of shares that vest on such date as have a fair market value (calculated using the last reported sale price of the common stock of the Company on the NASDAQ Global Select Market on the trading date immediately prior to such vesting date) equal to the amount of the Company's withholding obligation; provided, however, that the total tax withholding cannot exceed the Company's minimum statutory withholding obligations (based on minimum statutory withholding rates for federal and state tax purposes, including payroll taxes, that are applicable to such supplemental taxable income). Such delivery of shares to the Company shall be deemed to happen automatically, without any action required on your part, and the Company is hereby authorized to take such actions as are necessary to effect such delivery of shares to the Company.

2. Benefits. During your employment with the Company, you will be entitled to the following benefits:



(a) You will be entitled to vacation consistent with Company policy and limitations;

(b) You will be entitled to participate as an employee of the Company in all benefit plans and fringe benefits and perquisites generally provided to employees of the Company in accordance with Company policy, currently including group health, life and dental insurance, 401(k) program and equity incentive plans. The Company retains the right to change, add or cease any particular benefit for its employees; and

(c) The Company will reimburse you for all reasonable travel, business development, meals, entertainment and other expenses incurred by you in connection with the performance of your duties and obligations on behalf of the Company. You will comply with such limitations and reporting requirements with respect to expenses as may be established by the Company from time to time and will promptly provide all appropriate and requested documentation in connection with such expenses.

3. Employment Relationship. It is expected that your employment will start on April 2, 2018 (“Commencement Date”). This offer is contingent upon your satisfactory completion of our pre-employment reference check and background check investigation. No provision of this Agreement shall be construed to create an express or implied employment contract for a specific period of time. Employment at the Company is considered “at will” and either you or the Company may terminate the employment relationship at any time and for any reason. As a full-time employee of the Company, you will be expected to devote your full business time and energies to the business and affairs of the Company. As the Company’s organization evolves, its reporting structure may change and you may be assigned such other management duties and responsibilities as the Company may determine, in addition to performing duties and responsibilities reflected above.

4. Termination and Eligibility for Severance. The termination and severance benefits described on *Attachment I* hereto are incorporated into this Section 4 by reference..

5. Tax Implications of Termination Payments. Subject to this Section 5, any payments or benefits required to be provided under Section 4 shall be provided only after the date of your “separation from service” with the Company as defined under Section 409A of the U.S. Internal Revenue Code of 1986, as amended, and the guidance issued thereunder (“Section 409A”). The following rules shall apply with respect to distribution of the payments and benefits, if any, to be provided to you under Section 4:

(a) It is intended that each installment of the payments and benefits provided under Section 4 shall be treated as a separate “payment” for purposes of Section 409A. Neither the Company nor you shall have the right to accelerate or defer the delivery of any such payments or benefits except to the extent specifically permitted or required by Section 409A.

(b) If, as of the date of your “separation from service” with the Company, you are not a “specified employee” (each within the meaning of Section 409A), then each installment of the payments and benefits shall be made on the dates and terms set forth in Section 4; and

(c) If, as of the date of your “separation from service” with the Company, you are a “specified employee” (each, for purposes of this Agreement, within the meaning of Section 409A), then:

(i) Each installment of the payments and benefits due under Section 4 that, in accordance with the dates and terms set forth herein, will in all circumstances, regardless of when the separation from service occurs, be paid within the short-term deferral period (as defined for the purposes of Section 409A) shall be treated as a short-term deferral within the meaning of Treasury Regulation Section 1.409A-1(b)(4) to the maximum extent permissible under Section 409A; and

- (ii) Each installment of the payments and benefits due under Section 4 that is not paid within the short-term deferral period or otherwise cannot be treated as a short-term deferral within the meaning of Treasury Regulation Section 1.409A-1(b)(4) and that would, absent this subsection, be paid within the six-month period following your "separation from service" with the Company shall not be paid until the date that is six months and one day after such separation from service (or, if earlier, upon your death), with any such installments that are required to be delayed being accumulated during the six-month period and paid in a lump sum on the date that is six months and one day following your separation from service and any subsequent installments, if any, being paid in accordance with the dates and terms set forth herein; provided, however, that the preceding provisions of this sentence shall not apply to any installment of payments if and to the maximum extent that that such installment is deemed to be paid under a separation pay plan that does not provide for a deferral of compensation by reason of the application of Treasury Regulation 1.409A-1(b)(9)(iii) (relating to separation pay upon an involuntary separation from service). Any installments that qualify for the exception under Treasury Regulation Section 1.409A-1(b)(9)(iii) must be paid no later than the last day of the second taxable year following the taxable year in which your separation from service occurs.

(d) Section 409A of the Code. This Agreement is intended to comply with the provisions of Section 409A and this Agreement shall, to the extent practicable, be construed in accordance therewith. Terms used in this Agreement shall have the meanings given such terms under Section 409A if and to the extent required in order to comply with Section 409A. Notwithstanding the foregoing, to the extent that this Agreement or any payment or benefit hereunder shall be deemed not to comply with Section 409A, then neither the Company, the Board of Directors nor its or their designees or agents shall be liable to you or any other person for any actions, decisions or determinations made in good faith.

6. Previous Employment. By accepting employment with the Company, you represent the following: (i) any notice period you are required to give or to serve with a previous employer has expired and that by entering into or performing any of your duties for the Company, you will not be in breach of any other obligation binding on you; (ii) you will not use or disclose any confidential information in breach of any agreement you may have with a previous employer or any other person; and (iii) you are not bound by the terms of any non-competition, non-solicitation, confidentiality or non-disclosure agreement with a previous employer or other party that would be expected to have a material impact on your service with the Company as currently conducted.

7. Employment Eligibility. In compliance with the Immigration Reform and Control Act of 1986, the Company is required to verify your identity and employment eligibility. Please bring the necessary documents with you on your first day of employment.

8. Confidentiality. The Company considers the protection of its confidential information and proprietary materials to be very important. Therefore, as a condition of your employment, you and the Company will become parties to the Confidentiality, Non-Competition and Assignment of Inventions Agreement, as set forth on *Attachment 2* hereto. This attached agreement must be signed and returned to the Company on your first day of employment.

9. Indemnity. As an executive of the Company, the Company will provide you with an Indemnity Agreement on the Company's standard form.

10. General.

- (a) This Agreement will constitute our entire agreement as to your employment by the Company and will supersede any prior agreements or understandings, whether in writing or oral.



- (b) This Agreement may be executed in more than one counterpart, each of which shall be deemed to be an original, and all such counterparts together shall constitute one and the same instrument.
- (c) The provisions of this Agreement are severable and if any one or more provisions may be determined to be illegal or otherwise unenforceable, in whole or in part, the remaining provisions of this Agreement shall nevertheless be binding and enforceable. Notwithstanding the foregoing, if there are any conflicts between the terms of this Agreement and the terms of any equity plan document referred to in this Agreement, then the terms of this Agreement shall govern and control. Except as modified hereby, this Agreement shall remain unmodified and in full force and effect.
- (d) This Agreement is personal in nature and neither of the parties hereto shall, without the written consent of the other, assign or otherwise transfer this Agreement or its obligations, duties and rights under this Agreement; provided, however, that in the event of the merger, consolidation, transfer or sale of all or substantially all of the assets of the Company, this Agreement shall, subject to the provisions hereof, be binding upon and inure to the benefit of such successor and such successor shall discharge and perform all of the promises, covenants, duties and obligations of the Company hereunder.
- (e) All notices shall be in writing and shall be delivered personally (including by courier), sent by facsimile transmission (with appropriate documented receipt thereof), by overnight receipted courier service (such as UPS or Federal Express) or sent by certified, registered or express mail, postage prepaid, to the Company at the following address: Ribbon Communications Legal Department, 3605 E. Plano Parkway, Plano, Texas 75074, and to you at the most current address we have in your employment file. Any such notice shall be deemed given when so delivered personally, or if sent by facsimile transmission, when transmitted, or, if by certified, registered or express mail, postage prepaid mailed, forty-eight (48) hours after the date of deposit in the mail. Any party may, by notice given in accordance with this paragraph to the other party, designate another address or person for receipt of notices hereunder.
- (f) *Arbitration.*
  - i. Any controversy, dispute or claim arising out of or relating to this Agreement or the breach hereof which cannot be settled by mutual agreement will be finally settled by binding arbitration in the Commonwealth of Massachusetts, under the jurisdiction of the American Arbitration Association or other mutually agreeable alternative arbitration dispute resolution service, before a single arbitrator appointed in accordance with the arbitration rules of the American Arbitration Association or other selected service, modified only as herein expressly provided. The arbitrator may enter a default decision against any party who fails to participate in the arbitration proceedings.
  - ii. The decision of the arbitrator on the points in dispute will be final, non-appealable and binding, and judgment on the award may be entered in any court having jurisdiction thereof.
  - iii. The fees and expenses of the arbitrator will be shared equally by the parties, and each party will bear the fees and expenses of its own attorney.
  - iv. The parties agree that this Section 10(f) has been included to resolve any disputes between them with respect to this Agreement, and that this Section 10(f) will be grounds for dismissal of any court action commenced by either party with respect to this Agreement, other than post-arbitration actions seeking to enforce an arbitration award or actions seeking an injunction or temporary restraining order. In the event that any court determines that this arbitration procedure is not binding, or otherwise allows any litigation regarding a dispute, claim, or controversy covered by this Agreement to proceed, the parties hereto hereby waive, to the



maximum extent allowed by law, any and all right to a trial by jury in or with respect to such litigation.

v. The parties will keep confidential, and will not disclose to any person, except as may be required by law or the rules and regulations of the Securities and Exchange Commission or other government agencies, the existence of any controversy hereunder, the referral of any such controversy to arbitration or the status or resolution thereof.

(g) This Agreement shall be governed by and interpreted in accordance with the laws of the Commonwealth of Massachusetts, without regard to the conflict of laws provisions thereof.

(h) The Company is an equal opportunity employer.

11. Acceptance. You may accept the terms and conditions described herein by confirming your acceptance in writing. Please send your countersignature to this Agreement to the Company, or via e-mail to me, which execution will evidence your agreement with the terms and conditions set forth herein.

Sincerely,

A handwritten signature in black ink, appearing to read "Franklin W. Hobbs", written over a horizontal line.

Franklin W. Hobbs, Chief Executive Officer

Accepted by:

A handwritten signature in black ink, appearing to read "Justin Ferguson", written over a horizontal line.

Justin Ferguson

Date: February 5, 2018



## Attachment 1

### Severance Agreement

THIS SEVERANCE AGREEMENT (the "Agreement") is entered into as of January 26, 2018 (the "Effective Date") between Sonus Networks, Inc. d/b/a Ribbon Communications Operating Company, a wholly owned subsidiary of Ribbon Communications Inc., (the "Company") and Justin Ferguson (the "Executive").

#### 1. Definitions:

- (a) "*Base Pay*" means your annual base compensation, as determined from time to time by the Company, whether acting through its Board of Directors (the "Board"), a committee thereof or otherwise, regardless of whether all or any portion thereof may be deferred under any deferred compensation plan or program of the Company.
- (b) "*Cause*" means termination of your employment by the Company if you are guilty of (i) bribery in violation of the Code of Business Conduct and Ethics (or similar policy) of the Company or other Ribbon Entity employing you at the relevant time and/or local law and regulation including, without limitation, the UK Bribery Act, (ii) engaging in acts in the course of your employment with any Ribbon Entity that constitute theft, fraud or embezzlement, (iii) intentional or negligent misconduct which materially and adversely affects any Ribbon Entity and which is not cured within thirty (30) days following your receipt of written notice of such misconduct, (iv) unauthorized disclosure of proprietary information of a material and confidential nature relating to any Ribbon Entity, which unauthorized disclosure has a material adverse effect on any Ribbon Entity, (v) material violation of any Ribbon Entity policy, agreement or procedure which is not cured within thirty (30) days following receipt of written notice of same, (vi) excessive absenteeism, (vii) material neglect of duty, (viii) failure to perform the duties of your position to the satisfaction of the Board (or your direct supervisor) which is not cured within thirty (30) days following receipt of written notice of same, (ix) insubordination or failure to perform and carry out any directive of the Board (or your direct supervisor), (x) alcohol or substance abuse, (xi) being convicted of a felony or pleading "no contest" to a felony charge, or (xii) failing to cooperate with the Ribbon Entities and/or their professional advisors in any investigation (whether internal or external) or any formal legal or investigative proceeding. The determination of whether a termination of your employment is for Cause shall be made by the Board or a committee thereof (or its designee).
- (c) "*Change in Control*" – means the occurrence of any of the following after the Effective Date:
- i. a "Corporate Transaction," meaning either: (x) the sale, lease, conveyance or other disposition of all or substantially all of the Company's assets to any "person" (as such term is used in Section 13(d) of the Exchange Act), entity or group of persons acting in concert; or (y) a merger, consolidation or other transaction of the Company with or into any other corporation, entity or person, other than transaction in which the holders of at least 50% of the shares of capital stock of the Company outstanding immediately prior thereto continue to hold (either by voting securities remaining outstanding or by their being converted into voting securities of the surviving entity or its controlling entity) at least 50% of the total voting power represented by the voting securities of the Company or such surviving entity (or its controlling entity) outstanding immediately after such transaction; or
  - ii. any person or group of persons becoming the "beneficial owner" (as defined in Rule 13d-3 under the Exchange Act), directly or indirectly, of securities of the Company representing 50% or more of the total voting power represented by the Company's then



- outstanding voting securities; or
- iii. a contest for the election or removal of members of the Board that results in the removal from the Board of at least 50% of the incumbent members of the Board.
- (d) "*Disability*" means an illness (mental or physical) or accident, which results in you being unable to perform your duties as an employee of the Company for a period of one hundred eighty (180) days, whether or not consecutive, in any twelve (12) month period.
- (e) "*Good Reason*" means any of the following:
- i. (A) a material reduction in your Base Pay, except in cases where any such reduction is applicable to substantially all executive officers of the Company in substantially the same manner and to substantially the same degree; or (B) the termination, elimination or denial of your rights to material employee benefits or any material reduction in the scope or value thereof (in the case of any such reduction, with scope and value considered in the aggregate), except in cases where any such termination, elimination, denial or reduction is applicable to substantially all executive officers of the Company in substantially the same manner and to substantially the same degree; provided, however, that the exception to subsections (A) and (B) above will not apply to exclude Good Reason if you experience a material reduction in your Base Pay and/or the termination, elimination or denial of your rights to material benefits or any material reduction in scope or value thereof (in the case of any such reduction, with scope and value considered in the aggregate) within twelve (12) months following a Change in Control;
  - ii. The imposition of any requirement that you relocate your home or principal residence to any location (A) outside of the United States, or (B) in the United States which is more than thirty (30) miles away from any metropolitan area in which the Company conducts, or has taken significant steps to conduct, operations as of the date of imposition of such requirement;
  - iii. A material diminution in your duties and responsibilities without your consent; provided, however that, a change in your duties and responsibilities will not constitute Good Reason if your new duties and responsibilities are comparable in stature and importance to the Company as your former duties and responsibilities; or
  - iv. Without limiting the generality or effect of the foregoing, any material breach of this Agreement by the Company.
- (f) "*Ribbon Entities*" means Ribbon Communications Inc. and its direct and indirect subsidiaries.

## 2. Termination and Eligibility for Severance.

Upon any termination of your employment (the "Date of Termination" or "Termination Date"), you will be paid (i) any and all earned and unpaid portion of your Base Pay through the Date of Termination; (ii) any accrued but unused vacation pay owed to you in accordance with Company practices up to and including the Date of Termination; and (iii) any allowable and unreimbursed business expenses incurred through the Date of Termination that are supported by appropriate documentation in accordance with the Company's policies. Hereafter, items (i) through (iii) in this Section 2 are referred to as "Accrued Benefits." If the Company terminates your employment for Cause or you terminate your employment without Good Reason, you will be entitled to receive only the Accrued Benefits.

If the Company terminates your employment without Cause (including as a result of your death or Disability) or if you terminate your employment with Good Reason and, in either case, subject to the additional conditions of this Agreement, the Company will provide you the following severance and related post-termination benefits:



- (a) The Company will continue to pay your then-current Base Pay, less applicable state and federal withholdings, in accordance with the Company's usual payroll practices, for a period of twelve (12) months following the Date of Termination. The Company will pay you your then-current target variable compensation on a pro-rata basis for the number of days worked during the year of your termination if the Company's board approves a corporate bonus for the year in which you are terminated, subject to the terms and conditions of the applicable corporate bonus plan;
- (b) If your termination occurs within twelve (12) months following a Change in Control, the Company will pay you a lump sum payment equal to 100% of your then-current target variable compensation.;
- (c) The Company will continue to pay the Company's share of medical, dental and vision insurance premiums for you and your dependents for the twelve (12) month period following the termination of your employment; provided, that if immediately prior to the termination of your employment you were required to contribute towards the cost of premiums as a condition of receiving such insurance, you may be required to continue contributing towards the cost of such premiums under the same terms and conditions as applied to you and your dependents immediately prior to the termination of your employment in order to receive such continued insurance coverage;
- (d) Any options that are unvested as of the Termination Date and that would vest during the twelve (12) months following your termination will accelerate and immediately vest and become exercisable upon termination, in accordance with the terms of the applicable stock option agreement; and, any restricted shares that are unvested as of the Termination Date and that would vest during the twelve (12) months following your termination will accelerate and immediately vest upon termination and such shares will be freely marketable; provided however, that if your termination occurs within twelve (12) months following a Change in Control: (i) all your unvested options as of the Termination Date will fully accelerate and immediately vest and become exercisable in accordance with the terms of the applicable stock option agreement; and (ii) all your unvested shares as of the Termination Date will fully accelerate, immediately vest upon the Termination Date and be freely marketable.
- (e) The Company's provision of the benefits described in Sections 2 (a) through 2 (d) above will be contingent upon your execution of a release of all claims of any kind or nature in favor of the Company, its parent, and affiliates in a form to be provided by the Company (the "Release Agreement"). You will have at least twenty-one (21) days following your receipt of the Release Agreement to consider whether or not to accept it. If the Release Agreement is signed and delivered by you to the Company, you will have seven (7) days from the date of delivery to revoke your acceptance of such agreement (the "Revocation Period"). The payment described in Section 2(b) shall be made in a lump sum on the Company's regular payroll schedule, commencing on the eighth (8th) day following the delivery of the executed Release Agreement to the Company, provided that you have not revoked the Release Agreement. The Company shall have no further obligation to you in the event your employment with the Company terminates at any time, other than those obligations specifically set forth in this Section 2.
- (f) The Company may terminate your employment at any time with or without Cause by written notice to you specifying the date of termination. You may terminate your employment with or without Good Reason by providing written notice to the Company at least thirty (30) days prior to the date of termination, specifying the basis for your claim of Good Reason. If you seek to terminate your employment for Good Reason, the Company will have thirty (30) days following its receipt of written notice of termination to cure the circumstance giving rise to Good Reason. Upon a termination for Cause by the Company or upon a termination without Good Reason, you: will be entitled to accrued but unpaid Base Salary through your Termination Date; will be entitled to benefits through the Date of Termination (except for vacation benefits, unless required by applicable law); and, you may be eligible for cash out of accrued unused vacation through your Termination Date in accordance with applicable law.



IN WITNESS WHEREOF, each of the parties has executed this Agreement, in the case of the Company by its duly authorized officer, as of the day and year first above written

EXECUTIVE:

A large, stylized handwritten signature in black ink, written over a horizontal line.

COMPANY:

By: A handwritten signature in black ink, written over a horizontal line.

Franklin W. Hobbs  
Chief Executive Officer



## Attachment 2

### CONFIDENTIALITY, NON-COMPETITION AND ASSIGNMENT OF INVENTIONS AGREEMENT

This Confidentiality, Non-Competition and Assignment of Inventions Agreement (this "Agreement") is dated as of \_\_\_\_\_, 2018 (the "Effective Date") and is being entered into by and between Justin Ferguson, a resident of Texas (referred to in this Agreement as "me" or "I" or "my") and Sonus Networks, Inc. d/b/a Ribbon Communications Operating Company (together with its parent company, Ribbon Communications Inc., and its subsidiaries and affiliates, "Sonus" or the "Company").

I understand that the Company requires as a condition of my employment, or any material change to my employment, that I sign and abide by this Agreement. Therefore, in consideration of the foregoing and for good and valuable consideration, the receipt and sufficiency of which I acknowledge to my full satisfaction, I understand and agree as follows:

1. Acknowledgement of Company's Legitimate Business Purposes. Out of respect for my integrity and abilities, I understand that the Company is placing trust and confidence in me by placing me in a position where I will have access to and be exposed to Confidential Information (as defined in this Agreement), and that the Company will be providing me with valuable and unique training and support, including on-the-job training, and I agree that the Company has a legitimate business interest in protecting its Confidential Information. I also acknowledge that the Company has developed, at substantial expense, valuable relationships with and knowledge about its present and future customers, prospects, employees, suppliers, vendors, consultants, strategic partners, business partners, joint venturers and others, and that I may have direct contact and develop relationships with these companies and people and will be endeavoring to develop and increase the Company's business and goodwill with them. I further agree that the Company has a legitimate business interest in protecting these relationships. I also agree that the obligations and restrictions in this Agreement are fair and reasonable, are reasonably required to protect the Company's interests, and would not unfairly or unreasonably restrict my ability to obtain other comparable employment.

2. Confidential Information.

(a) For the purposes of this Agreement, the term "**Confidential Information**" means any and all private, secret, confidential and/or proprietary knowledge, data or information owned, developed or possessed by the Company whether in tangible or intangible form and all trade secrets as defined under applicable state law. Confidential Information includes, but is not limited to, (i) information relating to inventions, products, processes, formulas, compositions, compounds, projects, developments, developmental or experimental work, plans, research data, know-how, designs, drawings, concepts, circuits, test data, methods, ideas, algorithms, techniques, improvements, discoveries, computer programs, customers, suppliers, pricing, customer programming, customer and supplier lists, and contacts at or knowledge of customers or prospective customers of the Company, customer specifications, pricing; (ii) information regarding plans for research, development, new products, marketing and selling, business plans, budgets and unpublished financial statements and data, licenses, prices and costs; (iii) information regarding personnel data, the skills of other employees of the Company, and employee compensation levels.

(b) Non-Disclosure of Confidential Information. I will hold in strictest confidence and will not disclose any Confidential Information, except as such disclosure may be required in connection with my work for the Company, or unless an officer of the Company expressly authorizes such disclosure in writing. If I am required by law to disclose any Confidential Information, I agree to promptly notify the Company in advance of such disclosure to permit the Company to take steps to prevent such disclosure.



Notwithstanding the foregoing, nothing in this Agreement prohibits you from communicating with government agencies about possible violations of federal, state, or local laws or otherwise providing information to government agencies or participating in government agency investigations or proceedings, and nothing herein limits your right to receive an award for information provided to the Securities and Exchange Commission. You are not required to notify the Company of any such communications; provided, however, that nothing herein authorizes the disclosure of information you obtained through a communication that was subject to the attorney-client privilege.

(c) Ownership, Use, and Return of Confidential Information. I agree that all Confidential Information, whether created by me or others, which comes into my custody or possession, shall be the exclusive property of the Company, and may be used by me only in the performance of my duties for the Company. I agree to immediately return to the Company any Confidential Information upon the termination of my employment with the Company for any reason or upon request at any time during my employment.

### 3. Ownership of Works.

(a) Company Ownership. During the time I am serving as an employee of the Company, the Company shall own all rights in and to works created by me that result from or are derived from work performed by me, including all trade secrets and copyrights (collectively, the "Works"). The Company shall own such Works regardless of whether my own equipment or the Company's equipment was used to create the Works. I agree to assist the Company in obtaining and enforcing copyright and other forms of legal protection for any and all such written material in any country. To the extent that any such Works do not qualify as works made for hire under U.S. copyright law, this Agreement will constitute an irrevocable assignment by me to the Company of the ownership of, and all rights of copyright in, such Works. I agree to give the Company or its designees all assistance reasonably required to perfect such rights and agree not to register, file or obtain any copyright in my own name or assist any individual or entity, aside from the Company, in registering, filing or obtaining any copyright covering any Works.

(b) Disclosure of Inventions. I will fully and promptly disclose to the Company, or any persons designated by it, all improvements, inventions, discoveries, creations, methods, processes, developments, software, works of authorship, know-how, data and ideas ("Inventions") created, made, conceived, reduced to practice, developed, originated or learned by me, alone, under my direction, or jointly with others during the period of my employment with the Company, whether or not during normal working hours or on the premises of the Company.

(c) Assignment of Inventions. I agree to assign and hereby assign any and all right, title and interest in and to all Inventions (and all trademark applications, trademarks, copyright applications, copyrights, patent applications, patents, trade secrets and any other proprietary rights with respect thereto) to the Company, or any person or entity designated by the Company. In connection with such assignment, I will assist the Company or its nominees, at any time during or after my employment with the Company and in every proper way, in securing and procuring foreign and domestic protection for the Inventions, maintaining protection of the Inventions, enforcing copyrights, patents, and other intellectual property rights relating to the Inventions, and preventing and defending infringement of the Inventions. My obligation to assist the Company with respect to proprietary rights relating to such Inventions in any and all countries will continue beyond the termination of my employment, but the Company shall compensate me at a reasonable rate after such termination for time actually spent by me at the Company's request for such assistance. I further agree that I shall not register, file or obtain any patent or trademark covering any Inventions in my own name or assist any individual or entity, aside from the Company, in registering, filing or obtaining any patent or trademark covering any Inventions.



(d) Authorization to Act. In the event the Company is unable to secure my signature on any document needed in connection with the actions specified in the preceding paragraph, I permit the Company and its duly authorized officers to perform all lawfully permitted acts as the Company may deem desirable in order to protect its rights and interests in any Invention.

(e) Records. I will keep and maintain adequate and current records of all Inventions developed or made by me during my employment at the Company, which records will be the sole property of the Company.

(f) Prior Inventions. Any Inventions that I made prior to my employment with the Company ("Prior Inventions") are excluded from the scope of this Agreement and are described in Exhibit A to this Agreement.

4. Restricted Activities. I agree that, during my employment and for a period of one (1) year after I leave the employ of the Company for any reason, I will not do any of the following ("Restricted Activities"):

(a) Non-Compete. I will not be employed by, consult with, own, manage, control, operate, finance, render services to or otherwise be connected in any capacity with any business or activity anywhere in the world, that is competitive with the actual or planned business of the Company. For the purposes of this Section 4(a), a competitive business shall include: (i) any person, business or entity that is identified as a competitor of the Company in the Company's then-current Annual Report on Form 10-K; and (iii) any person, business or entity that identifies the Company as a competitor within its then-current Annual Report on Form 10-K, or the equivalent. Nothing in this Section 4(a) shall prevent me from owning one (1%) percent or less of the outstanding publicly traded securities of any company. Notwithstanding the foregoing, this non-competition covenant shall only apply in those jurisdictions in which such covenants are enforceable.

(b) No-Hire. I will not solicit, recruit, hire, induce, or encourage to leave the employ of the Company, any person who is at that time an employee or independent contractor of the Company, or who has been employed or hired by the Company for any period of time during the previous one (1) year, nor will I cooperate with others in doing or attempting to do so.

(c) Non-Solicit. I will not contact or allow myself to continue to be contacted or approached by any existing or prospective customer of the Company for the purpose of selling any products or services that compete with those sold or provided by the Company.

(d) Non-Interference. I will not, directly or indirectly, induce, influence, cause, advise or encourage any customer, vendor, prospect, employee, independent contractor, supplier, consultant, strategic partner, business partner, joint venturer or representative of the Company to terminate his, her or its relationship with the Company, nor will I cooperate with others in doing or attempting to do so, nor will I interfere with any of the Company's contracts or relationships.

(e) Disclosure to Future Employers. I agree that, during my employment and for a period of one (1) year after I cease working for the Company, I will present a copy of this Agreement, or the Company may present a copy of this Agreement, to all future employers and/or persons or entities for whom I serve as a consultant in any capacity whatsoever.

5. Reasonableness of Restrictions on Solicitation and Competition. I agree that the above restrictions are reasonable in length of time and geographic area, are reasonably necessary to protect the Company's legitimate business interests (including its interests in protecting its Confidential Information,



trade secrets, and good will), and are not overbroad. I agree that the one (1) year period during which I agree to refrain from Restricted Activities will be extended by the amount of time of any violation of that promise. I acknowledge and also agree that I possess the skills and experience that will enable me to find other employment without engaging in Restricted Activities during the one (1) year period after the termination of my employment by the Company. I understand that the Company will take reasonable steps to prevent me from participating in these Restricted Activities to the extent necessary to protect the Company's legitimate business interests.

6. Remedies. I understand and acknowledge that my breach of this Agreement would cause substantial and irreparable harm to the Company. I therefore agree that, in addition to any other rights or remedies that the Company may have, the Company shall be entitled to injunctive relief to enforce this Agreement, including but not limited to a temporary restraining order or a preliminary injunction. If the Company seeks injunctive relief, I will not raise the defense that the Company has an adequate remedy at law. I also agree that if I violate this Agreement, the Company will be entitled to any damages arising from such breach. I also acknowledge that breach of any provision of this Agreement may be grounds for termination of my employment or engagement, as applicable, with the Company.

7. Absence of Pre-Existing Restrictions Upon Disclosure, Competition, and Solicitation. I represent that I am not bound by the terms of any non-competition, non-solicitation, confidentiality or non-disclosure agreement with a previous employer or other party except as I have described them in Exhibit A to this Agreement and provided the Company with copies by attaching them to this Agreement. Whether or not I am bound by the terms of any such agreements, I agree that, during my employment with the Company, I will not disclose to the Company or induce the Company to use any confidential, proprietary or trade secret information or material belonging to any previous employer or other person or entity.

8. Entire Agreement. I agree that this Agreement supersedes any prior agreements, written or oral, between the Company and me that relate to the subject of this Agreement. This Agreement cannot be changed or modified except by an agreement signed by me and a duly authorized representative of the Company. I agree that any changes in my compensation, title, duties or other terms or conditions of my employment after the signing of this Agreement, including my termination, shall not affect my obligations under this Agreement, the validity of this Agreement, or the scope of this Agreement.

9. No Employment Contract. I agree that this Agreement does not constitute an employment contract and does not imply or require that the Company will continue my employment for any period of time. I acknowledge that my employment with the Company is at-will, and that the Company is free, and I am free, to end the employment relationship at any time, for any reason.

10. Severability and Interpretation. The invalidity or unenforceability of any provision of this Agreement shall not affect the validity or unenforceability of any other provision. If any of the provisions of this Agreement are held to be invalid or unenforceable, I agree that the remainder of this Agreement shall be construed so as to be enforceable to the maximum extent compatible with applicable law.

11. Massachusetts Law and Courts. This Agreement shall be governed by Massachusetts law, without regard to its choice of law provisions, and shall be construed as a sealed instrument under Massachusetts law. I agree that any and all disputes, causes of action and lawsuits arising from or related to this Agreement shall be brought exclusively in a state or federal court located in Massachusetts, and I agree and consent to the jurisdiction of the state and federal courts located in Massachusetts in any such dispute, cause of action, or lawsuit filed there against me by the Company arising from or related to this Agreement.



12. No Waiver. Any delay or omission by the Company in exercising any right it may have under this Agreement shall not operate as a waiver of that right or any other right. If the Company gives me waiver or consent on one particular occasion, it is effective only as to that particular occasion and does not affect other occasions.

13. Survival. This Agreement shall survive the termination of my employment, regardless of the reasons for termination.

14. Successors, Assigns and Affiliates. This Agreement is not assignable by me. This Agreement will be binding upon my heirs, executors, and administrators. The Company may assign this Agreement to any other corporation of entity which acquires all or substantially all of the business and/or assets of the Company. This Agreement will inure to the benefit of the Company, its successors and assigns, and any parent, subsidiary, affiliated or related companies of the Company. I agree to be bound by the provisions of this Agreement for the benefit of any successor, assignee, acquirer, subsidiary or affiliate of the Company to whose employ I may be transferred, without requiring that this Agreement be re-signed at the time of such transfer.

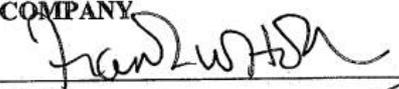
15. **ACKNOWLEDGEMENT.** I ACKNOWLEDGE, REPRESENT AND WARRANT THAT I HAVE CAREFULLY READ AND UNDERSTAND ALL OF THE PROVISIONS OF THIS AGREEMENT, THAT I HAVE HAD AN OPPORTUNITY TO CONSULT WITH LEGAL COUNSEL, AND THAT I AM SIGNING THIS AGREEMENT VOLUNTARILY. I AGREE THAT NO REPRESENTATIONS OR PROMISES WERE MADE TO ME PRIOR TO OR CONNECTED WITH MY SIGNATURE ON THIS AGREEMENT, AND THAT I WAS NOT COERCED, INDUCED OR INTIMIDATED INTO SIGNING IT.

**SIGNED UNDER SEAL**

**EMPLOYEE**

  
Signature Above  
Name: Justin Ferguson  
Dated: April 2, 2018

**COMPANY**

  
Name: \_\_\_\_\_  
Title: President  
Dated: Feb. 21, 2018



**Exhibit A**  
**Prior Agreements and Prior Inventions**

NAME: \_\_\_\_\_

DATE: \_\_\_\_\_

1. Except as listed in Section 2 below, the following is a complete list of all inventions or improvements that have been made or conceived or first reduced to practice by me alone or jointly with others **prior** to my employment/engagement by the Company:

No inventions or improvements.

See below:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Additional sheets attached.

2. Due to a prior confidentiality agreement, I cannot complete the disclosure under Section 1 above with respect to inventions or improvements generally listed below, the proprietary rights and duty of confidentiality with respect to which I owe to the following party(ies);

No agreements.

See below:

	Invention or Improvement	Party(ies)	Relationship
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____

Additional sheets attached.



**Exhibit A (continued)**  
**Prior Agreements and Prior Inventions**

3. I propose to bring to my employment with the Company the following materials or documents of a former employer which are not personally available to the public, which materials or documents may be used in my employment.

No materials or documents.

See below:

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Additional sheets attached.

4. I am bound by non-competition, non-solicitation, confidentiality or non-disclosure agreement with a previous employer or other party, copies of which are attached to this Agreement.

No agreements.

See below:

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## Severance Agreement

THIS SEVERANCE AGREEMENT (the "*Severance Agreement*") is entered into as of ~~December 2019~~ <sup>January 29, 2020</sup> (the "*Effective Date*") between Ribbon Communications Inc. ("*Ribbon*"), Ribbon Communications Operating Company, a wholly owned subsidiary of Ribbon Communications Inc., ("*RCOC*" and together with Ribbon, the "*Company*") and John McCready ("*Executive*" or "*you*").

1. Definitions. The following capitalized terms used herein shall have the following meanings:

(a) "*Annual Bonus*" means the annual variable cash compensation you are eligible to receive as determined from time to time by the Company, whether acting through Ribbon's Board of Directors (the "*Board*"), a committee thereof or otherwise, based on the achievement of certain Ribbon Entity and/or individual performance objectives.

(b) "*Base Pay*" means your annual base compensation, as determined from time to time by the Company, whether acting through the Board, a committee thereof or otherwise, regardless of whether all or any portion thereof may be deferred under any deferred compensation plan or program of the Company.

(c) "*Cause*" means termination of your employment by the Company upon the occurrence of any of the following: (i) your commission of bribery in violation of the Code of Conduct (or similar policy) of the Company or other Ribbon Entity employing you at the relevant time and/or local law and regulation including, without limitation, the UK Bribery Act, (ii) your engaging in acts in the course of your employment with any Ribbon Entity that constitute theft, fraud or embezzlement, (iii) your intentional or negligent misconduct which materially and adversely affects any Ribbon Entity and which is not cured (to the extent curable) within thirty (30) days following your receipt of written notice of such misconduct, (iv) your unauthorized disclosure of proprietary information of a confidential nature relating to any Ribbon Entity, which unauthorized disclosure has a material and adverse effect on any Ribbon Entity, (v) your material violation of any Ribbon Entity policy, agreement or procedure which is not cured (to the extent curable) within thirty (30) days following receipt of written notice of such violation, (vi) your excessive absenteeism, (vii) your material neglect of duty, (viii) your failure to devote substantially all of your working time to the business of the Ribbon Entities or to otherwise perform the duties of your position to the satisfaction of the Board (or your direct supervisor) which is not cured (to the extent curable) within thirty (30) days following receipt of written notice of such failure, (ix) your insubordination or failure to perform and carry out any directive of the Board (or your direct supervisor), (x) your abuse of alcohol, or unlawful use (including being under the influence) or possession of illegal drugs, at the premises of any Ribbon Entity or otherwise while performing (or holding yourself out as performing) services for or on behalf of any Ribbon Entity, (xi) your commission of any act that has resulted in (or could reasonably be expected to result in) conviction of a felony or crime involving moral turpitude or pleading "no contest" to a felony charge or other criminal charge involving moral turpitude, (xii) your failure to cooperate with any of the Ribbon Entities and/or their professional advisors in any investigation (whether internal or external) or any formal legal or investigative proceeding, or (xiii) your engagement in any conduct, including any violation of applicable law, that may reasonably result in material and adverse injury to the business or reputation of any Ribbon Entity. The determination of whether a termination of your employment is for Cause shall be made by the Board (or its designee) in its sole discretion.

(d) "*Change in Control*" shall have the meaning set forth in the Incentive Award Plan. Notwithstanding the foregoing, if a Change in Control constitutes a payment or benefit event with

respect to any payment or benefit hereunder that provides for the deferral of compensation that is subject to Section 409A, to the extent required to avoid the imposition of additional taxes under Section 409A, such transaction or event will not be deemed a Change in Control unless the transaction qualifies as a “change in control event” within the meaning of Section 409A.

(e) “*Change in Control Protection Period*” means the period beginning on the date of the consummation of the Change in Control and ending on the first anniversary of such Change in Control.

(f) “*Code*” means the Internal Revenue Code of 1986, as amended.

(g) “*Date of Termination*” means the date of termination of your employment for any reason.

(h) “*Disability*” means an illness (mental or physical) or incapacity, which results in you being unable to perform your duties as an employee of the Company for a period of one hundred eighty (180) days, whether or not consecutive, in any twelve (12) month period.

(i) “*Equity Awards*” means all stock options, restricted stock units, performance stock units and such other equity-based awards granted pursuant to the Incentive Award Plan. For the avoidance of doubt, “Equity Awards” shall not include any cash or cash-based awards granted pursuant to the Incentive Award Plan.

(j) “*Good Reason*” means:

- i. At any time other than the Change in Control Protection Period, the occurrence of one or more of the following conditions without your prior written consent: (A) a material reduction in your then-effective Base Pay (excluding any such reduction in connection with across-the-board Base Pay reductions for all or substantially all similarly situated employees), or (B) the relocation of your primary place of employment to a location more than 30 miles from your then-present work location; or
- ii. during the Change in Control Protection Period, the occurrence of one or more of the following conditions without your prior written consent: (A) a material reduction in your then-effective Base Pay or target Annual Bonus, (B) the relocation of your primary place of employment to a location more than 30 miles from your then-present work location, (C) a material diminution in your authority, duties or responsibilities for the Ribbon Entities, or (D) any material breach of any written agreement by and between any Ribbon Entity and you;

provided that, in each case of subsections (i) and (ii), you shall not have Good Reason unless and until (x) you give the Company written notice describing the occurrence of Good Reason within 30 days after such occurrence first occurs, (y) such occurrence is not corrected by the Company within 30 days after the Company’s receipt of such notice, and (z) you terminate employment no later than 30 days after the expiration of such 30-day correction period.

(k) “*Incentive Award Plan*” means Ribbon Communications Inc. 2019 Incentive Award Plan (or any successor equity incentive plan of Ribbon).

(l) “*Ribbon Entities*” means Ribbon Communications Inc. and its direct and indirect

subsidiaries.

2. Term of Agreement. The term of this Agreement will commence as of the Effective Date and shall continue in effect until the earlier of (a) the third anniversary of the Effective Date; and (b) the date on which all payments or benefits required to be made or provided hereunder have been made or provided in their entirety (the "*Initial Term*"). Notwithstanding the foregoing, (i) on the third anniversary of the Effective Date and on each subsequent anniversary thereafter, this Agreement shall automatically renew and extend for a period of twelve (12) additional months (each such twelve (12)-month period, collectively with the Initial Term, the "*Term*") unless written notice of non-renewal is delivered from either party to the other not less than six (6) months prior to the applicable date on which extension of the then-existing Term would occur, and (ii) in no event will the Term end prior to the first anniversary of the date of consummation a Change in Control.

3. Termination and Eligibility for Severance.

(a) Accrued Benefits. Upon any termination of your employment, you will be paid (i) any and all earned and unpaid portion of your Base Pay through the Date of Termination; (ii) any accrued but unused vacation pay owed to you in accordance with Company practices up to and including the Date of Termination; and (iii) any allowable and unreimbursed business expenses incurred through the Date of Termination that are supported by appropriate documentation in accordance with the Company's applicable expense reimbursement policies. Hereafter, items (i) through (iii) in this Section 3 are referred to as "*Accrued Benefits*." If termination of your employment is for any reason other than (A) by the Company without Cause (other than due to death or Disability) or (B) by you for Good Reason, you will be entitled to receive only the Accrued Benefits.

(b) Severance Payment. Subject to Sections 3(c), 5 and 6 of the Agreement:

(i) If the Company terminates your employment without Cause (other than as a result of your death or Disability) or if you terminate your employment with Good Reason, in each case, outside of the Change in Control Protection Period, then, in addition to the Accrued Benefits, the Company will provide you the following severance and related post-termination benefits:

(1) The Company shall, during the period beginning on the Date of Termination and ending on the twelve (12)-month anniversary of the Date of Termination, pay to you an amount equal to (A) twelve (12) months of your Base Pay as in effect immediately prior to the Date of Termination (or, in the case of termination by you with Good Reason due to material reduction in Base Pay, your Base Pay in effect immediately prior to such reduction) (the "*Non-CIC Severance Payment*"), and (B) if termination of your employment occurs more than six months following the commencement of the fiscal year in which the Date of Termination occurs, an amount equal to the Annual Bonus you would have received, if any, had you remained employed through the end of such fiscal year, prorated based on the number of days you worked during such fiscal year and calculated based on actual achievement of the Ribbon Entity performance targets relating to such Annual Bonus (and assuming any individual, personal performance targets are achieved at target) (the "*Pro Rata Bonus*");

(2) The Company shall pay you an amount equal to the aggregate sum of the Company's share of medical, dental and vision insurance premiums for you and your dependents for the period commencing on the Date of Termination and ending on the first

anniversary thereof (as if you had remained employed and based on coverage as of immediately prior to termination). For the avoidance of doubt, if immediately prior to the termination of your employment you were required to contribute towards the cost of premiums as a condition of receiving such insurance, the payment hereunder will not cover any such contributions. The cash payment provided for in this Section 3(b)(i)(2) or Section 3(b)(ii)(2), as applicable, is referred to herein as the “*Continued Benefit Payment*”;

(3) Unless otherwise explicitly set forth in the award agreement for the applicable Equity Award, each outstanding unvested Equity Award held by you immediately prior to the Date of Termination that is subject to vesting based solely upon your continuous service with the Company (collectively, “*Time-Based Equity Awards*”) that would have vested during the twelve (12)-month period following the Date of Termination had you remained employed shall remain outstanding and on the Severance Commencement Date, (I) to the extent you have timely executed and not revoked the Release Agreement, such Time-Based Equity Awards shall automatically vest and become exercisable (as applicable) or (II) to the extent you have not timely executed or have revoked the Release Agreement, such Time-Based Equity Awards will be forfeited for no consideration; and

(4) Unless otherwise explicitly set forth in the award agreement for the applicable Equity Award, each outstanding unvested Equity Award held by you immediately prior to the Date of Termination that is subject to vesting in whole or in part based on achievement of performance objective(s) (collectively, “*Performance-Based Equity Awards*”) and is eligible to vest based on achievement of such performance objective(s) for performance periods ending prior to the Date of Termination or in which the Date of Termination occurs shall remain outstanding and on the Severance Commencement Date, (I) to the extent you have timely executed and not revoked the Release Agreement, (x) the portion of such unvested Performance-Based Equity Award that is eligible to vest based on achievement of performance objective(s) for performance periods ending prior to the Date of Termination shall remain eligible to vest and be settled (as applicable) in accordance with its terms based on actual performance, without regard for any requirement of continued employment, and (y) a prorated amount of the portion of such unvested Performance-Based Equity Award that is eligible to vest based on achievement of performance objective(s) for the applicable performance periods in which the Date of Termination occurs shall remain eligible to vest through the end of the fiscal year in which the Date of Termination occurs and be settled (as applicable) in accordance with its terms as if the last day of such fiscal year was the last day of the applicable performance period(s), based on performance targets established by the Company and actual performance through the end of such fiscal year, without regard for any requirement of continued employment, or (II) to the extent you have not timely executed or have revoked the Release Agreement, such Performance-Based Equity Awards will be forfeited for no consideration. The Company shall prorate the portion of each unvested Performance-Based Equity Award described in subsection (y) above based on the number of days of your employment during the performance period as compared to the total number of days in such performance period, with such prorated portion of such Performance-Based Equity Awards eligible to vest and become exercisable at the end of the fiscal year in which the Date of Termination occurs, based on the actual level of achievement of such performance objective(s) as of end of the applicable fiscal year (with the applicable performance objective(s) prorated for any shortened performance period). Any such determination by the Company shall be final and binding on all persons (including, without limitation, you). Notwithstanding anything to the contrary herein, settlement upon vesting (if any) of such

Performance-Based Equity Awards described in subsection (ii) shall occur no later than March 15 of the calendar year immediately following the calendar year of the Date of Termination (or otherwise in compliance with Section 409A as required by their terms). For the avoidance of doubt, any Performance-Based Equity Award with respect to which performance vesting conditions have been determined to be fully satisfied prior to or as of the Date of Termination (or, which, in connection with a Change in Control or otherwise, was converted into an Equity Award solely subject to time-based vesting) shall be deemed to be a Time-Based Equity Award for purposes of this Severance Agreement.

(5) Subject to the provisions of Sections 3(c) and 6, (I) the Non-CIC Severance Payment shall be paid in equal installments during the twelve (12)-month period following the Date of Termination in accordance with the Company's normal payroll practices beginning on the first payroll date following the 60th day following the Date of Termination (such payroll date, the "*Severance Commencement Date*"), and with the first installment including any amounts that would have been paid had the Release Agreement been effective and irrevocable on the Date of Termination, (II) the Pro Rata Bonus, if any, shall be paid at the same time as annual bonus payments are made to similarly situated employees of the Company for the applicable year, but in no event shall be paid earlier than January 1 or later than December 31 of the calendar year following the year of termination, and (III) the Continued Benefit Payment shall be paid in lump sum on the Severance Commencement Date, in each case, less applicable federal, state and other applicable withholdings.

(ii) If the Company terminates your employment without Cause (other than as a result of your death or Disability) or if you terminate your employment with Good Reason, in each case, during the Change in Control Protection Period, then, in addition to the Accrued Benefits, the Company will provide you the following severance and related post-termination benefits:

(1) The Company shall pay to you a cash lump sum payment in an amount equal to (A) the sum of twelve (12) months of your Base Pay as in effect immediately prior to the Date of Termination and your target Annual Bonus for the calendar year in which the Date of Termination occurs (or in the case of termination by you with Good Reason due to material reduction in Base Pay and/or target Annual Bonus, your Base Pay and/or target Annual Bonus in effect immediately prior to such reduction, as applicable) (the "*CIC Severance Payment*"), and (B) if termination of your employment occurs more than six months following the commencement of the fiscal year in which the Date of Termination occurs, the Pro Rata Bonus;

(2) The Company shall pay you an amount equal to the aggregate sum of the Company's share of medical, dental and vision insurance premiums for you and your dependents for the period commencing on the Date of Termination and ending on the first anniversary thereof (as if you had remained employed and based on coverage as of immediately prior to termination). For the avoidance of doubt, if immediately prior to the termination of your employment you were required to contribute towards the cost of premiums as a condition of receiving such insurance, the payment hereunder will not cover any such contributions; and

(3) Unless otherwise explicitly set forth in the award agreement for the applicable Equity Award, any unvested Equity Awards outstanding immediately prior to the Date of Termination shall automatically become fully vested and exercisable (as

applicable) as of the Date of Termination; provided that any Performance-Based Equity Award shall vest assuming a target level of achievement for each applicable performance objective(s).

(4) Subject to the provisions of Sections 3(c) and 6, (I) the CIC Severance Payment shall be made in a lump sum on the Severance Commencement Date, (II) the Pro Rata Bonus, if any, shall be paid at the same time as annual bonus payments are made to similarly situated employees of the Company for the applicable year, but in no event shall be paid earlier than January 1 or later than December 31 of the calendar year following the year of termination, and (III) the Continued Benefit Payment shall be paid in lump sum on the Severance Commencement Date, in each case, less applicable federal, state and other applicable withholdings.

(c) Release. Any amounts payable pursuant to Section 3(b)(i) or Section 3(b)(ii), as applicable (collectively, the "*Severance Benefits*"), shall be in lieu of notice or any other severance benefits to which you might otherwise be entitled from any Ribbon Entity. Notwithstanding anything to the contrary herein, the Company's provision of the Severance Benefits will be contingent upon your timely execution and non-revocation of a general waiver and release of claims agreement, which shall include a six (6) month non-compete agreement, in a form to be provided by the Company (a "*Release Agreement*"), subject to the terms set forth herein. You will have twenty-one (21) days (or, in the event that your termination of employment is "in connection with an exit incentive or other employment termination program" (as such phrase is defined in the Age Discrimination in Employment Act of 1967, as amended), forty-five (45) days) following your receipt of the Release Agreement to consider whether or not to accept it. If the Release Agreement is signed and delivered by you to the Company, you will have seven (7) business days from the date of delivery to revoke your acceptance of such agreement (the "*Revocation Period*"). If you do not timely execute or if you subsequently revoke the Release Agreement, you shall be required to pay to the Company, immediately upon demand therefor, the amount of any payments or benefits you received in connection with any portion of Equity Awards that was eligible to vest pursuant to Section 3(b) (including, without limitation, proceeds received or realized by you from the sale or surrender of any shares underlying such Equity Awards in connection with applicable tax withholding).

(d) The provisions of this Section 3 shall supersede in their entirety any severance payment provisions in any severance plan, severance policy, severance program or other severance arrangement maintained by the Company or any of its affiliates (or any of their respective predecessors), except for the terms of any such severance agreement that have been expressly incorporated in Section 5 below. The Company shall have no further obligation to you in the event of termination of your employment for any reason at any time, other than those obligations specifically set forth in this Section 3.

4. Mitigation. You shall not be required to mitigate the amount of any payment or benefit provided for in Section 3 by seeking other employment or otherwise, nor shall the amount of any payment or benefit provided for in Section 3 be reduced by any compensation earned by you as the result of employment by another employer or by retirement benefits after the Date of Termination or otherwise, subject to Section 5; provided, however, that any loans, advances or other amounts owed by you to the Company may be offset by the Company and its affiliates against amounts payable to you under Section 3 to the greatest extent permitted by applicable law.

5. Restrictive Covenants and Other Conditions. You acknowledge and agree that you are a party to that certain Confidentiality Agreement dated as of May 5, 2010, and such agreement remains in full

force and effect. In addition, you are a party to that certain Severance Agreement entered into on May 1, 2015, as amended, which is expressly superseded by this Agreement as provided in Section 3(d) above, except that you acknowledge and agree that you remain bound by the restrictive covenants set forth in Sections 4, 5, 7 and 8 of such Severance Agreement, which remain in full force and effect (such covenants, together with the Confidentiality Agreement, the "*Restrictive Covenants*"). In the event of (a) your material breach of the Release Agreement or Restrictive Covenants, (b) your engagement in any act or omission after the Date of Termination that would have constituted "Cause" under subsections (ii) through (iv), (xii) or (xiii) of the definition thereof (without regard for any cure periods therein) for termination of your employment had you remained employed after the Date of Termination, or (c) the Company's determination in good faith that facts or circumstances existed on the Date of Termination that, if known by the Company on the Date of Termination, would have constituted Cause, the Company shall be entitled to cease all payments and benefits pursuant to Section 3(b), all Equity Awards that vested pursuant to Section 3(b) and any shares of Company stock you received with respect thereto shall immediately be forfeited, without payment therefor, and you shall be required to pay to the Company, immediately upon demand therefor, the amount of any proceeds realized by you from the sale of any such shares.

6. Section 409A Tax Implications. Any payments or benefits required to be provided under this Agreement that is subject to Section 409A of the Code shall be provided only after the date of your "separation from service" with the Company as defined under Section 409A of the Code and the regulations and guidance issued thereunder (collectively, "*Section 409A*"). The following rules shall apply with respect to distribution of the payments and benefits, if any, to be provided to you under this Agreement:

(a) To the extent applicable, this Agreement shall be interpreted in accordance with Section 409A. Each installment of the payments and benefits provided hereunder shall be treated as a separate "payment" for purposes of Section 409A. If and to the extent (i) any portion of any payment, compensation or other benefit provided to you pursuant to this Agreement in connection with your termination of employment constitutes "nonqualified deferred compensation" within the meaning of Section 409A and (ii) you are a specified employee as defined in Section 409A(a)(2)(B)(i) of the Code, in each case as determined by the Company in accordance with its procedures, by which determinations you agree that you are bound, such portion of the payment, compensation or other benefit shall not be paid until the first business day that is six (6) months plus one (1) day or more after the date of "separation from service" (as determined under Section 409A) (the "*New Payment Date*"), except such earlier date as Section 409A may then permit. The aggregate of any payments that otherwise would have been paid to you during the period between the date of separation from service and the New Payment Date shall be paid to you in a lump sum on such New Payment Date, and any remaining payments will be paid on their original schedule.

(b) The Company and its employees, agents and representatives make no representations or warranty and shall have no liability to you or any other person if any provisions of or payments, compensation or other benefits under this Agreement are determined to constitute nonqualified deferred compensation subject to Section 409A but do not satisfy the conditions of that section. Notwithstanding any provision of this Agreement to the contrary, in the event that following the Effective Date the Board determines that this Agreement may be subject to Section 409A, the Board may (but is not obligated to), without your consent, adopt such amendments to this Agreement or adopt other policies and procedures (including amendments, policies and procedures with retroactive effect), or take any other actions, that the Board determines are necessary or appropriate to (i) exempt this Agreement from Section 409A and/or preserve the intended tax treatment of the benefits provided with respect to this Agreement or (ii) comply with the requirements of Section 409A and thereby avoid the application of any penalty taxes under Section 409A.

7. Section 280G. If any payment or benefit you would receive or retain under this Severance Agreement, when combined with any other payment or benefit you receive or retain in connection with a “change in control event” within the meaning of Section 280G of the Code and the regulations and guidance thereunder (“*Section 280G*”), would (a) constitute a “parachute payment” within the meaning of Section 280G of the Code, and (b) but for this Section 7, be subject to the excise tax imposed by Section 4999 of the Code (the “*Excise Tax*”), then such Payment shall be either payable in full or in such lesser amount as would result in no portion of the Payment being subject to the Excise Tax, whichever of the foregoing amounts, taking into account the applicable federal, state and local employment taxes, income taxes, and the Excise Tax, results in your receipt, on an after-tax basis, of the greater amount of the Payment notwithstanding that all or some portion of the Payment may be subject to the Excise Tax. All determinations required to be made under this Section 7, including whether and to what extent the Payment shall be reduced and the assumptions to be utilized in arriving at such determination, shall be made by a nationally recognized certified public accounting firm or consulting firm experience in matters regarding Section 280G of the Code as may be designated by the Company (the “*280G Advisor*”). The 280G Advisor shall provide detailed supporting calculations both to you and the Company at such time as is requested by the Company. All fees and expenses of the Accounting Firm shall be borne solely by the Company. Any final determination by the 280G Advisor shall be binding upon you and the Company. For purposes of making the calculations required by this Section 7, the 280G Advisor may make reasonable assumptions and approximations concerning applicable taxes and may rely on reasonable, good-faith interpretations concerning the application of Sections 280G and 4999 of the Code.

8. Withholding. The Company shall be entitled to withhold from any amounts payable under this Agreement any federal, state, local or foreign withholding or other taxes or charges that the Company is required to withhold. The Company shall be entitled to rely on an opinion or advice of counsel if any questions as to the amount or requirement of withholding arise.

9. Miscellaneous.

- (a) This Agreement, together with any written employment agreement or offer letter to which you may be a party and any agreements referenced herein, will constitute our entire agreement as to your employment by the Company and will supersede any prior agreements or understandings, whether in writing or oral, with respect to the subject matter hereof, other than with respect to any agreements between you and the Company with respect to confidential information, intellectual property, non-competition, non-solicitation, non-disparagement, nondisclosure of proprietary information, inventions and injunctive relief, including, without limitation, the Restrictive Covenants; provided that Section 9(f) supersedes and replaces any prior dispute resolution provisions in any other prior agreement between you and the Company.
- (b) This Agreement may be executed in more than one counterpart, each of which shall be deemed to be an original, and all such counterparts together shall constitute one and the same instrument.
- (c) The provisions of this Agreement are severable and if any one or more provisions may be determined to be illegal or otherwise unenforceable, in whole or in part, the remaining provisions of this Agreement shall nevertheless be binding and enforceable and except to the extent necessary to reform or delete such illegal or unenforceable provision, this Agreement shall remain unmodified and in full force and effect.

- (d) This Agreement is personal in nature and neither of the parties hereto shall, without the written consent of the other, assign or otherwise transfer this Agreement or its obligations, duties and rights under this Agreement; provided, however, that in the event of the merger, consolidation, transfer or sale of all or substantially all of the assets of the Company, this Agreement shall, subject to the provisions hereof, be binding upon and inure to the benefit of such successor and such successor shall discharge and perform all of the promises, covenants, duties and obligations of the Company hereunder.
- (e) All notices shall be in writing and shall be delivered personally (including by courier), sent by facsimile transmission (with appropriate documented receipt thereof), by overnight receipted courier service (such as UPS or Federal Express) or sent by certified, registered or express mail, postage prepaid, to the Company at the following address: Ribbon Communications Legal Department, 3605 E. Plano Parkway, Plano, Texas 75074, Attn: Head of Legal, and to you at the most current address we have in your employment file. Any such notice shall be deemed given when so delivered personally, or if sent by facsimile transmission, when transmitted, or, if by certified, registered or express mail, postage prepaid mailed, forty-eight (48) hours after the date of deposit in the mail. Any party may, by notice given in accordance with this paragraph to the other party, designate another address or person for receipt of notices hereunder.
- (f) *Arbitration.* Notwithstanding anything to the contrary (including, without limitation, any other written agreement by and between you and any Ribbon Entity):
- i. Any controversy, dispute or claim arising out of or relating to this Agreement or the breach hereof (a "*Dispute*") which cannot be settled by mutual agreement will be finally settled by binding arbitration in the Commonwealth of Massachusetts, under the jurisdiction of the American Arbitration Association or other mutually agreeable alternative arbitration dispute resolution service, before a single arbitrator appointed in accordance with the arbitration rules of the American Arbitration Association or other selected service, modified only as herein expressly provided. The arbitrator may enter a default decision against any party who fails to participate in the arbitration proceedings.
  - ii. The decision of the arbitrator on the points in dispute will be final, non-appealable and binding, and judgment on the award may be entered in any court having jurisdiction thereof.
  - iii. The fees and expenses of the arbitrator will be shared equally by the parties, and each party will bear the fees and expenses of its own attorney in connection with any Dispute; provided that, to the extent the arbitrator determines you have prevailed on at least one material issue involved in any Dispute commencing during the Change in Control Protection Period, the Company shall reimburse you for all reasonable attorneys' fees in connection with such Dispute.
  - iv. The parties agree that this Section 9(f) has been included to resolve any Disputes, and that this Section 9(f) will be grounds for dismissal of any court action commenced by either party with respect to this Agreement, other than post-arbitration actions seeking to enforce an arbitration award or actions seeking an injunction or temporary restraining order. In the event that any court determines that this arbitration procedure is not binding, or otherwise allows any litigation regarding a Dispute to proceed, the

parties hereto hereby waive, to the maximum extent allowed by law, any and all right to a trial by jury in or with respect to such litigation.

- v. The parties will keep confidential, and will not disclose to any person, except as may be required by law or the rules and regulations of the Securities and Exchange Commission or other government agencies, the existence of any controversy hereunder, the referral of any such controversy to arbitration or the status or resolution thereof.

- (g) This Agreement shall be governed by and interpreted in accordance with the laws of the Commonwealth of Massachusetts, without regard to the conflict of laws provisions thereof or of any other jurisdiction.

10. Acceptance. You may accept the terms and conditions described herein by confirming your acceptance in writing. Please send your countersignature to this Agreement to the Company, or via e-mail to me, which execution will evidence your agreement with the terms and conditions set forth herein.

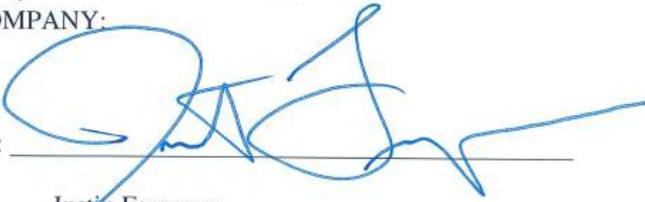
\* \* \* \* \*

IN WITNESS WHEREOF, each of the parties has executed this Severance Agreement, in the case of the Company by its duly authorized officer, as of the day and year first above written.

EXECUTIVE:



COMPANY:

By: 

Justin Ferguson  
Executive Vice President, General Counsel  
and Corporate Secretary



## CERTIFICATION

I, Bruce McClelland, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Ribbon Communications Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; 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.

Date: May 8, 2020

/s/ Bruce McClelland

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Bruce McClelland  
President and Chief Executive Officer  
(Principal Executive Officer)

## CERTIFICATION

I, Daryl E. Raiford, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Ribbon Communications Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; 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.

Date: May 8, 2020

/s/ Daryl E. Raiford

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Daryl E. Raiford  
Executive Vice President and Chief Financial Officer  
(Principal Financial Officer)

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

In connection with the Quarterly Report on Form 10-Q of Ribbon Communications Inc. (the "Company") for the period ended March 31, 2020 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), the undersigned, Bruce McClelland, President and Chief Executive Officer of the Company, hereby certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to his knowledge:

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

Date: May 8, 2020

/s/ Bruce McClelland

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Bruce McClelland  
President and Chief Executive Officer  
(Principal Executive Officer)

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

In connection with the Quarterly Report on Form 10-Q of Ribbon Communications Inc. (the "Company") for the period ended March 31, 2020 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), the undersigned, Daryl E. Raiford, Executive Vice President and Chief Financial Officer of the Company, hereby certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to his knowledge:

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

Date: May 8, 2020

/s/ Daryl E. Raiford

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Daryl E. Raiford  
Executive Vice President and Chief Financial Officer  
(Principal Financial Officer)