

Ribbon Communications



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Global Technology, Media and
Communications Conference

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Bruce McClelland
President & CEO



Daryl Raiford
EVP & CFO

Cautionary Note Regarding Forward-Looking Statements

This presentation 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 presentation, including without limitation statements regarding the Company’s future results of operations and financial position, integration activities, opportunities and outlook for the Company, plans for future cost reductions, plans for future product offerings, development and manufacturing, business strategy, strategic position, and plans and objectives of management for future operations, are forward-looking statements. Without limiting the foregoing, the words “believes”, “estimates”, “expects”, “expectations”, “intends”, “may”, “plans”, “projects” 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.

Cautionary Note Regarding Forward-Looking Statements (continued)

All of our forward-looking statements involve known and unknown risks, uncertainties (some of which are significant or beyond our control) and other important factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements express or implied by the forward-looking statements and such assumptions could cause actual results to differ materially from our historical experience and our present expectations or projections. Unlisted factors may present significant additional obstacles to the realization of forward-looking statements. Therefore, we caution you against relying on any of these forward-looking statements. Important factors that could cause actual results to differ materially from these forward-looking statements are discussed in Part I, Item 1A “Risk Factors” and Part II, Item 7A “Quantitative and Qualitative Disclosures About Market Risk” in Ribbon’s most recent Annual Report on Form 10-K filed with the SEC, Part II, Item 1A “Risk Factors”, Part I, Item 2 “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and Part I, Item 3 “Quantitative and Qualitative Disclosures About Market Risk” in Ribbon’s most recent Quarterly Report on Form 10-Q filed with the SEC and the Company’s other SEC filings. Any forward-looking statements represent Ribbon’s views only as of the date on which such statement is made and should not be relied upon as representing Ribbon’s views as of any subsequent date. Factors or events that could cause our actual results to differ may emerge from time to time, and it is not possible for us to predict all of them. While Ribbon Communications may elect to update forward-looking statements at some point, Ribbon Communications specifically disclaims any obligation to do so, except as may be required by law.

In addition to the U.S. GAAP financials, this presentation includes certain non-GAAP financial measures. The non-GAAP measures have limitations as analytical tools and you should not consider them in isolation or as a substitute for the most directly comparable financial measures prepared in accordance with U.S. GAAP. There are a number of limitations related to the use of these non-GAAP financial measures versus their nearest GAAP equivalents. Ribbon Communications urges you to review the reconciliation of Ribbon’s non-GAAP financial measures to the most directly comparable GAAP financial measures set forth in the Appendix, and not to rely on any single financial measure to evaluate Ribbon Communications’ business.

Expanded Market Presence and Growth Strategy



Global provider of converged communications software and network solutions to service providers, enterprises, and critical infrastructure sectors

Expanded addressable market including both telecom and high growth datacom market

Increased scale and balanced global footprint

Leverage strong presence in North American Service Provider market with broader portfolio

Path to participate in massive 5G opportunity

Growing Revenue and Profitability



Customers in over **140 countries**¹



Over **4,000** employees globally¹



Combined annual revenue of over **\$900 million**¹



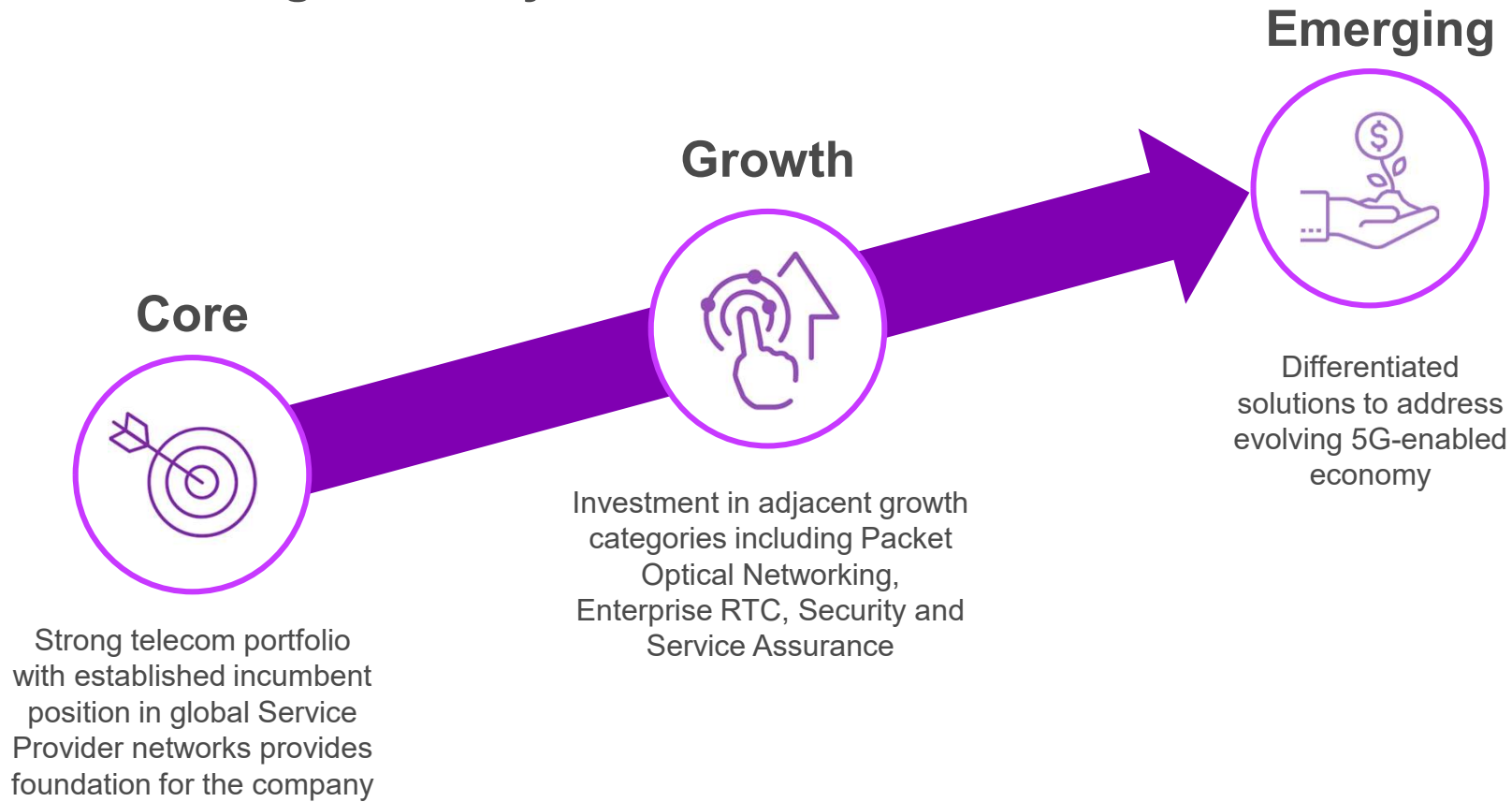
#2 Market Leader in Session Border Controllers globally²

Differentiated 5G Packet Optical Networking technology

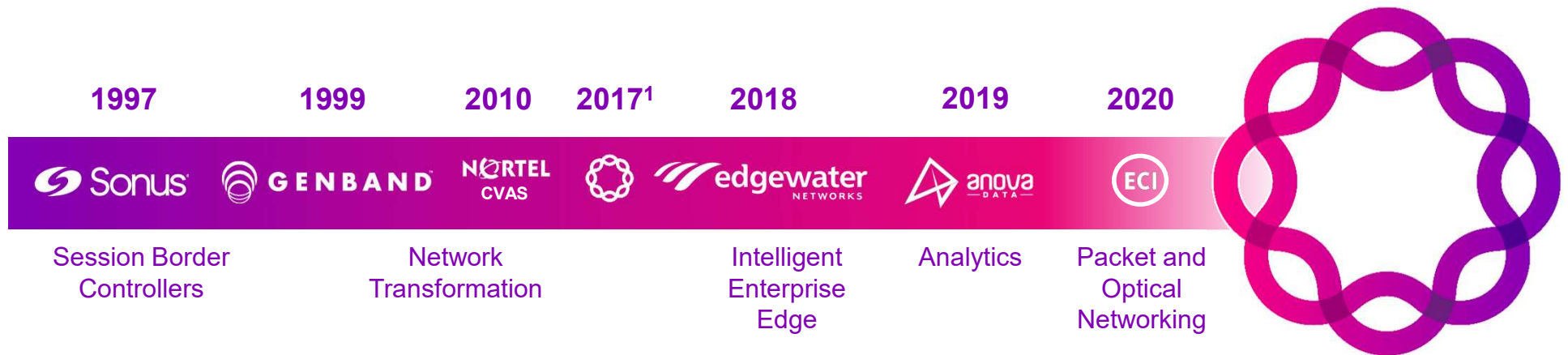
¹Combined FYE 2019 data of Ribbon and ECI.

²Leadership Ranking Source: Omdia (IHS Markit) Q4'19 Service Provider VoIP and IMS Equipment, Subscribers and Enterprise SBCs and VoIP Gateways. Market share data for past 3 months.

Investing for Today and Tomorrow

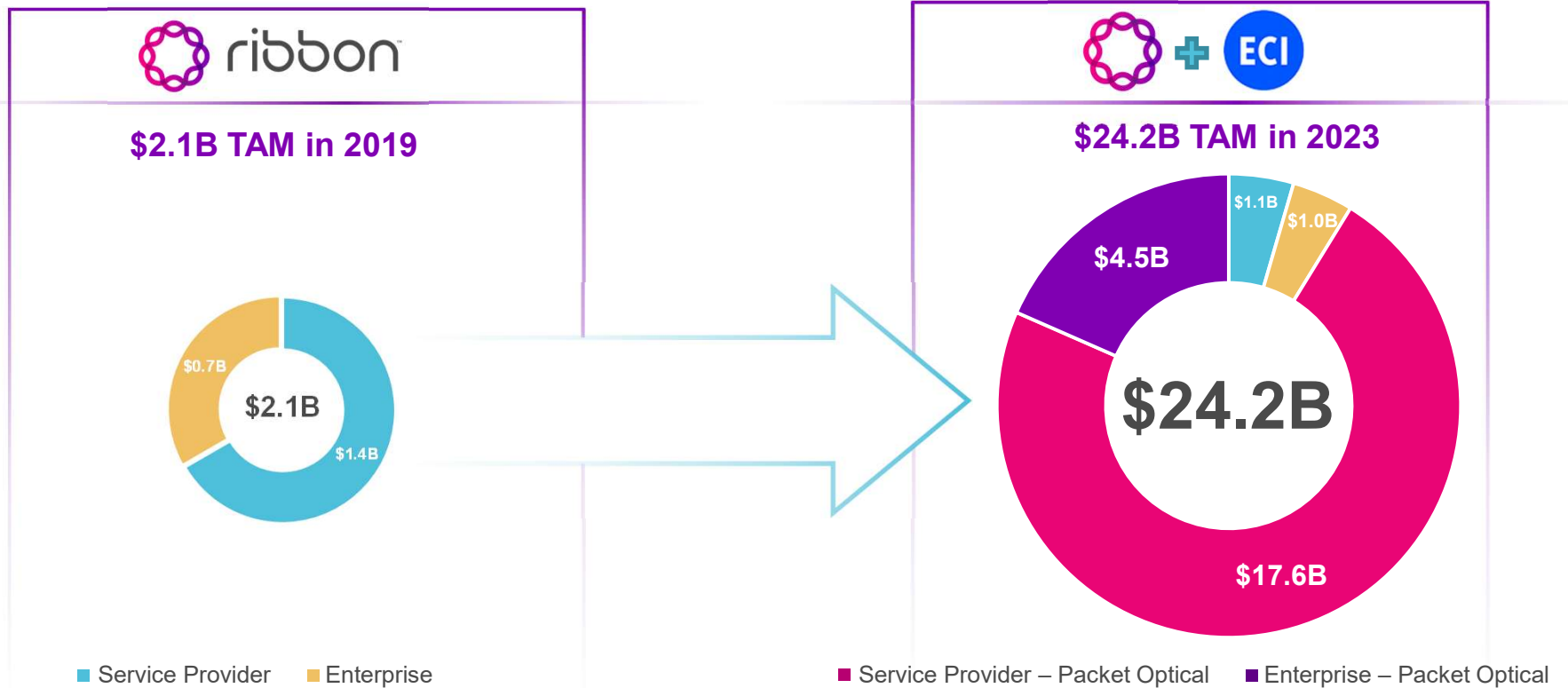


History of Innovation through M&A and Organic Investment



¹Sonus and GENBAND merge to form Ribbon Communications

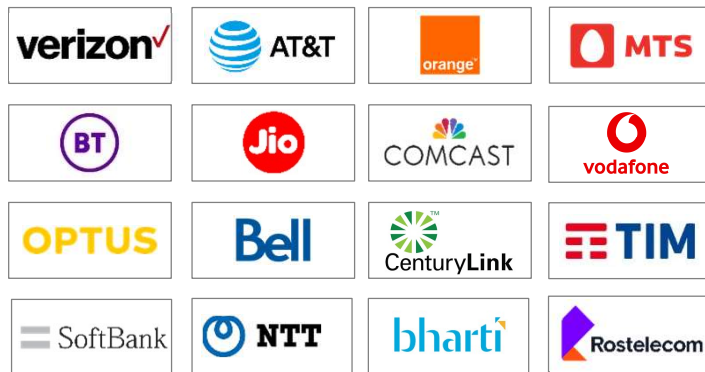
Addressable Market Expansion



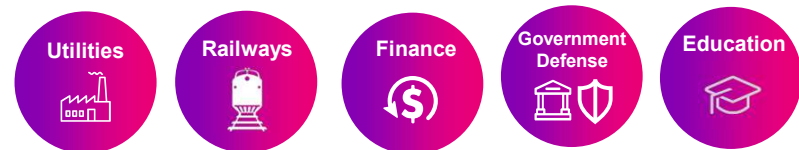
Source: Omdia (IHS), Exact Ventures, IDC Research, Gartner, Omdia (Ovum), Ribbon Modeling

Customers

World's Leading Tier One Service Providers



Large Enterprises and Industry Verticals



ISVs – Independent Software Vendors
SMEs – Small Medium Enterprises

MSO – Multi System Operator
DCI – Data Center Interconnect

Organizing for Success

Region-based Sales Organizations serving Ribbon's key Service Provider and Enterprise markets through two strategic business pillars



Portfolio

Packet Optical Networking



Optical Transport



Packet Networking



SDN and Service
Orchestration

Cloud and Edge



Network Transformation



UC Delivery Infrastructure



Analytics & Security



Services

Global Presence



Organization and Leadership Team



Bruce McClelland
President, CEO and Director



Steven Bruny
EVP Sales, Americas Region



Fernando Valdivielso
EVP Sales, EMEA and APAC



Yaal Shain
EVP, Operations

Sales and
Operations



Jimmy Mizrahi
EVP, Product Strategy
Packet Optical Networking BU



Irit Touitou
EVP, R&D
Packet Optical Networking BU



Tony Scarfo
EVP and GM
Cloud and Edge Business Unit



Kevin Riley
EVP, Chief Technical Officer

Business
Units and
CTO



Petrena Ferguson
SVP, Human Resources



John McCready
EVP, Chief Transformation Officer



Daryl Raiford
EVP, Chief Financial Officer



Justin Ferguson
EVP, General Counsel

Corporate

First Quarter 2020 Performance¹

- Overall² sales increased 33% year-over-year
 - Ribbon standalone² sales increased 8%
 - Ribbon standalone² software product revenue increased 55%
- Overall² Non-GAAP Gross Margins expanded 1 percentage point
 - Ribbon standalone² increased 6 percentage points to 62%
- Overall² Non-GAAP Adjusted EBITDA grew \$13 million to \$10 million
- Cash from Operations improved 100% to \$40 million
- Completed merger with ECI Telecom
- Completed \$400 million financing with a fixed interest rate of 3.9% as of March 31, 2020

"We are pleased with our first quarter sales results. In the face of very difficult global conditions for our customers and employees arising from the COVID-19 pandemic, we achieved organic revenue growth of eight percent compared with the first quarter of last year, driven by strong demand for our communications software as our customers responded to increased traffic on their networks."

BRUCE MCCLELLAND, RIBBON PRESIDENT & CEO

¹Three months ended March 31, 2020 compared with the corresponding period in 2019.

²Please see the basis of presentation and the non-GAAP reconciliation in the appendix.

First Quarter 2020 Financial Results

	1Q19	1Q20 Ribbon standalone ¹	1Q20 Overall ¹
Revenue²	\$119 million	\$128 million	\$158 million
Non-GAAP Gross Margin^{1,2}	56%	62%	57%
Non-GAAP Operating Margin¹	-5%	5%	4%
Non-GAAP Diluted EPS^{1,2}	\$(0.08)	\$0.02	\$0.01
Non-GAAP Adjusted EBITDA^{1,2}	\$(3) million	\$10 million	\$10 million

¹Please see the basis of presentation and the non-GAAP reconciliation in the appendix

²The inclusion of ECI Telecom post-acquisition, March 3, 2020 to March 31, 2020, increased overall first quarter 2020 revenue by \$30 million, lowered reported Non-GAAP gross margin 5 pts, lowered Non-GAAP Diluted EPS by \$0.01 and had neutral effect on overall Non-GAAP Adjusted EBITDA.

First Quarter 2020 Highlights¹



Growing Revenue

Sales of \$158M, up \$39M



Improving Profitability Margin

Adjusted EBITDA Margin² of 6%, up 8 pts



Cash Flow and Balance Sheet

Operating Cash Flow of \$40M, up \$20M

Unlevered Free Cash Flow² of \$38M, up \$21M

Cloud and Edge²



Growing Software Sales

Revenue from pure software products was 53% of total product revenue



Accelerating Gross Margin

Non-GAAP Gross Margin² of 62%, up 6 pts¹

Packet Optical Networking²



Customer Success

10 new customer wins



Technology Leadership

Increased Demand for 1.2T solution with Tier 1 Service Providers



5G Momentum

5G RFP and lab testing

¹Three months ended March 31, 2020 compared with the corresponding period in 2019.

²Please see the basis of presentation and the non-GAAP reconciliation in the appendix.

The Path Ahead

- Strengthen and grow software portfolio
- Grow share in Enterprise market
- Leverage Ribbon installed base to cross-sell entire portfolio
- Expand Packet Optical sales in North America
- Capture share of 5G network deployments
- Portfolio rationalization and cost structure efficiencies

**Position Ribbon for Profitable Growth
In New Markets to Create Long Term Stockholder Value**

APPENDIX



Ribbon Condensed Statements of Operations

USD Millions except percentages and EPS	1Q18	2Q18	3Q18	4Q18	FY18	1Q19	2Q19	3Q19	4Q19	FY19	1Q20
GAAP FINANCIAL MEASURES											
Product Revenue	52	63	77	87	279	47	72	61	81	262	76
Service Revenue	70	74	75	80	299	71	73	77	80	301	82
Total Revenue	121	137	152	167	578	119	145	138	161	563	158
Gross Profit	55	75	82	96	308	57	81	79	101	317	82
<i>Gross Margin %</i>	46%	55%	54%	57%	53%	48%	55%	57%	63%	56%	52%
Research and development	39	36	34	36	145	36	35	34	36	141	42
Selling, general and administrative	48	46	47	54	194	49	41	38	44	172	54
Impairment of goodwill	-	-	-	-	-	-	-	-	164	164	-
Acquisition, Integration and Restructuring	11	10	8	5	34	8	11	4	6	29	14
Total Operating Expenses	98	92	90	95	374	93	88	76	250	507	110
Income/(Loss) from Operations	(42)	(17)	(8)	1	(65)	(36)	(7)	3	(149)	(189)	(29)
<i>Operating Margin %</i>	-35%	-12%	-5%	1%	-11%	-30%	-5%	2%	-92%	-34%	-18%
Net Income/(Loss)	(45)	(20)	(10)	(2)	(77)	(31)	49	2	(150)	(130)	(33)
Diluted EPS	(\$0.44)	(\$0.20)	(\$0.10)	(\$0.02)	(\$0.74)	(\$0.29)	\$0.45	\$0.01	(\$1.36)	(\$1.19)	(\$0.27)
Weighted Average Diluted Shares	102	102	105	107	104	108	111	111	110	110	121
Cash Flow from Operating Activities	3	(26)	(1)	14	(10)	20	10	(6)	33	56	40
NON-GAAP FINANCIAL MEASURES											
Adjusted EBITDA	(8)	16	25	29	62	(3)	22	23	43	86	10
Unlevered Free Cash Flow	2	(27)	(2)	14	(13)	17	8	(8)	32	49	38

Please see the basis of presentation and the non-GAAP reconciliations in the appendix.

Ribbon Condensed Balance Sheets

USD Millions	1Q18	2Q18	3Q18	4Q18	1Q19	2Q19	3Q19	4Q19	1Q20
ASSETS									
Cash and Investments ¹	85	55	43	51	46	51	40	45	110
Accounts Receivable, Net	126	136	151	188	135	155	163	193	206
Inventory, Net	21	19	22	23	19	17	14	15	67
Property Plant Equipment, Net	24	24	26	27	28	28	27	29	47
Goodwill and Intangibles	568	556	646	635	640	627	615	438	866
Other Assets	38	37	37	34	78	98	98	95	177
Total Assets	861	828	924	957	946	977	957	815	1,472
LIABILITIES AND EQUITY									
Revolving Credit Facility	20	20	58	55	57	35	34	8	-
Liabilities	116	112	154	165	160	153	141	155	384
Deferred Revenue	117	105	98	123	125	112	102	121	140
Debt	23	23	24	24	25	50	49	48	395
Stockholders' Equity	585	567	590	590	579	627	631	483	554
Total Liabilities and Equity	861	828	924	957	946	977	957	815	1,472

Please see the basis of presentation in the appendix.

1) Includes cash, cash equivalents, short- and long-term investments and restricted cash as appropriate for each period.

Ribbon Condensed Statements of Cash Flows

USD Millions	1Q18	2Q18	3Q18	4Q18	FY18	1Q19	2Q19	3Q19	4Q19	FY19	1Q20
Cash from Operations	3	(26)	(1)	14	(10)	20	10	(6)	33	56	40
Purchases of PP&E	(2)	(2)	(2)	(2)	(8)	(4)	(2)	(2)	(2)	(11)	(6)
Stock Repurchase	-	-	-	-	-	-	(5)	-	-	(5)	-
Business Acquisitions	-	-	(46)	-	(46)	(22)	-	-	-	(22)	(347)
Sale of Fixed Assets	-	-	-	-	-	-	-	-	-	-	44
Borrowings, net	-	-	38	(3)	35	2	3	(2)	(27)	(23)	336
Other	-	(1)	(1)	(1)	(4)	(1)	-	-	0	(1)	(1)
Net Change	2	(30)	(12)	8	(32)	(5)	5	(11)	4	(6)	65
Cash¹ Beginning of Period	83	85	55	43	83	51	46	51	40	51	45
Cash¹ End of Period	85	55	43	51	51	46	51	40	45	45	110

Please see the basis of presentation in the appendix.

1) Includes cash, cash equivalents, short- and long-term investments and restricted cash as appropriate for each period.

Ribbon Revenue Key Statistics

USD Millions except for percentages	1Q18	2Q18	3Q18	4Q18	FY18	1Q19	2Q19	3Q19	4Q19	FY19	1Q20
GAAP Revenue											
Product	52	63	77	87	279	47	72	61	81	262	76
Service	70	74	75	80	299	71	73	77	80	301	82
Total Revenue	121	137	152	167	578	119	145	138	161	563	158
% of Total GAAP Revenue:											
GAAP Revenue Mix											
Product	43%	46%	51%	52%	48%	40%	50%	44%	50%	47%	48%
Services	57%	54%	49%	48%	52%	60%	50%	56%	50%	53%	52%
GAAP Revenue by Geography											
Domestic	47%	61%	61%	62%	58%	58%	58%	64%	62%	61%	50%
International	53%	39%	39%	38%	42%	42%	42%	36%	38%	39%	50%
GAAP Revenue by Channel											
Direct	84%	88%	66%	69%	75%	60%	60%	65%	69%	64%	62%
Indirect	16%	12%	34%	31%	25%	40%	40%	35%	31%	36%	38%
GAAP Product Revenue By Market											
Enterprise	14%	11%	31%	23%	21%	31%	21%	29%	29%	27%	36%
Service Providers	86%	89%	69%	77%	79%	69%	79%	71%	71%	73%	64%
10% Total Revenue Customers	Verizon	Verizon	Verizon AT&T	Verizon	Verizon	Verizon AT&T	Verizon	Verizon AT&T	Verizon AT&T	Verizon AT&T	Verizon AT&T

Please see the basis of presentation in the appendix.

Basis of Presentation

Totals may not sum due to rounding

The terms “Ribbon standalone”, “Ribbon’s organic business” and “organic” as used herein refer to the business, continuing operations and/or financial results, as the context dictates, of Ribbon Communications excluding the recently acquired ECI business. The term “overall” as used herein refers to Ribbon consolidated results (including the results of ECI post-acquisition through March 31, 2020) for the metric or period indicated. Periods prior to the first quarter of 2020 represent Ribbon reported results for the respective period.

Packet Optical Network relates to the ECI Telecom business

Cloud and Edge relates to Ribbon standalone and excludes the ECI Telcom business

Discussion of Non-GAAP Financial Measures

Ribbon Communications' management uses several different financial measures, both GAAP and non-GAAP, in analyzing and assessing the overall performance of the business, making operating decisions, planning and forecasting future periods, and determining payments under compensation programs. Our annual financial plan is prepared on a non-GAAP basis and is approved by our board of directors. Budgeting and forecasting for revenue and expenses are conducted on a non-GAAP basis and actual results on a non-GAAP basis are assessed against the annual financial plan. We consider the use of non-GAAP financial measures helpful in assessing the core performance of our continuing operations and when planning and forecasting future periods. By continuing operations, we mean the ongoing results of the business adjusted for certain expenses and credits, including, but not limited to, stock-based compensation; amortization of intangible assets; acquisition-related facilities adjustments; certain litigation costs; impairment of goodwill; settlement expense; cancelled debt offering costs; acquisition- and integration-related expense; restructuring and related expense; a gain on the settlement of litigation; a reduction to deferred purchase consideration; the tax effect of these adjustments; and the income tax benefit arising from purchase accounting. Effective for the first quarter of 2019 and for subsequent reporting periods, we no longer adjust for the impact of the adoption of the new revenue standard in 2018.

The terms "Standalone Ribbon" and "organic" as used herein refer to the business, continuing operations and/or financial results, as the context dictates, of Ribbon Communications on a non-GAAP basis excluding the recently acquired ECI business. The term "Standalone ECI" as used herein refers to the business, continuing operations and/or financial results, as the context dictates, of ECI on a non-GAAP basis for the period from March 3, 2020 to March 31, 2020. The term "Overall" refers to the consolidated results of Ribbon, including the recently acquired ECI business. While our management uses non-GAAP financial measures as a tool to enhance their understanding of certain aspects of our financial performance, our management does not consider these measures to be a substitute for, or superior to, GAAP measures. In addition, our presentations of these measures may not be comparable to similarly titled measures used by other companies. These non-GAAP financial measures should not be considered alternatives for, or in isolation from, the financial information prepared and presented in accordance with GAAP.

Investors are cautioned that there are material limitations associated with the use of non-GAAP financial measures as an analytical tool. In particular, many of the adjustments to our financial measures reflect the exclusion of items that are recurring and will be reflected in our financial results for the foreseeable future.

Discussion of Non-GAAP Financial Measures (continued)

Impact of New Revenue Standard

For periods prior to the first quarter of 2019, we adjusted our non-GAAP financial measures for eliminated revenue resulting from our adoption of the new revenue recognition standard in 2018 and related cost of revenue. Effective for the first quarter of 2019 and for subsequent reporting periods, we no longer adjust our non-GAAP financial measures for the 2018 revenue standard adoption.

Stock-Based Compensation

Stock-based compensation expense is different from other forms of compensation, as it is a non-cash expense. For example, a cash salary generally has a fixed and unvarying cash cost. In contrast, the expense associated with an equity-based award is generally unrelated to the amount of cash ultimately received by an employee, and the cost to us is based on a stock-based compensation valuation methodology, subjective assumptions and the variety of award types, all of which may vary over time. We evaluate performance without these measures because stock-based compensation expense is influenced by the Company's stock price and other factors, such as volatility and interest rates that are beyond our control. The expense related to stock-based awards is generally not controllable in the short-term and can vary significantly based on the timing, size and nature of awards granted. As such, we do not include such charges in our operating plans, and we believe that presenting non-GAAP operating results that exclude stock-based compensation provides investors with visibility and insight into our management's method of analysis and the Company's core operating performance. It is reasonable to expect that stock-based compensation will continue in future periods.

Amortization of Intangible Assets

We exclude the amortization of acquired intangible assets from non-GAAP expense and income measures. These amortization amounts are inconsistent in frequency and amount and are significantly impacted by the timing and size of acquisitions. Although we exclude amortization of acquired intangible assets from our non-GAAP expenses, we believe that it is important for investors to understand that intangible assets contribute to revenue generation. We believe that excluding non-cash amortization of intangible assets facilitates the comparison of our financial results to our historical operating results and to other companies in our industry as if the acquired intangible assets had been developed internally rather than acquired. Amortization of intangible assets that relate to past acquisitions will recur in future periods until such intangible assets have been fully amortized.

Discussion of Non-GAAP Financial Measures (continued)

Acquisition-Related Facilities Adjustments

GAAP accounting requires that the deferred rent liability of an acquired company be written off as part of purchase accounting and that a combined company's rent expense on a straight-line basis begin as of the acquisition date. As a result, we recorded more rent expense than would have been recognized but for the purchase accounting treatment of GENBAND's assumed deferred rent liability. We included this adjustment, which related to the acquisition of GENBAND, through the fourth quarter of 2018, to allow for more complete comparisons to the financial results of our historical operations and the financial results of peer companies.

Litigation Costs

We were involved in litigation with a certain competitor with whom we reached a settlement in the second quarter of 2019 (see also "Gain on Litigation Settlement" below). In connection with this litigation, we incurred litigation costs beginning in the fourth quarter of 2017. In addition, we are currently the plaintiff in litigation with a former business partner of GENBAND regarding amounts loaned to this former business partner that were never repaid, for which we began incurring litigation costs in the fourth quarter of 2019. We believe that such costs are not part of our core business or ongoing operations. Accordingly, we believe that excluding the litigation costs related to these specific legal matters facilitates the comparison of our financial results to our historical operating results and to other companies in our industry.

Annual Goodwill Evaluation

We performed our annual testing for impairment of goodwill in the fourth quarter of 2019. We operate as a single operating segment with one reporting unit and consequently we evaluate goodwill for impairment based on an evaluation of the fair value of the Company as a whole. Upon completion of the goodwill impairment test, we determined that it was necessary to reduce our goodwill carrying amount and recorded a non-cash impairment charge in the fourth quarter of 2019. We believe that such non-cash costs are not part of our core business or ongoing operations. Accordingly, we believe that excluding the goodwill impairment charge facilitates the comparison of our financial results to our historical operating results and to other companies in our industry.

Discussion of Non-GAAP Financial Measures (continued)

Settlement Expense

In the first quarter of 2018, we recorded \$1.7 million of expense related to settlements, comprised of \$1.4 million for the settlement of litigation in connection with our acquisition of Taqua LLC and \$0.3 million of patent litigation settlement expense. These amounts are included as components of general and administrative expense. We believe that such settlement costs are not part of our core business or ongoing operations, are unplanned and generally not within our control. Accordingly, we believe that excluding these costs facilitates the comparison of our financial results to our historical operating results and other companies in our industry.

Cancelled Debt Offering Costs

In the fourth quarter of 2018, we announced that we intended to offer, subject to market conditions and other factors, \$150 million aggregate principal amount of convertible senior notes due 2023 in a private offering to qualified institutional buyers. Subsequent to the announcement, we determined the then-current market conditions were not conducive for an offering on terms that would be in the best interests of our stockholders. In connection with this offering, we incurred \$1.0 million of expense. We do not consider these debt offering costs to be related to the continuing operations of the Company. We believe that excluding these cancelled debt offering costs facilitates the comparison of our financial results to our historical operating results and to other companies in our industry.

Acquisition- and Integration-Related Expense

We consider certain acquisition- and integration-related costs to be unrelated to the organic continuing operations of our acquired businesses and the Company, and such costs are generally not relevant to assessing or estimating the long-term performance of the acquired assets. In addition, the size, complexity and/or volume of an acquisition, which often drive the magnitude of acquisition- and integration-related costs, may not be indicative of future acquisition- and integration-related costs. By excluding these acquisition- and integration-related costs from our non-GAAP measures, we believe that our management is better able to evaluate our ability to utilize our existing assets and estimate the long-term value that the acquired assets will generate for us. We exclude certain acquisition- and integration-related costs to allow more accurate comparisons of our financial results to our historical operations and the financial results of less acquisitive peer companies. In addition, we believe that providing supplemental non-GAAP measures that exclude these items allows management and investors to consider the ongoing operations of the business both with and without such expenses.

Discussion of Non-GAAP Financial Measures (continued)

Restructuring and Related Expense

We have recorded restructuring and related expense to streamline operations and reduce operating costs by closing and consolidating certain facilities and reducing our worldwide workforce. We review our restructuring accruals and facilities requirements regularly and record adjustments to these estimates as required. We believe that excluding restructuring and related expense facilitates the comparison of our financial results to our historical operating results and to other companies in our industry, as there are no future revenue streams or other benefits associated with these costs.

Gain on Litigation Settlement

We were involved in litigation with a certain competitor with whom we reached a settlement in the second quarter of 2019, under which such competitor agreed to pay us an aggregate amount of \$63.0 million (see “Litigation Costs” above). This gain is included as a component of other income (expense), net. We believe that such gains are not part of our core business or ongoing operations. Accordingly, we believe that excluding the gain on litigation settlement related to this specific legal matter facilitates the comparison of our financial results to our historical results and to other companies in our industry.

Reduction to Deferred Purchase Consideration

We recorded \$8.1 million in other income (expense), net, in the first quarter of 2019 related to the reduction of cash deferred purchase consideration for Edgewater. We believe that such reductions to cash deferred purchase consideration are not part of our core business or ongoing operations, as they relate to specific acquisitive transactions. Accordingly, we believe that excluding such reductions related to acquisition transactions facilitates the comparison of our financial results to our historical results and to other companies in our industry.

Discussion of Non-GAAP Financial Measures (continued)

Tax Effect of Non-GAAP Adjustments

Beginning with the second quarter of 2019, non-GAAP income tax expense is presented based on an estimated tax rate applied against forecasted annual non-GAAP income. The non-GAAP income tax expense assumes no available net operating losses or any valuation allowances for the U.S. as a result of reporting significant cumulative non-GAAP income over the past several years. Due to the methodology applied to our estimated annual tax rate, our estimated tax rate on non-GAAP income will differ from our GAAP tax rate and from our actual tax liabilities.

Tax Benefit Arising from Purchase Accounting

In 2018, we assessed our ability to use our tax benefits and determined that it was more likely than not that some of these benefits will be recognized. As a result, we reduced our deferred tax asset valuation allowance, resulting in an income tax benefit of \$0.7 million and a reduction to our income tax provision in 2018. We believe that such a benefit is not part of our core business or ongoing operations, as it was the result of an acquisition and was unrelated to our revenue-producing activities. Accordingly, we believe that excluding the benefit arising from this adjustment to our income tax provision facilitates the comparison of our financial results to our historical results and to other companies in our industry.

Discussion of Non-GAAP Financial Measures (continued)

Adjusted EBITDA

We use Adjusted EBITDA as a supplemental measure to review and assess our performance. We calculate Adjusted EBITDA by excluding from net income (loss): interest income (expense), net; income tax provision; depreciation; and amortization of intangible assets. In addition, we exclude from net income (loss): historical adjustments to revenue and cost of revenue related to our adoption of the new revenue standard (for periods prior to the first quarter of 2019); stock-based compensation expense; acquisition-related facilities adjustments; certain litigation costs; impairment of goodwill; settlement expense; cancelled debt offering costs; acquisition- and integration-related expense; restructuring and related expense; and other income (expense), net. In general, we add back the expenses that we consider to be non-cash and/or not part of our ongoing operations. Adjusted EBITDA is a non-GAAP financial measure that is used by our investing community for comparative and valuation purposes. We disclose this metric to support and facilitate our dialogue with research analysts and investors. Other companies may calculate Adjusted EBITDA differently than we do, limiting its usefulness as a comparative measure.

Unlevered Free Cash Flow

We use Unlevered Free Cash Flow to measure the cash we generate or utilize from operations and to maintain our capital assets. We calculate Unlevered Free Cash Flow as net cash provided by (used in) operating activities excluding interest expense, less capital expenditures. We disclose this metric to support and facilitate our dialogue with research analysts and investors, as we believe Unlevered Free Cash Flow is representative of cash that is available for working capital, investments and financing de-leveraging. Accordingly, we believe that Unlevered Free Cash Flow provides useful information to investors in understanding and evaluating our liquidity in the same manner as management. Other companies may calculate Unlevered Free Cash Flow differently than we do, limiting its usefulness as a comparative measure.

Discussion of Non-GAAP Financial Measures (continued)

Leverage and Net Debt Leverage

This calculation utilizes Ribbon and ECI Adjusted EBITDA combined for the twelve months ended December 31, 2019, including pro forma net cost synergies and excluding the impact of any purchase accounting adjustments, compared to our debt at March 3, 2020. We disclose this metric to support and facilitate our dialogue with research analysts and investors.

We believe that providing non-GAAP information to investors, in addition to the GAAP presentation, will allow investors to view the financial results in the way our management views them. We further believe that providing this information helps investors to better understand our core financial and operating performance and evaluate the efficacy of the methodology and information used by our management to evaluate and measure such performance.

Annual and Quarterly GAAP to Non-GAAP Reconciliation

\$000's	1Q18	2Q18	3Q18	4Q18	FY18	1Q19	2Q19	3Q19	4Q19	FY19	1Q20 Ribbon standalone	1Q20 ECI standalone	1Q20 Overall
Revenue											\$ 128,031	\$ 29,951	\$ 157,982
Total gross profit											\$ 70,919	\$ 10,651	\$ 81,570
GAAP Gross margin - total (Total gross profit/Revenue)	45.6%	54.7%	53.9%	57.3%	53.4%	47.6%	55.5%	57.3%	62.7%	56.3%	55.4%	35.6%	51.6%
Adjustment for new revenue standard**	1.2%	0.8%	0.5%	0.5%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Adjustment to cost of revenue for new revenue standard**	-0.1%	0.0%	0.0%	0.0%	*	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Stock-based compensation	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.0%	0.1%
Amortization of intangible assets	7.8%	6.7%	6.9%	5.7%	6.5%	8.1%	6.9%	6.9%	5.1%	6.7%	6.2%	3.6%	5.7%
Acquisition-related facilities adjustment	0.1%	0.1%	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Non-GAAP Gross margin - total	54.8%	62.4%	61.5%	63.6%	60.9%	55.8%	62.5%	64.3%	67.9%	63.1%	61.7%	39.2%	57.4%

* Less than 0.1% impact on Gross margin.

** Effective Q1 2019, the Company no longer adjusted for the impact of the adoption in 2018 of the new revenue standard.

Annual and Quarterly GAAP to Non-GAAP Reconciliation (continued)

\$000s	1Q18	2Q18	3Q18	4Q18	FY18	1Q19	2Q19	3Q19	4Q19	FY19	1Q20 Ribbon standalone	1Q20 Overall
GAAP Operating expenses	\$ 97,656	\$ 91,747	\$ 89,800	\$ 94,537	\$ 373,740	\$ 92,817	\$ 87,769	\$ 76,191	\$ 249,767	\$ 506,544	\$ 96,880	\$ 110,310
Stock-based compensation	(2,641)	(1,995)	(2,430)	(3,547)	(10,613)	(4,033)	(1,357)	(2,335)	(4,322)	(12,047)	(2,819)	(2,819)
Amortization of intangible assets	(2,717)	(2,694)	(2,855)	(2,481)	(10,747)	(2,277)	(2,555)	(2,738)	(4,082)	(11,652)	(4,355)	(5,380)
Acquisition-related facilities adjustment	(143)	(171)	(171)	(172)	(657)	-	-	-	-	-	-	-
Litigation costs	(673)	(1,901)	(3,147)	(1,961)	(7,682)	(6,186)	(1,315)	1,534	(1,767)	(7,734)	(3,038)	(3,038)
Impairment of goodwill	-	-	-	-	-	-	-	-	(164,300)	(164,300)	-	-
Settlement expense	(1,730)	-	-	-	(1,730)	-	-	-	-	-	-	-
Cancelled debt offering costs	-	-	-	(1,003)	(1,003)	-	-	-	-	-	-	-
Acquisition- and integration-related expense	(4,412)	(4,280)	(5,570)	(2,689)	(16,951)	(3,199)	(1,965)	(1,697)	(6,092)	(12,953)	(12,384)	(12,384)
Restructuring and related expense	(6,668)	(6,097)	(2,397)	(1,853)	(17,015)	(4,932)	(9,144)	(2,372)	49	(16,399)	(2,075)	(2,075)
Non-GAAP Operating expenses	\$ 78,672	\$ 74,609	\$ 73,230	\$ 80,831	\$ 307,342	\$ 72,190	\$ 71,433	\$ 68,583	\$ 69,253	\$ 281,459	\$ 72,209	\$ 84,614
Income (loss) from operations as a percentage of revenue ("Operating margin")												
GAAP Operating margin	-35.0%	-12.1%	-5.0%	0.7%	-11.3%	-30.5%	-4.9%	2.0%	-92.4%	-33.6%	-20.3%	-18.2%
Adjustment to revenue for new revenue standard**	3.2%	2.3%	1.6%	1.1%	1.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Adjustment to cost of revenue for new revenue standard**	-0.1%	0.0%	0.0%	0.0%	*	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Stock-based compensation	2.3%	1.5%	1.6%	2.2%	1.9%	3.5%	1.1%	1.8%	2.8%	2.2%	2.3%	1.9%
Amortization of intangible assets	9.9%	8.5%	8.7%	7.1%	8.5%	10.1%	8.6%	8.9%	7.7%	8.7%	9.5%	9.1%
Acquisition-related facilities adjustment	0.2%	0.2%	0.2%	0.1%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Litigation costs	0.5%	1.4%	2.0%	1.2%	1.3%	5.2%	0.9%	-1.1%	1.1%	1.4%	2.4%	1.9%
Impairment of goodwill	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	101.9%	29.2%	0.0%	0.0%
Settlement expense	1.4%	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Cancelled debt offering costs	0.0%	0.0%	0.0%	0.6%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Acquisition- and integration-related expense	3.6%	3.1%	3.6%	1.6%	2.9%	2.7%	1.4%	1.2%	3.8%	2.3%	9.8%	7.8%
Restructuring and related expense	5.4%	4.3%	1.5%	1.1%	2.9%	4.1%	6.3%	1.7%	*	2.9%	1.6%	1.3%
Non-GAAP Operating margin	-8.6%	9.2%	14.2%	15.7%	8.6%	-4.9%	13.4%	14.5%	24.9%	13.1%	5.3%	3.8%

* Less than 0.1% impact on Operating margin.

** Effective Q1 2019, the Company no longer adjusted for the impact of the adoption in 2018 of the new revenue standard.

Annual and Quarterly GAAP to Non-GAAP Reconciliation (continued)

\$000s	1Q18	2Q18	3Q18	4Q18	FY18	1Q19	2Q19	3Q19	4Q19	FY19	1Q20 Ribbon standalone	1Q20 Overall
GAAP Diluted earnings per share or (loss) per share	\$ (0.44)	\$ (0.20)	\$ (0.10)	\$ (0.02)	\$ (0.74)	\$ (0.29)	\$ 0.45	\$ 0.01	\$ (1.36)	\$ (1.19)	\$ (0.25)	\$ (0.27)
Adjustment to revenue for new revenue standard**	0.03	0.03	0.02	0.02	0.10	-	-	-	-	-	-	-
Adjustment to cost of revenue for new revenue standard**	*	-	-	-	*	-	-	-	-	-	-	-
Stock-based compensation	0.03	0.02	0.02	0.03	0.11	0.04	0.01	0.02	0.04	0.11	0.02	0.02
Amortization of intangible assets	0.11	0.12	0.14	0.11	0.48	0.11	0.12	0.11	0.10	0.46	0.10	0.13
Acquisition-related facilities adjustment	*	*	*	*	0.01	-	-	-	-	-	-	-
Litigation costs	0.01	0.02	0.03	0.02	0.07	0.06	0.01	(0.01)	0.02	0.07	0.02	0.02
Impairment of goodwill	-	-	-	-	-	-	-	-	1.49	1.49	-	-
Settlement expense	0.02	-	-	-	0.02	-	-	-	-	-	-	-
Cancelled debt offering costs	-	-	-	0.01	0.01	-	-	-	-	-	-	-
Acquisition- and integration-related expense	0.04	0.04	0.06	0.03	0.16	0.03	0.02	0.02	0.06	0.12	0.11	0.10
Restructuring and related expense	0.07	0.06	0.02	0.02	0.16	0.05	0.08	0.02	*	0.15	0.03	0.02
Gain on litigation settlement	-	-	-	-	-	-	(0.57)	-	-	(0.57)	-	-
Reduction to deferred purchase consideration	-	-	-	-	-	(0.08)	-	-	-	(0.07)	-	-
Tax effect of non-GAAP adjustments	-	-	-	-	-	-	0.02	(0.04)	(0.08)	(0.10)	(0.01)	(0.01)
Tax benefits arising from purchase accounting	-	-	(0.01)	*	(0.01)	-	-	-	-	-	-	-
Non-GAAP Diluted earnings per share or (loss) per share	<u>\$ (0.13)</u>	<u>\$ 0.09</u>	<u>\$ 0.18</u>	<u>\$ 0.22</u>	<u>\$ 0.37</u>	<u>\$ (0.08)</u>	<u>\$ 0.14</u>	<u>\$ 0.13</u>	<u>\$ 0.27</u>	<u>\$ 0.47</u>	<u>\$ 0.02</u>	<u>\$ 0.01</u>

* Less than \$0.01 impact on earnings (loss) per share.

** Effective Q1 2019, the Company no longer adjusted for the impact of the adoption in 2018 of the new revenue standard.

Annual and Quarterly GAAP to Non-GAAP Reconciliation (continued)

\$000's	1Q18	2Q18	3Q18	4Q18	FY18	1Q19	2Q19	3Q19	4Q19	FY19	1Q20 Ribbon standalone	1Q20 Overall
Adjusted EBITDA												
GAAP Net income (loss)	\$ (44,904)	\$ (19,922)	\$ (10,158)	\$ (1,826)	\$ (76,810)	\$ (30,832)	\$ 49,470	\$ 1,650	\$ (150,363)	\$ (130,075)	\$ (29,861)	\$ (33,170)
Interest expense, net	599	735	1,420	1,476	4,230	1,364	1,262	726	525	3,877	3,125	3,395
Income tax provision (benefit)	2,170	499	(82)	813	3,400	1,014	5,033	(197)	1,332	7,182	(261)	191
Depreciation	2,507	2,811	2,952	2,930	11,200	2,921	2,970	2,933	3,125	11,949	2,993	3,474
Amortization of intangible assets	12,309	11,964	13,448	12,002	49,723	11,922	12,647	12,260	12,396	49,225	12,214	14,334
Adjustment to revenue for new revenue standard*	3,015	2,949	2,178	1,903	10,045	-	-	-	-	-	-	-
Adjustment to cost of revenue for new revenue standard*	(110)	-	-	-	(110)	-	-	-	-	-	-	-
Stock-based compensation	2,824	2,081	2,516	3,651	11,072	4,139	1,530	2,485	4,447	12,601	2,976	2,976
Acquisition-related facilities adjustment	211	252	251	252	966	-	-	-	-	-	-	-
Litigation costs	673	1,901	3,147	1,961	7,682	6,186	1,315	(1,534)	1,767	7,734	3,038	3,038
Impairment of goodwill	-	-	-	-	-	-	-	-	164,300	164,300	-	-
Settlement expense	1,730	-	-	-	1,730	-	-	-	-	-	-	-
Cancelled debt offering costs	-	-	-	1,003	1,003	-	-	-	-	-	-	-
Acquisition- and integration-related expense	4,412	4,280	5,570	2,689	16,951	3,199	1,965	1,697	6,092	12,953	12,384	12,384
Restructuring and related expense	6,668	6,097	2,397	1,853	17,015	4,932	9,144	2,372	(49)	16,399	2,075	2,075
Other (income) expense, net	(248)	2,052	1,254	714	3,772	(7,774)	(62,861)	507	(316)	(70,444)	1,036	844
Non-GAAP Adjusted EBITDA	\$ (8,144)	\$ 15,699	\$ 24,893	\$ 29,421	\$ 61,869	\$ (2,929)	\$ 22,475	\$ 22,899	\$ 43,256	\$ 85,701	\$ 9,719	\$ 9,541

* Effective Q1 2019, the Company no longer adjusted for the impact of the adoption in 2018 of the new revenue standard.

Annual and Quarterly GAAP to Non-GAAP Reconciliation (continued)

\$000's	1Q18	2Q18	3Q18	4Q18	FY18	1Q19	2Q19	3Q19	4Q19	FY19	1Q20 Ribbon standalone	1Q20 Overall
Adjusted EBITDA as a percentage of revenue ("Adjusted EBITDA margin")												
GAAP Net income (loss) as a percentage of revenue	-37.1%	-14.5%	-6.7%	-1.1%	-13.3%	-25.9%	34.0%	1.2%	-93.3%	-23.1%	-23.3%	-21.0%
Interest expense (income), net	0.5%	0.5%	0.9%	0.9%	0.7%	1.1%	0.9%	0.5%	0.3%	0.7%	2.4%	2.1%
Income tax provision (benefit)	1.7%	0.4%	-0.1%	0.5%	0.6%	0.9%	3.5%	-0.1%	0.8%	1.3%	-0.2%	0.1%
Depreciation	2.0%	2.0%	1.9%	1.7%	1.9%	2.5%	2.0%	2.1%	1.9%	2.1%	2.3%	2.2%
Amortization of intangible assets	9.9%	8.6%	8.7%	7.0%	8.6%	9.9%	8.6%	8.9%	7.7%	8.7%	9.6%	9.2%
Adjustment to revenue for new revenue standard**	3.2%	2.2%	1.7%	1.2%	1.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Adjustment to cost of revenue for new revenue standard**	*	0.0%	0.0%	0.0%	*	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Stock-based compensation	2.3%	1.5%	1.6%	2.2%	1.9%	3.5%	1.1%	1.8%	2.8%	2.2%	2.3%	1.9%
Acquisition-related facilities adjustment	0.2%	0.2%	0.2%	0.1%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Litigation costs	0.5%	1.4%	2.0%	1.2%	1.3%	5.2%	0.9%	-1.1%	1.1%	1.4%	2.4%	1.9%
Impairment of goodwill	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	101.9%	29.2%	0.0%	0.0%
Settlement expense	1.4%	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Cancelled debt offering costs	0.0%	0.0%	0.0%	0.6%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Acquisition- and integration-related expense	3.6%	3.1%	3.6%	1.6%	2.9%	2.7%	1.4%	1.2%	3.8%	2.3%	9.7%	7.8%
Restructuring and related expense	5.4%	4.3%	1.5%	1.1%	2.9%	4.1%	6.3%	1.7%	*	2.9%	1.6%	1.3%
Other (income) expense, net	-0.2%	1.5%	0.8%	0.4%	0.6%	-6.5%	-43.2%	0.4%	-0.2%	-12.5%	0.8%	0.5%
Non-GAAP Adjusted EBITDA margin	-6.6%	11.2%	16.1%	17.4%	10.5%	-2.5%	15.5%	16.6%	26.8%	15.2%	7.6%	6.0%

* Less than 0.1% impact on Adjusted EBITDA as a percentage of revenue.

** Effective Q1 2019, the Company no longer adjusts for the impact of the adoption in 2018 of the new revenue standard.

Annual and Quarterly GAAP to Non-GAAP Reconciliation (continued)

\$000's	1Q19	2Q19	3Q19	4Q19	FY19	1Q20
Unlevered Free Cash Flow						
GAAP Net cash provided by (used in) operating activities	\$ 19,579	\$ 9,540	\$ (6,488)	\$ 33,054	\$ 55,685	\$ 39,932
Interest expense	1,395	1,273	997	785	4,450	3,713
Purchases of property and equipment	(3,766)	(2,387)	(2,441)	(2,230)	(10,824)	(6,017)
Non-GAAP Unlevered free cash flow	<u>\$ 17,208</u>	<u>\$ 8,426</u>	<u>\$ (7,932)</u>	<u>\$ 31,609</u>	<u>\$ 49,311</u>	<u>\$ 37,628</u>

Computation of Leverage LTM EBITDA

(in millions, except leverage amounts)

Debt as of March 3, 2020	<u>\$ 400</u>
Ribbon Non-GAAP Adjusted EBITDA (1)	86
ECI Non-GAAP Adjusted EBITDA (2)	<u>27</u>
Consolidated Non-GAAP Adjusted EBITDA	<u>\$ 113</u>
Debt leverage (3)	<u>3.5</u>
Debt	\$ 400
Cash	<u>88</u>
Net debt	<u>\$ 312</u>
Net debt leverage (4)	<u>2.8</u>

(1) Year ended December 31, 2019. See the reconciliation of Non-GAAP to GAAP provided herein.

(2) Year ended December 31, 2019.

(3) Calculated as Debt divided by Consolidated Non-GAAP Adjusted EBITDA.

(4) Calculated as Net debt divided by Consolidated Non-GAAP Adjusted EBITDA.

ECI Condensed Statements of Operations

USD Millions except percentages and EPS	1Q19	2Q19	3Q19	4Q19	FY19
GAAP FINANCIAL MEASURES					
Product Revenue	70	66	74	84	294
Service Revenue	20	20	21	26	88
Total Revenue	90	86	95	110	382
Gross Profit	30	31	38	45	144
<i>Gross Margin %</i>	33%	36%	40%	41%	38%
Research and development	10	10	11	12	43
Selling, general and administrative	20	19	17	21	78
Total Operating Expenses	30	29	29	34	122
Income/(Loss) from Operations	(0)	3	9	11	23
<i>Operating Margin %</i>	0%	3%	9%	10%	6%
Net Income/(Loss)	(10)	(8)	(4)	(4)	(26)