

Ribbon Communications Inc. Releases Fourth Quarter 2017 Financial Results

March 1, 2018

GAAP revenue was \$146 million and Non-GAAP revenue was \$170 million in fourth quarter Successfully operationalized more than \$50 million of expense synergies

WESTFORD, Mass. – Ribbon Communications Inc. (Nasdaq: RBBN), a global leader in secure and intelligent cloud communications, today announced results for the fourth quarter ended December 31, 2017.

"I'm very pleased to have concluded the merger transaction and the launch of Ribbon in the marketplace. Ribbon's increased scale, global footprint, expanded product offerings and combined customer base will benefit our customers, who count on us as trusted long-term partners," said Fritz Hobbs, President and Chief Executive Officer. "The combined company's performance through the end of the year met or exceeded all of our guidance. We made solid progress on operationalizing cost synergies and now expect well over \$50 million in cost synergies in 2018," continued Hobbs.

"Ribbon delivered solid fourth quarter results driven by strength in our SBC sales. Our merger integration plans kicked off in earnest and we made substantial progress," said Daryl Raiford, Chief Financial Officer. "Looking to 2018, we are guiding for Adjusted EBITDA of \$75 million, a dramatic increase over 2017," continued Raiford.

Q417 Customer Highlights:

- Awarded a large Asian network inteconnect deal based on cloud and GPU (graphics processing unit) technology, demonstrating Ribbon's highly differentiated NFV (network function virtualization) strategy and evidence of the secular shift to virtualization and cloud architecture. This deal is expected to generate revenue in early 2019.
- Booked a significant gateway trunking contract with a large U.S. MSO (multiple system operator), illustrating the continued demand by MSO's to transform their legacy networks to IP.
- Booked new network transformation projects for three service providers in Canada.
- A large North American Tier 1 service provider deployed Ribbon's Converged Intelligent Messaging solutions supporting business and residential customers utilizing Ribbon's newly released NFV based offering, highlighting further progress on network virtualization.

Q417 Financial Highlights^{1,2}

- GAAP total revenue was \$146.2 million, compared to \$67.6 million in the fourth quarter of 2016.
- Non-GAAP total revenue was \$169.5 million, compared to \$67.6 million in the fourth quarter of 2016.
- GAAP net loss was \$15.7 million, compared to \$2.6 million in the fourth guarter of 2016.
- GAAP loss per share was \$0.18, compared to \$0.05 in the fourth guarter of 2016.
- Non-GAAP diluted earnings per share was \$0.27, compared to \$0.09 in the fourth quarter of 2016.
- Non-GAAP Adjusted EBITDA was \$27.8 million, compared to \$7.0 million in the fourth quarter of 2016.

FY17 Financial Highlights^{1,2}

- GAAP total revenue was \$329.9 million, compared to \$252.6 million in 2016.
- Non-GAAP total revenue was \$353.2 million, compared to \$252.6 million in 2016.
- GAAP net loss was \$35.3 million, compared to \$13.9 million in 2016.
- GAAP loss per share was \$0.60, compared to \$0.28 in 2016.
- Non-GAAP diluted earnings per share was \$0.51, compared to \$0.33 in 2016.
- Non-GAAP Adjusted EBITDA was \$40.9 million, compared to \$26.1 million in 2016.

Cash and investments were \$83.3 million at the end of the fourth quarter of 2017, compared to \$131.6 million at the end of the third quarter of 2017. The decrease was primarily due to net cash of \$43 million used for the merger of Sonus and GENBAND. Cash flow from operations was basically break-even for the quarter.

- ¹ The Sonus-GENBAND merger occurred on October 27, 2017. The consolidated financial results included in this press release represent the consolidated financial results of Sonus Networks, Inc., prior to October 27, 2017, and the consolidated financial results of Ribbon, on and after such date. The financial results of GENBAND are included in Ribbon's consolidated financial results beginning October 27, 2017.
- ² Please see the reconciliation of non-GAAP and GAAP financial measures, and additional information about non-GAAP measures, in the press release appendix.

Conference Call Details

The Company will offer a live, listen-only webcast of the conference call to discuss the complete financial results of Ribbon for the fourth quarter ended December 31, 2017 on March 1, 2018, via the investor section of its website at http://investors.ribboncommunications.com/, where a replay will also be available shortly following the conference call.

Conference call details:

Date: March 1, 2018 Time: 8:30 a.m. (ET)

Dial-in number: 888-224-7971 - International callers: +1-303-223-4386

Replay information:

A telephone playback of the call will be available following the conference call until March 15, 2018 and can be accessed by calling 800-633-8284 or +1-402-977-9140 for international callers. The reservation number for the replay is 21880364.

About Ribbon Communications

Ribbon Communications is a company with two decades of leadership in real-time communications. Built on world-class technology and intellectual property, the company delivers intelligent, secure, embedded real-time communications for today's world. The company transforms fixed, mobile and enterprise networks from legacy environments to secure IP and cloud-based architectures, enabling highly productive communications for consumers and businesses. With 64 locations in 27 countries around the globe, Ribbon's innovative, market-leading portfolio empowers service providers and enterprises with rapid service creation in a fully virtualized environment. The company's Kandy Communications Platform as a Service (CPaaS) delivers a comprehensive set of advanced embedded communications capabilities that enables this transformation. To learn more, visit https://ribboncommunications.com/.

Important Information Regarding Forward-Looking Statements

This press release 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 press release, including statements made by our executive officers in the introductory paragraphs, and statements regarding expected cost synergies, earnings and cash flow from operations, future results of operations and financial position, timing of anticipated revenue generation, integration efforts and opportunities, business strategy, strategic position, plans and objectives of management for future operations and plans for future product development and manufacturing are forward-looking statements. Without limiting the foregoing, the words "anticipates", "believes", "could", "estimates", "expects", "expectations", "intends", "may", "plans", "seeks", "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. Actual results could differ materially from those anticipated in these forward-looking statements as a result of various important factors, including, but not limited to, our success integrating the respective businesses of Sonus Networks. Inc. ("Sonus") and GENBAND Holdings Company ("GENBAND"): achievement of the anticipated synergies of the transaction between Sonus and GENBAND (the "Transaction"); our ability to realize the benefits from the Transaction; the effects of disruption from the Transaction, making it more difficult to maintain relationships with employees, customers, business partners or government entities; 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; our ability to maintain partner, reseller, distribution and vendor support and supply relationships; higher risks in international operations and markets; the impact of increased competition; currency fluctuations; changes in the market price of our common stock; and/or failure or circumvention of our controls and procedures.

Our forward-looking 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. 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 II, Item IA "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 our most recent Quarterly Report on Form 10-Q filed with the SEC and our other filings with the SEC. Any forward-looking statement made by us in this press release speaks only as of the date of this press release. 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. We undertake no obligation to publicly update any forward-looking statement, whether as a result of new information, future developments or otherwise, except as may be required by law.

Discussion of Non-GAAP Financial Measures

Ribbon 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 both on a GAAP and non-GAAP basis, and the non-GAAP annual financial plan is approved by our board of directors. Continuous budgeting and forecasting for revenue and expenses are conducted on a non-GAAP basis (in addition to GAAP) 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 acquisitionrelated revenue as a result of purchase accounting and the related cost of revenue, the impact of the new revenue standard, and excluding certain expenses and credits, including, but not limited to stock-based compensation, amortization and impairment of intangible assets, merger integration costs, settlement expense, certain litigation costs, acquisition- and integration-related expense, restructuring, certain gains included in other income, net, and income tax benefits arising from purchase accounting and tax reform. 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 Ribbon's financial measures reflect the exclusion of items that are recurring and will be reflected in our financial results for the foreseeable future.

Acquisition-Related Revenue and Cost of Revenue; Impact of New Revenue Standard We provide the supplementary non-GAAP financial measures, Non-GAAP Product revenue, Non-GAAP Service revenue and Non-GAAP Total revenue, which include revenue related to the acquisition of GENBAND that we would have recognized but for the purchase accounting treatment of these transactions. Because GAAP accounting requires the elimination of this revenue, as well as the impact on future revenue of our adoption in 2018 of the new revenue standard. GAAP results alone do not fully capture all of our economic activities. These non-GAAP adjustments are intended to reflect the full amounts of such revenue and the related cost of revenue. We also add back the revenue related to the acquisition of GENBAND and the related cost of such revenue when calculating other of our non-GAAP operating results. We include these adjustments, which primarily relate to the acquisition of GENBAND, to allow for more complete comparisons to the financial results of our historical operations, forwardlooking guidance and the financial results of peer companies. We believe these adjustments are useful to management and investors as a measure of the ongoing performance of the business because, although we cannot be certain that customers will renew the relevant GENBAND contracts, we have historically experienced high renewal rates on maintenance and support agreements and certain other customer contracts. These adjustments do not accelerate revenue, but instead include revenue (and the related cost of revenue) that would have been recognized in our 2017 results, and included in our 2018 guidance and results, but for the purchase accounting and new revenue standard adjustments required by GAAP.

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 the 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. 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 the 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. Future acquisitions may result in the amortization of additional intangible assets.

Impairment of Intangible Assets

In the fourth quarter of 2017, we discontinued our ongoing development of certain intangible assets that we had previously acquired, as we had determined that there were no alternative uses of the technology within either our existing or future product lines. As a result, we recorded an impairment charge of \$5.5 million to write down the carrying value of the assets to zero. Had we developed those intangible assets internally and made the decision to discontinue their ongoing development, we would have ceased work

on such development projects and eliminated the related future costs. Because we do not capitalize these costs, there would have been no asset to write off. As a result, we believe that excluding non-cash impairment charges from our non-GAAP operating results as if these impaired intangible assets had been developed internally rather than acquired facilitates a comparison to our historical operating results and to other companies in our industry.

Settlement Expense

In September 2017, we recorded \$1.6 million of expense related to potential fines in connection with the ongoing SEC investigation and an additional \$0.3 million of expense in connection with this matter in December 2017. In June 2016, we recorded \$0.6 million for patent litigation settlement costs. 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 costs such as the SEC potential fines and patent litigation settlement expense facilitates the comparison of our financial results to our historical operating results and to other companies in our industry.

Litigation Costs

In connection with certain ongoing litigation between GENBAND, as plaintiff, and one of its competitors, we incurred litigation costs in the fourth quarter of 2017, and expect to incur significant future litigation costs. These costs are included as a component of general and administrative expense. We believe that such costs are not part of our core business or ongoing operations, are unplanned and generally not within our control. Accordingly, we believe that excluding the litigation costs related to this specific legal matter facilitates the comparison of our financial results to our historical operating results and to other companies in our industry.

Acquisition- and Integration-Related Costs

We consider certain acquisition- and integration-related costs to be unpredictable and dependent on a significant number of factors that may be outside of our control. We do not consider these acquisition- and integration-related costs to be related to the organic continuing operations of our acquired businesses or to the Company and they 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 drives 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, management is better able to evaluate our ability to utilize our existing assets and estimate the long-term value that 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, forward-looking guidance 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.

Restructuring

We have recorded restructuring expense to streamline operations and reduce operating costs by closing and consolidating certain facilities and reducing our worldwide workforce. We review our restructuring accruals regularly and record adjustments (both expense and credits) to these estimates as required. We believe that excluding restructuring expense and credits 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 Sales of Intangible Assets

In both 2017 and 2016, we sold intangible assets that we had acquired in connection with two previous acquisitions. These amounts, aggregating \$0.6 million in 2017 and \$1.3 million in 2016, are included as components of other income, net. We believe that such gains are not part of our core business or ongoing operations, as we had not used the intangible assets in connection with revenue-producing activities and would not have used them as such in the future. Accordingly, we believe that excluding the other income arising from these sales from our results facilitates the comparison of our financial results to our historical results and to other companies in our industry.

Tax Benefits Arising from Purchase Accounting and Tax Reform

In the fourth quarter of 2017, 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, the valuation allowance was reduced in connection with the GENBAND transaction, resulting in an income tax benefit of \$16.4 million. In addition, we recognized an income tax benefit of \$4.8 million related to the Tax Cut and Jobs Act of 2017. We believe that such benefits are not part of our core business or ongoing operations, as they are either the result of acquisitions or new tax legislation, neither of which relates to our revenue-producing activities. Accordingly, we believe that excluding the benefits arising from these adjustments to our income tax provision facilitates the comparison of our financial results to our historical results and to other companies in our industry.

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 benefit (provision); depreciation; and amortization and impairment of intangible assets. In addition, we exclude from net income (loss): adjustments to revenue and cost of revenue related to revenue reductions resulting from purchase accounting; stock-based compensation; settlement expense; certain litigation costs; acquisition- and integration-related expense; restructuring; and other income, 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.

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 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.

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Consolidated Statements of Operations

(in thousands, except percentages and per share amounts) (unaudited)

			Three r	nonths ended		
	Dec	cember 31,	Sept	tember 30,	Dec	ember 31,
		2017		2017		2016
Revenue:						
Product	\$	82,814	\$	44,120	\$	37,662
Service		63,398		30,509		29,910
Total revenue		146,212		74,629		67,572
Cost of revenue:						
Product		41,502		9,708		12,137
Service		27,911		10,374		10,041
Total cost of revenue		69,413		20,082		22,178
Gross profit		76,799		54,547		45,394
Gross margin:						
Product		49.9%		78.0%		67.8%
Service		56.0%		66.0%		66.4%
Total gross margin		52.5%		73.1%		67.2%
Operating expenses:						
Research and development		40,410		20,798		19,836
Sales and marketing		35,553		17,454		17,649
General and administrative		19,649		10,833		9,292
Acquisition- and integration-related		8,485		1,543		201
Restructuring		8,365				1,120
Total operating expenses		112,462		50,628		48,098
Income (loss) from operations		(35,663)		3,919		(2,704)
Interest income (expense), net		(509)		260		179
Other income, net		697		1		508
Income (loss) before income taxes		(35,475)		4,180		(2,017)
Income tax benefit (provision)		19,761		(727)		(614)
Net income (loss)	\$	(15,714)	\$	3,453	\$	(2,631)
Earnings (loss) per share:						
Basic	\$	(0.18)	\$	0.07	\$	(0.05)
Diluted	\$	(0.18)	\$	0.07	\$	(0.05)
Shares used to compute earnings (loss) per share:						
Basic		86,567		49,753		49,232
Diluted		86,567		50,131		49,232

Consolidated Statements of Operations

(in thousands, except percentages and per share amounts) (unaudited)

	Year ended		
	December 31,	December 31,	
	2017	2016	
Revenue:			
Product	\$ 181,119	\$ 146,381	
Service	148,823	106,210	
Total revenue	329,942	252,591	
Cost of revenue:			
Product	70,250	47,367	
Service	58,196	37,613	
Total cost of revenue	128,446	84,980	
Gross profit	201,496	167,611	
Gross margin:			
Product	61.2%	67.6%	
Service	60.9%	64.6%	
Total gross margin	61.1%	66.4%	
Operating expenses:			
Research and development	101,481	72,841	
Sales and marketing	83,403	68,539	
General and administrative	47,642	35,948	
Acquisition- and integration-related	14,763	1,152	
Restructuring	9,436	2,740	
Total operating expenses	256,725	181,220	
Loss from operations	(55,229)	(13,609)	
Interest income, net	263	769	
Other income, net	1,274	1,424	
Loss before income taxes	(53,692)	(11,416)	
Income tax benefit (provision)	18,440	(2,516)	
Net loss	\$ (35,252)	\$ (13,932)	
Loss per share:			
Basic	\$ (0.60)	\$ (0.28)	
Diluted	\$ (0.60)	\$ (0.28)	
Shares used to compute loss per share:			
Basic	58,822	49,385	
Diluted	58,822	49,385	

Consolidated Balance Sheets (in thousands) (unaudited)

Assets Current assets:	December 31, 2017	December 31, 2016
Cash and cash equivalents	\$ 57,073	\$ 31,923
Marketable securities	17,224	61,836
Accounts receivable, net	165,156	53,862
· · · · · · · · · · · · · · · · · · ·	21,303	
Inventory		18,283
Other current assets	21,463	12,010
Total current assets	282,219	177,914
Property and equipment, net	24,780	11,741
Intangible assets, net	244,414	30,197
Goodwill	335,716	49,393
Investments	9,031	32,371
Deferred income taxes	8,434	1,542
Other assets	6,289	4,901
	\$ 910,883	\$ 308,059
Liabilities and Stockholders' Equity Current liabilities: Revolving credit facility Accounts payable Accrued expenses and other Deferred revenue Total current liabilities Long-term debt Deferred revenue, net of current Deferred income taxes Other long-term liabilities Total liabilities Commitments and contingencies	\$ 20,000 45,851 76,380 100,571 242,802 22,500 14,184 2,787 13,189 295,462	\$ - 6,525 27,040 43,504 77,069 - 7,188 3,047 1,633 88,937
Stockholders' equity: Common stock Additional paid-in capital Accumulated deficit Accumulated other comprehensive income Total stockholders' equity	10 1,684,768 (1,072,426) 3,069 615,421 \$ 910,883	49 1,250,744 (1,037,174) 5,503 219,122 \$ 308,059

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

	Year ended		
Dece	ember 31,	Dece	ember 31,
	2017		2016
Cash flows from operating activities:			
Net loss \$	(35,252)	\$	(13,932)
Adjustments to reconcile net loss to cash flows provided by operating activities:			
Depreciation and amortization of property and equipment	8,486		7,970
Amortization of intangible assets	17,112		7,500
Stock-based compensation	25,657		19,768
Impairment of intangible assets	5,471		-
Deferred income taxes	(20,361)		1,088
Other	(1,340)		(1,265)
Changes in operating assets and liabilities:			
Accounts receivable	(30,759)		(851)
Inventory	5,786		4,858
Other operating assets	269		506
Accounts payable	13,415		(821)
Accrued expenses and other	(4,263)		(7,778)
Deferred revenue	23,859		2,149
Net cash provided by operating activities	8,080		19,192
		-	- , -
Cash flows from investing activities:			
Purchases of property and equipment	(3,999)		(4,626)
Business acquisitions, net of cash acquired	(42,951)		(20,669)
Purchases of marketable securities	(28,731)		(78,528)
Sale/maturities of marketable securities	96,112		75,178
Proceeds from the sale of intangible assets	576		1,298
Net cash provided by (used in) investing activities	21,007		(27,347)
			(= 1, 5 11)
Cash flows from financing activities:			
Borrowings under revolving line of credit	15,500		-
Principal payments on revolving line of credit	(13,500)		-
Principal payments of capital lease obligations	(99)		(43)
Payment of debt issuance costs	(731)		-
Proceeds from the sale of common stock in connection with employee purchase plan	1,252		1,360
Proceeds from the exercise of stock options	617		153
Payment of tax withholding obligations related to net share settlements of restricted stock awards	(7,523)		(1,810)
Repurchase of common stock	-		(9,530)
Net cash used in financing activities	(4,484)	-	(9,870)
Effect of exchange rate changes on cash and cash equivalents	547		(163)
Net increase (decrease) in cash and cash equivalents	25,150		(18,188)
Cash and cash equivalents, beginning of year	31,923		50,111
Cash and cash equivalents, end of year \$	57,073	\$	31,923

Supplemental Information (in thousands) (unaudited)

The following tables provide the details of stock-based compensation, amortization of intangible assets, impairment of intangible assets, merger integration costs, settlement expense, litigation costs and gain on sales of intangible assets included as components of other line items in the Company's Consolidated Statements of Operations and the line items in which these amounts are reported.

		Three months ended	
	December 31, 2017	September 30, 2017	December 31, 2016
Stock-based compensation		2017	
Cost of revenue - product	\$ 253	\$ 75	\$ 100
Cost of revenue - service	671	199	329
Cost of revenue	924	274	429
Research and development expense	3,687	1,095	1,327
Sales and marketing expense	3,195	871	917
General and administrative expense	6,464	1,647	1,631
Operating expense	13,346	3,613	3,875
Total stock-based compensation	\$ 14,270	\$ 3,887	\$ 4,304
Amortization of intangible assets			
Cost of revenue - product	\$ 8,119	\$ 1,601	\$ 1,501
Sales and marketing expense	2,148	692	506
Operating expense	2,148	692	506
Total amortization of intangible assets	\$ 10,267	\$ 2,293	\$ 2,007
Impairment of intangible assets			
Cost of revenue - product	\$ 5,471	\$ -	\$ -
Merger integration costs			
General and administrative expense (A)	\$ (178)	\$ 178	\$ -
Settlement expense			
General and administrative expense	\$ 300	\$ 1,600	\$ -
Litigation costs			
General and administrative expense	\$ 373	\$ -	\$ -
Gain on sales of intangible assets			
Other income, net	\$ -	\$ -	\$ 498

⁽A) Amount recorded in Q3 2017 reclassified in Q4 2017 to "Acquisition- and integration-related expense."

Supplemental Information (in thousands) (unaudited)

The following tables provide the details of stock-based compensation, amortization of intangible assets, impairment of intangible assets, settlement expense, litigation costs and gain on the sales of intangible assets included in other line items in the Company's Consolidated Statements of Operations and the line items in which these amounts are reported.

	Year	ended
	December 31,	December 31,
	2017	2016
Stock-based compensation	Φ 71.4	Φ 250
Cost of revenue - product Cost of revenue - service	\$ 514	\$ 359
Cost of revenue - service Cost of revenue	1,448 1,962	1,314
Cost of revenue	1,702	1,073
Research and development expense	7,337	5,014
Sales and marketing expense	4,885	6,209
General and administrative expense	11,473	6,872
Operating expense	23,695	18,095
Total stock-based compensation	\$ 25,657	\$ 19,768
Amortization of intangible assets		
Cost of revenue - product	\$ 12,887	\$ 6,038
Sales and marketing expense	4,225	1,462
Operating expense	4,225	1,462
Total amortization of intangible assets	\$ 17,112	\$ 7,500
Impairment of intangible assets Cost of revenue - product	\$ 5,471	\$ -
•		
Settlement expense General and administrative expense	\$ 1,900	\$ 605
Litigation costs General and administrative expense	\$ 373	\$ -
Gain on sales of intangible assets Other income, net	\$ 576	\$ 1,298

RIBBON COMMUNICATIONS INC. Reconciliation of Non-GAAP and GAAP Financial Measures - Historical (in thousands, except percentages) (unaudited)

		Three months ended	
	December 31,	September 30,	December 31,
	2017	2017	2016
GAAP Product revenue	\$ 82,814	\$ 44,120	\$ 37,662
Acquisition-related revenue adjustment	3,230		3 37,002
Non-GAAP Product revenue	\$ 86,044	\$ 44,120	\$ 37,662
GAARG A	6 (2.200		
GAAP Service revenue Acquisition-related revenue adjustment	\$ 63,398 20,050	\$ 30,509	\$ 29,910
Non-GAAP Service revenue	\$ 83,448	\$ 30,509	\$ 29,910
GAAP Total revenue	\$ 146,212	\$ 74,629	\$ 67,572
Acquisition-related revenue adjustment Non-GAAP Total revenue	\$ 169,492	\$ 74,629	\$ 67,572
Non-Onth Total revenue	100,402	3 14,027	\$ 07,572
GAAP Gross margin - product	49.9%	78.0%	67.8%
Acquisition-related revenue adjustment	1.9%	0.0%	0.0%
Acquisition-related cost of revenue adjustment	-1.4%	0.0%	0.0%
Stock-based compensation	0.3% 9.4%	0.2% 3.6%	0.3% 3.9%
Amortization of intangible assets Impairment of intangible assets	6.4%	0.0%	0.0%
Non-GAAP Gross margin - product	66.5%	81.8%	72.0%
GAAP Gross margin - service	56.0%	66.0%	66.4%
Acquisition-related revenue adjustment	10.5%	0.0%	0.0%
Acquisition-related cost of revenue adjustment Stock-based compensation	-11.0% 0.8%	0.0% 0.6%	0.0% 1.1%
Non-GAAP Gross margin - service	56.3%	66.6%	67.5%
Ü			
GAAP Total gross margin	52.5%	73.1%	67.2%
Acquisition-related revenue adjustment	6.6%	0.0%	0.0%
Acquisition-related cost of revenue adjustment	-6.1%	0.0%	0.0%
Stock-based compensation Amortization of intangible assets	0.5% 4.8%	0.4% 2.1%	0.6% 2.2%
Impairment of intangible assets	3.2%	0.0%	0.0%
Non-GAAP Total gross margin	61.5%	75.6%	70.0%
GAAP Total gross profit	\$ 76,799	\$ 54,547	\$ 45,394
Acquisition-related revenue adjustment Acquisition-related cost of revenue adjustment	23,280 (10,364)	-	-
Stock-based compensation	924	274	429
Amortization of intangible assets	8,119	1,601	1,501
Impairment of intangible asses	5,471	-	
Non-GAAP Total gross profit	\$ 104,229	\$ 56,422	\$ 47,324
GAAP Research and development expense	\$ 40,410	\$ 20,798	\$ 19,836
Stock-based compensation	(3,687)	(1,095)	(1,327)
Non-GAAP Research and development expens	\$ 36,723	\$ 19,703	\$ 18,509
GAAP Sales and marketing expense	\$ 35,553	\$ 17,454	\$ 17,649
Stock-based compensation Amortization of intangible assets	(3,195) (2,148)	(871) (692)	(917) (506)
Non-GAAP Sales and marketing expens	\$ 30,210	\$ 15,891	\$ 16,226
GAAP General and administrative expens	\$ 19,649	\$ 10,833	\$ 9,292
Stock-based compensation	(6,464)	(1,647)	(1,631)
Merger integration costs (A) Settlement expense	178 (300)	(178) (1,600)	-
Litigation costs	(373)	(1,000)	-
Non-GAAP General and administrative expens	\$ 12,690	\$ 7,408	\$ 7,661
GAAP Operating expenses	\$ 112,462	\$ 50,628	\$ 48,098
Stock-based compensation	(13,346)	(3,613)	(3,875)
Amortization of intangible assets Merger integration costs (A)	(2,148) 178	(692) (178)	(506)
Settlement expense	(300)	(1,600)	-
Litigation costs	(373)	-	-
Acquisition- and integration-related expense	(8,485)	(1,543)	(201)
Restructuring Non-CAAR Operating expenses	(8,365)	¢ 42.002	(1,120)
Non-GAAP Operating expenses	\$ 79,623	\$ 43,002	\$ 42,396
GAAP Income (loss) from operations	\$ (35,663)	\$ 3,919	\$ (2,704)
Acquisition-related revenue adjustment	23,280	-	-
Acquisition-related cost of revenue adjustment	(10,364)	-	-
Stock-based compensation	14,270	3,887	4,304
Amortization of intangible assets	10,267	2,293	2,007
Impairment of intangible assets Merger integration costs (A)	5,471 (178)	178	-
Settlement expense	300	1,600	-
Litigation costs	373	-	-
Acquisition- and integration-related expense	8,485	1,543	201
Restructuring	8,365		1,120
Non-GAAP Income from operation:	\$ 24,606	\$ 13,420	\$ 4,928

⁽A) Amount recorded in Q3 2017 reclassified in Q4 2017 to "Acquisition- and integration-related expense."

RIBBON COMMUNICATIONS INC. Reconciliation of Non-GAAP and GAAP Financial Measures - Historical (in thousands, except percentages and per share amounts) (unaudited)

Page				
CAAP Income (toss) from operations as a percentage of revenue 2,24 kt 0,27 kt				
APA P Income (loss) from operations as a percentage of revenue 2-44% 5.35% -0.00% Acquaintion-related revenue algustment 17.1% 0.00% 0.00% Succhased compensation 8.44% 2.25% 0.35 Succhased compensation 3.24% 0.00% 0.00% Megar integration costs (A) 0.01% 0.22% 0.00% Engineering of the cost of the contraction of the cost of the				
Againstion-related revenue aljasiment 6.0% 0.0%		2017	2017	2010
Acquisition-ealed cost of revenue aljustment	GAAP Income (loss) from operations as a percentage of revenue	-24.4%	5.3%	-4.0%
Sock-based compensation	Acquisition-related revenue adjustment	17.1%	0.0%	0.0%
Manufaction of intangble assets 3.2% 0.0% 1	*			0.0%
Impure not of managhle assets				
Mergen integration conts (A) 6.11% 6.21% 6.00% Eitlement cepsene 0.2% 0.0% 0.0% Acquisition costs 0.2% 0.0% 0.0% Restructing 4.0% 0.0% 7.7% Ann CAAP Intene from operations as a percentage of revenue 5.697 \$ 1.0 \$ 2.00 CAAP Other income, net \$ 697 \$ 1.0 \$ 0.00 CAAP Coller income, net \$ 1976 \$ 1.0 \$ 1.00 CAAP Coller income, net \$ 1976 \$ 1.0 \$ 1.0 CAAP Coller income, net \$ 1976 \$ 1.0 \$ 1.0 CAAP Coller income, net \$ 1976 \$ 1.0 \$ 1.0 CAAP Coller income, net \$ 1.0 \$ 1.0 \$ 1.0 CAAP Coller income, net \$ 1.0 \$ 1.0 \$ 1.0 CAAP Coller income, net \$ 1.0 \$ 1.0 \$ 1.0 CAAP Collegation restriction (income, net \$ 1.0 \$ 1.0 \$ 1.0 CAAP Collegation restriction (income, net \$ 1.0 \$ 1.0 \$ 1.0 \$ 1.0 CAAP Collegation	•			
Set Set				
Display and minegration-related expense				
Acquisition and imagration-related expense 5.0% 2.1% 0.37% Restructuring 4.45% 2.0% 7.3% CAAP Other income from operations as a percentage of revenue 1.45% 1.80% 7.3% GAAP Other income, net 5.697 \$ 1 \$ 500 Goal on sales of intangible asset 5.697 \$ 1.7 \$ (40) GAAP Income tax benefit (provision) \$ 19.761 \$ (72) \$ (61) GAAP Income tax benefit (provision) \$ (15,74) \$ 3.453 \$ (2,63) GAAP Income tax benefit (provision) \$ (15,74) \$ 3.453 \$ (2,63) GAAP Income tax benefit (provision) \$ (15,74) \$ 3.483 \$ (2,63) GAAP Net income (tox) \$ (15,74) \$ 3.483 \$ (2,63) Acquisition-related cost of revenue alijustment \$ (10,56) \$ 3.887 \$ 4,00 Cock-based compensation \$ (10,56) \$ (2,50) \$ (2,50) \$ (2,50) \$ (2,50) \$ (2,50) \$ (2,50) \$ (2,50) \$ (2,50) \$ (2,50) \$ (2,50) \$ (2,50) \$ (2,50) \$ (2,50) \$ (2,50) \$ (2,	•			
Persistant common persistans as percentage of revenue	•			
AAAP Intenume from operations as a percentage of revenue 14.5% 18.0% 7.3% GAAP Other income, net 5.697 \$ 1 \$ 0.00 GAAP Other income, net \$ 5.697 \$ 1.7 \$ (48) GAAP Income tax benefit (provision) \$ 19.761 \$ (72) \$ (614) Tax benefits arising from purchase accounting and tax reform \$ (13.74) \$ 3.453 \$ (2.61) Tax benefits arising from purchase accounting and tax reform \$ (15.714) \$ 3.453 \$ (2.61) GAAP Income tax benefit (provision) \$ (15.714) \$ 3.453 \$ (2.61) Acquisition-related evenue adjustment \$ (10.364) \$ 3.453 \$ (2.61) Acquisition-related evenue adjustment \$ (10.364) \$ 3.857 \$ (3.04) Acquisition-related evenue adjustment \$ (10.364) \$ (2.03) \$ (2.00) Acquisition-related evenue adjustment \$ (10.364) \$ (3.06) \$ (3.06) Merger integration costs (A) \$ (178) \$ (3.06) \$ (3.06) \$ (3.06) \$ (3.06) \$ (3.06) \$ (3.06) \$ (3.06) \$ (3.06) \$ (3.06) \$ (3.06) \$ (3.06) </td <td></td> <td></td> <td></td> <td></td>				
Gain on alse of intangible asset - (498) One-GAAP Other income, net \$ 6979 \$ 1 \$ 10 GAAP Income tax benefit (provision) \$ 1,3941 \$ (21,155) - \$ (614) Tax benefits arising from purchase accounting and tax reform \$ 1,3941 \$ (27,155) \$ (28,31) GAAP Net income (nos) \$ 1,5144 \$ 3,453 \$ (26,31) Acquisition-related revenue adjustment \$ 12,3280 \$ 3,453 \$ (26,31) Acquisition-related cover fiverem adjustment \$ 14,270 \$ 3,873 \$ 4,04 Annotrization of manigable assets \$ 14,270 \$ 3,873 \$ 4,04 Impairment of intangible assets \$ 5,471 \$ 2 \$ 2 Settlement expense \$ 3,03 \$ 1,00 \$ 2 Impairment of intangible asset \$ 3,33 \$ 2 \$ 2 Settlement expense \$ 8,485 \$ 1,543 \$ 2 \$ 1,20 Itagiation soal \$ 1,543 \$ 2 \$ 2 \$ 2 \$ 2 \$ 2 \$ 2 \$ 2 \$ 2 \$ 2 \$ 2 \$ 2 \$ 2	Non-GAAP Income from operations as a percentage of revenue	14.5%	18.0%	
GAAP Income tax benefit (provision) \$ 19,761 \$ 1,727 \$ 6141 Tax benefits raige from purchase accounting and tax reform \$ 1,3341 \$ 1,2761 \$ 6,614 Tax benefits raige from purchase accounting and tax reform \$ 1,3341 \$ 3,453 \$ 2,6311 GAAP Net income (loss) \$ 1,5141 \$ 3,453 \$ 2,6311 GAAP Net income (loss) \$ 1,3421 \$ 3,453 \$ 2,6311 Acquisition-calcular devenue adjustment \$ 2,3280 \$ 3,453 \$ 2,6311 Acquisition-calcular devenue adjustment \$ 10,267 \$ 2,293 \$ 2,007 Impairment of intangible assets \$ 10,267 \$ 2,293 \$ 2,007 Impairment of intangible assets \$ 5,471 \$ 1,20 \$ 1,20 Settlement expense \$ 300 \$ 1,600 \$ 2,00 Lingistion costs \$ 1,20 \$ 1,20 \$ 1,20 Cell agent expense \$ 3,35 \$ 1,20 \$ 1,20 Caputation- and integration-related expense \$ 3,35 \$ 1,20 \$ 4,00 Caputation- and integration- calcular expenses \$ 0,12 \$ 0,00 \$ 0,00 \$ 0	GAAP Other income, net	\$ 697	\$ 1	\$ 508
CAAP Income tax benefit (provision) \$ 19,761 \$ (27) \$ (61) Tax benefits arising from purchase accounting and tax reform \$ (1,394) \$ (27) \$ (24) GAAP Nr. Come tax benefit (provision) \$ (1,394) \$ (2,631) \$ (2,631) GAAP Nr. Come tax benefit (provision) \$ (1,5714) \$ 3,453 \$ (2,631) Acquisition-related evenue adjustment \$ (3,000) \$ (3,000) \$ (3,000) Stock-based compensation \$ (1,000) \$ (3,000) \$ (3,000) Impairment of intangible assets \$ (3,000) \$ (3,000) \$ (3,000) Impairment of intangible assets \$ (3,000) \$ (3,000) \$ (3,000) Settlement expense \$ 3,33 \$ (3,000) \$ (3,000) Injustions and integration-related expense \$ 8,85 \$ (3,000) \$ (3,000) Settlement expense \$ 3,365 \$ (1,120) \$ (3,000) \$ (3,000) Gain on sale of intangible asset \$ (3,000) \$ (3,000) \$ (3,000) \$ (3,000) \$ (3,000) \$ (3,000) \$ (3,000) \$ (3,000) \$ (3,000) \$ (3,000) \$ (3,000) \$ (
Pach	Non-GAAP Other income, net	\$ 697	\$ 1	\$ 10
Son-AAP Income (tons) \$ (1,394) \$ (727) \$ (6,48) GAAP Net income (tons) \$ (1,571,41) \$ 3,453 \$ (2,631) Acquisition-related revenue adjustment (10,364) 3.87 4.04 Stock-based compensation 14,270 3,387 4.04 Anometization of intangible assets 5,471 - - Merger integration costs (A) (178) 178 - Settlement expense 300 1,600 - Litigation costs 373 - - Acquisition-radial dexpense 8,485 1,543 201 Settlement expense 8,485 1,543 201 Litigation costs 3,73 - - - Acquisition-radiant profitors person 8,365 - 1,120 - Gain on sale of intangible asset - 2,155 - - Acquisition-radiant profitors person \$ (0,18) \$ (0,05) \$ (0,05) Acquisition-radiant profitors or (foss) per share \$ (0,18) \$ (0,05) \$ (0,05) </td <td>GAAP Income tax benefit (provision)</td> <td>\$ 19,761</td> <td>\$ (727)</td> <td>\$ (614)</td>	GAAP Income tax benefit (provision)	\$ 19,761	\$ (727)	\$ (614)
CAAP Net innome (loss) \$ (15,714) \$ (3,453) \$ (2,631) Acquisition-clated revenue adjustment 23,280 - - Stock-based compensation (10,364) - - Stock-based compensation (10,267) 22,933 2,007 Impairment of intangible assets 5,471 - - Merger integration costs (A) (178) 1 - Eitigation costs 373 1,600 - Litigation costs 373 1,533 201 Restructuring 8,855 1,533 201 Calm on sale of intangible asset (498) 1,533 201 Tax benefits arising from purchase accounting and tax reform (21,155) - (498) Tax benefits arising from purchase accounting and tax reform (21,155) - - (498) Non-GAAP Net fluore \$ (20,155) \$ (20,55) \$ (20,55) \$ (20,55) \$ (20,55) Tax benefits arising from purchase accounting and tax reform \$ (21,155) \$ (20,55) \$ (20,55) \$ (20,55) \$ (20,55)			-	
Acquisition-related revenue adjustment	Non-GAAP Income tax benefit (provision)	\$ (1,394)	\$ (727)	\$ (614)
Acquisition-related cost of revenue adjustment	` '		\$ 3,453	\$ (2,631)
Stock-based compensation 14,270 3,887 4,304 Amorbitzation of intangible assets 10,267 2,293 2,007 Impairment of intangible assets 3,471 2.293 2,007 Merger integration costs (A) (178) 1.178			=	=
Manustation of intangible assets	*		-	-
Impairment of intangible assets 5,471	*		- /	
Merger integration costs (A)			2,293	2,007
Settlement expense			178	_
Litigation costs	• • • • • • • • • • • • • • • • • • • •			_
Acquisition- and integration-related expense 8,485 1,543 201 Restructuring 8,365 1,120 Gain on sale of intangible asset (498) Tax benefits arising from purchase accounting and tax reform (21,155) Non-GAAP Net income \$23,3400 \$12,954 \$4,503 Diluted earnings per share or (loss) per share \$0.018 \$0.07 \$0.05 Acquisition-related evenue adjustment 0.27 Stock-based compensation 0.16 0.08 0.09 Amortization of intangible assets 0.16 0.08 0.09 Merger integration costs (A) * * * - Stetllement expense * * * * - Estillement expense * <			-	-
Gain on sale of intangible asset - - (498) Tax benefits arising from purchase accounting and tax reform \$23,400 \$12,954 \$4,503 Diluted earnings per share or (loss) per share: CAQP Diluted earnings per share or (loss) per share \$0.018 \$0.07 \$0.005 Acquisition-related cost of revenue adjustment 0.027 - - Acquisition-related cost of revenue adjustment 0.012 0.05 0.00 Stock-based compensation 0.016 0.08 0.09 Amortization of intangible assets 0.012 0.05 0.0 Merger integration costs (A) * 0.0 0 - - Settlement expense 0.10 0.00 - - - Settlement expense 0.10 0.03 * - Restricturing 0.10 0.03 * - Restricturing from purchase accounting and tax reform (0.24) - - 0.00 Gain on sale of intangible asset - - 0.00 0.00		8,485	1,543	201
Pach enfirst arising from purchase accounting and tax reform	Restructuring	8,365	-	1,120
Diluted earnings per share or (loss) per share: GAAP Diluted earnings per share or (loss) per share: Same of the political earnings per share or (loss) per share: CAAP Diluted earnings per share or (loss) per share: CAAP Diluted earnings per share or (loss) per share: CACquisition-related revenue adjustment: CACquisition-related ecost of revenue adjustment: CACQuisition-related ecost (A)	•	-	-	(498)
Diluted earnings per share or (loss) per share			<u> </u>	<u> </u>
Acquisition-related revenue adjustment \$ (0.18) \$ 0.07 \$ (0.05) Acquisition-related cost of revenue adjustment (0.12) Stock-based compensation 0.16 0.08 0.09 Amortization of intangible assets 0.06 Merger integration costs (A) * * * Settlement expense * * * Acquisition-and integration-related expense 0.10 0.03 Acquisition-and integration-related expense 0.10 0.03 Acquisition-and integration-related expense 0.10 0.0 Acquisition-and integration-related expense 0.10 0.0 Acquisition-and integration-related expense 0.10 0.0 Acquisition-and integration-related expense 0.20 0.00 0.00 Gain on sale of intangible asset 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	Non-GAAP Net income	\$ 23,400	\$ 12,954	\$ 4,503
Acquisition-related revenue adjustment \$ (0.18) \$ 0.07 \$ (0.05) Acquisition-related cost of revenue adjustment (0.12) Stock-based compensation 0.16 0.08 0.09 Amortization of intangible assets 0.06 Merger integration costs (A) * * * Settlement expense * * * Acquisition-and integration-related expense 0.10 0.03 Acquisition-and integration-related expense 0.10 0.03 Acquisition-and integration-related expense 0.10 0.0 Acquisition-and integration-related expense 0.10 0.0 Acquisition-and integration-related expense 0.10 0.0 Acquisition-and integration-related expense 0.20 0.00 0.00 Gain on sale of intangible asset 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	Dilutad carnings par chara ar (loss) par chara-			
Acquisition-related evenue adjustment 0.27 - - Acquisition-related cost of revenue adjustment (0.12) - - Stock-based compensation 0.16 0.08 0.09 Amortization of intangible assets 0.12 0.05 0.04 Impairment of intangible assets 0.06 - - Merger integration costs (A) * * - Settlement expense * 0.03 - Litigation costs * 0.03 * Acquisition-and integration-related expense 0.10 0.03 * Restructuring 0.10 0.03 * Restructuring sold in angible asset - 0.02 0.02 Gain on sale of intangible asset - 0.24 - - 0.02 Shares used to compute diluted earnings per share or (loss) per share 86,567 50,131 49,232 Shares used to compute diluted earnings per share or (loss) per share 87,207 50,131 49,232 CAAP Shares used to compute diluted earnings per share or (loss) per share		\$ (0.18)	\$ 0.07	\$ (0.05)
Acquisition-related cost of revenue adjustment (0.12) - - Stock-based compensation 0.16 0.08 0.09 Amortization of intangible assets 0.06 - - Merger integration costs (A) * * 0.03 Settlement expense * 0.03 - Litigation costs * 0.03 * Acquisition- and integration-related expense 0.10 0.03 * Restructuring 0.10 0.0 0.02 Gain on sale of intangible asset - - (0.01) Tax benefits arising from purchase accounting and tax reform (0.24) - - Non-GAAP Diluted earnings per share or (loss) per share 86,567 50,131 49,232 Non-GAAP Shares used to compute diluted earnings per share or (loss) per share 86,567 50,131 49,232 Non-GAAP Shares used to compute diluted earnings per share or (loss) per share 87,207 50,131 49,232 Non-GAAP Shares used to compute diluted earnings per share or (loss) per share 87,207 50,131 49,232			- 0.07	u (0.05)
Stock-based compensation 0.16 0.08 0.09 Amortization of intangible assets 0.12 0.05 0.04 Impairment of intangible assets 0.06 - - Merger integration costs (A) * * * Settlement expense * 0.03 - Litigation costs * - - Acquisition- and integration-related expense 0.10 0.03 * Restructuring 0.10 - 0.02 Gain on sale of intangible asset - - (0.01) Tax benefits arising from purchase accounting and tax reform (0.24) - - Non-GAAP Diluted earnings per share or (loss) per share 80,567 50,131 49,232 Non-GAAP Shares used to compute diluted earnings per share or (loss) per share 80,567 50,131 49,522 Non-GAAP Shares used to compute diluted earnings per share or (loss) per share 80,567 50,131 49,522 Adjusted EBITDA: S (15,714) 3,453 (2,631) Interest income (sos) S			_	_
Impairment of intangible assets 0.06 * * * * * * * * * * * * * * * * * *			0.08	0.09
Merger integration costs (A) * * Settlement expense * 0.03 - Litigation costs * - - Acquisition- and integration-related expense 0.10 0.03 * Restructuring 0.10 - 0.02 Gain on sale of intangible asset - - - (0.01) Tax benefits arising from purchase accounting and tax reform (0.24) - - - Non-GAAP Diluted earnings per share \$ 0.27 \$ 0.26 \$ 0.09 Shares used to compute diluted earnings per share or (loss) per share 86,567 50,131 49,232 Non-GAAP Shares used to compute diluted earnings per share or (loss) per share 87,207 50,131 49,232 Non-GAAP Shares used to compute diluted earnings per share 87,207 50,131 49,522 Adjusted EBITDA: GEAP Shares used to compute diluted earnings per share 10,507 5,0131 49,522 Adjusted EBITDA: GEAP Shares used to compute diluted earnings per share 10,507 2,009 (260) (179)	Amortization of intangible assets	0.12	0.05	0.04
Settlement expense * 0.03		0.06	-	-
Comparison Com		*		-
Acquisition- and integration-related expense	•		0.03	-
Restructuring 0.10 0.00	•		- 0.02	-
Gain on sale of intangible asset			0.03	
Tax benefits arising from purchase accounting and tax reform (0.24) (0.24) (0.24) (0.25) (0.26) (0.26) (0.26) (0.27) (0.26) (0.27) (e	0.10	-	
Non-GAAP Diluted earnings per share \$ 0.27 \$ 0.26 \$ 0.09 Shares used to compute diluted earnings per share or (loss) per share:		(0.24)		(0.01)
GAAP Shares used to compute diluted earnings per share or (loss) per share 86,567 50,131 49,232 Non-GAAP Shares used to compute diluted earnings per share 87,207 50,131 49,522 Adjusted EBITDA: GAAP Net income (loss) \$ (2,631) Interest (income) expense, net 509 (260) (179) Income tax (benefit) provision (19,761) 727 614 Depreciation 3,231 1,660 2,056 Amortization of intangible assets 10,267 2,293 2,007 Impairment of intangible assets 5,471 - - Acquisition-related revenue adjustment 23,280 - - Acquisition-related cost of revenue adjustment (10,364) - - Stock-based compensation 14,270 3,887 4,304 Merger integration costs (A) (178) 178 - Settlement expense 300 1,600 - Litigation costs 373 - - Acquisition-and integration-related expense 8,485 1,543			\$ 0.26	\$ 0.09
GAAP Shares used to compute diluted earnings per share or (loss) per share 86,567 50,131 49,232 Non-GAAP Shares used to compute diluted earnings per share 87,207 50,131 49,522 Adjusted EBITDA: GAAP Net income (loss) \$ (2,631) Interest (income) expense, net 509 (260) (179) Income tax (benefit) provision (19,761) 727 614 Depreciation 3,231 1,660 2,056 Amortization of intangible assets 10,267 2,293 2,007 Impairment of intangible assets 5,471 - - Acquisition-related revenue adjustment 23,280 - - Acquisition-related cost of revenue adjustment (10,364) - - Stock-based compensation 14,270 3,887 4,304 Merger integration costs (A) (178) 178 - Settlement expense 300 1,600 - Litigation costs 373 - - Acquisition-and integration-related expense 8,485 1,543	•			
Non-GAAP Shares used to compute diluted earnings per share 87,207 50,131 49,522 Adjusted EBITDA: GAAP Net income (loss) \$ (15,714) 3,453 (2,631) Interest (income) expense, net 509 (260) (179) Income tax (benefit) provision (19,761) 727 614 Depreciation 3,231 1,660 2,056 Amortization of intangible assets 10,267 2,293 2,007 Impairment of intangible assets 5,471 - - Acquisition-related revenue adjustment 23,280 - - Acquisition-related cost of revenue adjustment (10,364) - - Stock-based compensation 14,270 3,887 4,304 Merger integration costs (A) (178) 178 - Settlement expense 300 1,600 - Litigation costs 373 - - Acquisition-and integration-related expense 8,485 1,543 201 Restructuring 8,365 - 1,120 <		0.0		40.000
Adjusted EBITDA: GAAP Net income (loss) \$ (15,714) 3,453 (2,631) Interest (income) expense, net 509 (260) (179) Income tax (benefit) provision (19,761) 727 614 Depreciation 3,231 1,660 2,056 Amortization of intangible assets 10,267 2,293 2,007 Impairment of intangible assets 5,471 - - Acquisition-related revenue adjustment 23,280 - - Acquisition-related cost of revenue adjustment (10,364) - - Stock-based compensation 14,270 3,887 4,304 Merger integration costs (A) (178) 178 - Settlement expense 300 1,600 - Litigation costs 373 - - Acquisition- and integration-related expense 8,485 1,543 201 Restructuring 8,365 - 1,120 Other (income), net (697) (1) (508)				
GAAP Net income (loss) \$ (15,714) 3,453 (2,631) Interest (income) expense, net 509 (260) (179) Income tax (benefit) provision (19,761) 727 614 Depreciation 3,231 1,660 2,056 Amortization of intangible assets 10,267 2,293 2,007 Impairment of intangible assets 5,471 - - Acquisition-related revenue adjustment 23,280 - - Acquisition-related cost of revenue adjustment (10,364) - - Stock-based compensation 14,270 3,887 4,304 Merger integration costs (A) (178) 178 - Settlement expense 300 1,600 - Litigation costs 373 - - Acquisition-related expense 8,485 1,543 201 Restructuring 8,365 - 1,120 Other (income), net (697) (1) (508)	Non-GAAT Shares used to compare unded carmings per share	87,207	30,131	49,322
Interest (income) expense, net 509 (260) (179) Income tax (benefit) provision (19,761) 727 614 Depreciation 3,231 1,660 2,056 Amortization of intangible assets 10,267 2,293 2,007 Impairment of intangible assets 5,471 - - Acquisition-related revenue adjustment 23,280 - - Acquisition-related cost of revenue adjustment (10,364) - - Stock-based compensation 14,270 3,887 4,304 Merger integration costs (A) (178) 178 - Settlement expense 300 1,600 - Litigation costs 373 - - Acquisition-related expense 8,485 1,543 201 Restructuring 8,365 - 1,120 Other (income), net (697) (1) (508)				
Income tax (benefit) provision				
Depreciation 3,231 1,660 2,056 Amortization of intangible assets 10,267 2,293 2,007 Impairment of intangible assets 5,471 - - Acquisition-related revenue adjustment 23,280 - - Acquisition-related cost of revenue adjustment (10,364) - - Stock-based compensation 14,270 3,887 4,304 Merger integration costs (A) (178) 178 - Settlement expense 300 1,600 - Litigation costs 373 - - Acquisition- and integration-related expense 8,485 1,543 201 Restructuring 8,365 - 1,120 Other (income), net (697) (1) (508)				
Amortization of intangible assets 10,267 2,293 2,007 Impairment of intangible assets 5,471 - - Acquisition-related revenue adjustment 23,280 - - Acquisition-related cost of revenue adjustment (10,364) - - Stock-based compensation 14,270 3,887 4,304 Merger integration costs (A) (178) 178 - Settlement expense 300 1,600 - Litigation costs 373 - - Acquisition- and integration-related expense 8,485 1,543 201 Restructuring 8,365 - 1,120 Other (income), net (697) (1) (508)				
Impairment of intangible assets 5,471 - - Acquisition-related revenue adjustment 23,280 - - Acquisition-related cost of revenue adjustment (10,364) - - Stock-based compensation 14,270 3,887 4,304 Merger integration costs (A) (178) 178 - Settlement expense 300 1,600 - Litigation costs 373 - - Acquisition- and integration-related expense 8,485 1,543 201 Restructuring 8,365 - 1,120 Other (income), net (697) (1) (508)				
Acquisition-related revenue adjustment 23,280 - - Acquisition-related cost of revenue adjustment (10,364) - - Stock-based compensation 14,270 3,887 4,304 Merger integration costs (A) (178) 178 - Settlement expense 300 1,600 - Litigation costs 373 - - Acquisition- and integration-related expense 8,485 1,543 201 Restructuring 8,365 - 1,120 Other (income), net (697) (1) (508)	· · · · · · · · · · · · · · · · · · ·		2,275	2,007
Acquisition-related cost of revenue adjustment (10,364) - - Stock-based compensation 14,270 3,887 4,304 Merger integration costs (A) (178) 178 - Settlement expense 300 1,600 - Litigation costs 373 - - Acquisition- and integration-related expense 8,485 1,543 201 Restructuring 8,365 - 1,120 Other (income), net (697) (1) (508)			-	_
Stock-based compensation 14,270 3,887 4,304 Merger integration costs (A) (178) 178 - Settlement expense 300 1,600 - Litigation costs 373 - - Acquisition- and integration-related expense 8,485 1,543 201 Restructuring 8,365 - 1,120 Other (income), net (697) (1) (508)			-	-
Merger integration costs (A) (178) 178 - Settlement expense 300 1,600 - Litigation costs 373 - - Acquisition- and integration-related expense 8,485 1,543 201 Restructuring 8,365 - 1,120 Other (income), net (697) (1) (508)			3,887	4,304
Litigation costs 373 - - Acquisition- and integration-related expense 8,485 1,543 201 Restructuring 8,365 - 1,120 Other (income), net (697) (1) (508)				-
Acquisition- and integration-related expense 8,485 1,543 201 Restructuring 8,365 - 1,120 Other (income), net (697) (1) (508)	•		1,600	-
Restructuring 8,365 - 1,120 Other (income), net (697) (1) (508)			=	-
Other (income), net (697) (1) (508)			1,543	
	•		- (1)	
3 21,031 3 13,000 3 0,904				
	O Aujustu EDITEA	Ψ 21,031	Ψ 15,000	9 0,764

^{*} Less than \$0.1 impact on earnings (loss) per share

 $⁽A)\ Amount\ recorded\ in\ Q3\ 2017\ reclassified\ in\ Q4\ 2017\ to\ "Acquisition-\ and\ integration-related\ expense."$

RIBBON COMMUNICATIONS INC. Reconciliation of Non-GAAP and GAAP Financial Measures - Historical (in thousands, except percentages) (unaudited)

	Year e	
	December 31, 2017	December 31, 2016
GAAP Product revenue	\$ 181,119	\$ 146,381
Acquisition-related revenue adjustment Non-GAAP Product revenue	3,230 \$ 184,349	\$ 146,381
GAAP Service revenue	\$ 148,823	\$ 106,210
Acquisition-related revenue adjustment Non-GAAP Service revenue	\$ 168,873	\$ 106,210
GAAP Total revenue	\$ 329,942	\$ 252,591
Acquisition-related revenue adjustment	23,280	
Non-GAAP Total revenue	\$ 353,222	\$ 252,591
GAAP Gross margin - product Acquisition-related revenue adjustment	61.2% 0.6%	67.6% 0.0%
Acquisition-related cost of revenue adjustment	-0.6%	0.0%
Stock-based compensation	0.3%	0.2%
Amortization of intangible assets	7.0%	4.2%
Impairment of intangible assets	3.0%	0.0%
Non-GAAP Gross margin - product	71.5%	72.0%
GAAP Gross margin - service	60.9%	64.6%
Acquisition-related revenue adjustment	4.6%	0.0%
Acquisition-related cost of revenue adjustment	-5.4%	0.0%
Stock-based compensation	61.0%	65.8%
Non-GAAP Gross margin - service	61.078	03.876
GAAP Total gross margin	61.1%	66.4%
Acquisition-related revenue adjustment	2.6%	0.0%
Acquisition-related cost of revenue adjustment	-2.9%	0.0%
Stock-based compensation Amortization of intangible assets	0.6% 3.6%	0.7% 2.3%
Impairment of intangible assets	1.5%	0.0%
Non-GAAP Total gross margin	66.5%	69.4%
GAAP Total gross profit	\$ 201,496	\$ 167,611
Acquisition-related revenue adjustment	23,280	-
Acquisition-related cost of revenue adjustment	(10,364)	=
Stock-based compensation	1,962	1,673
Amortization of intangible assets	12,887	6,038
Impairment of intangible asses Non-GAAP Total gross profit	5,471 \$ 234,732	\$ 175,322
GAAP Research and development expense	\$ 101,481	\$ 72,841
Stock-based compensation	(7,337)	(5,014)
Non-GAAP Research and development expense	\$ 94,144	\$ 67,827
GAAP Sales and marketing expense	\$ 83,403	\$ 68,539
Stock-based compensation Amortization of intangible assets	(4,885) (4,225)	(6,209) (1,462)
Non-GAAP Sales and marketing expense	\$ 74,293	\$ 60,868
GAAP General and administrative expense Stock-based compensation	\$ 47,642 (11,473)	\$ 35,948 (6,872)
Settlement expense	(1,900)	(605)
Litigation costs	(373)	-
Non-GAAP General and administrative expense	\$ 33,896	\$ 28,471
GAAP Operating expenses	\$ 256,725	\$ 181,220
Stock-based compensation	(23,695)	(18,095)
Amortization of intangible assets	(4,225)	(1,462)
Settlement expense Litigation costs	(1,900) (373)	(605)
Acquisition- and integration-related expense	(14,763)	(1,152)
Restructuring	(9,436)	(2,740)
Non-GAAP Operating expenses	\$ 202,333	\$ 157,166
GAAP Loss from operations	\$ (55,229)	\$ (13,609)
Acquisition-related revenue adjustment	23,280	=
Acquisition-related cost of revenue adjustment	(10,364)	10.760
Stock-based compensation Amortization of intangible assets	25,657 17,112	19,768 7,500
Impairment of intangible assets	5,471	
Settlement expense	1,900	605
Litigation costs	373	-
Acquisition- and integration-related expense Restructuring	14,763 9,436	1,152 2,740
Non-GAAP Income from operations	\$ 32,399	\$ 18,156
*	- /	, ., .,

Reconciliation of Non-GAAP and GAAP Financial Measures - Historical (in thousands, except percentages and per share amounts) (unaudited)

	-			
	Doc	Year ember 31,	ended	ember 31,
		2017		2016
GAAP Loss from operations as a percentage of revenue		-16.7%		-5.4%
Acquisition-related revenue adjustment		7.7%		0.0%
Acquisition-related cost of revenue adjustment		-2.9%		0.0%
Stock-based compensation		7.3%		7.8%
Amortization of intangible assets		4.8%		3.0%
Impairment of intangible assets		1.5%		0.0%
Settlement expense		0.5%		0.2%
Litigation costs		0.1%		0.0%
Acquisition- and integration-related expense		4.2%		0.5%
Restructuring		2.7%		1.1%
Non-GAAP Income from operations as a percentage of revenue	===	9.2%	===	7.2%
GAAP Other income, net	\$	1,274	\$	1,424
Gain on sales of intangible assets	-	(576)	\$	(1,298)
Non-GAAP Other income, net	\$	698	3	126
GAAP Income tax benefit (provision)	\$	18,440	\$	(2,516)
Tax benefits arising from purchase accounting and tax reform		(21,155)	_	(2.51.0)
Non-GAAP Income tax provision	\$	(2,715)	\$	(2,516)
GAAP Net loss	\$	(35,252)	\$	(13,932)
Acquisition-related revenue adjustment		23,280		-
Acquisition-related cost of revenue adjustment		(10,364)		-
Stock-based compensation		25,657		19,768
Amortization of intangible assets		17,112		7,500
Impairment of intangible assets		5,471		-
Settlement expense		1,900		605
Litigation costs		373		1 152
Acquisition- and integration-related expense Restructuring		14,763 9,436		1,152 2,740
Gain on sales of intangible assets		(576)		(1,298)
Tax benefits arising from purchase accounting and tax reform		(21,155)		(1,290)
Non-GAAP Net income	\$	30,645	\$	16,535
Diluted earnings per share or (loss) per share:				
GAAP Loss per share	\$	(0.60)	\$	(0.28)
Acquisition-related revenue adjustment	J	0.38	J	(0.26)
Acquisition-related cost of revenue adjustment		(0.17)		_
Stock-based compensation		0.43		0.40
Amortization of intangible assets		0.29		0.15
Impairment of intangible assets		0.09		-
Settlement expense		0.03		0.01
Litigation costs		0.01		-
Acquisition- and integration-related expense		0.25		0.02
Restructuring		0.16		0.06
Gain on sales of intangible assets		(0.01)		(0.03)
Tax benefits arising from purchase accounting and tax reform		(0.35)		-
Non-GAAP Diluted earnings per share	\$	0.51	\$	0.33
Shares used to compute diluted earnings per share or (loss) per share:				
GAAP Shares used to compute loss per share		58,822		49,385
Non-GAAP Shares used to compute diluted earnings per share		59,639		49,743
Adjusted EBITDA:				
GAAP Net loss	\$	(35,252)	\$	(13,932)
Interest (income), net		(263)		(769)
Income tax (benefit) provision		(18,440)		2,516
Depreciation		8,486		7,970
Amortization of intangible assets		17,112		7,500
Impairment of intangible assets		5,471		-
Adjustment for revenue reduction resulting from purchase accounting allocation		23,280		-
Adjustment to cost related to revenue adjustment		(10,364)		10.760
Stock-based compensation		25,657		19,768
Settlement expense		1,900		605
Litigation costs Acquisition- and integration-related expense		373 14 763		1 152
Restructuring		14,763 9,436		1,152 2,740
Other (income), net		(1,274)		(1,424)
Non-GAAP Adjusted EBITDA	S	40,885	\$	26,126
··		,500		

RIBBON COMMUNICATIONS INC. Reconciliation of Non-GAAP and GAAP Financial Measures - Guidance

(in millions) (unaudited)

Year
ending
December 31,
2018

Non-GAAP Revenue
Less acquisition-related adjustments and impact of new revenue standard
GAAP Revenue

\$ 580
(32)
\$ 548

Adjusted EBITDA: Ribbon has not provided a reconciliation of Adjusted EBITDA for the year ending December 31, 2018, as it is unable to project without unreasonable efforts the comparable GAAP net loss figure, which includes interest expense, net; income tax provision; depreciation; amortization of intangible assets; acquisition-related revenue and related cost of revenue adjustments; adjustment for the impact of the new revenue standard; stockbased compensation; litigation costs; acquisition- and integration-related expense; restructuring; and other income (expense), net.