



Ribbon Communications

Fourth Quarter and Full Year 2018 Results

February 20, 2019

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 statements regarding our outlook for the Company in the sections “Strategy” and “2019 Full Year Guidance”, the future results of operations, financial position, opportunities for the Company, business strategy, strategic position, 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. Our actual results may differ materially from those contemplated in these forward-looking statements due to various risks, uncertainties and other important factors, including our success integrating the respective businesses of Sonus Networks, Inc. (“Sonus”) and GENBAND Holdings Company (“GENBAND”) as well as the business of Edgewater Networks Inc.; achievement of the anticipated synergies of the transaction between Sonus and GENBAND (the “Transactions”); our ability to realize the benefits from the Transactions and other acquisitions that we have completed; the effects of disruption from the Transactions and the pending acquisition of Anova Data, Inc., 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; 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.

Our forward-looking statements involve known and unknown risks, uncertainties and other important 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 I, Item IA “Risk Factors” and Part II, Item 7A “Quantitative and Qualitative Disclosures About Market Risk” in Ribbon Communications’ most recent Annual Report on Form 10-K filed with the SEC and Part I, Item 2 “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in Ribbon Communications’ most recent Quarterly Report on Form 10-Q filed with the SEC. Any forward-looking statement made by us in this presentation speaks only as of the date of this presentation. 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.

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.

Strategy



Invest

In Core Products with Balanced Investments

Broaden

Solution Offers to Global Installed Base

Expand

Into New Adjacent Markets and Applications

Scale

With Acquisitions and Alliances

Ribbon Non-GAAP¹ Statements of Operations²

| USD Millions except percentages and EPS | FY16 | Q117 | Q217 | Q317 | Q417 | FY17 | Q118 | Q218 | Q318 | Q418 | FY18 |
|--|---------------|-----------------|-----------------|---------------|---------------|---------------|-----------------|---------------|---------------|---------------|---------------|
| Product Revenue³ | 146 | 25 | 29 | 44 | 86 | 184 | 60 | 67 | 81 | 90 | 298 |
| Service Revenue | 106 | 28 | 27 | 31 | 83 | 169 | 76 | 77 | 77 | 83 | 314 |
| Total Non-GAAP Revenue | 253 | 53 | 56 | 75 | 169 | 353 | 135 | 145 | 159 | 173 | 612 |
| Gross Margin | 175 | 36 | 38 | 56 | 104 | 235 | 77 | 92 | 99 | 112 | 380 |
| <i>Gross Margin %</i> | 69% | 67% | 69% | 76% | 61% | 66% | 57% | 63% | 63% | 65% | 62% |
| Operating Expense | 157 | 40 | 39 | 43 | 80 | 202 | 79 | 75 | 73 | 81 | 307 |
| Income/(Loss) from Operations | 18 | (5) | (1) | 13 | 25 | 32 | (2) | 17 | 26 | 31 | 73 |
| Net Income/(Loss) | 17 | (4) | (1) | 13 | 23 | 31 | (4) | 14 | 23 | 28 | 61 |
| Diluted EPS | \$0.33 | (\$0.09) | (\$0.02) | \$0.26 | \$0.27 | \$0.51 | (\$0.04) | \$0.14 | \$0.21 | \$0.26 | \$0.58 |
| Diluted Shares | 50 | 49 | 50 | 50 | 87 | 60 | 102 | 102 | 106 | 107 | 104 |
| Adjusted EBITDA | 26 | (3) | 1 | 15 | 28 | 41 | 1 | 20 | 29 | 34 | 84 |
| <i>Adjusted EBITDA %</i> | 10% | -5% | 1% | 20% | 16% | 12% | 1% | 14% | 18% | 20% | 14% |

- 1) Please see non-GAAP reconciliations in presentation appendix.
- 2) Results for the periods through September 30, 2017 are those of Sonus only. Results in the quarter ended December 31, 2017 represent three months of Sonus and the period October 27, 2017 through December 31, 2017 for GENBAND. Results in the year ended December 31, 2018 represent Sonus and GENBAND for all periods and Edgewater for the period August 3, 2018 through December 31, 2018.
- 3) Product Revenue is comprised of sales of software with attached appliances, software licenses and software subscription fees.

Note: Totals may not sum due to rounding.

Ribbon Condensed Balance Sheets

| USD Millions | Q416 | Q117 | Q217 | Q317 | Q417 | Q118 | Q218 | Q318 | Q418 |
|-------------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| ASSETS | | | | | | | | | |
| Cash and Investments ¹ | 126 | 129 | 126 | 132 | 83 | 85 | 55 | 43 | 51 |
| Accounts Receivable, Net | 54 | 40 | 43 | 52 | 165 | 126 | 136 | 151 | 188 |
| Inventory, Net | 18 | 18 | 17 | 16 | 21 | 21 | 19 | 22 | 23 |
| Property Plant Equipment, Net | 12 | 11 | 11 | 10 | 25 | 24 | 24 | 26 | 27 |
| Goodwill and Intangibles | 80 | 78 | 76 | 73 | 580 | 568 | 556 | 646 | 635 |
| Other Assets | 18 | 19 | 21 | 20 | 36 | 38 | 37 | 37 | 34 |
| Total Assets | 308 | 294 | 292 | 302 | 911 | 861 | 828 | 924 | 957 |
| LIABILITIES AND EQUITY | | | | | | | | | |
| Revolving Credit Facility | 0 | 0 | 0 | 0 | 20 | 20 | 20 | 58 | 55 |
| Liabilities | 38 | 28 | 31 | 37 | 138 | 116 | 112 | 154 | 165 |
| Deferred Revenue | 51 | 55 | 59 | 55 | 115 | 117 | 105 | 98 | 123 |
| Long-term Debt | 0 | 0 | 0 | 0 | 23 | 23 | 23 | 24 | 24 |
| Stockholders' Equity | 219 | 212 | 203 | 211 | 615 | 585 | 567 | 590 | 590 |
| Total Liabilities and Equity | 308 | 294 | 292 | 302 | 911 | 861 | 828 | 924 | 957 |
| DSO² | 74 | 67 | 69 | 62 | 102 | 93 | 89 | 89 | 101 |

1) Includes cash, cash equivalents and short- and long-term investments.

2) DSO is based on GAAP Revenue.

Note: Totals may not sum due to rounding.

Ribbon Condensed Statements of Cash Flows

| USD Millions | FY16 | Q117 | Q217 | Q317 | Q417 | FY17 | Q118 | Q218 | Q318 | Q418 | FY18 |
|---|-------------|------------|------------|------------|-------------|-------------|-----------|-------------|-------------|-----------|-------------|
| Cash from Operations | 19 | 4 | (1) | 6 | (1) | 8 | 3 | (26) | (1) | 14 | (10) |
| Purchases of PP&E | (5) | (1) | (2) | (1) | (1) | (4) | (2) | (2) | (2) | (2) | (8) |
| Stock Repurchase | (10) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Business Acquisitions | (21) | 0 | 0 | 0 | (43) | (43) | 0 | 0 | (46) | 0 | (46) |
| Revolver borrowings (payments), net | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 38 | (3) | 35 |
| Other | (0) | 0 | (1) | 0 | (5) | (6) | 0 | (2) | (1) | (1) | (4) |
| Net Change | (16) | 3 | (3) | 6 | (48) | (43) | 2 | (30) | (12) | 8 | (32) |
| Cash¹ Beginning of Period | 142 | 126 | 129 | 126 | 132 | 126 | 83 | 85 | 55 | 43 | 83 |
| Cash¹ End of Period | 126 | 129 | 126 | 132 | 83 | 83 | 85 | 55 | 43 | 51 | 51 |

1) Includes cash, cash equivalents and short- and long-term investments.

Note: Totals may not sum due to rounding.

Ribbon GAAP Revenue Key Stats¹

| USD Millions except for percentages | FY16 | Q117 | Q217 | Q317 | Q417 | FY17 | Q118 | Q218 | Q318 | Q418 | FY18 |
|-------------------------------------|------------|-----------|-----------------|-----------------|------------|------------|------------|------------|-----------------|------------|------------|
| GAAP Revenue | | | | | | | | | | | |
| Product ² | 146 | 25 | 29 | 44 | 83 | 181 | 52 | 63 | 77 | 87 | 279 |
| Services | 106 | 28 | 27 | 31 | 63 | 149 | 70 | 74 | 75 | 80 | 299 |
| Total GAAP Revenue | 253 | 53 | 56 | 75 | 146 | 330 | 121 | 137 | 152 | 167 | 578 |
| % of Total GAAP Revenue: | | | | | | | | | | | |
| GAAP Revenue Mix | | | | | | | | | | | |
| Product | 58% | 48% | 52% | 59% | 57% | 55% | 43% | 46% | 51% | 52% | 48% |
| Services | 42% | 52% | 48% | 41% | 43% | 45% | 57% | 54% | 49% | 48% | 52% |
| GAAP Revenue by Geography | | | | | | | | | | | |
| Domestic | 69% | 67% | 69% | 75% | 60% | 66% | 47% | 61% | 61% | 62% | 58% |
| International | 31% | 33% | 31% | 25% | 40% | 34% | 53% | 39% | 39% | 38% | 42% |
| GAAP Revenue by Channel | | | | | | | | | | | |
| Direct | 74% | 66% | 70% | 76% | 82% | 76% | 84% | 88% | 66% | 69% | 75% |
| Indirect | 26% | 34% | 30% | 24% | 18% | 24% | 16% | 12% | 34% | 31% | 25% |
| 10% Customers | AT&T | Verizon | Verizon AT&T | Verizon AT&T | Verizon | Verizon | Verizon | Verizon | Verizon AT&T | Verizon | Verizon |
| % of GAAP Product Revenue | | | | | | | | | | | |
| Enterprise | 19% | 28% | 25% | 22% | 14% | 20% | 14% | 11% | 31% | 23% | 21% |
| Service Providers | 81% | 72% | 75% | 78% | 86% | 80% | 86% | 89% | 69% | 77% | 79% |

- 1) Results for the periods through September 30, 2017 are those of Sonus only. Results in the quarter ended December 31, 2017 represent three months of Sonus and the period October 27, 2017 through December 31, 2017 for GENBAND. Results in the year ended December 31, 2018 represent Sonus and GENBAND for all periods and Edgewater for the period August 3, 2018 through December 31, 2018.
- 2) Product Revenue is comprised of sales of software with attached appliances, software licenses and software subscription fees.

Note: Information is prepared on a GAAP basis.

2019 Full Year Guidance

Full Year Adjusted EBITDA

- *Adjusted EBITDA¹ expected to be between \$100 million and \$110 million*
 - *FY18 Adjusted EBITDA was \$84 million*

- 1) Ribbon 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; stock-based compensation; litigation costs; acquisition- and integration-related expense; restructuring; and other income (expense), net.

APPENDIX



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 acquisition-related 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-related facilities adjustments, cancelled debt offering costs, acquisition- and integration-related expense, restructuring, certain gains included in other income (loss), 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.

Discussion of Non-GAAP Financial Measures (continued)

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 and Edgewater that we would have recognized but for the purchase accounting treatment of these transactions and eliminated revenue as a result of our adoption in 2018 of the new revenue recognition standard. 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 include these adjustments to allow for more complete comparisons to the financial results of our historical operations, forward-looking 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. These adjustments do not accelerate revenue, but instead include revenue (and the related cost of revenue) that would have been recognized in our 2017 and 2018 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. It is reasonable to expect that stock-based compensation will continue in future periods.

Discussion of Non-GAAP Financial Measures (continued)

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.

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.

Discussion of Non-GAAP Financial Measures (continued)

Merger Integration Costs

We consider certain merger integration costs to be unpredictable and dependent on a significant number of factors that may be outside of our control. This amount represents costs related to the Sonus-GENBAND merger initially recorded as a component of General and administrative expense in the third quarter of 2017. In the fourth quarter of 2017, we reclassified these merger integration costs, aggregating \$0.2 million, to Acquisition- and integration-related expense. We do not consider these merger integration costs to be related to the continuing operations of the combined business or the Company. We believe that excluding merger integration costs facilitates the comparison of our financial results to our historical operating results and to other companies in our industry.

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. In the third quarter of 2017, we recorded \$1.6 million of expense related to potential fines in connection with the then-ongoing SEC investigation, which we paid to the SEC, along with an additional \$0.3 million recorded in the fourth quarter of 2017, in the third quarter of 2018. 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.

Discussion of Non-GAAP Financial Measures (continued)

Litigation Costs

In connection with certain ongoing litigation between GENBAND, as plaintiff, and one of its competitors, we have incurred litigation costs beginning in the fourth quarter of 2017. In March 2018, we filed litigation on behalf of Sonus against the same competitor asserting additional intellectual property infringement. We expect to incur significant future litigation costs related to these matters. 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-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 the 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 include this adjustment, which relates to the acquisition of GENBAND, to allow for more complete comparisons to the financial results of our historical operations, forward-looking guidance and the financial results of peer companies. We believe these adjustments provide an indication of the rent expense that would have been recognized, but for the purchase accounting in connection with the acquisition of GENBAND.

Discussion of Non-GAAP Financial Measures (continued)

Cancelled Debt Offering Costs

In November 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. We expected to grant the initial purchasers a 30-day option to purchase up to an additional \$25 million aggregate principal amount of such notes, solely to cover over-allotments, if any. On the same day as our announcement, we decided not to proceed with this offering, as we believed that 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 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.

Discussion of Non-GAAP Financial Measures (continued)

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 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 gains 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.

Discussion of Non-GAAP Financial Measures (continued)

Tax Benefits Arising from Purchase Accounting and Tax Reform

In the third quarter of 2018, we reduced our valuation allowance in connection with our acquisition of Edgewater, resulting in an income tax benefit of \$0.8 million. In the fourth quarter of 2018, we recorded an adjustment to that amount, resulting in income tax expense of \$0.1 million for a net tax benefit of \$0.7 million related to this acquisition. In the fourth quarter of 2017, we reduced our valuation allowance 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 net 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.

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 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 and adoption of the new revenue standard; stock-based compensation expense; merger integration costs; settlement expense; certain litigation costs; acquisition-related facilities adjustments; cancelled debt offering costs; acquisition- and integration-related expense; restructuring; 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.

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.

Annual and Quarterly GAAP to Non-GAAP Reconciliation

| \$000's | FY16 | Q117 | Q217 | Q317 | Q417 | FY17 | Q118 | Q218 | Q318 | Q418 | FY18 |
|--|-------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| GAAP Product revenue | \$ 146,381 | \$ 25,395 | \$ 28,790 | \$ 44,120 | \$ 82,814 | \$ 181,119 | \$ 51,531 | \$ 63,123 | \$ 77,283 | \$ 87,077 | \$ 279,014 |
| Acquisition-related revenue adjustment | - | - | - | - | 3,230 | 3,230 | 5,499 | 1,741 | 2,178 | 1,629 | 11,047 |
| Adjustment for new revenue standard | - | - | - | - | - | - | 2,540 | 2,437 | 1,778 | 1,529 | 8,284 |
| Non-GAAP Product revenue | \$ 146,381 | \$ 25,395 | \$ 28,790 | \$ 44,120 | \$ 86,044 | \$ 184,349 | \$ 59,570 | \$ 67,301 | \$ 81,239 | \$ 90,235 | \$ 298,345 |
| GAAP Service revenue | \$ 106,210 | \$ 27,973 | \$ 26,943 | \$ 30,509 | \$ 63,398 | \$ 148,823 | \$ 69,649 | \$ 74,238 | \$ 75,185 | \$ 79,819 | \$ 298,891 |
| Acquisition-related revenue adjustment | - | - | - | - | 20,050 | 20,050 | 5,619 | 2,547 | 1,885 | 2,984 | 13,035 |
| Adjustment for new revenue standard | - | - | - | - | - | - | 475 | 512 | 400 | 374 | 1,761 |
| Non-GAAP Service revenue | \$ 106,210 | \$ 27,973 | \$ 26,943 | \$ 30,509 | \$ 83,448 | \$ 168,873 | \$ 75,743 | \$ 77,297 | \$ 77,470 | \$ 83,177 | \$ 313,687 |
| GAAP Total revenue | \$ 252,591 | \$ 53,368 | \$ 55,733 | \$ 74,629 | \$ 146,212 | \$ 329,942 | \$ 121,180 | \$ 137,361 | \$ 152,468 | \$ 166,896 | \$ 577,905 |
| Acquisition-related revenue adjustment | - | - | - | - | 23,280 | 23,280 | 11,118 | 4,288 | 4,063 | 4,613 | 24,082 |
| Adjustment for new revenue standard | - | - | - | - | - | - | 3,015 | 2,949 | 2,178 | 1,903 | 10,045 |
| Non-GAAP Total revenue | \$ 252,591 | \$ 53,368 | \$ 55,733 | \$ 74,629 | \$ 169,492 | \$ 353,222 | \$ 135,313 | \$ 144,598 | \$ 158,709 | \$ 173,412 | \$ 612,032 |
| GAAP Gross profit - total | \$ 167,611 | \$ 33,748 | \$ 36,402 | \$ 54,547 | \$ 76,799 | \$ 201,496 | \$ 55,273 | \$ 75,111 | \$ 82,234 | \$ 95,714 | \$ 308,332 |
| Acquisition-related revenue adjustment | - | - | - | - | 23,280 | 23,280 | 11,118 | 4,288 | 4,063 | 4,613 | 24,082 |
| Acquisition-related cost of revenue adjustment | - | - | - | - | (10,364) | (10,364) | (1,977) | - | - | - | (1,977) |
| Adjustment 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 | 1,673 | 416 | 348 | 274 | 924 | 1,962 | 183 | 86 | 86 | 104 | 459 |
| Amortization of intangible assets | 6,038 | 1,566 | 1,601 | 1,601 | 8,119 | 12,887 | 9,592 | 9,270 | 10,593 | 9,521 | 38,976 |
| Impairment of intangible assets | - | - | - | - | 5,471 | 5,471 | - | - | - | - | - |
| Acquisition-related facilities adjustment | - | - | - | - | - | - | 68 | 81 | 80 | 80 | 309 |
| Non-GAAP gross profit | \$ 175,322 | \$ 35,730 | \$ 38,351 | \$ 56,422 | \$ 104,229 | \$ 234,732 | \$ 77,162 | \$ 91,785 | \$ 99,234 | \$ 111,935 | \$ 380,116 |
| GAAP Gross margin - total | 66.4% | 63.2% | 65.3% | 73.1% | 52.5% | 61.1% | 45.6% | 54.7% | 53.9% | 57.3% | 53.4% |
| Acquisition-related revenue adjustment | 0.0% | 0.0% | 0.0% | 0.0% | 6.6% | 2.6% | 3.9% | 1.1% | 1.0% | 1.1% | 1.7% |
| Acquisition-related cost of revenue adjustment | 0.0% | 0.0% | 0.0% | 0.0% | -6.1% | -2.9% | -1.6% | 0.0% | 0.0% | 0.0% | -0.3% |
| Adjustment for new revenue standard | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 1.0% | 0.8% | 0.5% | 0.5% | 0.7% |
| Adjustment to cost of revenue for new revenue standard | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | -0.1% | 0.0% | 0.0% | 0.0% | 0.0% |
| Stock-based compensation | 0.7% | 0.8% | 0.6% | 0.4% | 0.5% | 0.6% | 0.2% | 0.1% | 0.1% | 0.1% | 0.1% |
| Amortization of intangible assets | 2.3% | 3.0% | 2.9% | 2.1% | 4.8% | 3.6% | 7.9% | 6.7% | 6.9% | 5.5% | 6.4% |
| Impairment of intangible assets | 0.0% | 0.0% | 0.0% | 0.0% | 3.2% | 1.5% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Acquisition-related facilities adjustment | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.1% | 0.1% | 0.1% | 0.0% | 0.1% |
| Non-GAAP Gross margin - total | 69.4% | 67.0% | 68.8% | 75.6% | 61.5% | 66.5% | 57.0% | 63.5% | 62.5% | 64.5% | 62.1% |

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

| \$000s | FY16 | Q117 | Q217 | Q317 | Q417 | FY17 | Q118 | Q218 | Q318 | Q418 | FY18 |
|--|--------------------|--------------------|--------------------|------------------|--------------------|--------------------|--------------------|--------------------|-------------------|------------------|--------------------|
| GAAP Operating expenses | \$ 181,220 | \$ 44,530 | \$ 49,105 | \$ 50,628 | \$ 112,462 | \$ 256,725 | \$ 97,656 | \$ 91,747 | \$ 89,800 | \$ 94,537 | \$ 373,740 |
| Stock-based compensation | (18,095) | (2,847) | (3,889) | (3,613) | (13,346) | (23,695) | (2,641) | (1,995) | (2,430) | (3,547) | (10,613) |
| Amortization of intangible assets | (1,462) | (693) | (692) | (692) | (2,148) | (4,225) | (2,717) | (2,694) | (2,855) | (2,481) | (10,747) |
| Merger integration expense | - | - | - | (178) | 178 | - | - | - | - | - | - |
| Settlement expense | (605) | - | - | (1,600) | (300) | (1,900) | (1,730) | - | - | - | (1,730) |
| Litigation costs | - | - | - | - | (373) | (373) | (673) | (1,901) | (3,147) | (1,961) | (7,682) |
| Acquisition-related facilities adjustment | - | - | - | - | - | - | (143) | (171) | (171) | (172) | (657) |
| Cancelled debt offering costs | - | - | - | - | - | - | - | - | - | (1,003) | (1,003) |
| Acquisition- and integration-related expense | (1,152) | (56) | (4,679) | (1,543) | (8,485) | (14,763) | (4,412) | (4,280) | (5,570) | (2,689) | (16,951) |
| Restructuring | (2,740) | (570) | (501) | - | (8,365) | (9,436) | (6,668) | (6,097) | (2,397) | (1,853) | (17,015) |
| Non-GAAP Operating expenses | \$ 157,166 | \$ 40,364 | \$ 39,344 | \$ 43,002 | \$ 79,623 | \$ 202,333 | \$ 78,672 | \$ 74,609 | \$ 73,230 | \$ 80,831 | \$ 307,342 |
| GAAP Income (loss) from operations | \$ (13,609) | \$ (10,782) | \$ (12,703) | \$ 3,919 | \$ (35,663) | \$ (55,229) | \$ (42,383) | \$ (16,636) | \$ (7,566) | \$ 1,177 | \$ (65,408) |
| Acquisition-related revenue adjustment | - | - | - | - | 23,280 | 23,280 | 11,118 | 4,288 | 4,063 | 4,613 | 24,082 |
| Acquisition-related cost of revenue adjustment | - | - | - | - | (10,364) | (10,364) | (1,977) | - | - | - | (1,977) |
| Adjustment 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 | 19,768 | 3,263 | 4,237 | 3,887 | 14,270 | 25,657 | 2,824 | 2,081 | 2,516 | 3,651 | 11,072 |
| Amortization of intangible assets | 7,500 | 2,259 | 2,293 | 2,293 | 10,267 | 17,112 | 12,309 | 11,964 | 13,448 | 12,002 | 49,723 |
| Impairment of intangible assets | - | - | - | - | 5,471 | 5,471 | - | - | - | - | - |
| Merger integration expense | - | - | - | 178 | (178) | - | - | - | - | - | - |
| Settlement expense | 605 | - | - | 1,600 | 300 | 1,900 | 1,730 | - | - | - | 1,730 |
| Litigation costs | - | - | - | - | 373 | 373 | 673 | 1,901 | 3,147 | 1,961 | 7,682 |
| Acquisition-related facilities adjustment | - | - | - | - | - | - | 211 | 252 | 251 | 252 | 966 |
| Cancelled debt offering costs | - | - | - | - | - | - | - | - | - | 1,003 | 1,003 |
| Acquisition- and integration-related expense | 1,152 | 56 | 4,679 | 1,543 | 8,485 | 14,763 | 4,412 | 4,280 | 5,570 | 2,689 | 16,951 |
| Restructuring | 2,740 | 570 | 501 | - | 8,365 | 9,436 | 6,668 | 6,097 | 2,397 | 1,853 | 17,015 |
| Non-GAAP Income (loss) from operations | \$ 18,156 | \$ (4,634) | \$ (993) | \$ 13,420 | \$ 24,606 | \$ 32,399 | \$ (1,510) | \$ 17,176 | \$ 26,004 | \$ 31,104 | \$ 72,774 |

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

| \$000s, except per share amounts | FY16 | Q117 | Q217 | Q317 | Q417 | FY17 | Q118 | Q218 | Q318 | Q418 | FY18 |
|--|------------------|-------------------|-------------------|------------------|------------------|------------------|-------------------|------------------|------------------|------------------|------------------|
| GAAP Net income (loss) | \$ (13,932) | \$ (10,646) | \$ (12,345) | \$ 3,453 | \$ (15,714) | \$ (35,252) | \$ (44,904) | \$ (19,922) | \$ (10,158) | \$ (1,826) | \$ (76,810) |
| Acquisition-related revenue adjustment | - | - | - | - | 23,280 | 23,280 | 11,118 | 4,288 | 4,063 | 4,613 | 24,082 |
| Acquisition-related cost of revenue adjustment | - | - | - | - | (10,364) | (10,364) | (1,977) | - | - | - | (1,977) |
| Adjustment 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 | 19,768 | 3,263 | 4,237 | 3,887 | 14,270 | 25,657 | 2,824 | 2,081 | 2,516 | 3,651 | 11,072 |
| Amortization of intangible assets | 7,500 | 2,259 | 2,293 | 2,293 | 10,267 | 17,112 | 12,309 | 11,964 | 13,448 | 12,002 | 49,723 |
| Impairment of intangible assets | - | - | - | - | 5,471 | 5,471 | - | - | - | - | - |
| Merger integration expense | - | - | - | 178 | (178) | - | - | - | - | - | - |
| Settlement expense | 605 | - | - | 1,600 | 300 | 1,900 | 1,730 | - | - | - | 1,730 |
| Litigation costs | - | - | - | - | 373 | 373 | 673 | 1,901 | 3,147 | 1,961 | 7,682 |
| Acquisition-related facilities adjustment | - | - | - | - | - | - | 211 | 252 | 251 | 252 | 966 |
| Cancelled debt offering costs | - | - | - | - | - | - | - | - | - | 1,003 | 1,003 |
| Acquisition- and integration-related expense | 1,152 | 56 | 4,679 | 1,543 | 8,485 | 14,763 | 4,412 | 4,280 | 5,570 | 2,689 | 16,951 |
| Restructuring | 2,740 | 570 | 501 | - | 8,365 | 9,436 | 6,668 | 6,097 | 2,397 | 1,853 | 17,015 |
| Gain on sales of intangible assets | (1,298) | - | (576) | - | - | (576) | - | - | - | - | - |
| Tax benefits arising from purchase accounting and tax reform | - | - | - | - | (21,155) | (21,155) | - | - | (841) | 123 | (718) |
| Non-GAAP Net income (loss) | \$ 16,535 | \$ (4,498) | \$ (1,211) | \$ 12,954 | \$ 23,400 | \$ 30,645 | \$ (4,031) | \$ 13,890 | \$ 22,571 | \$ 28,224 | \$ 60,654 |
| GAAP Diluted earnings per share or (loss) per share | \$ (0.28) | \$ (0.22) | \$ (0.25) | \$ 0.07 | \$ (0.18) | \$ (0.60) | \$ (0.44) | \$ (0.20) | \$ (0.10) | \$ (0.02) | \$ (0.74) |
| Acquisition-related revenue adjustment | - | - | - | - | 0.27 | 0.38 | 0.11 | 0.04 | 0.04 | 0.04 | 0.23 |
| Acquisition-related cost of revenue adjustment | - | - | - | - | (0.12) | (0.17) | (0.02) | - | - | - | (0.02) |
| Adjustment 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 | 0.40 | 0.07 | 0.09 | 0.08 | 0.16 | 0.43 | 0.03 | 0.02 | 0.02 | 0.03 | 0.11 |
| Amortization of intangible assets | 0.15 | 0.05 | 0.05 | 0.05 | 0.12 | 0.29 | 0.11 | 0.13 | 0.14 | 0.11 | 0.48 |
| Impairment of intangible assets | - | - | - | - | 0.06 | 0.09 | - | - | - | - | - |
| Merger integration expense | - | - | - | * | * | - | - | - | - | - | * |
| Settlement expense | 0.01 | - | - | 0.03 | * | 0.03 | 0.02 | - | - | - | 0.02 |
| Litigation costs | - | - | - | - | * | 0.01 | 0.01 | 0.02 | 0.03 | 0.02 | 0.07 |
| Acquisition-related facilities adjustment | - | - | - | - | - | - | * | * | * | * | 0.01 |
| Cancelled debt offering costs | - | - | - | - | - | - | - | - | - | 0.01 | 0.01 |
| Acquisition- and integration-related expense | 0.02 | * | 0.09 | 0.03 | 0.10 | 0.25 | 0.04 | 0.04 | 0.05 | 0.03 | 0.16 |
| Restructuring | 0.06 | 0.01 | 0.01 | - | 0.10 | 0.16 | 0.07 | 0.06 | 0.02 | 0.02 | 0.16 |
| Gain on sales of intangible assets | (0.03) | - | (0.01) | - | - | (0.01) | - | - | - | - | - |
| Tax benefits arising from purchase accounting and tax reform | - | - | - | - | (0.24) | (0.35) | - | - | (0.01) | * | (0.01) |
| Non-GAAP Diluted earnings per share or (loss) per share | \$ 0.33 | \$ (0.09) | \$ (0.02) | \$ 0.26 | \$ 0.27 | \$ 0.51 | \$ (0.04) | \$ 0.14 | \$ 0.21 | \$ 0.26 | \$ 0.58 |

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

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

| \$000's | FY16 | Q117 | Q217 | Q317 | Q417 | FY17 | Q118 | Q218 | Q318 | Q418 | FY18 |
|--|------------------|-------------------|---------------|------------------|------------------|------------------|---------------|------------------|------------------|------------------|------------------|
| Adjusted EBITDA | | | | | | | | | | | |
| GAAP Net income (loss) | \$ (13,932) | \$ (10,646) | \$ (12,345) | \$ 3,453 | \$ (15,714) | \$ (35,252) | \$ (44,904) | \$ (19,922) | \$ (10,158) | \$ (1,826) | \$ (76,810) |
| Interest (income) expense | (769) | (258) | (254) | (260) | 509 | (263) | 599 | 735 | 1,420 | 1,476 | 4,230 |
| Income tax (benefit) provision | 2,516 | 123 | 471 | 727 | (19,761) | (18,440) | 2,170 | 499 | (82) | 813 | 3,400 |
| Depreciation | 7,970 | 1,823 | 1,772 | 1,660 | 3,231 | 8,486 | 2,507 | 2,811 | 2,952 | 2,930 | 11,200 |
| Amortization of intangible assets | 7,500 | 2,259 | 2,293 | 2,293 | 10,267 | 17,112 | 12,309 | 11,964 | 13,448 | 12,002 | 49,723 |
| Impairment of intangible assets | - | - | - | - | 5,471 | 5,471 | - | - | - | - | - |
| Acquisition-related revenue adjustment | - | - | - | - | 23,280 | 23,280 | 11,118 | 4,288 | 4,063 | 4,613 | 24,082 |
| Acquisition-related cost of revenue adjustment | - | - | - | - | (10,364) | (10,364) | (1,977) | - | - | - | (1,977) |
| Adjustment 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 | 19,768 | 3,263 | 4,237 | 3,887 | 14,270 | 25,657 | 2,824 | 2,081 | 2,516 | 3,651 | 11,072 |
| Merger integration expense | - | - | - | 178 | (178) | - | - | - | - | - | - |
| Settlement expense | 605 | - | - | 1,600 | 300 | 1,900 | 1,730 | - | - | - | 1,730 |
| Litigation costs | - | - | - | - | 373 | 373 | 673 | 1,901 | 3,147 | 1,961 | 7,682 |
| Acquisition-related facilities adjustment | - | - | - | - | - | - | 211 | 252 | 251 | 252 | 966 |
| Cancelled debt offering costs | - | - | - | - | - | - | - | - | - | 1,003 | 1,003 |
| Acquisition- and integration-related expense | 1,152 | 56 | 4,679 | 1,543 | 8,485 | 14,763 | 4,412 | 4,280 | 5,570 | 2,689 | 16,951 |
| Restructuring | 2,740 | 570 | 501 | - | 8,365 | 9,436 | 6,668 | 6,097 | 2,397 | 1,853 | 17,015 |
| Other (income) expense, net | (1,424) | (1) | (575) | (1) | (697) | (1,274) | (248) | 2,052 | 1,254 | 714 | 3,772 |
| Non-GAAP Adjusted EBITDA | \$ 26,126 | \$ (2,811) | \$ 779 | \$ 15,080 | \$ 27,837 | \$ 40,885 | \$ 997 | \$ 19,987 | \$ 28,956 | \$ 34,034 | \$ 83,974 |

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

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

| Adjusted EBITDA as a percentage of revenue | FY16 | Q117 | Q217 | Q317 | Q417 | FY17 | Q118 | Q218 | Q318 | Q418 | FY18 |
|--|--------------|--------|--------|-------|--------|---------------|--------|--------|-------|-------|---------------|
| GAAP net income (loss) | -5.5% | -19.9% | -22.2% | 4.6% | -10.7% | -10.7% | -37.1% | -14.5% | -6.7% | -1.1% | -13.3% |
| Interest (income) expense, net | -0.3% | -0.5% | -0.5% | -0.3% | 0.3% | -0.1% | 0.4% | 0.5% | 0.9% | 0.9% | 0.7% |
| Income tax (benefit) provision | 1.0% | 0.2% | 0.8% | 1.0% | -11.7% | -5.2% | 1.6% | 0.3% | -0.1% | 0.5% | 0.6% |
| Depreciation | 3.2% | 3.4% | 3.2% | 2.2% | 1.9% | 2.4% | 1.9% | 1.9% | 1.9% | 1.7% | 1.8% |
| Amortization of intangible assets | 3.0% | 4.2% | 4.1% | 3.1% | 6.1% | 4.8% | 9.1% | 8.3% | 8.5% | 6.9% | 8.1% |
| Impairment of intangible assets | 0.0% | 0.0% | 0.0% | 0.0% | 3.2% | 1.5% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Acquisition-related revenue adjustment | 0.0% | 0.0% | 0.0% | 0.0% | 15.2% | 7.4% | 12.1% | 3.8% | 2.7% | 2.6% | 4.5% |
| Acquisition-related cost of revenue adjustment | 0.0% | 0.0% | 0.0% | 0.0% | -6.1% | -2.9% | -1.5% | 0.0% | 0.0% | 0.0% | -0.3% |
| Adjustment for new revenue standard | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 2.2% | 2.0% | 1.4% | 1.1% | 1.6% |
| Adjustment to cost of revenue for new revenue standard | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | -0.1% | 0.0% | 0.0% | 0.0% | 0.0% |
| Stock-based compensation | 7.7% | 6.1% | 7.7% | 5.2% | 8.4% | 7.3% | 2.1% | 1.4% | 1.6% | 2.1% | 1.8% |
| Merger integration expense | 0.0% | 0.0% | 0.0% | 0.2% | -0.1% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Settlement expense | 0.2% | 0.0% | 0.0% | 2.1% | 0.2% | 0.5% | 1.3% | 0.0% | 0.0% | 0.0% | 0.3% |
| Litigation costs | 0.0% | 0.0% | 0.0% | 0.0% | 0.2% | 0.1% | 0.5% | 1.3% | 2.0% | 1.1% | 1.3% |
| Acquisition-related facilities adjustment | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.2% | 0.2% | 0.2% | 0.1% | 0.2% |
| Cancelled debt offering costs | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.6% | 0.2% |
| Acquisition- and integration-related expense | 0.5% | 0.1% | 8.4% | 2.1% | 5.0% | 4.2% | 3.3% | 3.0% | 3.5% | 1.6% | 2.8% |
| Restructuring | 1.1% | 1.1% | 0.9% | 0.0% | 4.9% | 2.7% | 4.9% | 4.2% | 1.5% | 1.1% | 2.8% |
| Other (income) expense, net | -0.6% | * | -1.0% | * | -0.4% | -0.4% | -0.2% | 1.4% | 0.8% | 0.4% | 0.6% |
| Non-GAAP Adjusted EBITDA as a percentage of revenue | 10.3% | -5.3% | 1.4% | 20.2% | 16.4% | 11.6% | 0.7% | 13.8% | 18.2% | 19.6% | 13.7% |

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

Outlook GAAP to Non-GAAP Reconciliation

Adjusted EBITDA: Ribbon has not provided a reconciliation of Adjusted EBITDA for the year ending December 31, 2019, 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; adjustments for the impact of the new revenue standard; stock-based compensation; settlement expense; certain litigation costs; acquisition-related facilities adjustments; acquisition- and integration-related expense; restructuring and other income (expense), net.