



# Ciena Corporation

## Earnings Presentation

Period ended October 31, 2019

December 12, 2019

# Forward-looking statements and non-GAAP measures

Information in this presentation and related comments of presenters contain a number of forward-looking statements. These statements are based on current expectations, forecasts, assumptions and other information available to the Company as of the date hereof. Forward-looking statements include Ciena's long-term financial targets, prospective financial results, return of capital plans, business strategies, expectations about its addressable markets and market share, and business outlook for future periods, as well as statements regarding Ciena's expectations, beliefs, intentions or strategies regarding the future. Often, these can be identified by forward-looking words such as "target" "anticipate," "believe," "could," "estimate," "expect," "intend," "may," "should," "will," "plan," "predict," "potential," "project," "continue," and "would" or similar words.

Ciena's actual results, performance or events may differ materially from these forward-looking statements made or implied due to a number of risks and uncertainties relating to Ciena's business, including: the effect of broader economic and market conditions on our customers and their business; our ability to execute our business and growth strategies; changes in network spending or network strategy by our customers; seasonality and the timing and size of customer orders, including our ability to recognize revenue relating to such sales; the level of competitive pressure we encounter; the product, customer and geographic mix of sales within the period; supply chain disruptions and the level of success relating to efforts to optimize Ciena's operations; changes in foreign currency exchange rates affecting revenue and operating expense; the impact of the Tax Cuts and Jobs Act; changes in tax or trade regulations, including the imposition of tariffs and duties; and the other risk factors disclosed in Ciena's periodic reports filed with the Securities and Exchange Commission (SEC) including Ciena's Annual Report on Form 10-K to be filed with the SEC and Ciena's Quarterly Report on Form 10-Q filed with the SEC on September 11, 2019.

All information, statements, and projections in this presentation and the related earnings call speak only as of the date of this presentation and related earnings call. Ciena assumes no obligation to update any forward-looking or other information included in this presentation or related earnings calls, whether as a result of new information, future events or otherwise.

In addition, this presentation includes historical, and may include prospective, non-GAAP measures of Ciena's gross margin, operating expense, operating profit, EBITDA, net income, and net income per share. These measures are not intended to be a substitute for financial information presented in accordance with GAAP. A reconciliation of non-GAAP measures used in this presentation to Ciena's GAAP results for the relevant period can be found in the Appendix to this presentation. Additional information can also be found in our press release filed this morning and in our reports on Form 10-Q filed with the Securities and Exchange Commission.

With respect to Ciena's expectations under "Business Outlook" and "Long Term financial Targets", Ciena is not able to provide a quantitative reconciliation of the adjusted (non-GAAP) gross margin, operating expense, operating margin and earnings per share guidance measures to the corresponding gross profit and gross profit percentage, and operating expense GAAP measures without unreasonable efforts. Ciena cannot provide meaningful estimates of the non-recurring charges and credits excluded from these non-GAAP measures due to the forward-looking nature of these estimates and their inherent variability and uncertainty. For the same reasons, Ciena is unable to address the probable significance of the unavailable information.

# Fiscal 2019 results

# FY 2019 key achievements

## We are taking market share and outperforming the competition

- Annual revenue growth significantly greater than the market at 15%
- Adjusted EPS growth of over 50%
- Expect to have gained at least 3% of global market share
- Top 10 customers include service providers, cable and web-scale spanning across three different regions

## Our balance sheet is strong

- Free cash flow resulted in \$351M or 75% of adjusted operating income
- Ended the year with over \$1B in cash and investments
- Significant return of capital to shareholders with \$150M used to repurchase shares during the year
- Ratings agency upgrades from Moody's and S&P

## We are forcing the pace of innovation with the Adaptive Network

- WaveLogic roadmap extends beyond 400G and with multiple form factors
- Adaptive IP capabilities for Packet Networking to address fiber densification (5G & Fiber Deep)
- Blue Planet Automation Software portfolio and closed-loop automation capability strengthened with recent acquisition of Centina

*\* A reconciliation of these non-GAAP measures to our GAAP results is included in the appendix to this presentation.*

# FY 2019 financial highlights

	FY'19	FY'18
Revenue	\$3.57B	\$3.09B
Adjusted Gross Margin*	43.7%	43.0%
Adjusted Operating Expense*	\$1,092M 30.6% / total revenue	\$994M 32.1% / total revenue
Adjusted Operating Margin*	13.1%	10.9%
Adjusted EBITDA*	\$557M	\$421M
Adjusted EPS*	\$2.11	\$1.39

\* A reconciliation of these non-GAAP measures to our GAAP results is included in the press release for the relative period.

# FY 2019 operating metrics

	FY'19	FY'18
Cash and Investments	\$1,024M	\$953M
Cash Flow from Operations	\$413M	\$229M
DSO	82 days	92 days
Inventory Turns	5.0	5.7

# Long-term financial targets score card

	Long-term target <sup>1</sup>	FY'19 Actual
Revenue	Approximately 6% to 8% annual growth over the next three years	15.4%
Adjusted Operating Margin	15% for fiscal 2020; at least 15% in fiscal 2021	13.1%*
Adjusted EPS	Over 20% annual growth per year over the next three years	>50%*
Free cash flow	Approximately 60-70% of adjusted operating income in each of the next three years	75%

<sup>1</sup> Projections or outlook with respect to future operating results are only as of December 13, 2018, the date presented on the related earnings call. Actual results may differ materially from these forward-looking statements. Ciena assumes no obligation to update this information, whether as a result of new information, future events or otherwise.

\* A reconciliation of these non-GAAP measures to our GAAP results is included in the appendix to this presentation.

# Our extraordinary fiscal 2019 performance was driven by a combination of strategic execution and favorable dynamics

Industry dynamics	“Flight to quality”	Continued strategic execution
<ul style="list-style-type: none"><li>▪ Favorable competitive dynamics<ul style="list-style-type: none"><li>▪ Subscale vendors struggled financially and with innovation</li><li>▪ Competing products were late to market</li><li>▪ Larger competitors faced competing investment priorities</li></ul></li><li>▪ Web-scale spending has outpaced the overall market</li><li>▪ Spending by some service provider customers recovered from lower levels</li></ul>	<ul style="list-style-type: none"><li>▪ Customer trust in Ciena and strong relationships<ul style="list-style-type: none"><li>▪ Web-scale providers pursue quality products and a strong roadmap</li><li>▪ Service providers seek strong, long-term partners</li></ul></li><li>▪ Tier 1 service provider wins at a higher rate</li></ul>	<ul style="list-style-type: none"><li>▪ WaveLogic Ai continues to outperform alternative products and WaveLogic 5e launch timing leads the market</li><li>▪ Complementary solutions that continue to meet customer requirements including Blue Planet Automation Software &amp; Services and Packet Networking</li><li>▪ Diversification as a result of broad based geographies, market verticals and customers</li></ul>

***All the above resulted in intensified share gains***



# Market context



# Market leadership



## #1 GLOBALLY

- DATA CENTER INTERCONNECT
- DATA CENTER INTERCONNECT for ICPs
- PURPOSE-BUILT/COMPACT MODULAR DCI
- SLTE WDM MARKET

## #1 N. AMERICA

- TOTAL OPTICAL NETWORKING
- LH WDM
- METRO WDM

## #2 GLOBALLY

- TOTAL OPTICAL NETWORKING
- LH WDM
- METRO WDM

## #1 GLOBALLY

- OPTICAL EQUIPMENT VENDOR LEADERSHIP SP SURVEY
- OPTICAL NETWORK HARDWARE VENDOR SCORECARD
- CARRIER ETHERNET ACCESS DEVICES
- DATA CENTER INTERCONNECT
- PURPOSE-BUILT/COMPACT MODULAR DCI
- SLTE WDM MARKET

## #1 N. AMERICA

- TOTAL OPTICAL NETWORKING
- CARRIER ETHERNET ACCESS DEVICES
- LH WDM
- METRO WDM

## #2 GLOBALLY

- TOTAL OPTICAL NETWORKING
- LH WDM
- METRO WDM

## #1 GLOBALLY

- PURPOSE-BUILT/COMPACT MODULAR DCI
- CLOUD & COLO MARKET
- SLTE WDM MARKET

## #1 N. AMERICA

- TOTAL OPTICAL NETWORKING
- LH WDM
- METRO WDM

## #2 GLOBALLY

- TOTAL OPTICAL NETWORKING
- LH WDM
- METRO WDM

## #1 GLOBALLY

- DATA CENTER INTERCONNECT
- DATA CENTER INTERCONNECT for ICPs
- PURPOSE-BUILT/COMPACT MODULAR DCI

## #1 N. AMERICA

- TOTAL OPTICAL NETWORKING
- PACKET OPTICAL
- LH WDM
- METRO WDM

## #2 GLOBALLY

- TOTAL OPTICAL NETWORKING
- NEXT-GEN OPTICAL
- PACKET OPTICAL
- LH WDM

Optical Networks Report, 3Q19  
Data Center Interconnect Market Share Report, 3Q19

Optical Networks Report, 3Q19  
DCI Market Tracker, September 2019  
Ethernet Access Devices Tracker, September 2019  
Optical Network HW Vendor Scorecard, June 2019  
Optical Equipment Vendor Leadership Global Service Provider Survey January 2019

Optical Hardware Report, 3Q19  
Optical Customer Markets Report, 3Q19  
Optical Hardware Applications Report, 3Q19

Optical Networks Report, 3Q19

# Several mega trends and the innovations that will enable them

Cloud



Data Center



IoT & Connected Objects



Fiber Deep  
(Cable/MSO)



Mobility & 5G



# Q4 fiscal 2019 results and competitive performance



# Q4 FY 2019 key highlights

## Achieving balanced growth

- Non-telco represented 39% of total revenue
- Direct web-scale contributed 20% of total revenue
- EMEA revenue up 24% YoY
- NA revenue up 21% YoY

## Driving the pace of innovation

- TTM Adjusted R&D\* investment was \$534M
- WaveLogic Ai has 146 total customers with 18 new wins in Q4
- Waveserver has 155 customers with 13 new wins in Q4

## Delivering shareholder value

- Repurchased approximately 1.0 million shares of common stock for an aggregate price of \$38.2 million
- Revenue growth of 8% YoY
- Adjusted EPS\* growth of 9% YoY

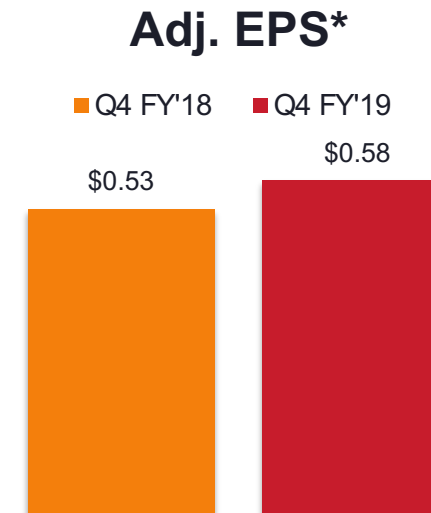
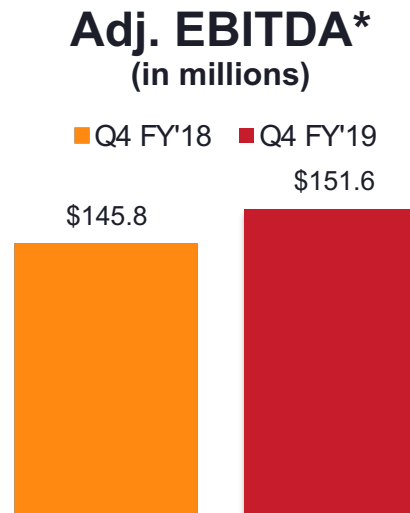
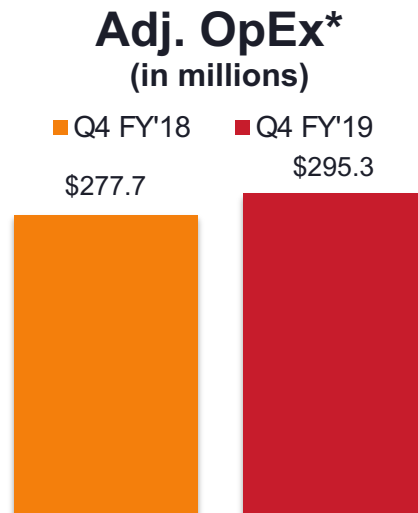
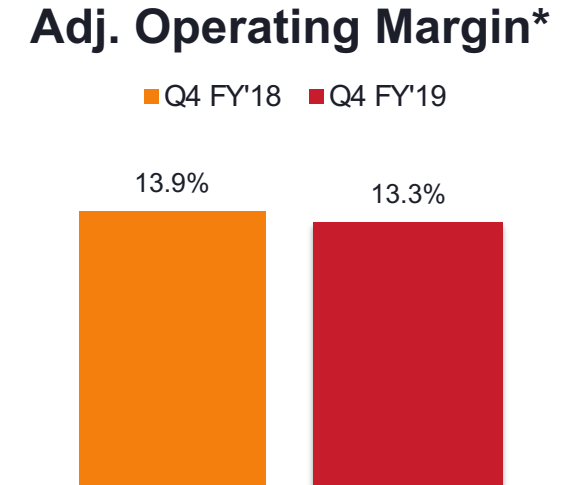
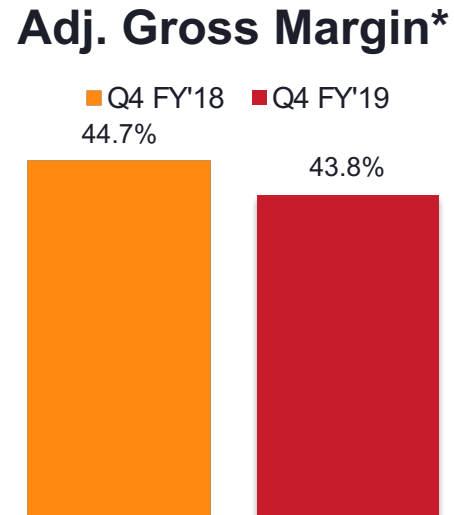
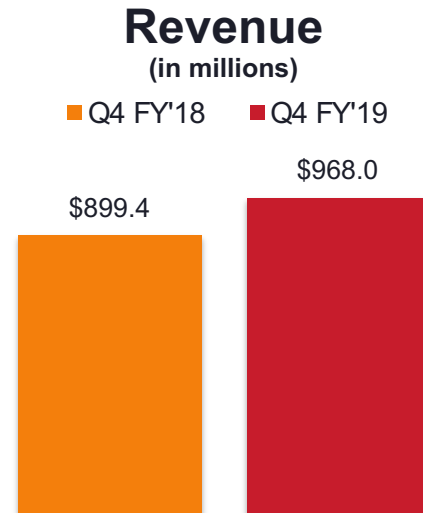
*\* A reconciliation of these non-GAAP measures to our GAAP results is included in the appendix to this presentation.*

# Q4 FY 2019 financial highlights

Revenue	\$968M
Adjusted Gross Margin*	43.8%
Adjusted Operating Expense*	\$295M
Adjusted Operating Margin*	13.3%
Adjusted EBITDA*	\$152M
Adjusted EPS*	\$0.58

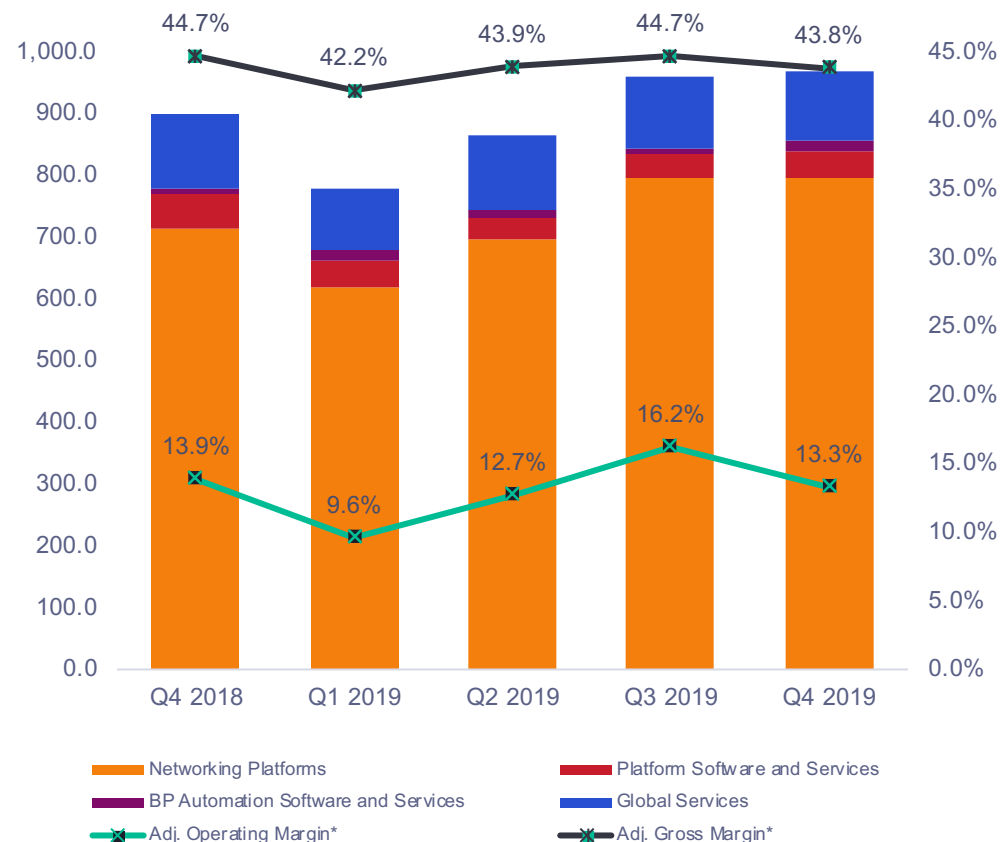
\* A reconciliation of these non-GAAP measures to our GAAP results is included in the appendix to this presentation.

# Q4 FY 2019 comparisons (year-over-year)



# Revenue by segment

(Amounts in millions)



	Q4 FY 2019		Q4 FY 2018	
	Revenue	%**	Revenue	%**
<b>Networking Platforms</b>				
Converged Packet Optical	\$665.8	68.8	\$646.4	71.9
Packet Networking	131.9	13.6	66.5	7.4
<b>Total Networking Platforms</b>	<b>797.7</b>	<b>82.4</b>	<b>712.9</b>	<b>79.3</b>
<b>Platform Software and Services</b>	41.2	4.3	56.6	6.3
<b>Blue Planet Automation Software and Services</b>	16.6	1.7	10.7	1.2
<b>Global Services</b>				
Maintenance Support and Training	65.3	6.7	67.4	7.5
Installation and Deployment	36.5	3.8	39.3	4.4
Consulting and Network Design	10.7	1.1	12.5	1.3
<b>Total Global Services</b>	<b>112.5</b>	<b>11.6</b>	<b>119.2</b>	<b>13.2</b>
<b>Total</b>	<b>\$968.0</b>	<b>100.0%</b>	<b>\$899.4</b>	<b>100.0%</b>

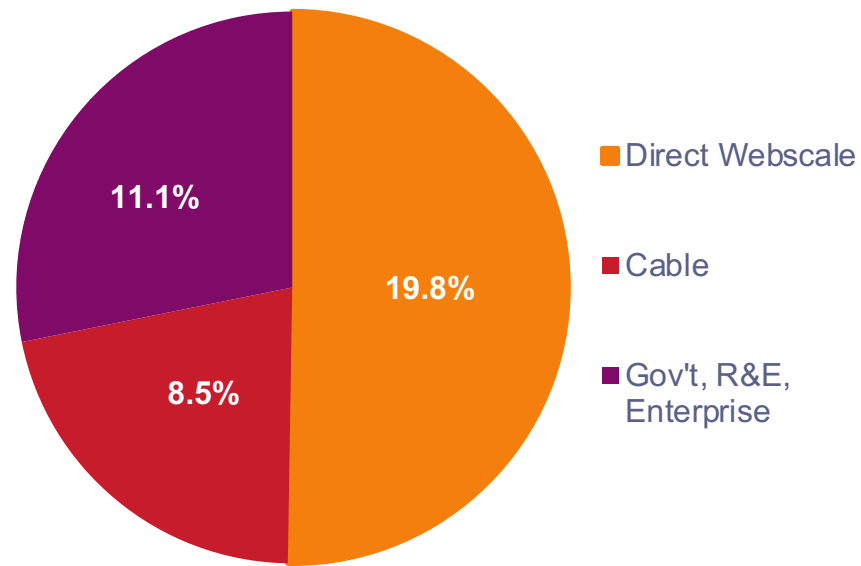
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\*\* Denotes % of total revenue

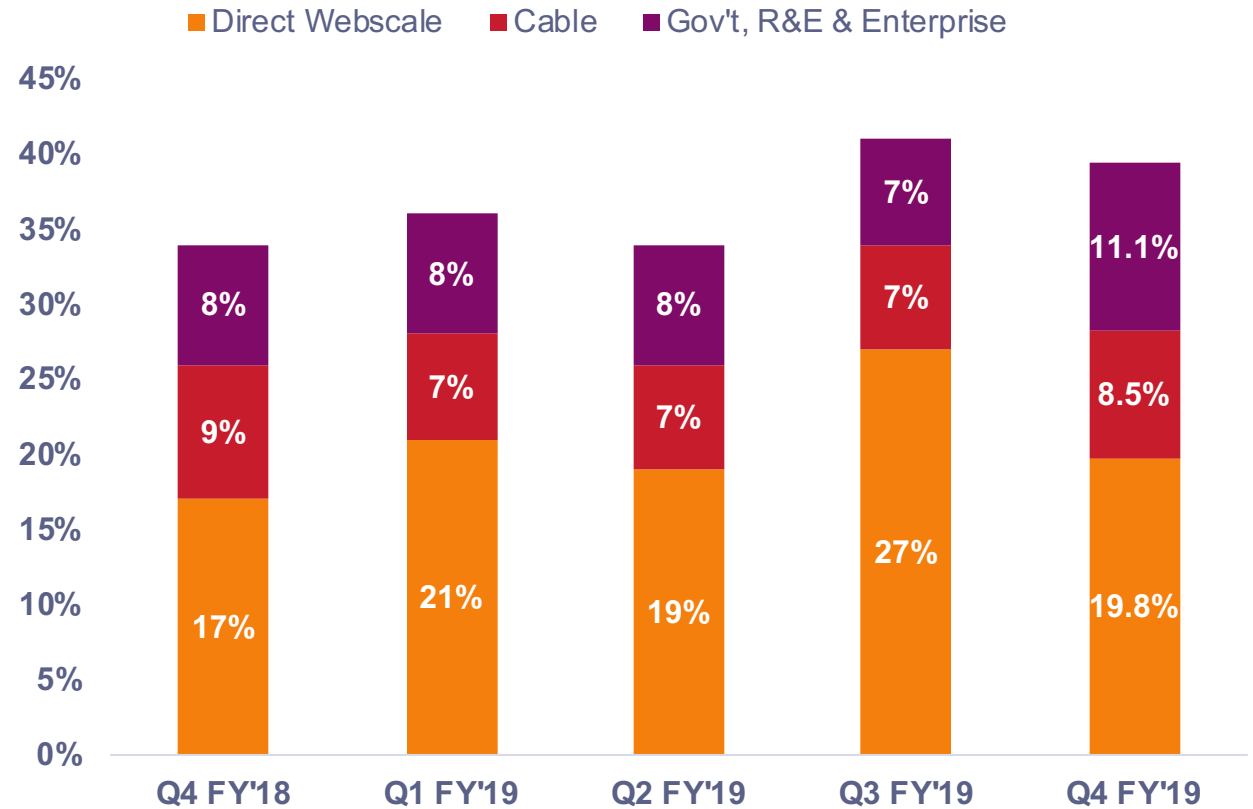


# Continued strength derived from non-telco revenue\*

## Q4 FY 2019

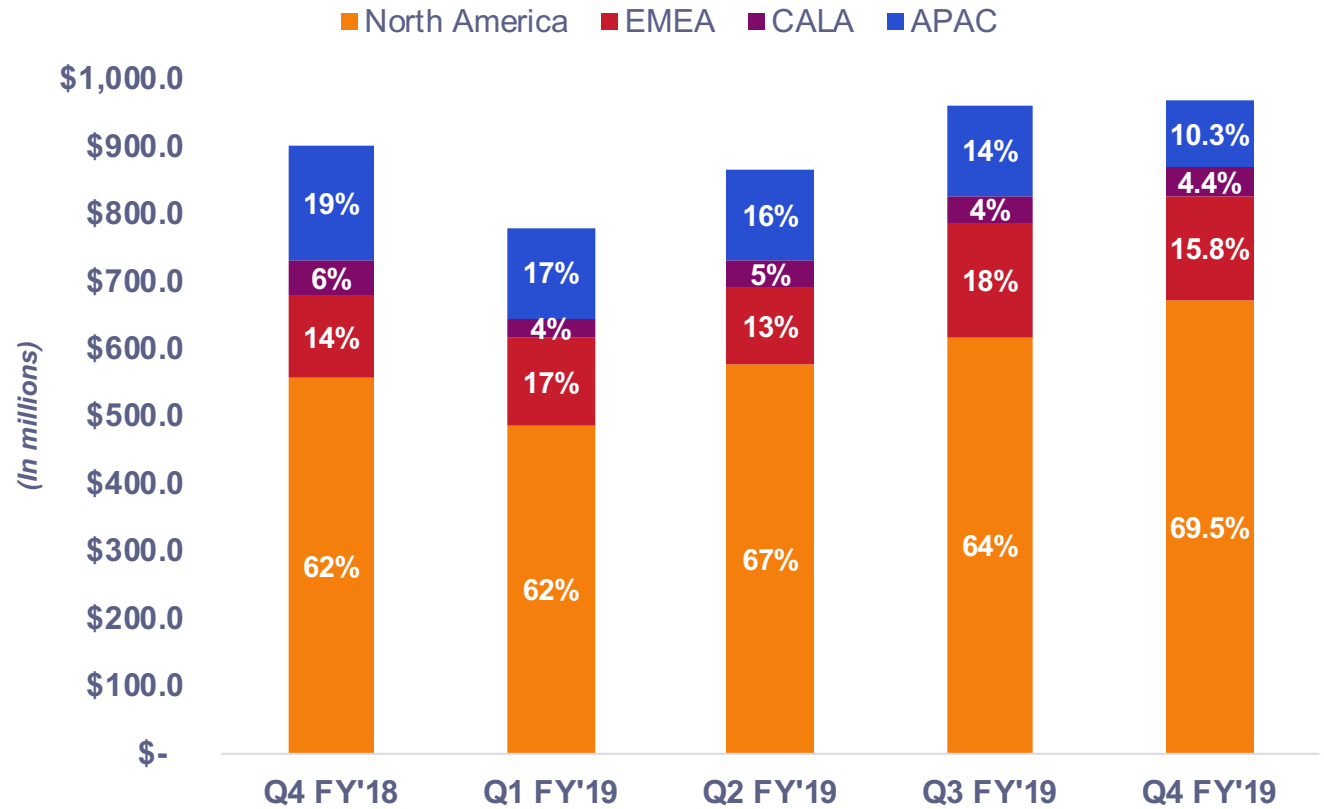
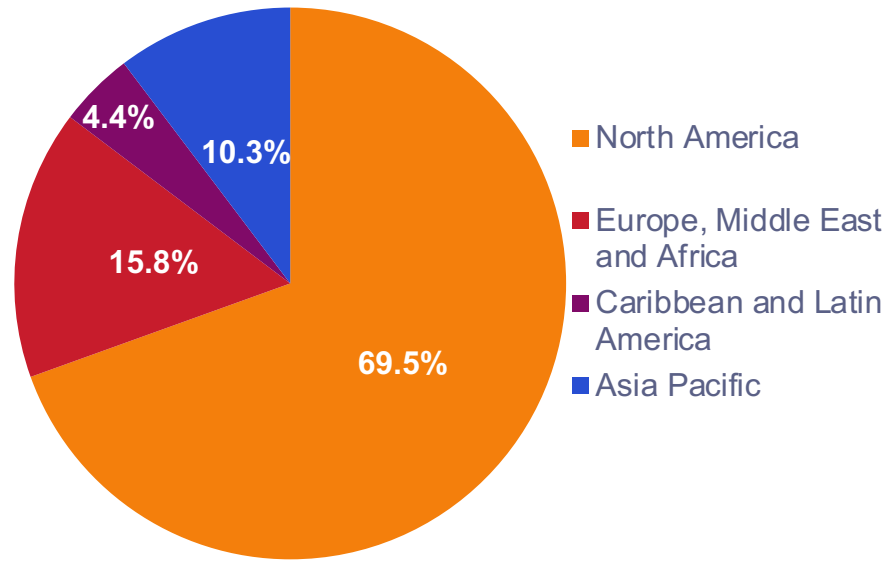


\*represents 39.4% of total revenue in Q4 FY'19



# Revenue by geographic region

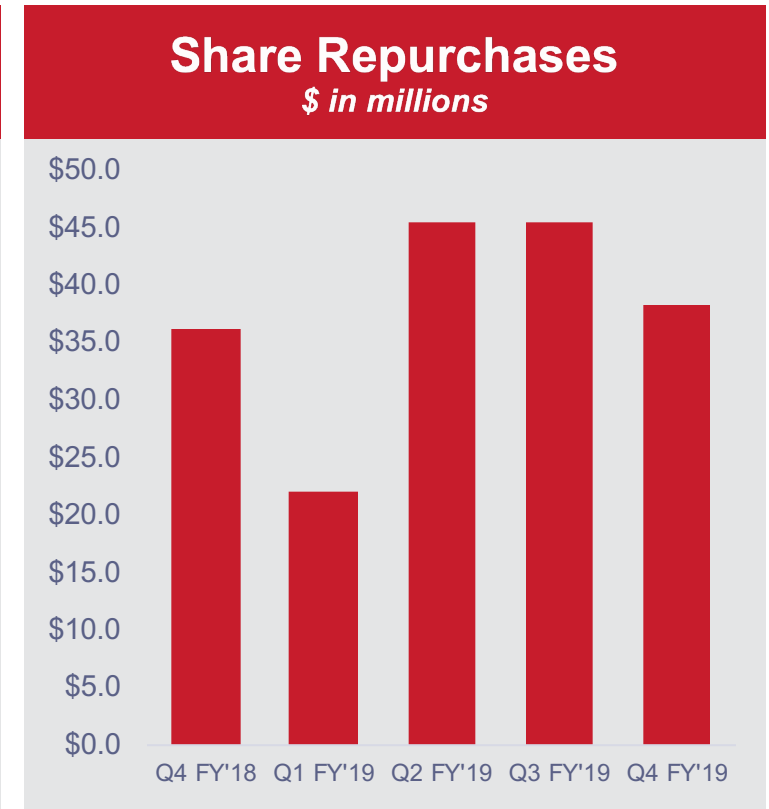
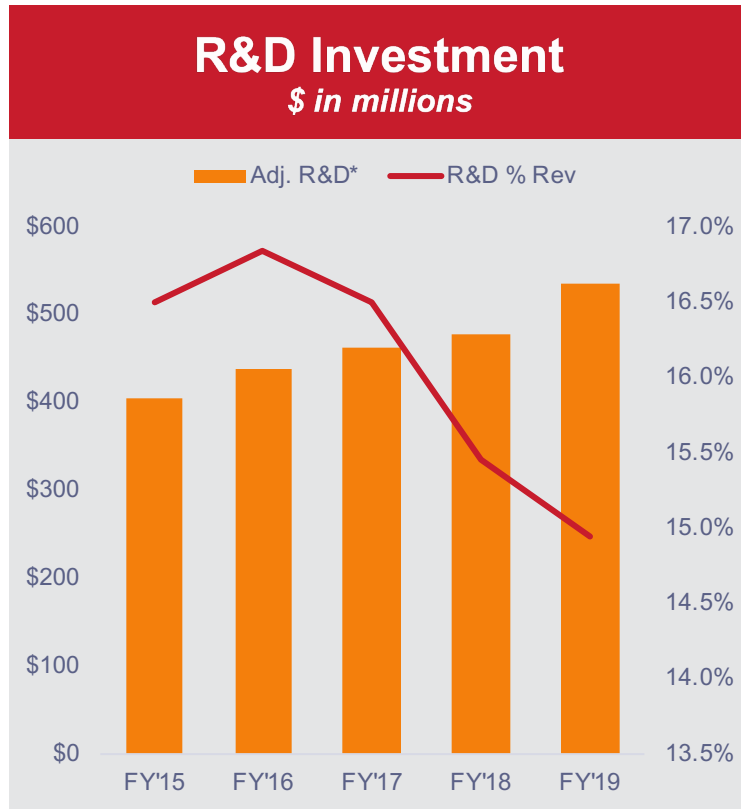
Q4 FY 2019



# Q4 FY 2019 balance sheet and operating metrics

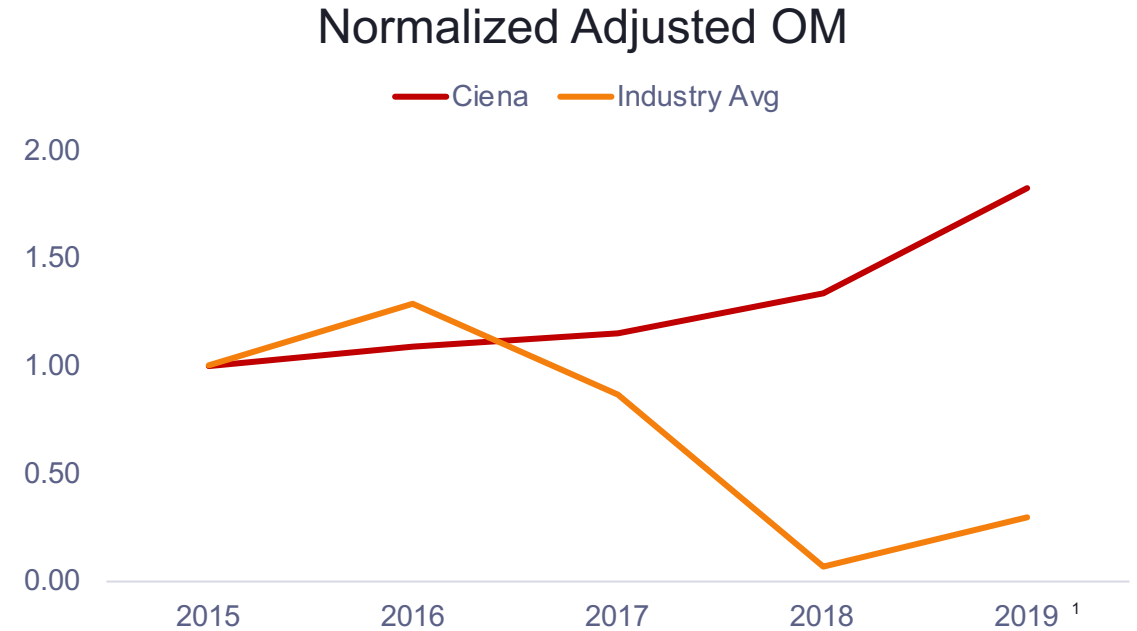
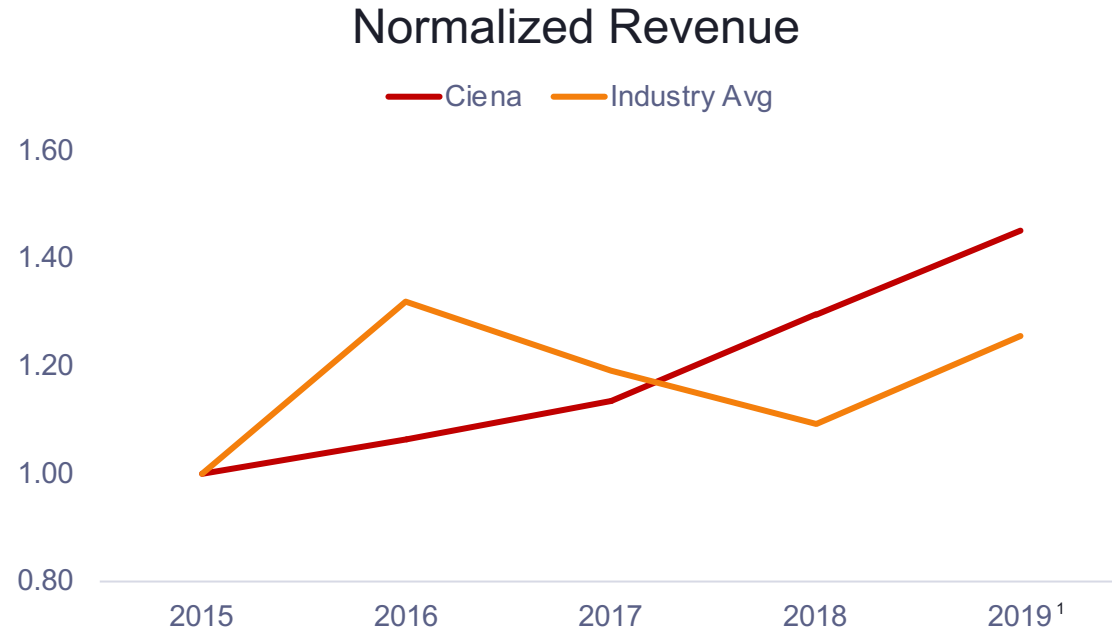
Cash and Investments	\$1.0B
Cash Flow From Operations	\$240M
DSO	75 Days
Inventory Turns	5.4
Leverage	1.4x
Net Cash	\$263.0

# Returning value to shareholders through strong capital allocation priorities



\* A reconciliation of these non-GAAP measures to our GAAP results is included in the appendix to this presentation.

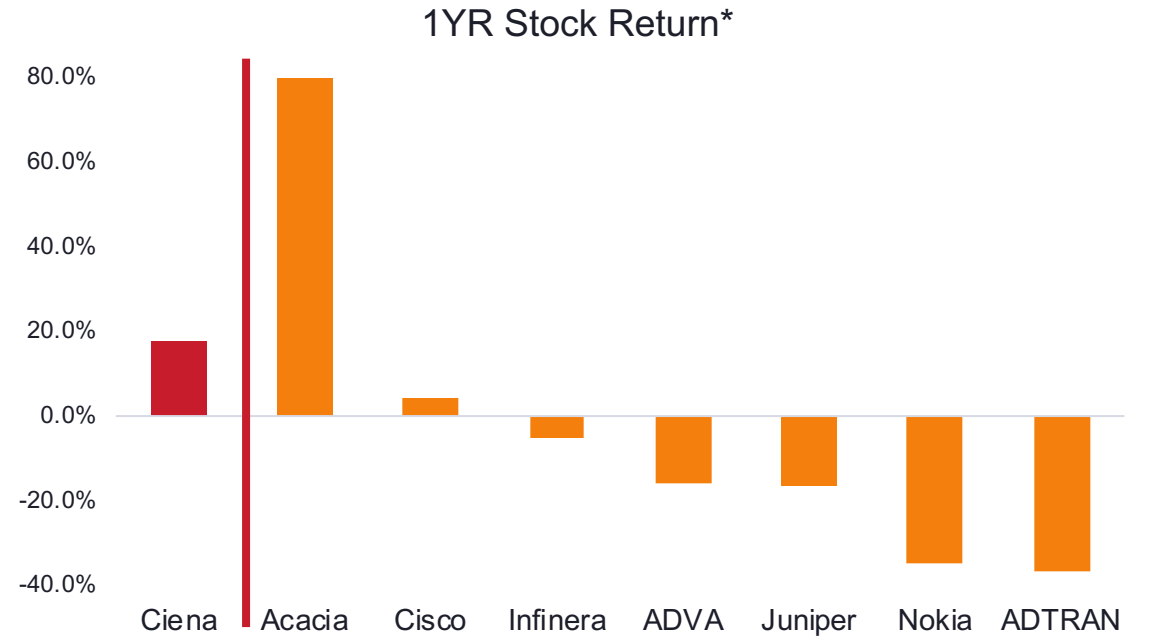
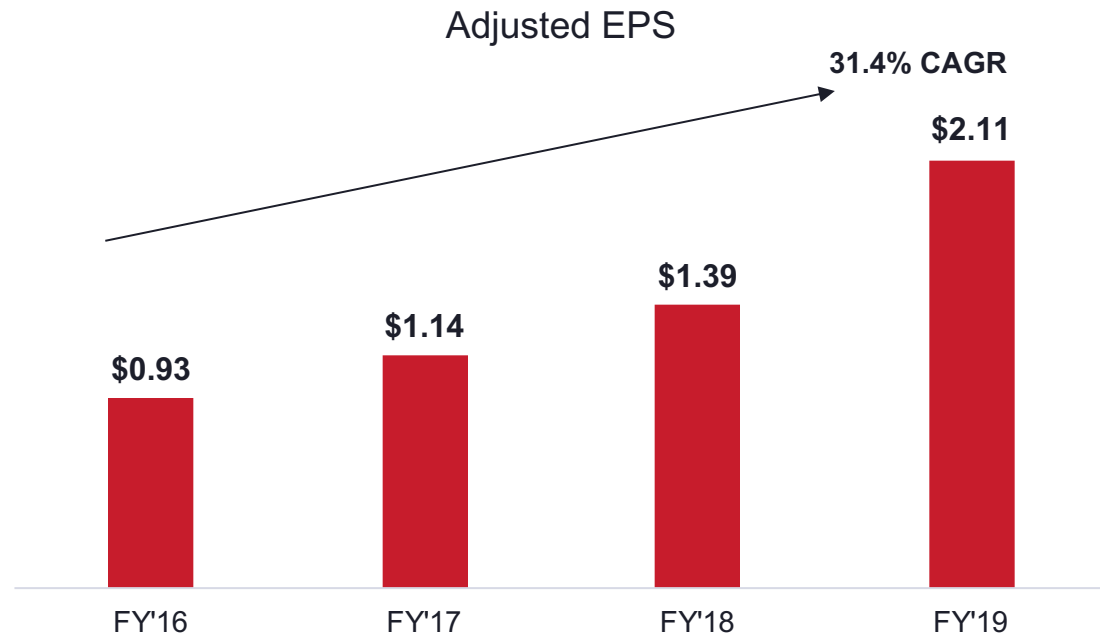
# Delivering consistent and differentiated financial performance



Source: Company filings and IR Insight consensus  
 Industry Average: ACIA, ADTN, ADVA, CSCO, INFN<sup>2</sup>, JNPR and NOKIA Networks segment

1. FY 2019 includes Q4 consensus for industry average and midpoint of Ciena's Q1 FY20 guide
2. INFN represents INFN+Coriant from the time the acquisition closed

# Delivering profitability and total shareholder return



Source: company disclosures and S&P Capital IQ  
\*1 year represents 11/1/18-10/31/19

# Business outlook and long-term targets

# Business Outlook<sup>1</sup>

## Q1'20

<b>Revenue</b>	\$805M to \$835M
<b>Adjusted Gross Margin</b>	42%-44%
<b>Adjusted Operating Expense</b>	~\$265M

## FY 2020

<b>Revenue</b>	Low end of 6%-8% target annual growth rate
<b>Adjusted Gross Margin</b>	42%-44%
<b>Adjusted Operating Margin</b>	15%
<b>Adjusted Operating Expense</b>	\$270M-\$275M average range per quarter

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# Updated long-term financial targets<sup>1</sup>

Execution of our strategy will drive top-line growth, profitability and cash generation

Revenue	Adj. operating margin	Adj. EPS	Free cash flow
Approximately 6% to 8% annual growth over the next three years	15% for fiscal 2020; 16%-17% over the next three years	Target growth rate at an average of 20% per year over the next three years	Approximately 65-75% of adjusted operating income over the next three years

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# Q4 fiscal 2019 appendix

## Gross Profit Reconciliation (Amounts in thousands)

	Q4 FY 2019	Q3 FY 2019	Q2 FY 2019	Q1 FY 2019	Q4 FY 2018
GAAP gross profit	\$419,696	\$424,352	\$374,677	\$323,341	\$398,075
Share-based compensation-products	748	781	702	637	705
Share-based compensation-services	715	783	907	770	651
Amortization of intangible assets	3,303	3,303	3,303	3,418	2,957
Total adjustments related to gross profit	4,766	4,867	4,912	4,825	4,313
<b>Adjusted (non-GAAP) gross profit</b>	<b>\$424,462</b>	<b>\$429,219</b>	<b>\$379,589</b>	<b>\$328,166</b>	<b>\$402,388</b>
<b>Adjusted (non-GAAP) gross margin</b>	<b>43.8%</b>	<b>44.7%</b>	<b>43.9%</b>	<b>42.2%</b>	<b>44.7%</b>

## Operating Expense Reconciliation (Amounts in thousands)

	Q4 FY 2019	Q3 FY 2019	Q2 FY 2019	Q1 FY 2019	Q4 FY 2018
GAAP operating expense	\$326,494	\$299,051	\$294,357	\$275,398	\$302,205
Share-based compensation-research and development	3,287	3,560	4,083	3,391	3,385
Share-based compensation-sales and marketing	4,151	4,192	4,346	3,785	3,741
Share-based compensation-general and administrative	6,425	5,813	5,491	5,112	5,588
Amortization of intangible assets	5,222	5,529	5,529	5,528	4,654
Significant asset impairments and restructuring costs	12,842	5,355	4,068	2,273	1,460
Acquisition and integration costs, excluding share-based compensation	(735)	1,362	1,135	1,608	3,778
Legal settlement	-	-	-	137	1,929
Total adjustments related to operating expense	\$31,192	25,811	\$24,652	\$21,834	\$24,535
<b>Adjusted (non-GAAP) operating expense</b>	<b>\$295,302</b>	<b>\$273,240</b>	<b>\$269,705</b>	<b>\$253,564</b>	<b>\$277,670</b>

## Income from Operations Reconciliation (Amounts in thousands)

	Q4 FY 2019	Q3 FY 2019	Q2 FY 2019	Q1 FY 2019	Q4 FY 2018
GAAP income from operations	\$93,202	\$125,301	\$80,320	\$47,943	\$95,870
Total adjustments related to gross profit	4,766	4,867	4,912	4,825	4,313
Total adjustments related to operating expense	31,192	25,811	24,652	21,834	24,535
Total adjustments related to income from operations	35,958	30,678	29,564	26,659	28,848
<b>Adjusted (non-GAAP) income from operations</b>	<b>\$129,160</b>	<b>\$155,979</b>	<b>\$109,884</b>	<b>\$74,602</b>	<b>\$124,718</b>
<b>Adjusted (non-GAAP) operating margin</b>	<b>13.3%</b>	<b>16.2%</b>	<b>12.7%</b>	<b>9.6%</b>	<b>13.9%</b>

## Net Income Reconciliation (Amounts in thousands)

	Q4 FY 2019	Q3 FY 2019	Q2 FY 2019	Q1 FY 2019	Q4 FY 2018
GAAP net income	\$80,331	\$86,749	\$52,738	\$33,616	\$63,977
Exclude GAAP provision (benefit) for income taxes	2,552	30,198	17,867	9,139	(10,224)
Income before income taxes	82,883	116,947	70,605	42,755	53,753
Total adjustments related to income from operations	35,958	30,678	29,564	26,659	28,848
Loss on extinguishment and modification of debt	-	-	-	-	13,887
Non-cash interest expense	-	-	-	-	727
Change in fair value of debt conversion liability	-	-	-	-	12,070
Adjusted income before income taxes	118,841	147,625	100,169	69,414	109,285
Non-GAAP tax provision on adjusted income before income taxes	28,403	35,282	23,940	16,590	28,272
<b>Adjusted (non-GAAP) net income</b>	<b>\$90,438</b>	<b>\$112,343</b>	<b>\$76,229</b>	<b>\$52,824</b>	<b>\$81,013</b>
Weighted average basic common shares outstanding	154,852	155,488	156,170	156,314	143,659
Weighted average dilutive potential common shares outstanding <sup>1</sup>	156,612	157,455	158,289	158,174	157,745

## Net Income per Common Share

	Q4 FY 2019	Q3 FY 2019	Q2 FY 2019	Q1 FY 2019	Q4 FY 2018
GAAP diluted net income per common share	\$ 0.51	\$ 0.55	\$ 0.33	\$ 0.21	\$ 0.34
<b>Adjusted (Non-GAAP) diluted net income per common share</b>	<b>\$ 0.58</b>	<b>\$ 0.71</b>	<b>\$ 0.48</b>	<b>\$ 0.33</b>	<b>\$ 0.53</b>

1. Weighted average dilutive potential common shares outstanding used in calculating adjusted (non-GAAP) diluted net income per common share for the fourth quarter of fiscal 2019 includes 1.8 million shares underlying certain stock options and stock unit awards.

## Earnings Before Interest, Tax, Depreciation and Amortization (EBITDA) (Amounts in thousands)

Earnings Before Interest, Tax, Depreciation and Amortization (EBITDA)	Q4 FY 2019	Q3 FY 2019	Q2 FY 2019	Q1 FY 2019	Q4 FY 2018
Net income (GAAP)	\$ 80,331	\$ 86,749	\$ 52,738	\$ 33,616	\$ 63,977
Add: Interest expense	9,136	9,404	9,471	9,441	14,873
Less: Interest and other income (loss), net	(1,183)	1,050	(244)	4,253	(13,357)
Add: Loss on extinguishment and modification of debt	-	-	-	-	(13,887)
Add: Provision (benefit) for income taxes	2,552	30,198	17,867	9,139	(10,224)
Add: Depreciation of equipment, building, furniture and fixtures, and amortization of leasehold improvements	22,505	22,076	21,482	21,513	21,110
Add: Amortization of intangible assets	8,525	8,832	8,832	8,947	7,611
<b>EBITDA</b>	<b>\$ 124,232</b>	<b>\$ 156,209</b>	<b>\$ 110,634</b>	<b>\$ 78,403</b>	<b>\$ 124,591</b>
Add: Shared-based compensation cost	15,290	15,084	15,607	13,755	14,076
Add: Significant asset impairments and restructuring costs	12,842	5,355	4,068	2,273	1,460
Add: Acquisition and integration costs	(735)	1,362	1,135	1,608	3,778
Add: Legal settlement	-	-	-	137	1,929
<b>Adjusted EBITDA</b>	<b>\$ 151,629</b>	<b>\$ 178,010</b>	<b>\$ 131,444</b>	<b>\$ 96,176</b>	<b>\$ 145,834</b>



**Thank You**