



# Ciena Corporation

## Investor presentation

Period ended October 31, 2018

# 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; and the other risk factors disclosed in Ciena's periodic reports filed with the Securities and Exchange Commission (SEC) including Ciena's Quarterly Report on Form 10-Q filed with the SEC on September 5, 2018 and Ciena's Annual Report on Form 10-K to be filed with the SEC.

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", Ciena is not able to provide a quantitative reconciliation of the adjusted (non-GAAP) gross margin and adjusted (non-GAAP) operating expense 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.

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# FY 2018 Highlights

# FY 2018 Key Achievements

1

## **We are taking market share and outperforming the competition**

- Annual revenue growth greater than the market at 10%
- Expect to have gained at least 2% of global market share
- Continued to diversify revenue with strong YoY growth; APAC up 21%, Webscale up 139% and Subsea up 25%

2

## **Our balance sheet is strong**

- Ended the fiscal year with no convertible debt outstanding
- Significant return of capital to shareholders with \$111M used to repurchase shares during the year
- Ratings agency upgrades from Moody's and S&P

3

## **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 portfolio strengthened with recent acquisitions of Packet Design for route optimization and DonRiver federated inventory and services

# FY 2018 Financial Highlights

	FY'18	FY'17
Revenue	\$3.09B	\$2.80B
Adjusted Gross Margin*	43.0%	45.1%
Adjusted Operating Expense*	\$994M 32.1% / total revenue	\$931M 33.2% / total revenue
Adjusted Operating Margin*	10.9%	11.9%
Adjusted EPS*	\$1.39	\$1.14

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

# FY 2018 Operating Metrics

	FY'18	FY'17
Cash and Investments	\$953M	\$1.0B
Cash Flow from Operations	\$229M	\$235M
DSO	92 days	80 days
Inventory Turns	5.7	4.9

# Q4'18 Financials



# Q4'18 Financial Highlights

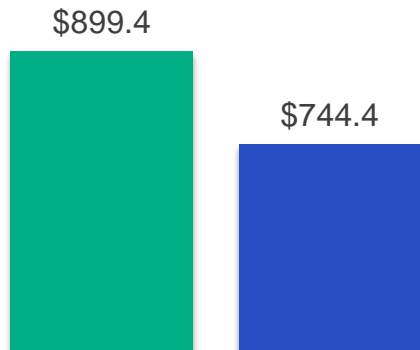
<b>Revenue</b>	\$899.4 million
<b>Adjusted Gross Margin*</b>	44.7%
<b>Adjusted Operating Margin*</b>	13.9%
<b>Adjusted EBITDA*</b>	\$145.8 million
<b>Cash Flow from Operations</b>	\$68.0 million
<b>Adjusted EPS*</b>	\$0.53

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

# Q4'18 Performance Comparisons (year-over-year)

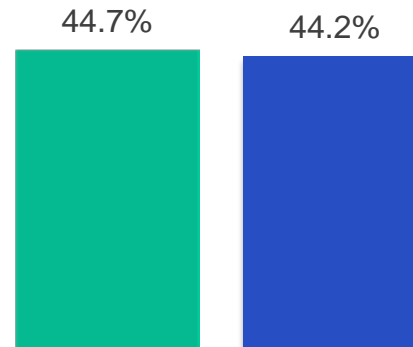
## Revenue

■ Q4'18 ■ Q4'17



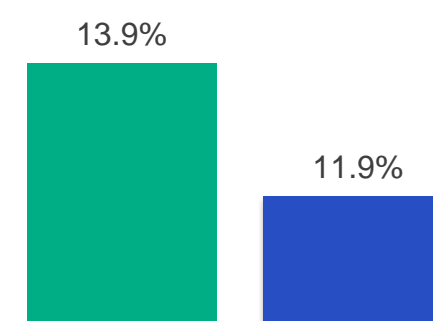
## Adj. Gross Margin\*

■ Q4'18 ■ Q4'17



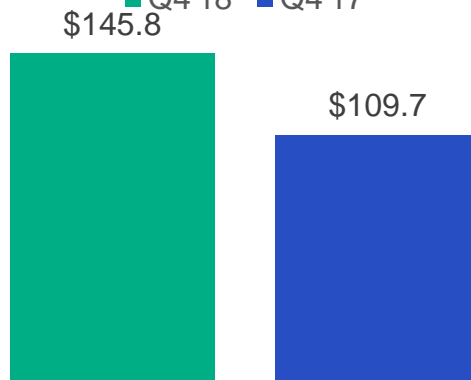
## Adj. Operating Margin\*

■ Q4'18 ■ Q4'17



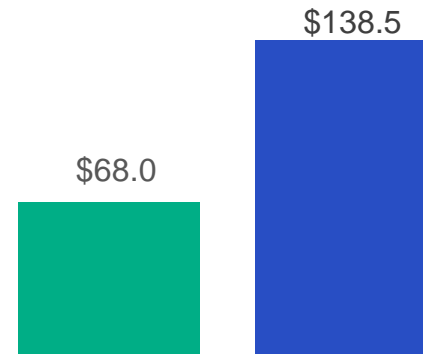
## Adj. EBITDA\*

■ Q4'18 ■ Q4'17



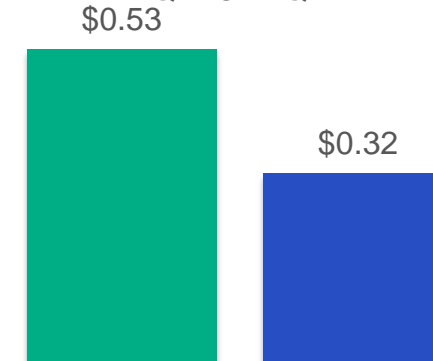
## Cash Flow from Operations

■ Q4'18 ■ Q4'17



## Adj. EPS\*

■ Q4'18 ■ Q4'17



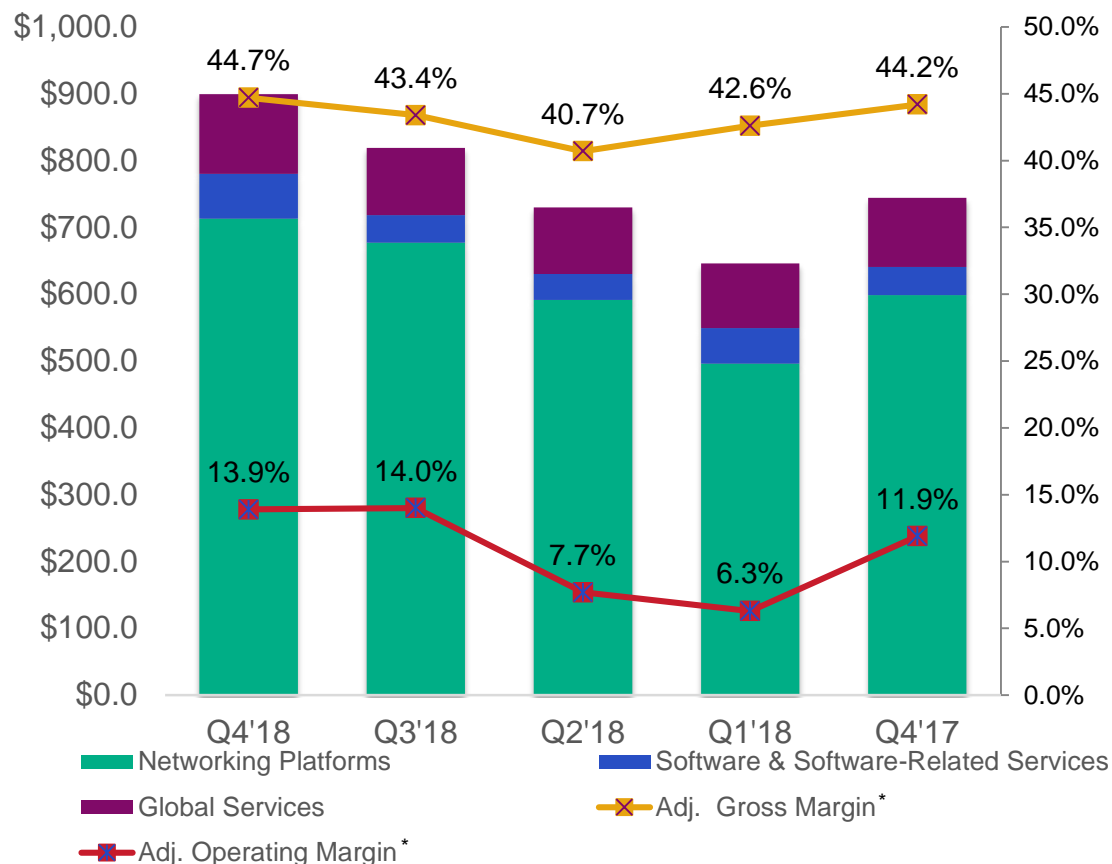
\* A reconciliation of these non-GAAP measures to our GAAP results is included in the appendix to this presentation.

# Q4'18 Balance Sheet and Operating Metrics

<b>Cash and Investments</b>	\$953.4 million
<b>Cash Flow from Operations</b>	\$68.0 million
<b>DSO</b>	79 days
<b>Inventory Turns</b>	6.4

# Revenue by Segment

(Amounts in millions)



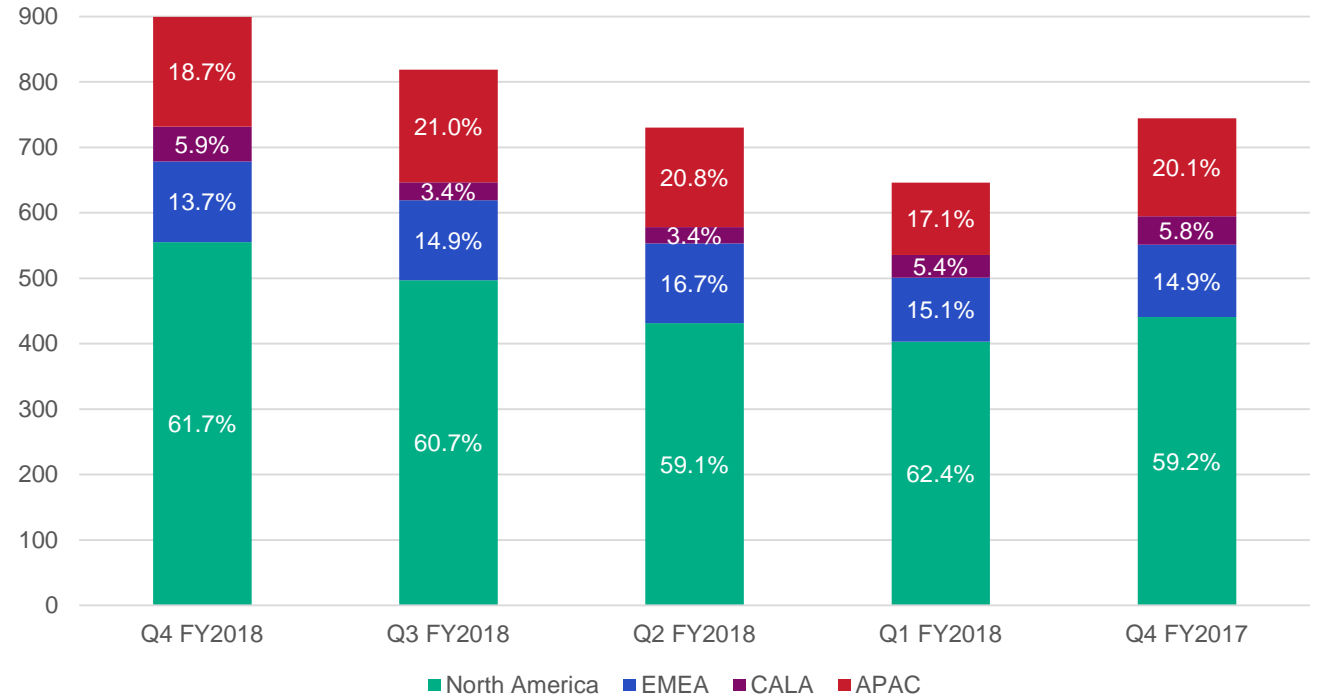
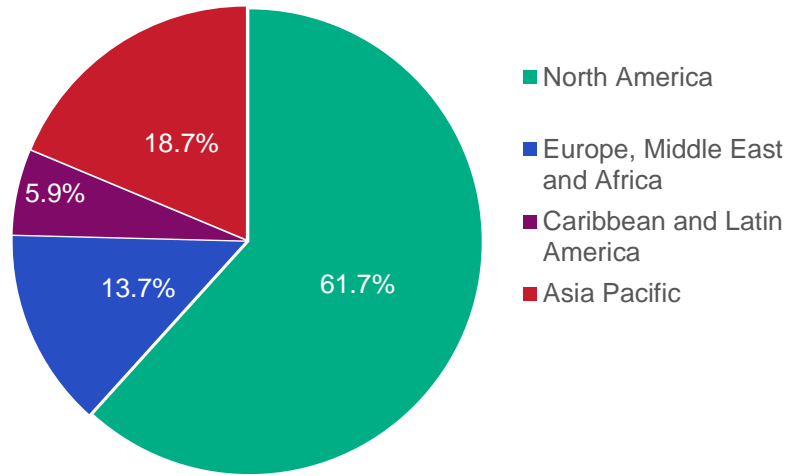
	Q4 FY 2018		Q4 FY 2017	
	Revenue	%**	Revenue	%**
<b>Networking Platforms</b>				
Converged Packet Optical	\$646.4	71.9	\$506.4	68.0
Packet Networking	66.5	7.4	92.5	12.5
Total Networking Platforms	712.9	79.3	598.9	80.5
<b>Software and Software-Related Services</b>				
Platform Software and Services	56.6	6.3	35.9	4.8
Blue Planet Automation Software and Services	10.7	1.2	5.9	0.8
Total Software and Software-Related Services	67.3	7.5	41.8	5.6
<b>Global Services</b>				
Maintenance Support and Training	67.4	7.5	56.2	7.5
Installation and Deployment	39.3	4.4	33.5	4.5
Consulting and Network Design	12.5	1.3	14.0	1.9
Total Global Services	119.2	13.2	103.7	13.9
<b>Total</b>	<b>\$899.4</b>	<b>100.0%</b>	<b>\$744.4</b>	<b>100.0%</b>

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

\*\* Denotes % of total revenue

# Revenue by Geographic Region

Q4 2018



# Business Outlook\*

## Q1'19

Revenue	\$745M to \$775M
Adjusted Gross Margin	42%-43%
Adjusted Operating Expense	Approximately \$255M

## FY'19

Revenue	Midpoint of 6%-8%
Adjusted Gross Margin	42%-43%
Adjusted Operating Expense	Approximately \$255M-\$260M per quarter
Shares Outstanding	Approximately 157M

*\*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.*

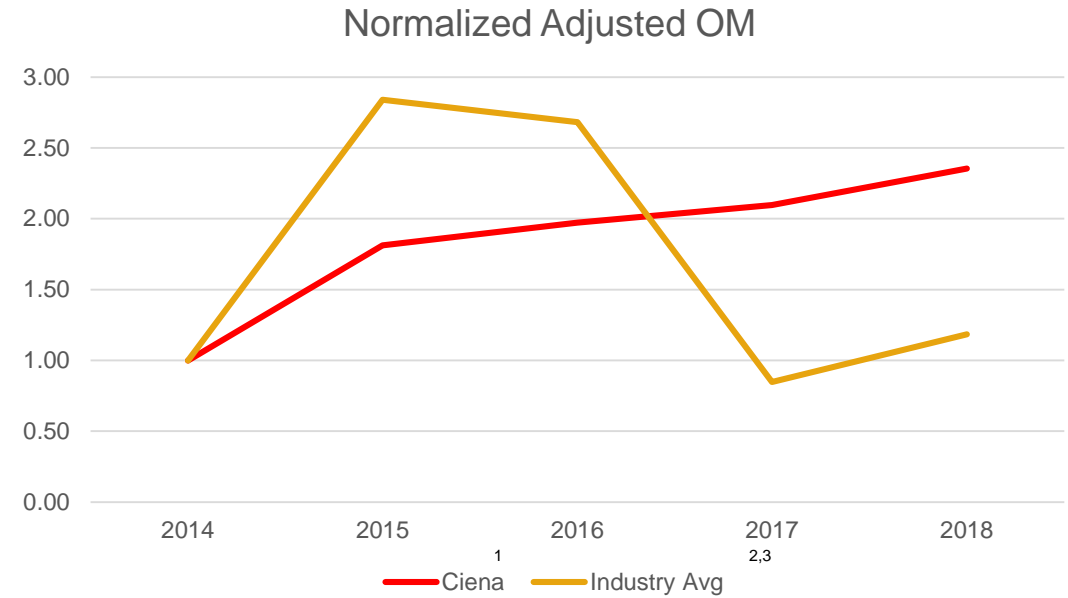
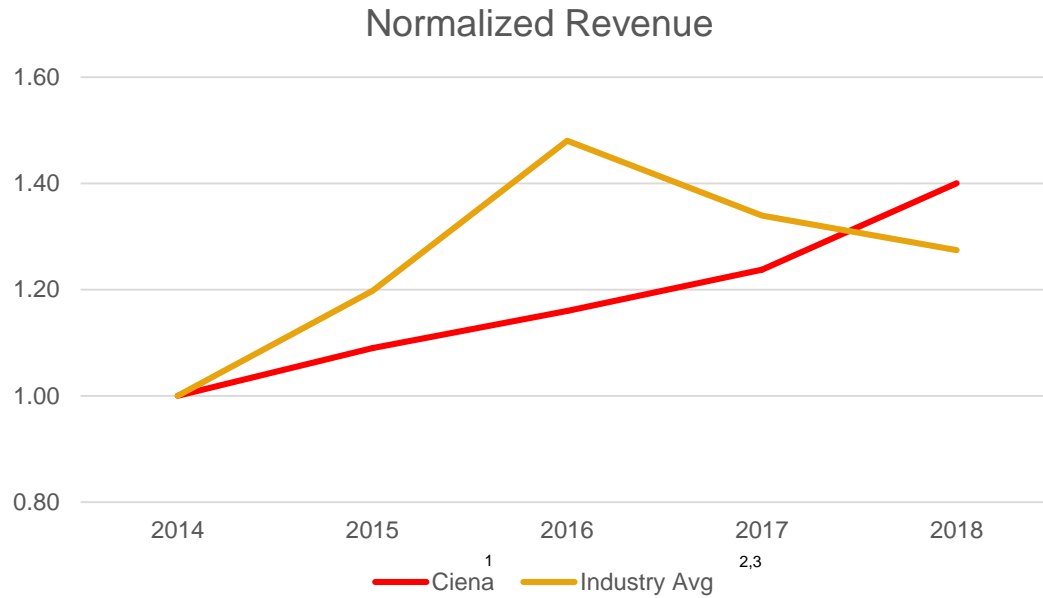
# Our Pedigree

# Successful execution of our strategy

		FY 2018	FY 2015
Diversification	<p>APAC</p> <p>Webscale*</p> <p>Subsea</p>	<p>~20% total revenue   India: \$271M</p> <p>~35% total revenue</p> <p>Upgrade + New Build market</p>	<p>~10% total revenue   India: ~\$100M</p> <p>~15% total revenue</p> <p>Upgrade market only</p>
Innovation	<p>Solutions</p> <p>Software Automation</p> <p>IP Capabilities</p>	<p>Purpose built solutions for individual customer types and applications</p> <p>Blue Planet + DonRiver and Packet Design</p> <p>Introduction of Adaptive IP for Fiber Densification</p>	<p>Limited number of solutions designed to be used by all customers</p> <p>Limited</p> <p>Limited</p>
Scale	<p>Customers</p> <p>R&amp;D Spend**</p> <p>Go to Market</p>	<p>1,300+</p> <p>\$492 million</p> <p>80+ Countries</p>	<p>1,000</p> <p>\$414 million</p> <p>~60 Countries</p>



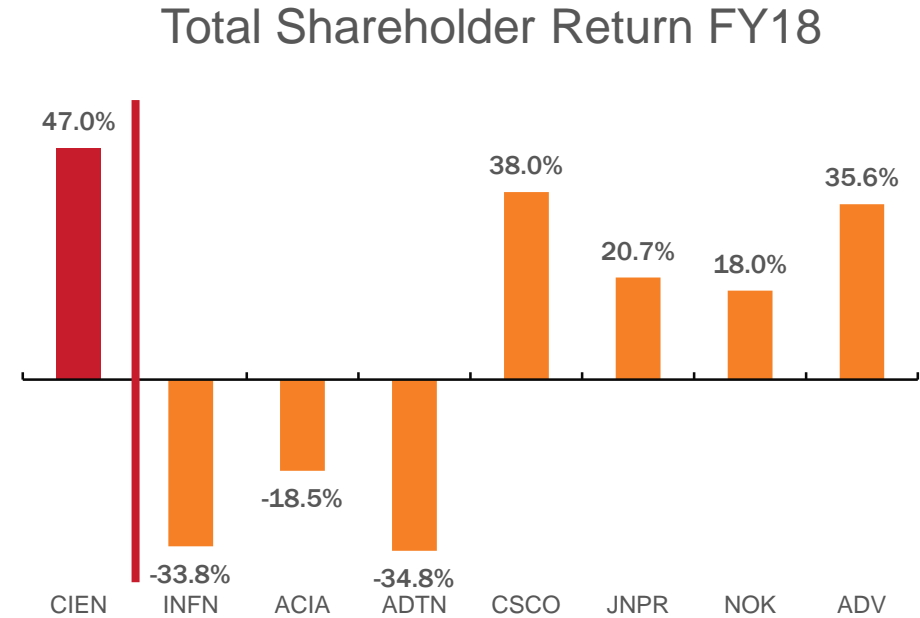
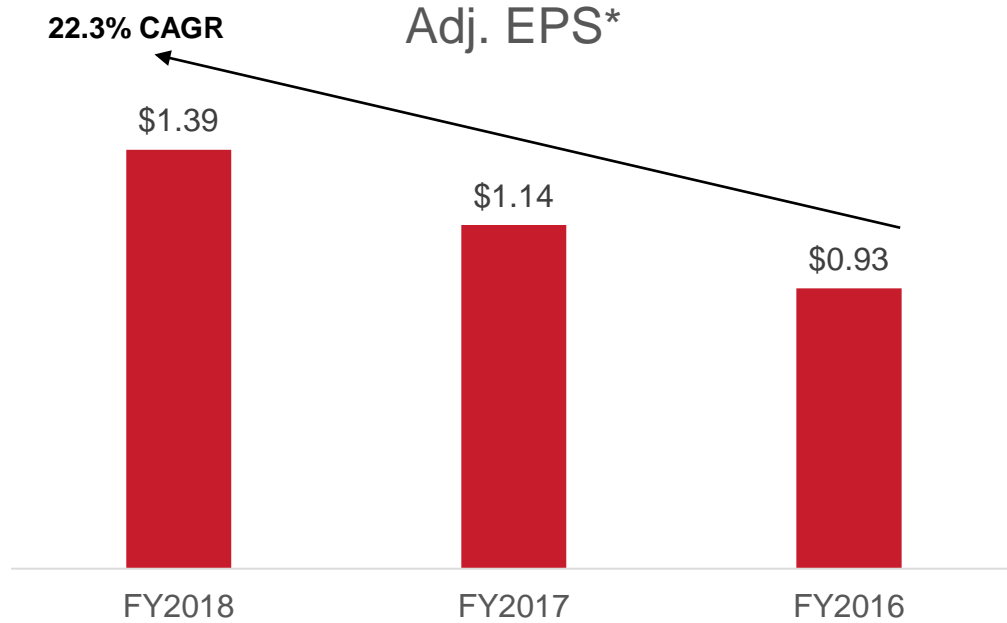
# Delivering consistent and differentiated financial performance



\*Industry Average: ACIA, ADTN, ADVA, CSCO, INFN<sup>1</sup>, JNPR and NOKIA IP Networks segment

1. 2018 includes mid-point of Q1'19 guidance.
2. 2018 includes mid-point of Q4'18 guidance
3. INFN Q4 revenue is based on consensus as of 10/1/18 and excludes Coriant however adjusted OM is based on company forecast and includes Coriant

# Delivering differentiated profitability and stock outperformance



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

# Ciena is a market share leader in all target segments



## #1 GLOBALLY

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

## #1 N. AMERICA

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

## #2 GLOBALLY

- TOTAL OPTICAL NETWORKING
- NEXT-GEN OPTICAL
- PACKET OPTICAL
- 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
- SUBMARINE

## #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

- DATA CENTER INTERCONNECT
- DATA CENTER INTERCONNECT for ICPs
- PURPOSE-BUILT/COMPACT MODULAR DCI
- SUBSEA OPTOELECTRONICS
- SUBMARINE SLTE MARKET

## #1 N. AMERICA

- TOTAL OPTICAL NETWORKING
- LH WDM
- METRO WDM

## #2 GLOBALLY

- TOTAL OPTICAL NETWORKING
- LH WDM
- METRO WDM

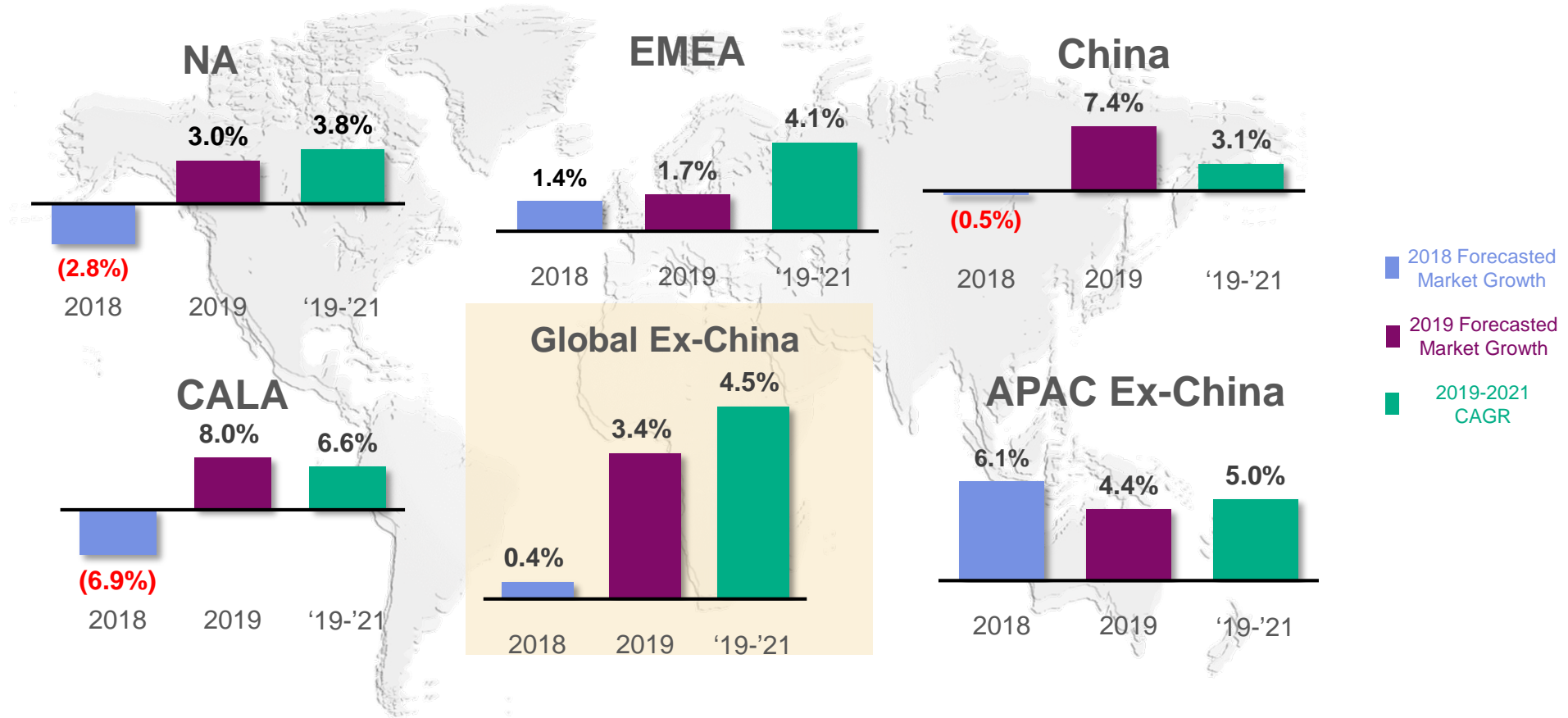
Optical Networks Report, 3Q18

Optical Networks Report, 3Q18  
DCI Market Tracker, September 2018  
Ethernet Access Devices Tracker, September 2018  
Optical Network Hardware Vendor Scorecard, June 2018  
Optical Equipment Vendor Leadership Global Service Provider Survey December 2017

Optical Networks Report, 3Q18  
Data Center Interconnect Market Share Report, 3Q18

# Market Context

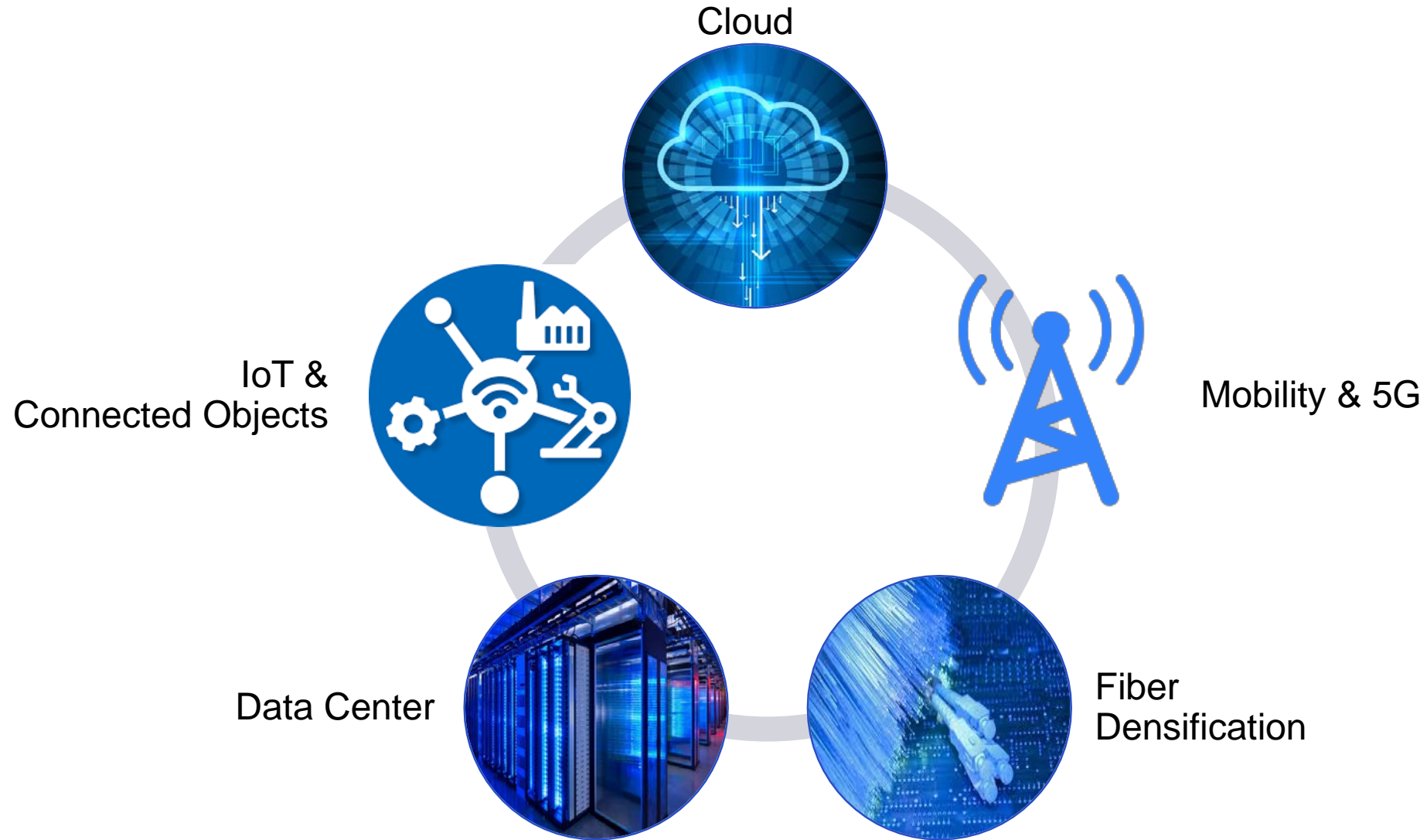
# Growth forecasts for our target markets vary by geographic region



Source: IHS, Dell'Oro, Signal AI, Ovum, Ciena analysis

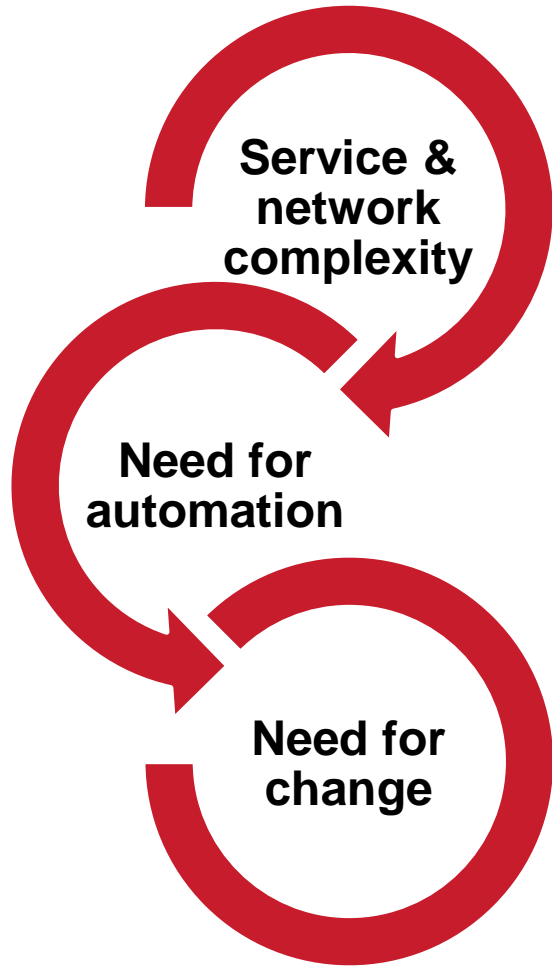
# Several mega trends are affecting our business

All driven by an increased need for greater bandwidth and adaptive automation



# Software Overview

# Why Automation Matters



- SDN
- NFV
- 5G

- Cost control
- Service agility
- New revenue sources
- Customer Experience

- Processes
- Technology (e.g. IBN)
- People (skills)

**60%**

of service provider are deploying or plan to deploy Multi-Layer Data/Transport SDN Software\*

**52%**

of service providers want automation and optimization across IP and optical domains\*

**2-5ys**

NFV will transform OSS to create a digital operating platform – comprised of network and service orchestration, inventory, and service assurance.\*\*

\*Source: *Charting the Path to Network Automation & Disaggregation: Heavy Reading Carrier SDN Survey Analysis, February 2018*

\*\*Source: *BSS and OSS are moving to the cloud: Analysys Mason's perspective, July 2017*



# Software and Software-related Services Operating Segment

## Platform Software and Services

- Network management and domain control software
- Related services, including software subscription

## Blue Planet Automation Software and Services

- Multi-domain service orchestration (MDSO)
- Inventory (BPI)
- Route Optimization and Assurance (ROA)
- NFV orchestration (NFVO)
- Analytics
- Related services and support, including software subscription

	Q4 FY 2018		Q4 FY 2017	
	Revenue	%**	Revenue	%**
<b>Software and Software-Related Services</b>				
Platform Software and Services	56.6	6.3	35.9	4.8
Blue Planet Automation Software and Services	10.7	1.2	5.9	0.8
<b>Total Software and Software-Related Services</b>	<b>\$67.3</b>	<b>7.5%</b>	<b>\$41.8</b>	<b>5.6%</b>

# Long-Term Targets

# New long-term financial targets\*

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; expect to achieve at least 15% in fiscal 2021	Over 20% annual growth per year over the next three years	Approximately 60-70% of adjusted operating income in each of the next three years

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# Ciena performed well against its original three-year targets

Ciena's strategic drivers play a key role in our performance

	Original annual revenue growth targets	FY18 revenue growth
<b>Optical Systems</b>	Approximately 4-6%	13%
<b>Attached Services</b>	Approximately 4-6%	7%
<b>Packet Networking</b>	Approximately 6-8%	(9.5%)
<b>Software and Related Services</b>	Approximately 14-16%	25%



# New long-term financial targets\*

## Three-year annual revenue growth targets

<b>Optical Systems</b>	Approximately 4-6%
<b>Attached Services</b>	Approximately 4-6%
<b>Packet Networking</b>	Approximately 8-10%
<b>Blue Planet</b>	Approximately \$100M-\$120M <sup>1</sup>

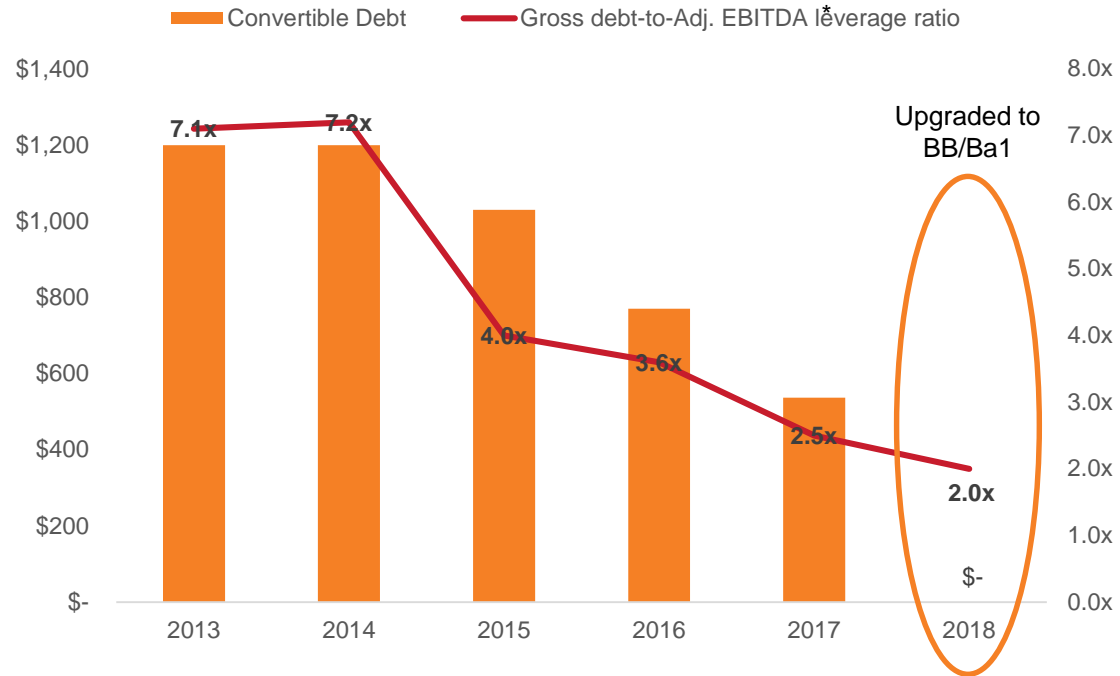
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*<sup>1</sup>Projection indicates annual target for Ciena's Blue Planet Automation software and services business in fiscal 2021*

# Balance Sheet & Capital Allocation

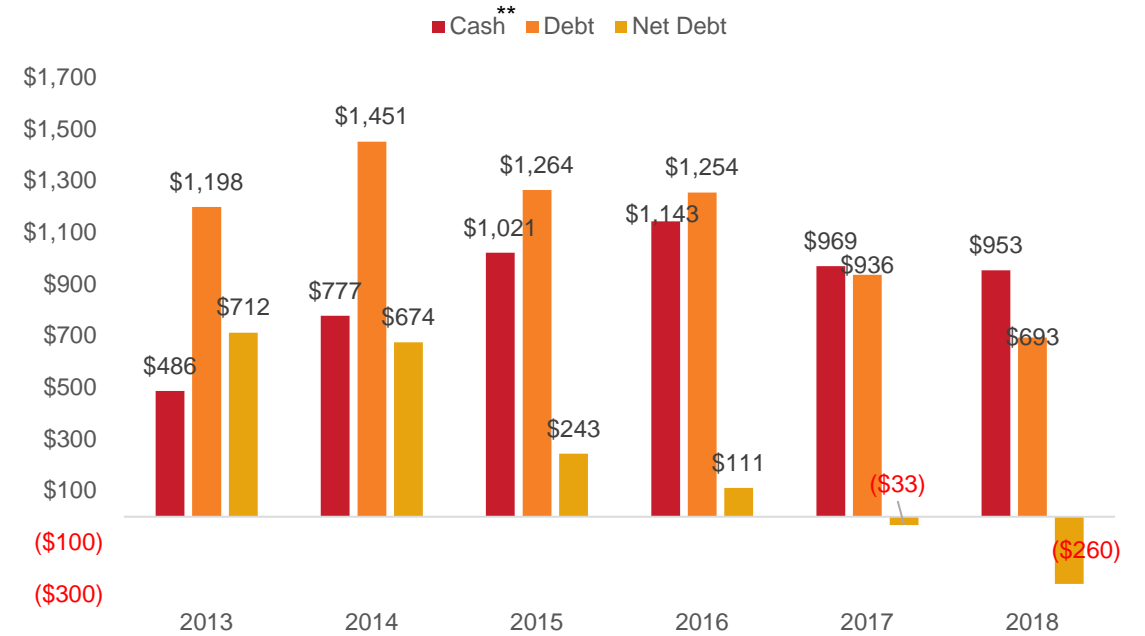
# Strengthening balance sheet

## Leverage Trend



## Net Debt (Cash) Position

(in millions)



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

\*\*Cash & cash equivalents

# Continued strengthening balance sheet

<b>Convertible Debt</b>	Reduced from \$538M to \$0
<b>Net Cash / (Debt)</b>	Net cash of \$260M
<b>Gross Debt-to-EBITDA leverage ratio</b>	Decreased from 2.5x to 2.0x
<b>Ratings agency upgrades</b>	Moody's upgrade from Ba3 to Ba1; S&P upgrade from Positive Outlook to BB



# Capital allocation priorities

## Convertible Debt & Dilution

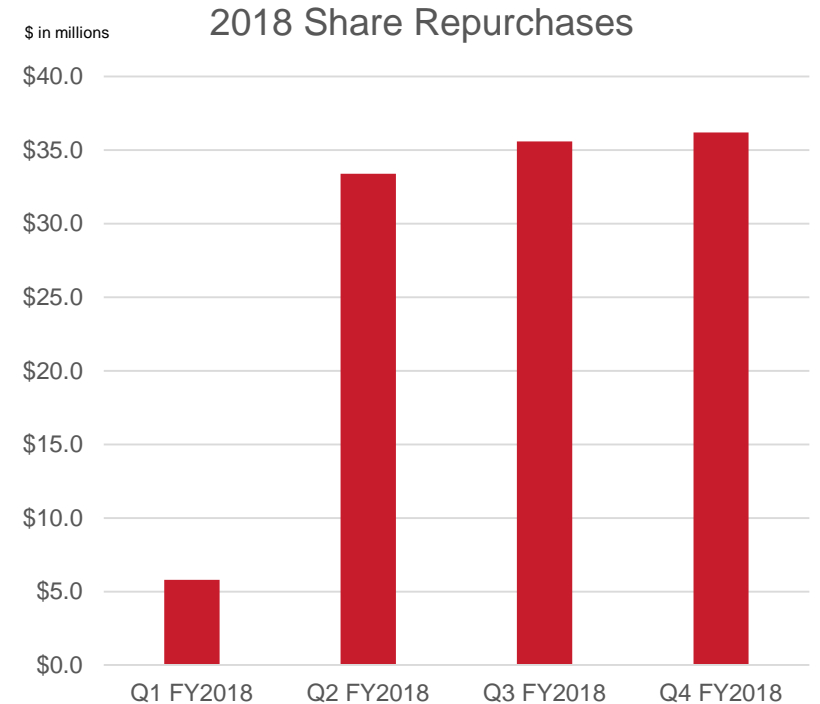
Settled 2018 Notes largely for cash  
Elected to convert 2020 Notes

## Share Repurchase

Board authorized share repurchase program of up to \$500M of Ciena common stock

## Business Expansion

Retain a minimum of \$700M to \$800M for organic reinvestment to drive R&D, and for growth through accretive M&A



# Q4 Fiscal 2018 Appendix



# Gross Profit Reconciliation

(Amounts in thousands)

	Q4 FY 2018	Q3 FY 2018	Q2 FY 2018	Q1 FY 2018	Q4 FY 2017
GAAP gross profit	\$398,075	\$351,543	\$293,307	\$271,765	\$325,685
Share-based compensation-products	705	783	824	672	694
Share-based compensation-services	651	618	722	625	561
Amortization of intangible assets	2,957	2,534	2,289	2,289	2,332
Total adjustments related to gross profit	4,313	3,935	3,835	3,586	3,587
<b>Adjusted (non-GAAP) gross profit</b>	<b>\$402,388</b>	<b>\$355,478</b>	<b>\$297,142</b>	<b>\$275,351</b>	<b>\$329,272</b>
<b>Adjusted (non-GAAP) gross margin</b>	<b>44.7%</b>	<b>43.4%</b>	<b>40.7%</b>	<b>42.6%</b>	<b>44.2%</b>

## Operating Expense Reconciliation (Amounts in thousands)

	Q4 FY 2018	Q3 FY 2018	Q2 FY 2018	Q1 FY 2018	Q4 FY 2017
GAAP operating expense	\$302,205	\$266,269	\$261,241	\$255,029	\$269,886
Share-based compensation-research and development	3,385	3,082	3,796	3,255	2,956
Share-based compensation-sales and marketing	3,741	3,417	3,760	3,328	3,218
Share-based compensation-general and administrative	5,588	4,538	5,109	4,474	4,130
Significant asset impairments and restructuring costs	1,460	6,359	4,359	5,961	15,059
Amortization of intangible assets	4,654	3,837	3,623	3,623	3,661
Acquisition and integration costs, excluding share-based compensation	3,778	1,333	-	-	-
Legal settlement	1,929	2,753	-	-	-
Total adjustments related to operating expense	\$24,535	\$25,319	\$20,647	\$20,641	\$29,024
<b>Adjusted (non-GAAP) operating expense</b>	<b>\$277,670</b>	<b>\$240,950</b>	<b>\$240,594</b>	<b>\$234,388</b>	<b>\$240,862</b>

## Income from Operations Reconciliation (Amounts in thousands)

	Q4 FY 2018	Q3 FY 2018	Q2 FY 2018	Q1 FY 2018	Q4 FY 2017
GAAP income from operations	\$95,870	\$85,274	\$32,066	\$16,736	\$55,799
Total adjustments related to gross profit	4,313	3,935	3,835	3,586	3,587
Total adjustments related to operating expense	24,535	25,319	20,647	20,641	29,024
Total adjustments related to income from operations	28,848	29,254	24,482	24,227	32,611
<b>Adjusted (non-GAAP) income from operations</b>	<b>\$124,718</b>	<b>\$114,528</b>	<b>\$56,548</b>	<b>\$40,963</b>	<b>\$88,410</b>
<b>Adjusted (non-GAAP) operating margin</b>	<b>13.9%</b>	<b>14.0%</b>	<b>7.7%</b>	<b>6.3%</b>	<b>11.9%</b>

## Net Income (loss) Reconciliation (Amounts in thousands)

	Q4 FY 2018	Q3 FY 2018	Q2 FY 2018	Q1 FY 2018	Q4 FY 2017
GAAP net income (loss)	\$63,977	\$50,840	\$13,856	(\$473,363)	\$1,160,056
Exclude GAAP provision (benefit) for income taxes	(10,224)	19,280	6,475	477,940	(1,117,531)
Income before income taxes	53,753	70,120	20,331	4,577	42,525
Total adjustments related to income from operations	28,848	29,254	24,482	24,227	32,611
Loss on extinguishment and modification of debt	13,887	-	-	-	692
Non-cash interest expense	727	793	759	749	525
Change in fair value of debt conversion liability	12,070	-	-	-	-
Adjusted income before income taxes	109,285	100,167	45,572	29,553	76,353
Non-GAAP tax provision on adjusted income before income taxes	28,272	25,913	11,789	7,645	27,869
<b>Adjusted (non-GAAP) net income</b>	<b>\$81,013</b>	<b>\$74,254</b>	<b>\$33,783</b>	<b>\$21,908</b>	<b>\$48,484</b>
Weighted average basic common shares outstanding	143,659	143,400	143,975	143,922	143,097
Weighted average dilutive potential common shares outstanding <sup>1</sup>	157,745	159,998	151,011	145,558	158,791

## Net Income (loss) per Common Share

	Q4 FY 2018	Q3 FY 2018	Q2 FY 2018	Q1 FY 2018	Q4 FY 2017
GAAP diluted net income (loss) per common share	\$ 0.34	\$ 0.34	\$ 0.09	\$ (3.29)	\$ 7.32
<b>Adjusted (Non-GAAP) diluted net income per common share<sup>2</sup></b>	<b>\$ 0.53</b>	<b>\$ 0.48</b>	<b>\$ 0.23</b>	<b>\$ 0.15</b>	<b>\$ 0.32</b>

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

*(Amounts in thousands)*

Earnings Before Interest, Tax, Depreciation and Amortization (EBITDA)	Q4 FY 2018	Q3 FY 2018	Q2 FY 2018	Q1 FY 2018	Q4 FY 2017
Net income (loss) (GAAP)	\$ 63,977	\$ 50,840	\$ 13,856	\$ (473,363)	\$ 1,160,056
Add: Interest expense	14,873	13,611	13,031	13,734	13,926
Less: Interest and other income (loss), net	(13,357)	(1,543)	1,296	1,575	1,344
Add: Loss on extinguishment and modification of debt	(13,887)	-	-	-	(692)
Add: Provision (benefit) for income taxes	(10,224)	19,280	6,475	477,940	(1,117,531)
Add: Depreciation of equipment, building, furniture and fixtures, and amortization of leasehold improvements	21,110	21,704	20,567	20,833	21,316
Add: Amortization of intangible assets	7,611	6,371	5,912	5,912	5,993
<b>EBITDA</b>	<b>\$ 124,591</b>	<b>\$ 113,349</b>	<b>\$ 58,545</b>	<b>\$ 43,481</b>	<b>\$ 83,108</b>
Add: Shared-based compensation cost	14,076	12,337	14,166	12,393	11,517
Add: Significant asset impairments and restructuring costs	1,460	6,359	4,359	5,961	15,059
Add: Acquisition and integration costs	3,778	1,333	-	-	-
Add: Legal settlement	1,929	2,753	-	-	-
<b>Adjusted EBITDA</b>	<b>\$ 145,834</b>	<b>\$ 136,131</b>	<b>\$ 77,070</b>	<b>\$ 61,835</b>	<b>\$ 109,684</b>

# Reconciliation Endnotes

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 2018 includes 2.0 million shares underlying certain stock option and stock unit awards, 0.7 million and 2.5 million shares underlying Ciena's "New" and "Original" 3.75% convertible senior notes, respectively, which were converted by holders thereof immediately prior to maturity during the fourth quarter of fiscal 2018, and 8.9 million shares underlying Ciena's 4.0% convertible senior notes, which were converted at Ciena's election during the fourth quarter of fiscal 2018.

Weighted average dilutive potential common shares outstanding used in calculating adjusted (non-GAAP) diluted net income per common share for the third quarter of fiscal 2018 includes 1.3 million shares underlying certain stock option and stock unit awards, 3.0 million shares underlying each Ciena's "New" and "Original" 3.75% convertible senior notes and 9.2 million shares associated with Ciena's 4.0% convertible senior notes.

Weighted average dilutive potential common shares outstanding used in calculating adjusted (non-GAAP) diluted net income per common share for the second quarter of fiscal 2018 includes 1.3 million shares underlying certain stock option and stock unit awards and 2.7 million and 3.0 million shares underlying Ciena's "New" and "Original" 3.75% convertible senior notes, respectively.

Weighted average dilutive potential common shares outstanding used in calculating adjusted (non-GAAP) diluted net income per common share for the first quarter of fiscal 2018 includes 0.9 million shares underlying certain stock option and stock unit awards and 0.7 million shares underlying Ciena's "New" 3.75% convertible senior notes.

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 2017 includes 1.2 million shares underlying certain stock option and stock unit awards, 1.6 million and 3.7 million shares underlying Ciena's "New" and "Original" 3.75% convertible senior notes, respectively, and 9.2 million shares underlying Ciena's 4.0% convertible senior notes.

2. The calculation of adjusted (non-GAAP) diluted net income per common share for the fourth quarter of fiscal 2018 requires adding back interest expense of approximately \$0.4 million associated with Ciena's "Original" 3.75% convertible senior notes and approximately \$2.3 million associated with Ciena's 4.0% convertible senior notes to the adjusted (non-GAAP) net income in order to derive the numerator for the adjusted (non-GAAP) earnings per common share calculation.

The calculation of adjusted (non-GAAP) diluted net income per common share for the third quarter of fiscal 2018 requires adding back interest expense of approximately \$0.5 million associated with Ciena's "Original" 3.75% convertible senior notes, and approximately \$2.1 million associated with Ciena's 4.0% convertible senior notes to the adjusted (non-GAAP) net income in order to derive the numerator for the adjusted (non-GAAP) earnings per common share calculation.

The calculation of adjusted (non-GAAP) diluted net income per common share for the second quarter of fiscal 2018 requires adding back interest expense of approximately \$0.5 million associated with Ciena's "Original" 3.75% convertible senior notes to the adjusted (non-GAAP) net income in order to derive the numerator for the adjusted (non-GAAP) earnings per common share calculation.

The calculation of adjusted (non-GAAP) diluted net income per common share for the fourth quarter of fiscal 2017 requires adding back interest expense of approximately \$0.4 million associated with Ciena's "Original" 3.75% convertible senior notes and approximately \$1.9 million associated with Ciena's 4.0% convertible senior notes to the adjusted (non-GAAP) net income in order to derive the numerator for the adjusted (non-GAAP) earnings per common share calculation.

Thank You

