



Ciena Corporation

Q2 fiscal 2019 Investor Presentation

Quarterly Period ended April 30, 2019

June 6, 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 Quarterly Report on Form 10-Q to be filed with the SEC and Ciena's Annual Report on Form 10-K filed with the SEC on December 21, 2018.

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.

Q2 fiscal 2019 key highlights

Achieving balanced growth

- Non-telco represented ~34% of total revenue
- Direct web-scale contributed over 18% of total revenue
- APAC revenue of \$134.5M, driven by telco, on the strength of Japan
- NA revenue up 34% YoY, with telco and web-scale growth

Driving the pace of innovation

- TTM adjusted R&D investment was \$508.8 million
- Announced WaveLogic 5 which is expected to ship in systems end of 2019
- WaveLogic Ai has 112 total customers with 24 new wins in Q2
- Waveserver has 134 customers with 9 new wins in Q2

Delivering shareholder value

- Repurchased approximately 1.2 million shares of common stock for an aggregate price of \$45.4 million
- Adjusted EPS* more than doubled YoY from \$0.23 to \$0.48

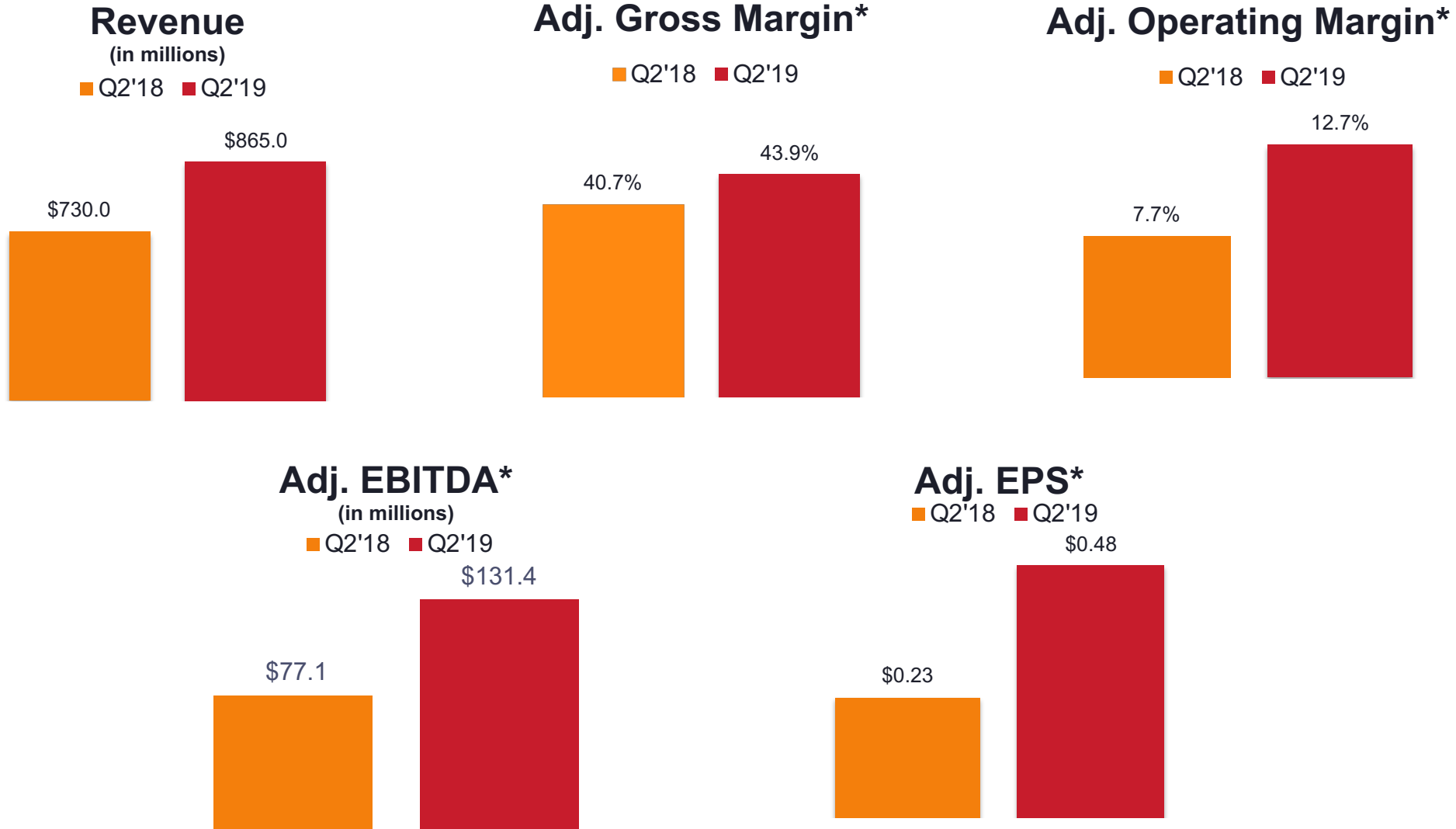
* A reconciliation of these non-GAAP measures to our GAAP results is included in the appendix to this presentation.

Q2 fiscal 2019 financial highlights

Revenue	\$865.0 million
Adjusted Gross Margin*	43.9%
Adjusted Operating Margin*	12.7%
Adjusted EBITDA*	\$131.4 million
Adjusted EPS*	\$0.48

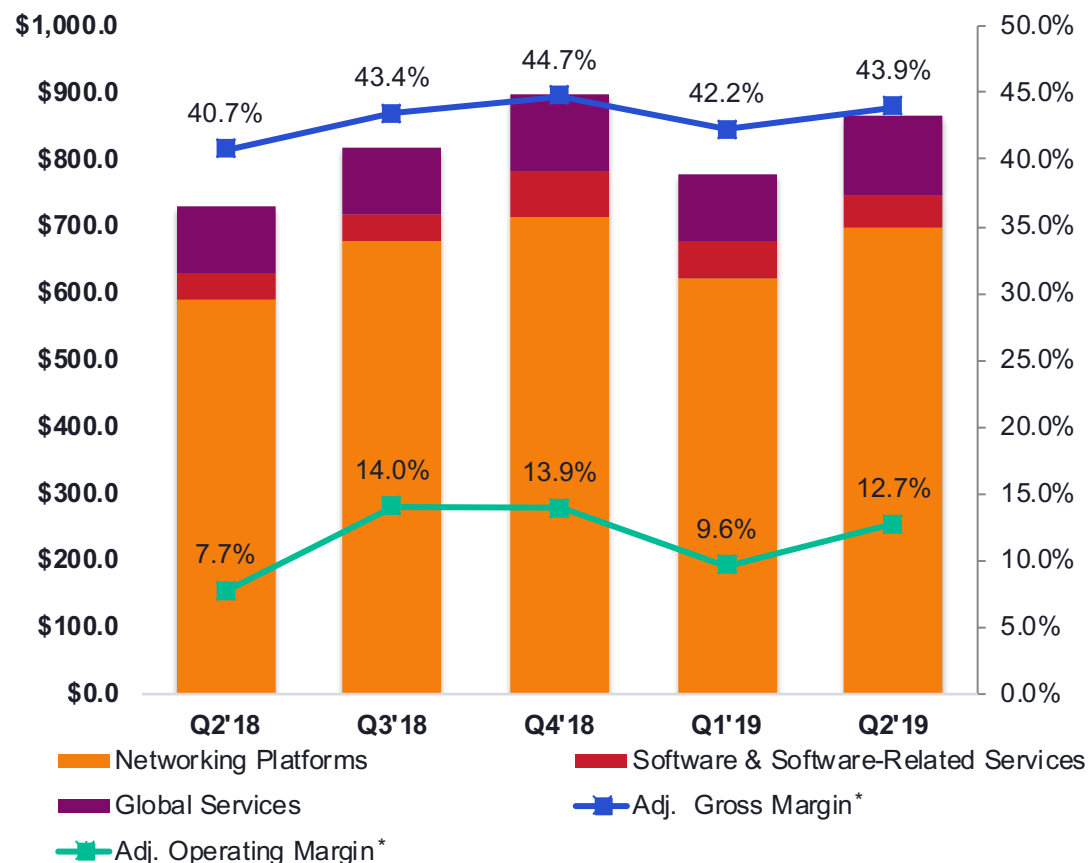
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Q2 fiscal 2019 comparisons (year-over-year)



Revenue by segment

(Amounts in millions)



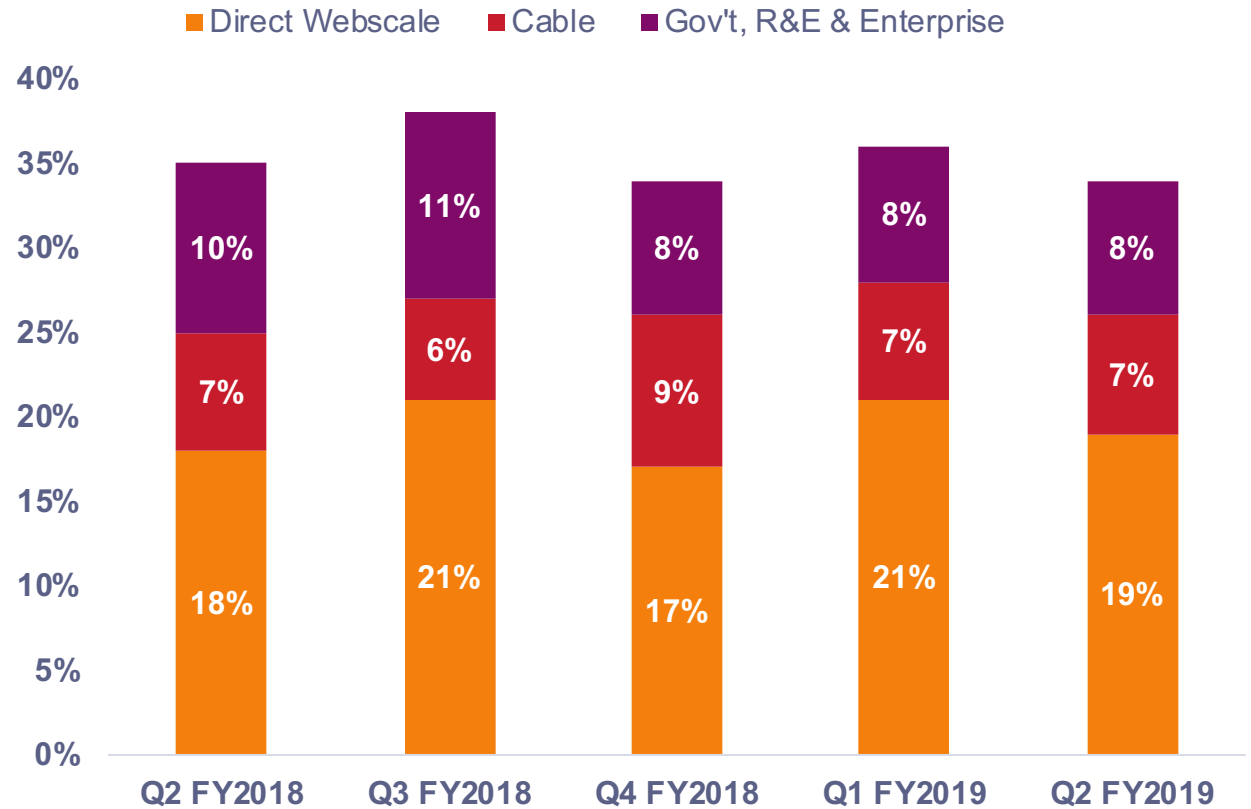
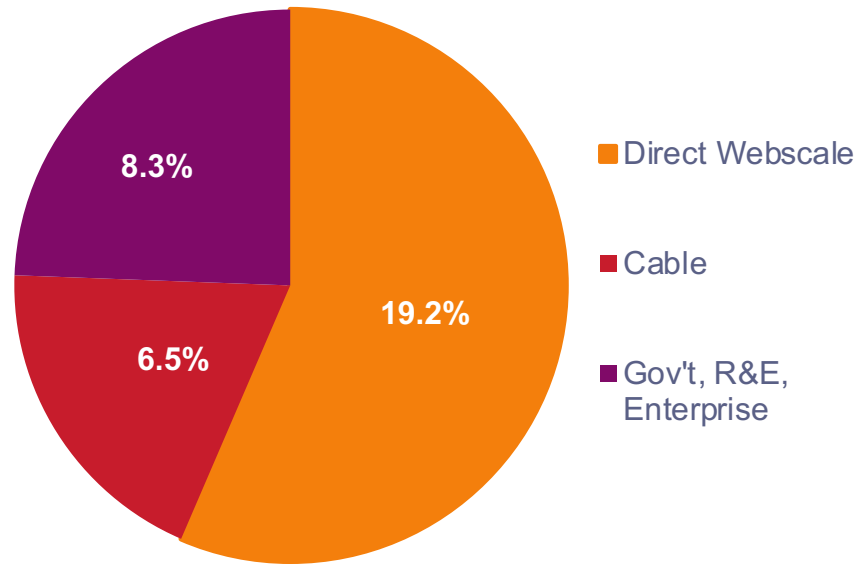
	Q2 FY 2019		Q2 FY 2018	
	Revenue	%**	Revenue	%**
Networking Platforms				
Converged Packet Optical	\$623.9	72.1	\$527.9	72.4
Packet Networking	73.1	8.5	63.8	8.7
Total Networking Platforms	697.0	80.6	591.7	81.1
Software & Software-Related Services				
Platform Software and Services	35.2	4.0	36.4	5.0
Blue Planet Automation Software and Services	12.5	1.4	2.3	0.3
Total Software & Software-Related Services	47.7	5.4	38.7	5.3
Global Services				
Maintenance Support and Training	68.8	8.0	60.9	8.3
Installation and Deployment	41.3	4.8	28.2	3.9
Consulting and Network Design	10.2	1.2	10.5	1.4
Total Global Services	120.3	14.0	99.6	13.6
Total	\$865.0	100.0%	\$730.0	100.0%

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

** Denotes % of total revenue

Continued strength derived from non-telco revenue*

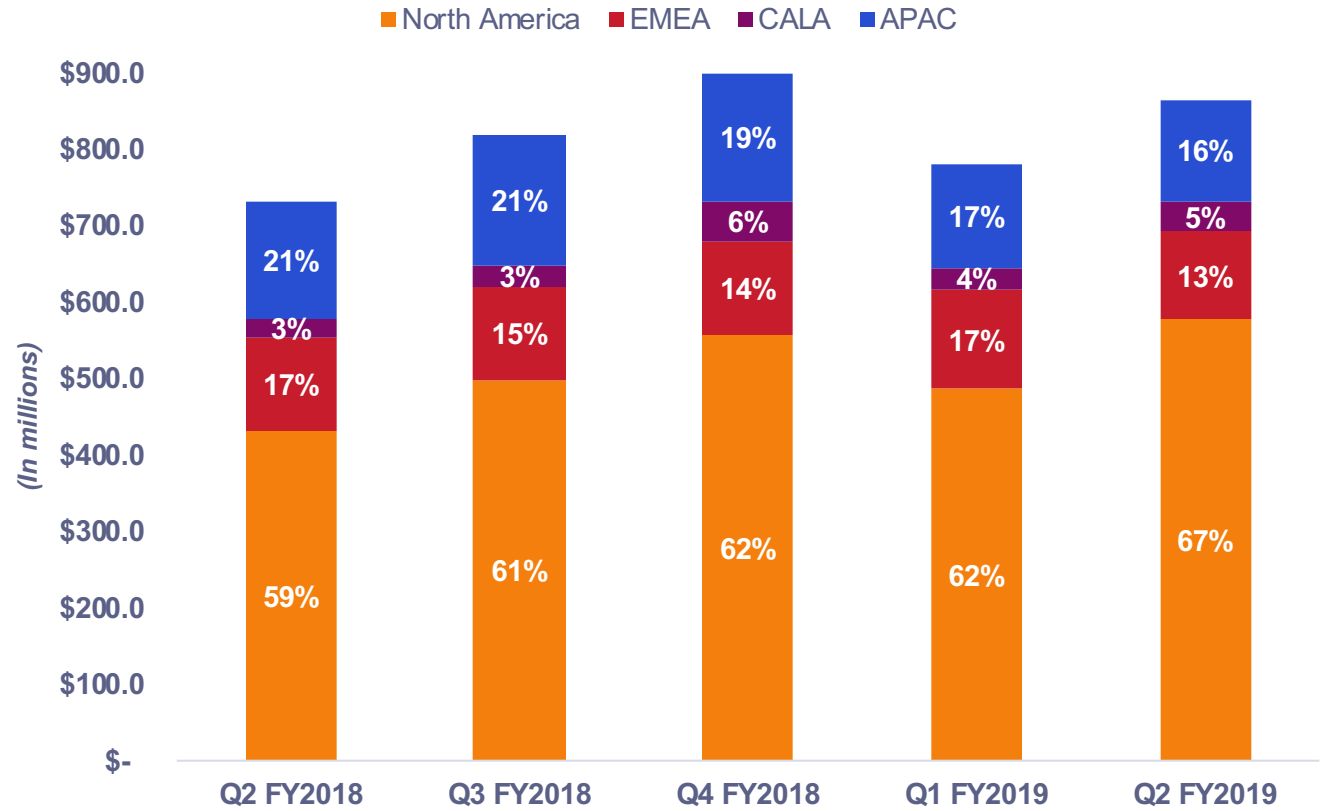
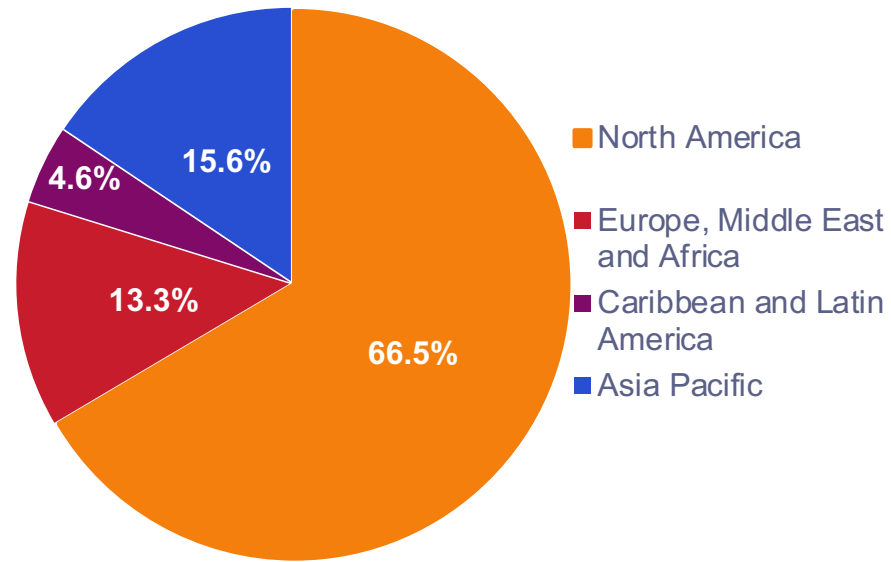
Q2 FY 2019



*represents 34% of total revenue

Revenue by geographic region

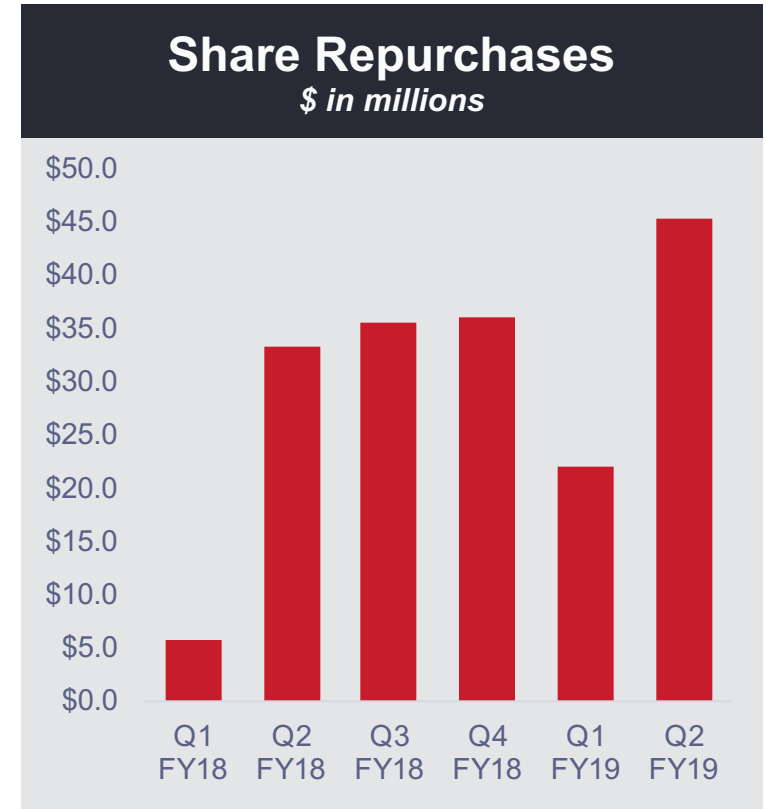
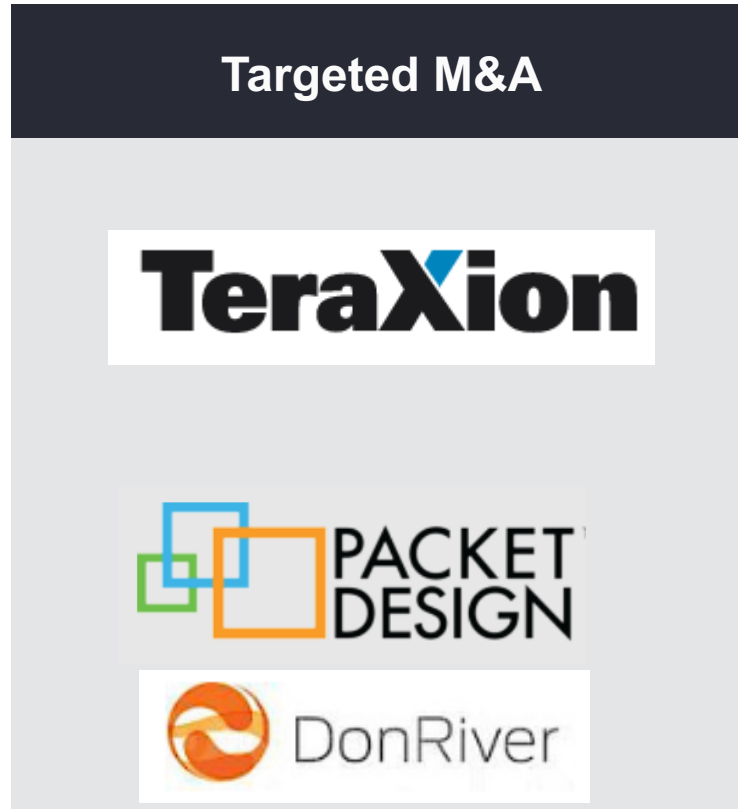
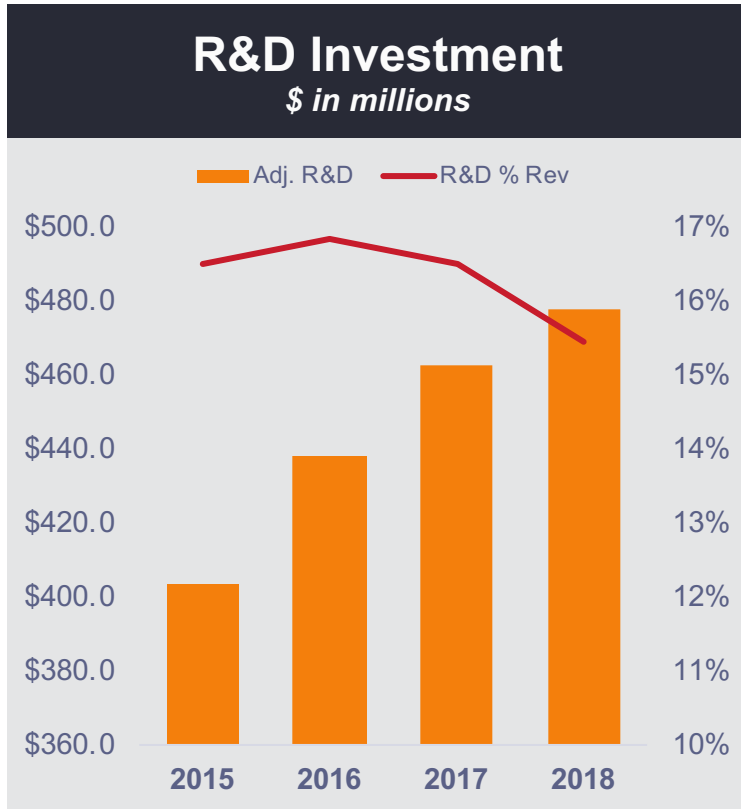
Q2 FY 2019



Q2 fiscal 2019 balance sheet and operating metrics

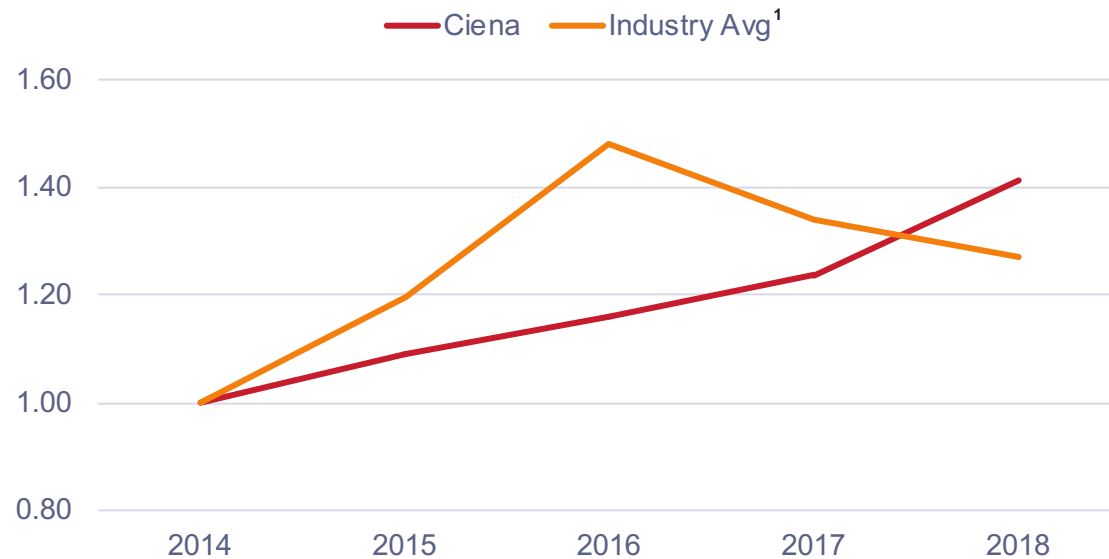
Cash and Investments	\$818.5 million
Cash Flow From Operations	\$104.1million
DSO	86 Days
Inventory Turns	4.6
Leverage	1.5x
Net Cash	\$128.0

Returning value to shareholders through strong capital allocation priorities

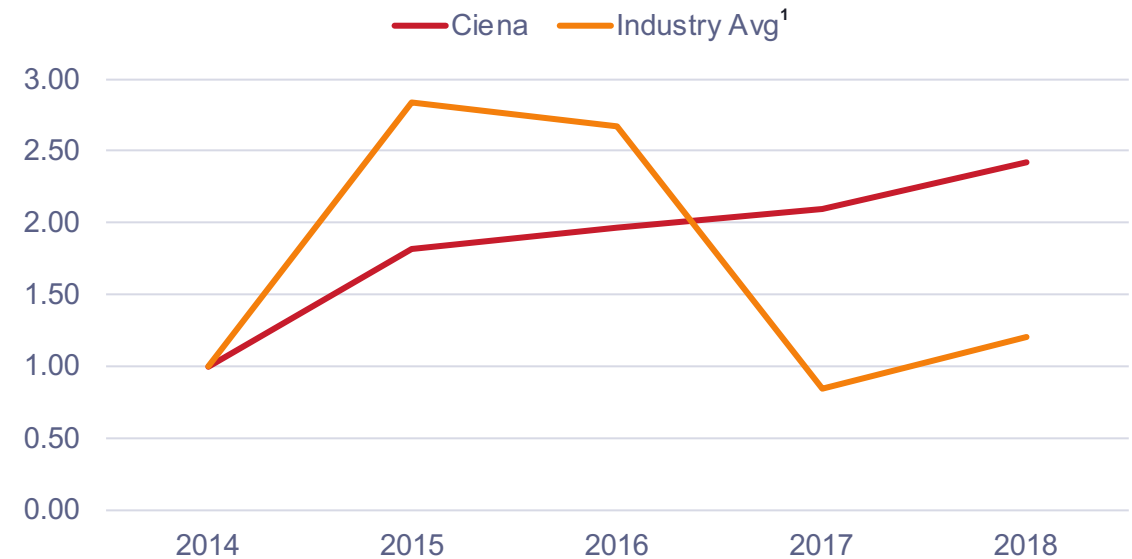


Delivering consistent and differentiated financial performance

Normalized Revenue



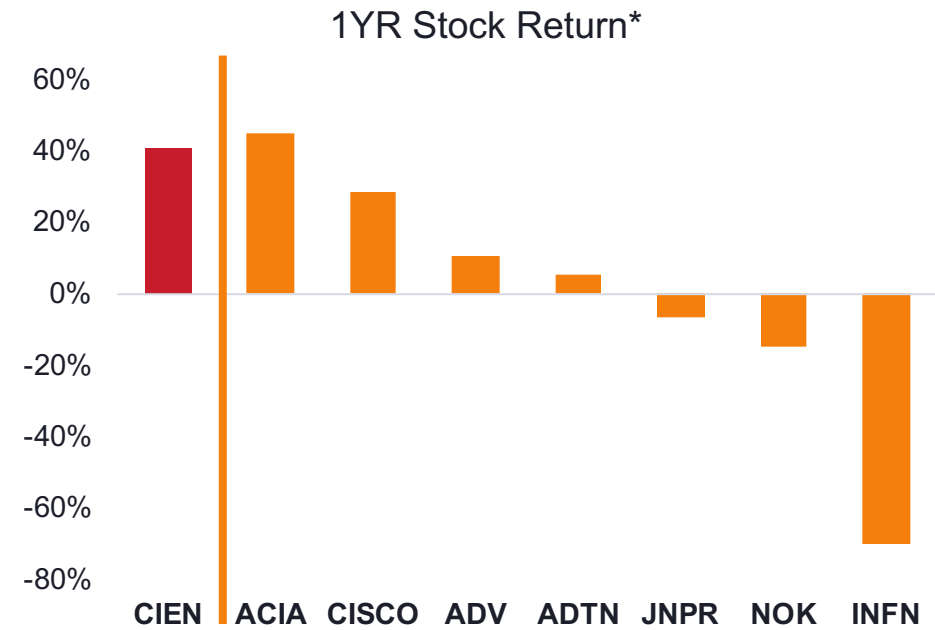
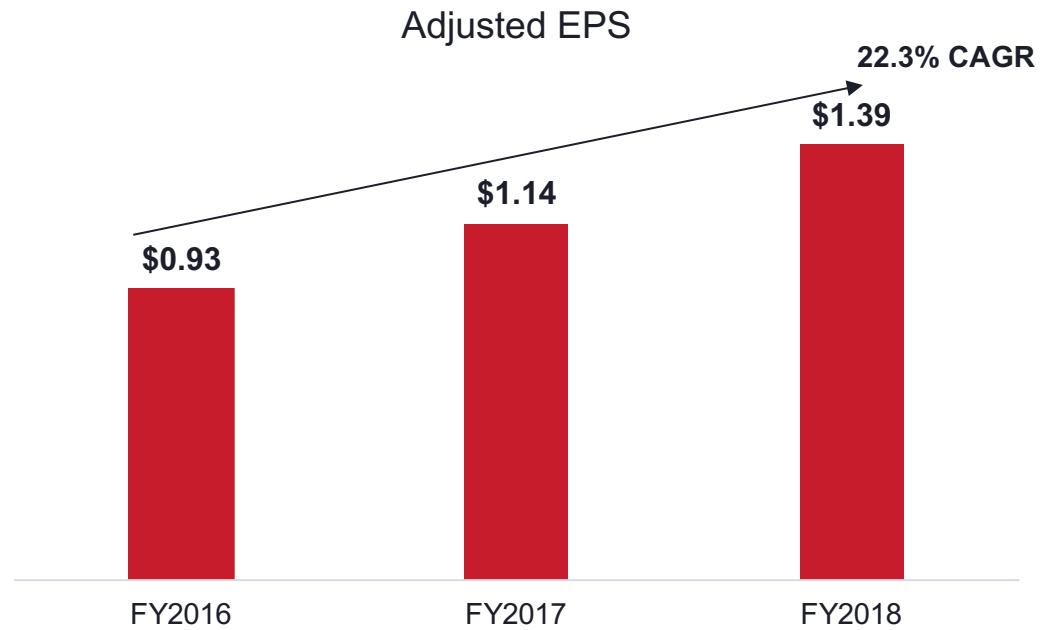
Normalized Adjusted OM



*Industry Average: ACIA, ADTN, ADVA, CSCO, INFN¹, JNPR and NOKIA IP Networks segment

1. INFN Q4 2018 revenue and adjusted OM exclude Coriant; Coriant adjusted OM is based on the assumption that Coriant had flat GM% and fixed OPEX in 2018

Delivering profitability and total shareholder return



Business outlook and long-term targets

Our fiscal 2019 performance is driven by a combination of strategic execution and favorable dynamics

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

All the above is resulting in intensified share gains

Business Outlook¹

Q3'19

Revenue	\$915M to \$945M
Adjusted Gross Margin	42%-43%
Adjusted Operating Expense	Approximately \$270M ²

FY'19

Revenue	13%-14% Annual Growth
Adjusted Gross Margin	42%-43%
Adjusted Operating Expense	Approximately \$1,065M ³
Shares Outstanding	Approximately 158M

1. Projections or outlook with respect to future operating results are only as of June 6, 2019, 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.
2. Includes roughly \$10M of comp related expenses
3. Includes roughly \$25M of comp related expenses

Long-term financial targets¹

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

¹ 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.

Long-term financial targets*

Three-year annual revenue growth targets

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

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¹Projection indicates annual target for Ciena's Blue Planet Automation software and services business in fiscal 2021

Q2 fiscal 2019 appendix

Gross Profit Reconciliation (Amounts in thousands)

	Q2 FY 2019	Q1 FY 2019	Q4 FY 2018	Q3 FY 2018	Q2 FY 2018
GAAP gross profit	\$374,677	\$323,341	\$398,075	\$351,543	\$293,307
Share-based compensation-products	702	637	705	783	824
Share-based compensation-services	907	770	651	618	722
Amortization of intangible assets	3,303	3,418	2,957	2,534	2,289
Total adjustments related to gross profit	4,912	4,825	4,313	3,935	3,835
Adjusted (non-GAAP) gross profit	\$379,589	\$328,166	\$402,388	\$355,478	\$297,142
Adjusted (non-GAAP) gross margin	43.9%	42.2%	44.7%	43.4%	40.7%

Operating Expense Reconciliation (Amounts in thousands)

	Q2 FY 2019	Q1 FY 2019	Q4 FY 2018	Q3 FY 2018	Q2 FY 2018
GAAP operating expense	\$294,357	\$275,398	\$302,205	\$266,269	\$261,241
Share-based compensation-research and development	4,083	3,391	3,385	3,082	3,796
Share-based compensation-sales and marketing	4,346	3,785	3,741	3,417	3,760
Share-based compensation-general and administrative	5,491	5,112	5,588	4,538	5,109
Amortization of intangible assets	5,529	5,528	4,654	3,837	3,623
Significant asset impairments and restructuring costs	4,068	2,273	1,460	6,359	4,359
Acquisition and integration costs, excluding share-based compensation	1,135	1,608	3,778	1,333	-
Legal settlement	-	137	1,929	2,753	-
Total adjustments related to operating expense	\$24,652	\$21,834	\$24,535	\$25,319	\$20,647
Adjusted (non-GAAP) operating expense	\$269,705	\$253,564	\$277,670	\$240,950	\$240,594

Income from Operations Reconciliation (Amounts in thousands)

	Q2 FY 2019	Q1 FY 2019	Q4 FY 2018	Q3 FY 2018	Q2 FY 2018
GAAP income from operations	\$80,320	\$47,943	\$95,870	\$85,274	\$32,066
Total adjustments related to gross profit	4,912	4,825	4,313	3,935	3,835
Total adjustments related to operating expense	24,652	21,834	24,535	25,319	20,647
Total adjustments related to income from operations	29,564	26,659	28,848	29,254	24,482
Adjusted (non-GAAP) income from operations	\$109,884	\$74,602	\$124,718	\$114,528	\$56,548
Adjusted (non-GAAP) operating margin	12.7%	9.6%	13.9%	14.0%	7.7%

Net Income Reconciliation (Amounts in thousands)

	Q2 FY 2019	Q1 FY 2019	Q4 FY 2018	Q3 FY 2018	Q2 FY 2018
GAAP net income	\$52,738	\$33,616	\$63,977	\$50,840	\$13,856
Exclude GAAP provision (benefit) for income taxes	17,867	9,139	(10,224)	19,280	6,475
Income before income taxes	70,605	42,755	53,753	70,120	20,331
Total adjustments related to income from operations	29,564	26,659	28,848	29,254	24,482
Loss on extinguishment and modification of debt	-	-	13,887	-	-
Non-cash interest expense	-	-	727	793	759
Change in fair value of debt conversion liability	-	-	12,070	-	-
Adjusted income before income taxes	100,169	69,414	109,285	100,167	45,572
Non-GAAP tax provision on adjusted income before income taxes	23,940	16,590	28,272	25,913	11,789
Adjusted (non-GAAP) net income	\$76,229	\$52,824	\$81,013	\$74,254	\$33,783
Weighted average basic common shares outstanding	156,170	156,314	143,659	143,400	143,975
Weighted average dilutive potential common shares outstanding ¹	158,289	158,174	157,745	159,998	151,011

Net Income per Common Share

	Q2 FY 2019	Q1 FY 2019	Q4 FY 2018	Q3 FY 2018	Q2 FY 2018
GAAP diluted net income per common share	\$ 0.33	\$ 0.21	\$ 0.34	\$ 0.34	\$ 0.09
Adjusted (Non-GAAP) diluted net income per common share	\$ 0.48	\$ 0.33	\$ 0.53	\$ 0.48	\$ 0.23

1. 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 2019 includes 2.1 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)	Q2 FY 2019	Q1 FY 2019	Q4 FY 2018	Q3 FY 2018	Q2 FY 2018
Net income (GAAP)	\$ 52,738	\$ 33,616	\$ 63,977	\$ 50,840	\$ 13,856
Add: Interest expense	9,471	9,441	14,873	13,611	13,031
Less: Interest and other income (loss), net	(244)	4,253	(13,357)	(1,543)	1,296
Add: Loss on extinguishment and modification of debt	-	-	(13,887)	-	-
Add: Provision (benefit) for income taxes	17,867	9,139	(10,224)	19,280	6,475
Add: Depreciation of equipment, building, furniture and fixtures, and amortization of leasehold improvements	21,482	21,513	21,110	21,704	20,567
Add: Amortization of intangible assets	8,832	8,947	7,611	6,371	5,912
EBITDA	\$ 110,634	\$ 78,403	\$ 124,591	\$ 113,349	\$ 58,545
Add: Shared-based compensation cost	15,607	13,755	14,076	12,337	14,166
Add: Significant asset impairments and restructuring costs	4,068	2,273	1,460	6,359	4,359
Add: Acquisition and integration costs	1,135	1,608	3,778	1,333	-
Add: Legal settlement	-	137	1,929	2,753	-
Adjusted EBITDA	\$ 131,444	\$ 96,176	\$ 145,834	\$ 136,131	\$ 77,070



Thank You