



Ciena Corporation

Q3 fiscal 2019 Investor Presentation

Quarterly Period ended July 31, 2019

September 5, 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.

Q3 fiscal 2019 key highlights

Achieving balanced growth

- Non-telco represented 41% of total revenue
- Direct web-scale contributed over 26% of total revenue
- EMEA revenue up 39% YoY
- NA revenue up 24% YoY, with telco and web-scale growth

Driving the pace of innovation

- TTM Adjusted R&D* investment was \$527.0 million
- WaveLogic Ai has 128 total customers with 16 new wins in Q3
- Waveserver has 142 customers with 8 new wins in Q3

Delivering shareholder value

- Repurchased approximately 1.1 million shares of common stock for an aggregate price of \$45.4 million
- Adjusted EPS* growth of 48% YoY
- Adjusted EBITDA* growth of 31% YoY

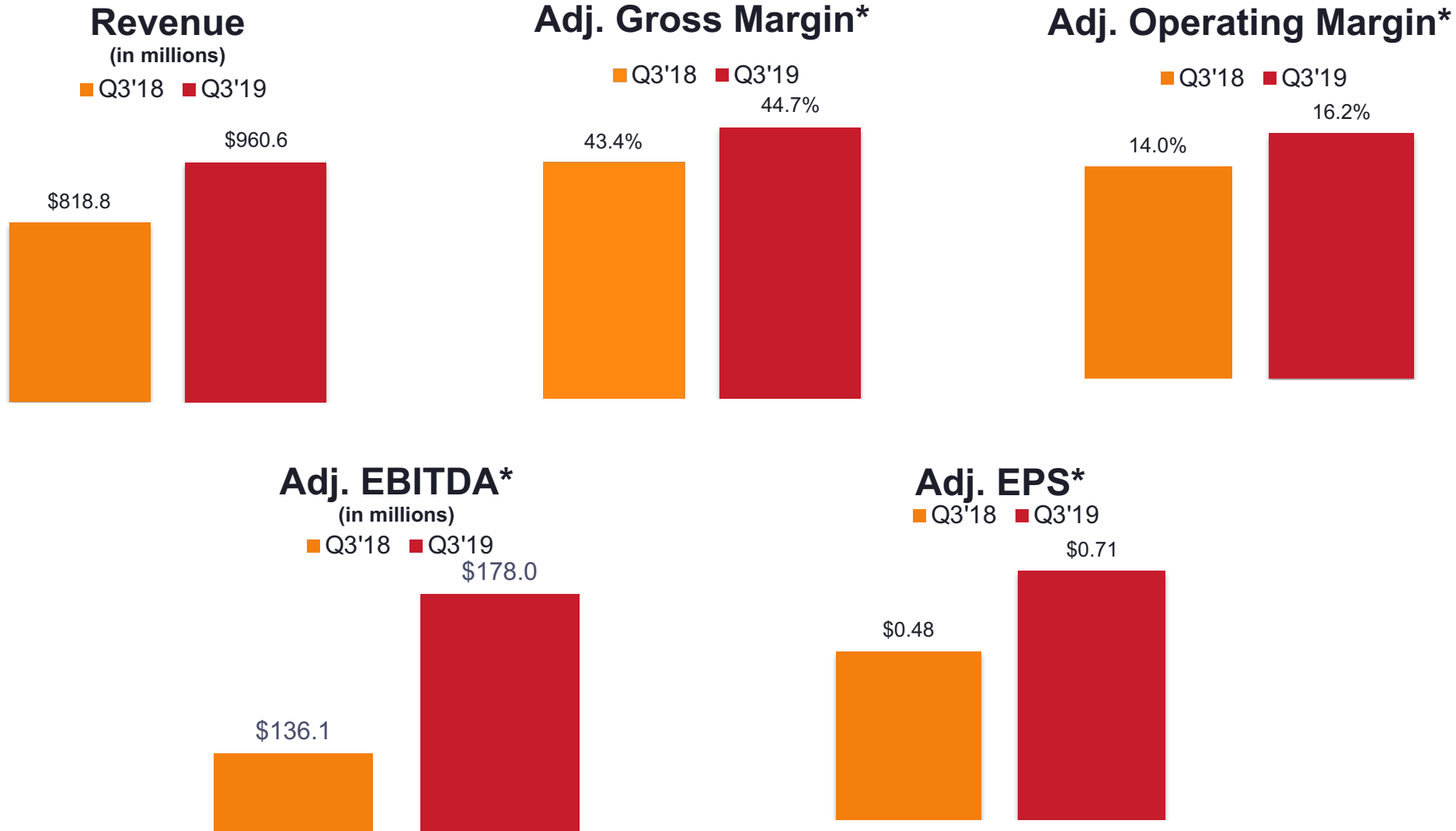
** A reconciliation of these non-GAAP measures to our GAAP results is included in the appendix to this presentation.*

Q3 fiscal 2019 financial highlights

| | |
|----------------------------|-----------------|
| Revenue | \$960.6 million |
| Adjusted Gross Margin* | 44.7% |
| Adjusted Operating Margin* | 16.2% |
| Adjusted EBITDA* | \$178.0 million |
| Adjusted EPS* | \$0.71 |

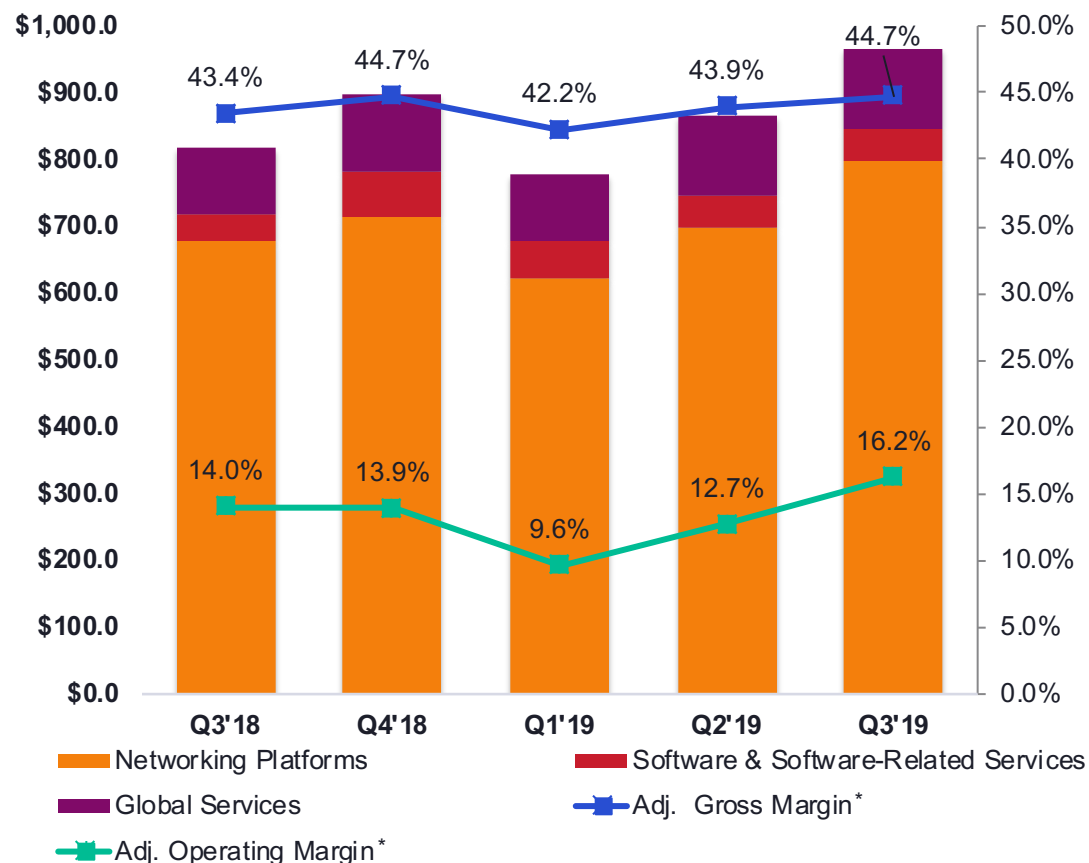
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Q3 fiscal 2019 comparisons (year-over-year)



Revenue by segment

(Amounts in millions)



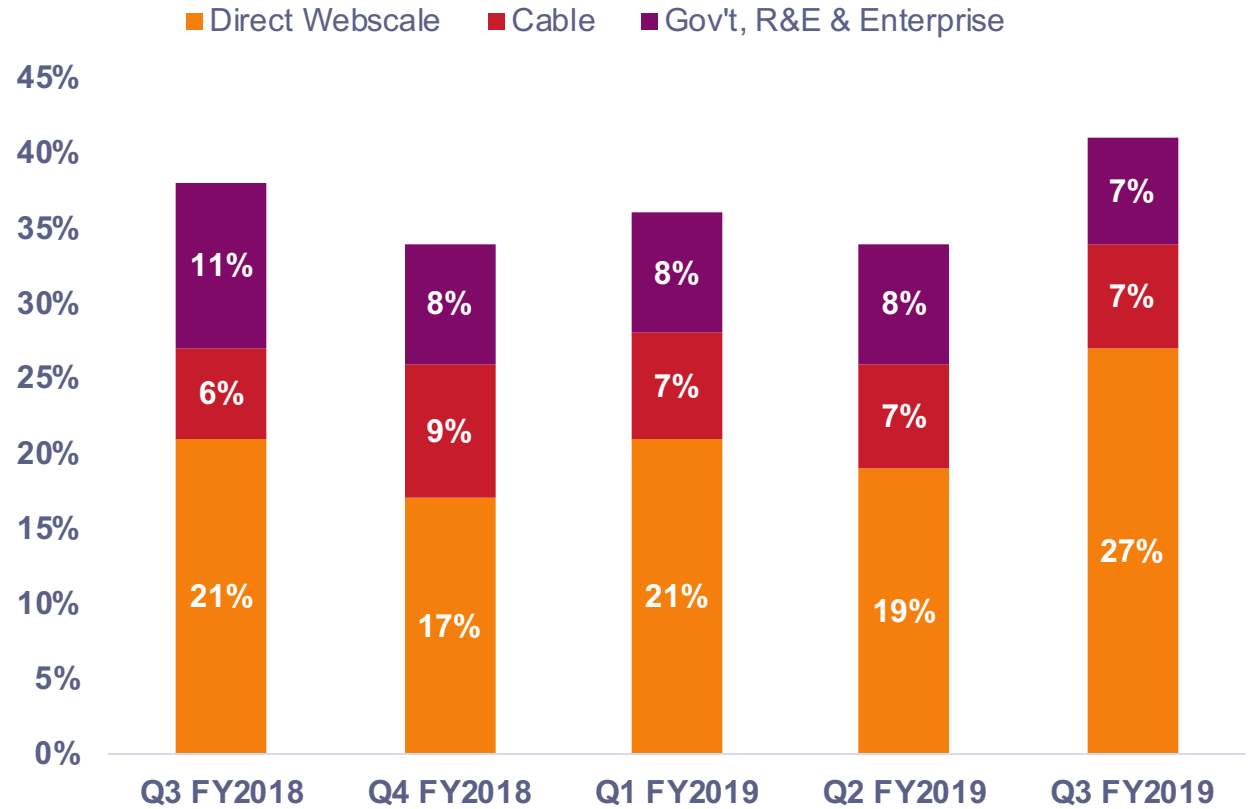
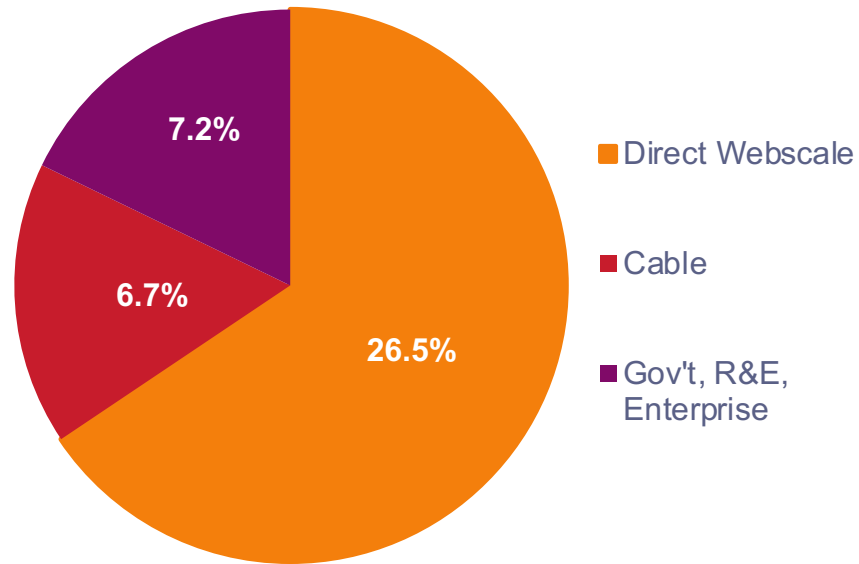
| | Q3 FY 2019 | | Q3 FY 2018 | |
|---|----------------|---------------|----------------|---------------|
| | Revenue | %** | Revenue | %** |
| Networking Platforms | | | | |
| Converged Packet Optical | \$724.3 | 75.4 | \$592.8 | 72.4 |
| Packet Networking | 71.8 | 7.5 | 84.6 | 10.4 |
| Total Networking Platforms | 796.1 | 82.9 | 677.4 | 82.8 |
| Software & Software-Related Services | | | | |
| Platform Software and Services | 37.3 | 3.9 | 36.8 | 4.5 |
| Blue Planet Automation Software and Services | 10.5 | 1.1 | 4.4 | 0.5 |
| Total Software & Software-Related Services | 47.8 | 5.0 | 41.2 | 5.0 |
| Global Services | | | | |
| Maintenance Support and Training | 65.9 | 6.9 | 60.9 | 7.4 |
| Installation and Deployment | 39.8 | 4.1 | 31.3 | 3.8 |
| Consulting and Network Design | 11.0 | 1.1 | 8.0 | 1.0 |
| Total Global Services | 116.7 | 12.1 | 100.2 | 12.2 |
| Total | \$960.6 | 100.0% | \$818.8 | 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*

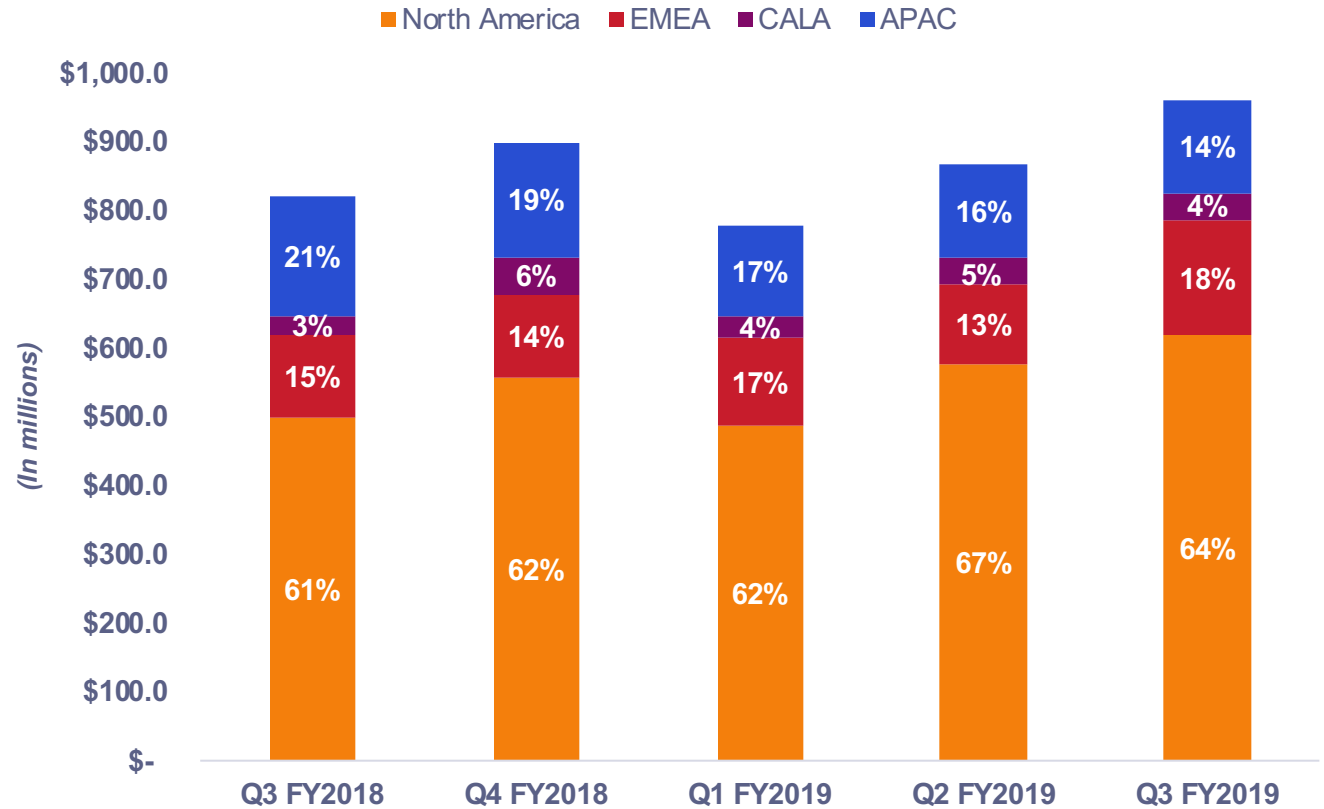
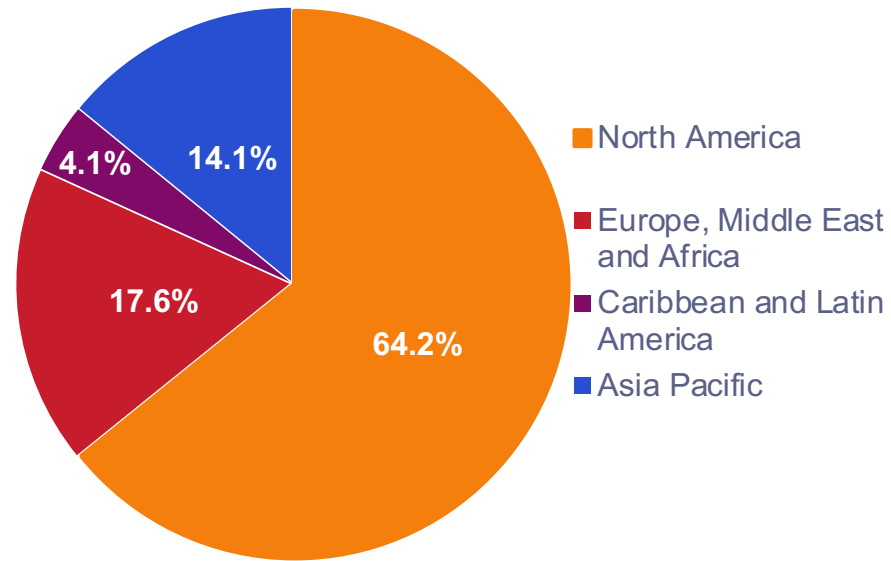
Q3 FY 2019



*represents 41% of total revenue

Revenue by geographic region

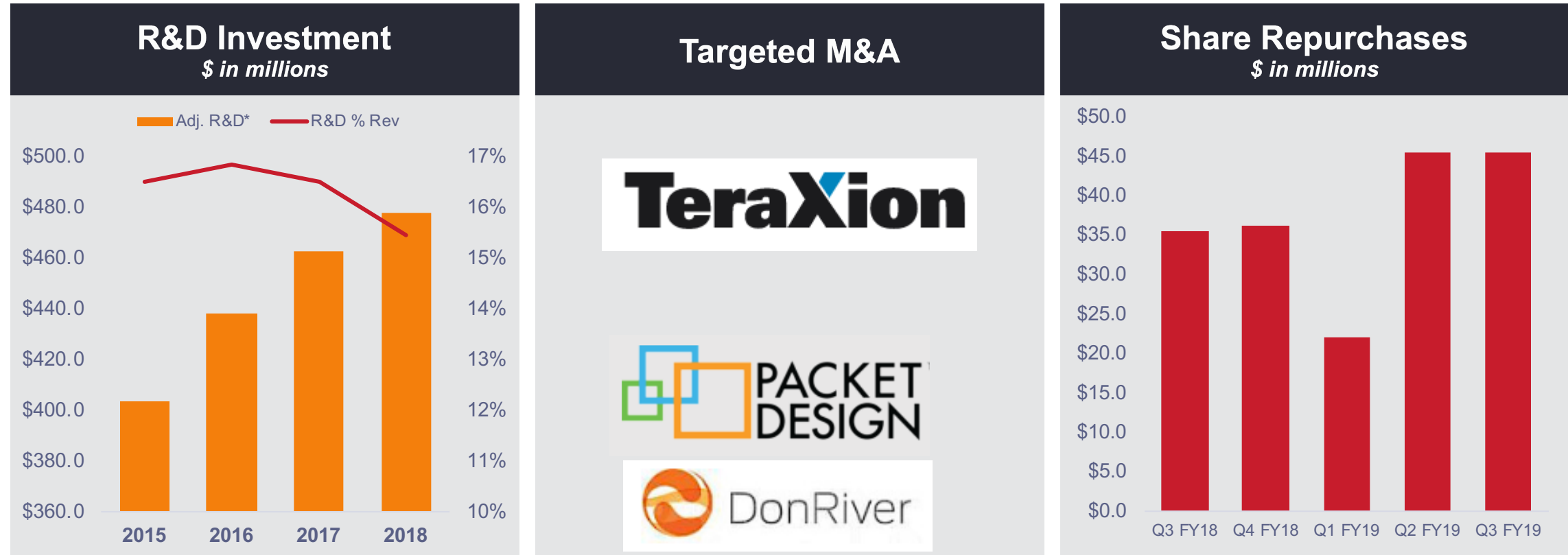
Q3 FY 2019



Q3 fiscal 2019 balance sheet and operating metrics

| | |
|---------------------------|-----------------|
| Cash and Investments | \$842.9 million |
| Cash Flow From Operations | \$83.1 million |
| DSO | 82 Days |
| Inventory Turns | 5.1 |
| Leverage | 1.4x |
| Net Cash | \$80.0 |

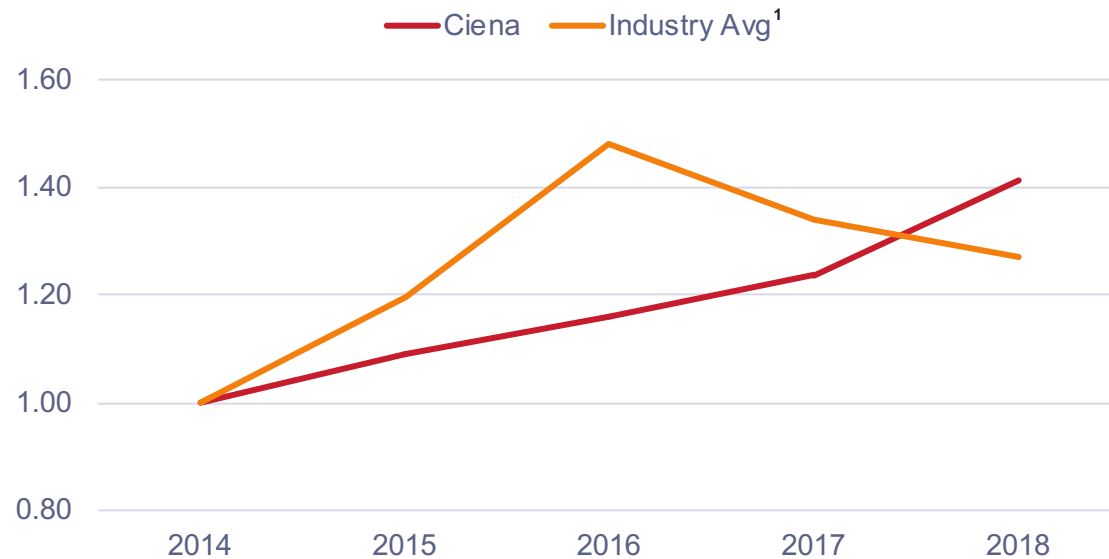
Returning value to shareholders through strong capital allocation priorities



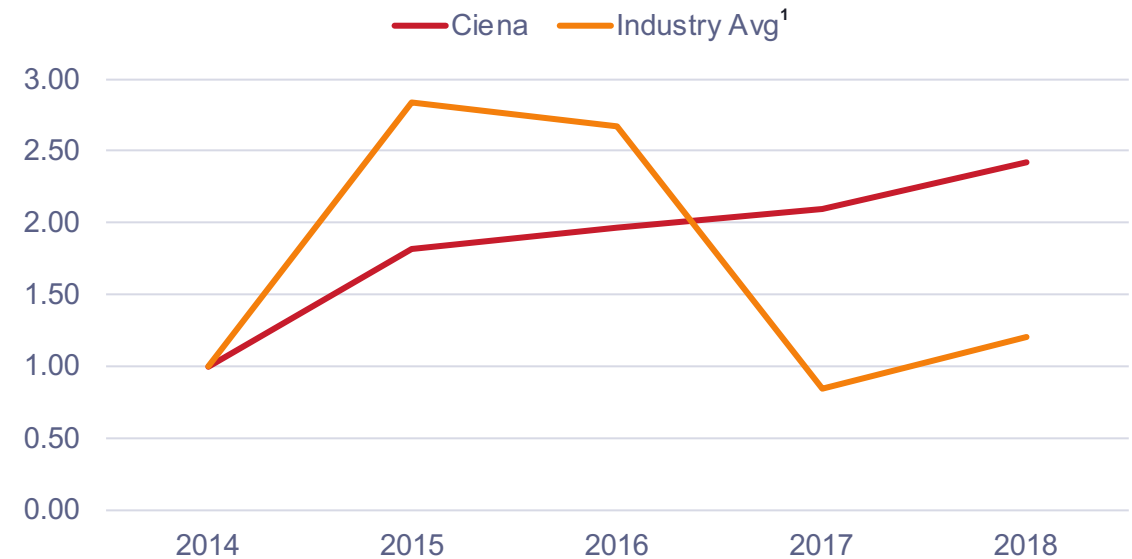
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Delivering consistent and differentiated financial performance

Normalized Revenue



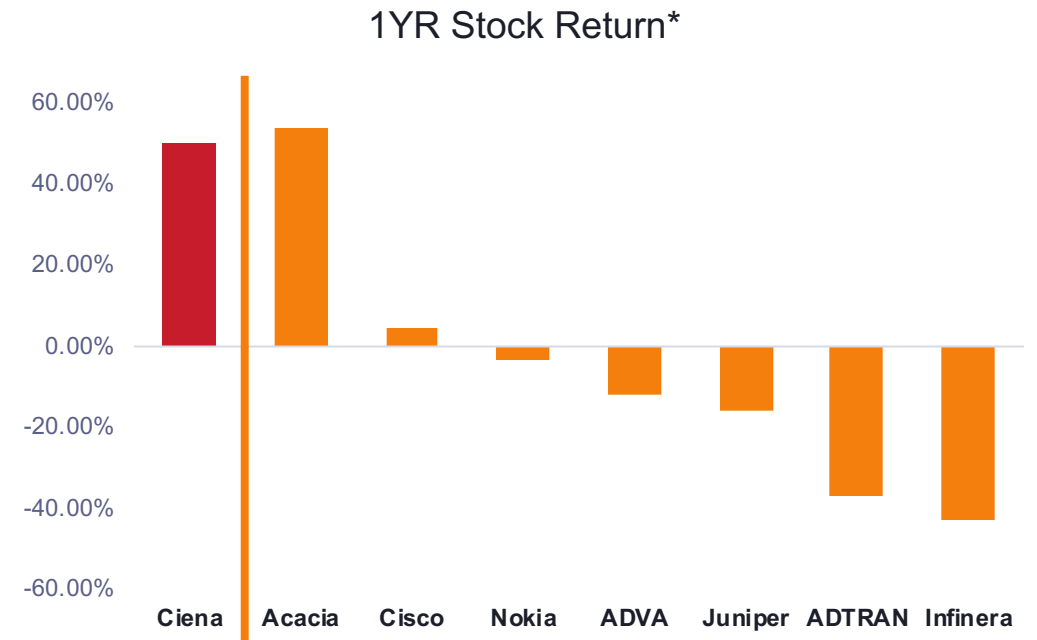
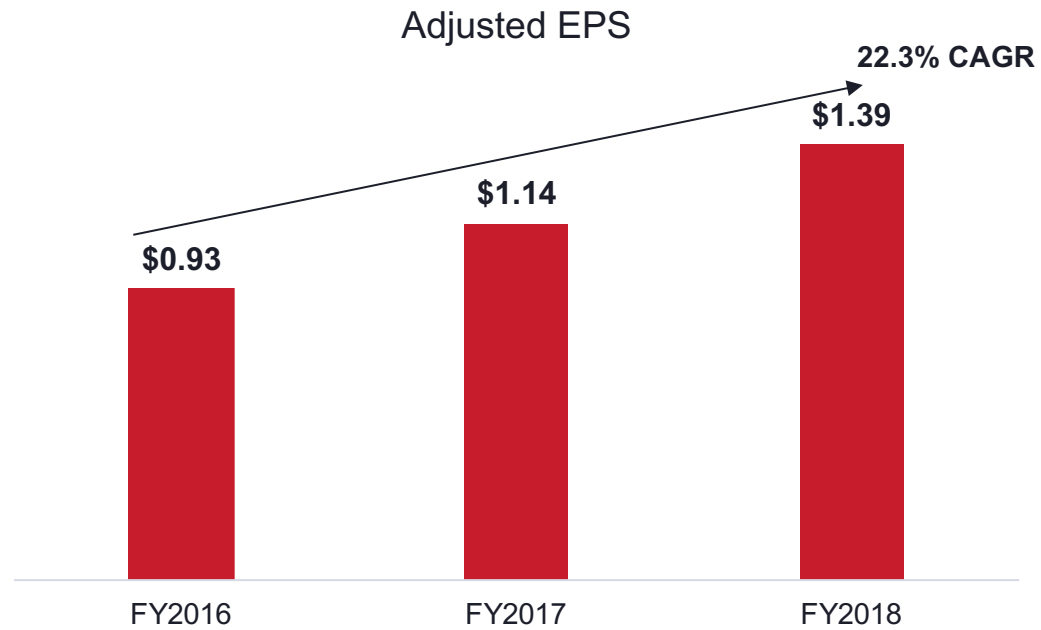
Normalized Adjusted OM



*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



*1 year represents 8/22/18-8/22/19

Business outlook and long-term targets

Our extraordinary 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 has outpaced 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• Diversification as a result of broad based geographies, market verticals and customers |

All the above is resulting in intensified share gains

Business Outlook¹

Q4'19

Revenue

\$945M to \$975M

Adjusted Gross Margin

42%-43%

Adjusted Operating Expense

Approximately \$275M

¹ Projections or outlook with respect to future operating results are only as of September 5, 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.

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 |

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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

Q3 fiscal 2019 appendix

Gross Profit Reconciliation (Amounts in thousands)

| | Q3 FY 2019 | Q2 FY 2019 | Q1 FY 2019 | Q4 FY 2018 | Q3 FY 2018 |
|---|------------------|------------------|------------------|------------------|------------------|
| GAAP gross profit | \$424,352 | \$374,677 | \$323,341 | \$398,075 | \$351,543 |
| Share-based compensation-products | 781 | 702 | 637 | 705 | 783 |
| Share-based compensation-services | 783 | 907 | 770 | 651 | 618 |
| Amortization of intangible assets | 3,303 | 3,303 | 3,418 | 2,957 | 2,534 |
| Total adjustments related to gross profit | 4,867 | 4,912 | 4,825 | 4,313 | 3,935 |
| Adjusted (non-GAAP) gross profit | \$429,219 | \$379,589 | \$328,166 | \$402,388 | \$355,478 |
| Adjusted (non-GAAP) gross margin | 44.7% | 43.9% | 42.2% | 44.7% | 43.4% |

Operating Expense Reconciliation (Amounts in thousands)

| | Q3 FY 2019 | Q2 FY 2019 | Q1 FY 2019 | Q4 FY 2018 | Q3 FY 2018 |
|---|------------------|------------------|------------------|------------------|------------------|
| GAAP operating expense | \$299,051 | \$294,357 | \$275,398 | \$302,205 | \$266,269 |
| Share-based compensation-research and development | 3,560 | 4,083 | 3,391 | 3,385 | 3,082 |
| Share-based compensation-sales and marketing | 4,192 | 4,346 | 3,785 | 3,741 | 3,417 |
| Share-based compensation-general and administrative | 5,813 | 5,491 | 5,112 | 5,588 | 4,538 |
| Amortization of intangible assets | 5,529 | 5,529 | 5,528 | 4,654 | 3,837 |
| Significant asset impairments and restructuring costs | 5,355 | 4,068 | 2,273 | 1,460 | 6,359 |
| Acquisition and integration costs, excluding share-based compensation | 1,362 | 1,135 | 1,608 | 3,778 | 1,333 |
| Legal settlement | - | - | 137 | 1,929 | 2,753 |
| Total adjustments related to operating expense | \$25,811 | \$24,652 | \$21,834 | \$24,535 | \$25,319 |
| Adjusted (non-GAAP) operating expense | \$273,240 | \$269,705 | \$253,564 | \$277,670 | \$240,950 |

Income from Operations Reconciliation (Amounts in thousands)

| | Q3 FY 2019 | Q2 FY 2019 | Q1 FY 2019 | Q4 FY 2018 | Q3 FY 2018 |
|---|------------------|------------------|-----------------|------------------|------------------|
| GAAP income from operations | \$125,301 | \$80,320 | \$47,943 | \$95,870 | \$85,274 |
| Total adjustments related to gross profit | 4,867 | 4,912 | 4,825 | 4,313 | 3,935 |
| Total adjustments related to operating expense | 25,811 | 24,652 | 21,834 | 24,535 | 25,319 |
| Total adjustments related to income from operations | 30,678 | 29,564 | 26,659 | 28,848 | 29,254 |
| Adjusted (non-GAAP) income from operations | \$155,979 | \$109,884 | \$74,602 | \$124,718 | \$114,528 |
| Adjusted (non-GAAP) operating margin | 16.2% | 12.7% | 9.6% | 13.9% | 14.0% |

Net Income Reconciliation (Amounts in thousands)

| | Q3 FY 2019 | Q2 FY 2019 | Q1 FY 2019 | Q4 FY 2018 | Q3 FY 2018 |
|--|------------------|-----------------|-----------------|-----------------|-----------------|
| GAAP net income | \$86,749 | \$52,738 | \$33,616 | \$63,977 | \$50,840 |
| Exclude GAAP provision (benefit) for income taxes | 30,198 | 17,867 | 9,139 | (10,224) | 19,280 |
| Income before income taxes | 116,947 | 70,605 | 42,755 | 53,753 | 70,120 |
| Total adjustments related to income from operations | 30,678 | 29,564 | 26,659 | 28,848 | 29,254 |
| Loss on extinguishment and modification of debt | - | - | - | 13,887 | - |
| Non-cash interest expense | - | - | - | 727 | 793 |
| Change in fair value of debt conversion liability | - | - | - | 12,070 | - |
| Adjusted income before income taxes | 147,625 | 100,169 | 69,414 | 109,285 | 100,167 |
| Non-GAAP tax provision on adjusted income before income taxes | 35,282 | 23,940 | 16,590 | 28,272 | 25,913 |
| Adjusted (non-GAAP) net income | \$112,343 | \$76,229 | \$52,824 | \$81,013 | \$74,254 |
| Weighted average basic common shares outstanding | 155,488 | 156,170 | 156,314 | 143,659 | 143,400 |
| Weighted average dilutive potential common shares outstanding ¹ | 157,455 | 158,289 | 158,174 | 157,745 | 159,998 |

Net Income per Common Share

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

1. 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 2019 includes 2.0 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) | Q3 FY 2019 | Q2 FY 2019 | Q1 FY 2019 | Q4 FY 2018 | Q3 FY 2018 |
|--|-------------------|-------------------|------------------|-------------------|-------------------|
| Net income (GAAP) | \$ 86,749 | \$ 52,738 | \$ 33,616 | \$ 63,977 | \$ 50,840 |
| Add: Interest expense | 9,404 | 9,471 | 9,441 | 14,873 | 13,611 |
| Less: Interest and other income (loss), net | 1,050 | (244) | 4,253 | (13,357) | (1,543) |
| Add: Loss on extinguishment and modification of debt | - | - | - | (13,887) | - |
| Add: Provision (benefit) for income taxes | 30,198 | 17,867 | 9,139 | (10,224) | 19,280 |
| Add: Depreciation of equipment, building, furniture and fixtures, and amortization of leasehold improvements | 22,076 | 21,482 | 21,513 | 21,110 | 21,704 |
| Add: Amortization of intangible assets | 8,832 | 8,832 | 8,947 | 7,611 | 6,371 |
| EBITDA | \$ 156,209 | \$ 110,634 | \$ 78,403 | \$ 124,591 | \$ 113,349 |
| Add: Share-based compensation cost | 15,084 | 15,607 | 13,755 | 14,076 | 12,337 |
| Add: Significant asset impairments and restructuring costs | 5,355 | 4,068 | 2,273 | 1,460 | 6,359 |
| Add: Acquisition and integration costs | 1,362 | 1,135 | 1,608 | 3,778 | 1,333 |
| Add: Legal settlement | - | - | 137 | 1,929 | 2,753 |
| Adjusted EBITDA | \$ 178,010 | \$ 131,444 | \$ 96,176 | \$ 145,834 | \$ 136,131 |



Thank You