



# Ciena Corporation

## Investor Presentation

Winter 2022 / 2023

# 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 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; the impact of supply chain constraints or disruptions; the duration and severity of the COVID-19 pandemic and the impact of countermeasures taken to mitigate its spread on macroeconomic conditions, economic activity, demand for our technology solutions, short- and long-term changes in customer or end user needs, continuity of supply chain, our business operations, liquidity and financial results; 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; changes in foreign currency exchange rates; factors beyond our control such as natural disasters, climate change, acts of war or terrorism, geopolitical events, including but not limited to the ongoing conflict between Ukraine and Russia, and public health emergencies; changes in tax or trade regulations, including the imposition of tariffs, duties or efforts to withdraw from or materially modify international trade agreements; 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 8, 2022 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 and Form 10K 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, 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.

# Our Pedigree



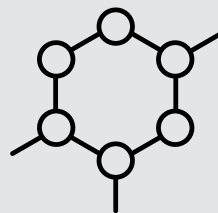
# Overview

**Ciena is an industry-leading global networking systems, services, and software company with a strong track record of creating shareholder value**



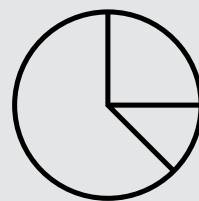
## Leading technology and innovation<sup>1</sup>

- R&D spend ~17% of total revenue
- ~2,700 R&D specialists
- DWDM pioneer and first to market with 40G, 100G, 400G and 800G technology
- 2,000+ issued patents



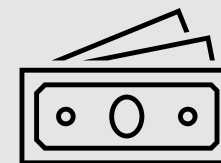
## Diversification and scale<sup>1</sup>

- 38% revenue from non-telco customers
- 1,600+ customers
- Operations in 35+ countries
- Top 10 customers in FY22 included four web-scalers, three US service providers, two international service providers and one cable operator



## Market leadership

- Recognized as the market leader in our space
- #1 or #2 market share across our Optical markets<sup>2</sup>
- Ex-China, quarterly market share has grown from ~12% in 2011 to ~25% in 2021<sup>1</sup>



## Strong balance sheet

- Our balance sheet represents a competitive advantage
- \$1.2B in cash and investments at FYE22
- \$1.0B share repurchase program including a \$500M accelerated share repurchase (ASR) announced in December 2021



## Strong ESG progress

- ISS Governance Score 1 of 5
- Ecovadis Platinum Medal (Top 1%)
- Great Place To Work (US, Canada, India)
- 2023 Institutional Investor Magazine, Best ESG Communications for our sector

<sup>1</sup> Statistics based on FY 2022, unless otherwise noted

<sup>2</sup> As cited by Omdia, Dell'Oro Group and Signal AI for different markets

<sup>3</sup> Based on closing share price between 8/17/2017 and 8/16/2022

# Our portfolio

Enabling the Adaptive Network™



## SOFTWARE CONTROL AND AUTOMATION

**Blue Planet®** multi-domain orchestration, federated inventory, and service order management solutions support service lifecycle automation across multi-layer, multi-vendor networks.

**Ciena's Manage, Control and Plan (MCP)** domain controller provides intelligent, data-driven, software-defined programmability to lifecycle network operations across multi-layer Ciena-based infrastructure.



## ANALYTICS AND INTELLIGENCE

**Blue Planet®** Unified Assurance and Analytics and Route Optimization and Analysis software unify multi-layer, multi-domain assurance, with AI-powered analytics to provide strategic insights that transform and streamline business, IT, and network operations.

**MCP Advanced Apps** enhance operations and simplify user experience for optimization of multi-layer network performance, featuring Liquid Spectrum™ for increased optical network capacity and service availability, and Adaptive IP™ Apps for advanced real-time visualization and analysis of multi-vendor IP networks.



## PROGRAMMABLE INFRASTRUCTURE

**Converged Packet Optical Networking:** Full suite of compact modular and converged software-programmable platforms, featuring Ciena's award-winning WaveLogic™ Coherent Optics, fully instrumented, reconfigurable line systems and agnostic packet/OTN switching, designed to maximize scale, flexibility, and open networking. Delivers optimal network performance across applications from metro to submarine, and is the dominant platform used globally for Data Center Interconnect.

**Routing and Switching:** Purpose-built routing, switching, and x86 VNF hosting platforms—leveraging a common Service-Aware Operating System (SAOS) and WaveLogic Coherent Optics—provide the building blocks for low-touch, high-velocity IP, Segment Routing, Ethernet, MPLS, and pluggable PON for access, aggregation, and metro networks.

## CIENA SERVICES

Enables customers to deliver the exceptional experiences their end users expect. Ciena regional teams partner with customers to build, operate, improve, and transform their network.

Ciena leverages a robust set of services, proven processes, and tools to enable customer success and accelerate their journey to the Adaptive Network.

# Our corporate strategy



## Lead

### Our Core Business

- Strengthen optical innovation leadership
- Grow optical market share by addressing fast-growing opportunities
- Pursue coherent pluggables as new consumption model
- Increase international business and grow attached services



## Invest

### Next Generation Metro and Edge

- Expand use cases for Routing & Switching portfolio and addressable market opportunity
- Innovate and diversify solutions portfolio with enhanced IP/Ethernet capabilities
- Address expanding 5G, edge cloud, packet routing and edge computing applications



## Expand

### Software Led Transformation

- Drive digital transformation and network automation with Blue Planet
- Grow software business and gain customer adoption of recurring, subscription models
- Pursue advanced services led transformation with network migration, optimization, and multi-vendor capabilities

**... has enhanced our ability to create and seize opportunities in our markets  
and has yielded consistent, differentiated performance**

# Fiscal 2022

## YEAR-END RESULTS

Revenue	Adjusted gross margin	Adjusted operating margin	Adjusted EPS	Cash & Investments
\$3.63B	43.6%	11.2%	\$1.90	\$1.2B

- Strong secular demand trends – 5G, Cloud, Automation, Infrastructure, Broadband, Huawei displacement
- Grew orders by 26% year-over-year, ending the year with \$4.2B in backlog
- Strong balance sheet and ability to invest strategically in our portfolio and go-to-market capabilities
- 200+ customers globally for WaveLogic™ 5 Extreme; ~50,000 WL5e modems shipped to date
- Continued diversification with \$1B in orders from webscale customers
- Achieved sustainability objectives, including increased participation in the Ciena Cares program, reduced air travel, and company-wide diversity and inclusion training



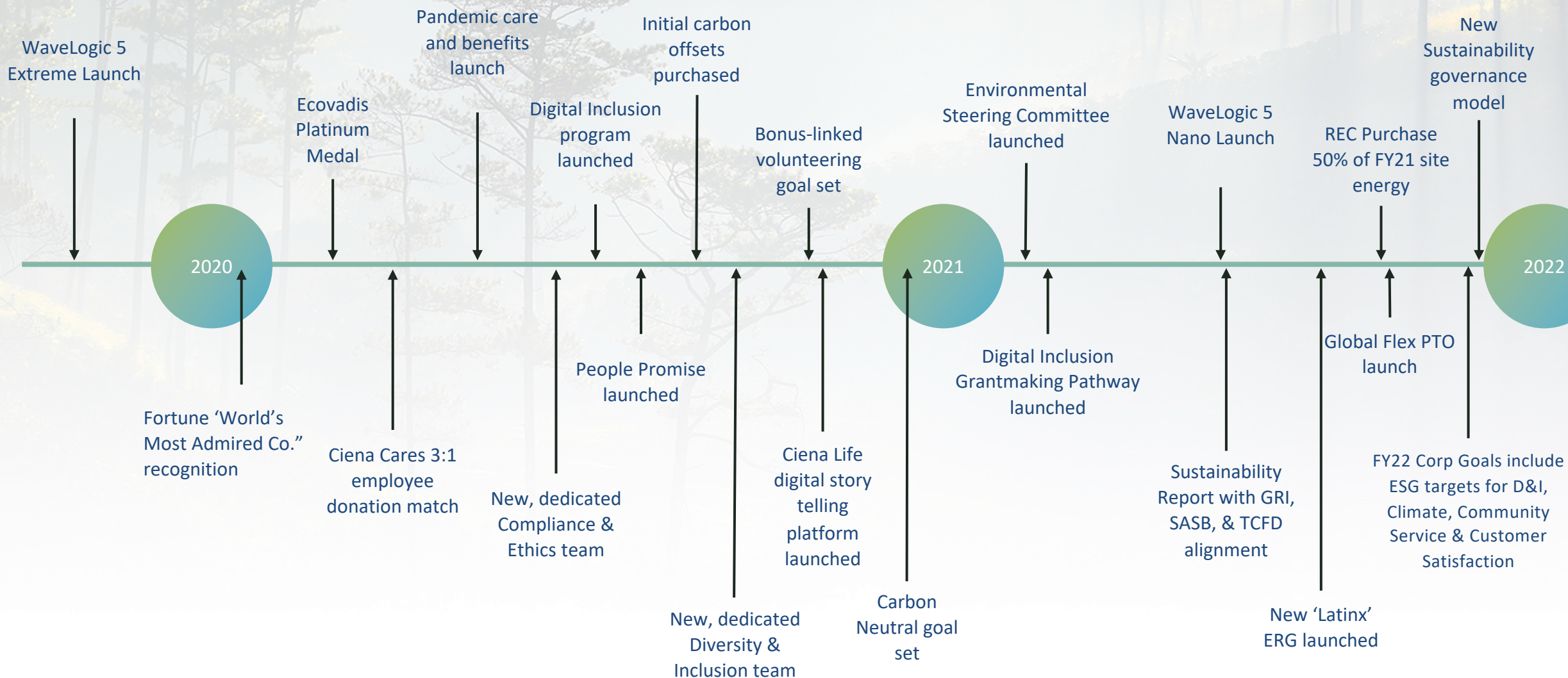
# Our ESG journey

*(see more ESG information on our website)*





# Sustainability Achievements 2020-22



# Innovation to drive sustainable outcomes

Research and development focuses on environmental responsibility

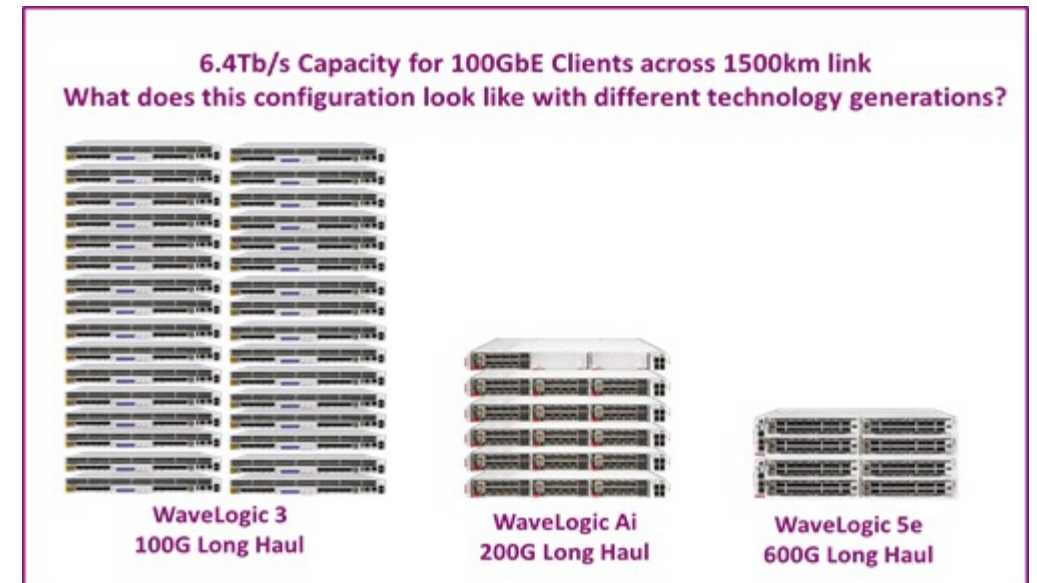
Our WaveLogic innovations address massive bandwidth demand while using less energy.

From 2009 to 2019, WaveLogic helped avoid 3M MTCO<sub>2</sub>e into our atmosphere.

WaveLogic 5e vs 3 yields a 3x increase in fiber capacity, 80% reduction in power/bit, and an 85% reduction in footprint.

Our coherent innovation—delivering an 80x increase in data throughput (10→ 800Gb/s)—has enabled immense benefits for network operators.

We're introducing power efficient pluggable forms for data center applications.



# Reduction of our environmental footprint

Commitment to achieve carbon neutrality for our operations by 2024



## Managing our impact

Our Environmental Steering Committee oversees our environmental initiatives.



## Investing in renewable energy

In 2022, we are purchasing wind, solar, and biomass credits to aim for 75% renewable energy at our offices.



## Reporting our emissions

We measure our emissions in accordance with the Greenhouse Gas Protocol with annual participation in the Carbon Disclosure Project with a score of “B”.



## Offsetting our emissions

We offset 43% of our 2019 and 71% of our 2020 reported emissions. We are targeting 75% for 2022.



## Energy efficient offices and labs

We retrofit certain sites to increase LED lighting, enhance our building controls and systems, and expand our on-site solar photovoltaic (PV) plant.



## Reducing air travel emissions

Our company goal is to reduce business air travel emissions by 50% from our pre-Covid 2019 levels.

# Our People Promise

A key element of our strategy is fostering a workplace environment where employees are empowered, feel included and have an opportunity to make a difference through their work.



## MAKE A DIFFERENCE

- Community Impact Programs
- Ciena Cares
- Digital Inclusion
- Volunteering Time Off
- Service Initiatives



## BE EMPOWERED

- Flexible Working
- Competitive Compensation and Benefits
- Employee Recognition
- Growth and Development



## FEEL INCLUDED

- Employee Wellbeing
- Diversity, Inclusion & Belonging
- Employee Engagement
- Pay Equity and Fairness



# Market context





# Six mega trends and the innovations that will enable them

Cloud



Data Center



IoT & Connected Objects



Digital Transformation & Automation



Mobility & 5G

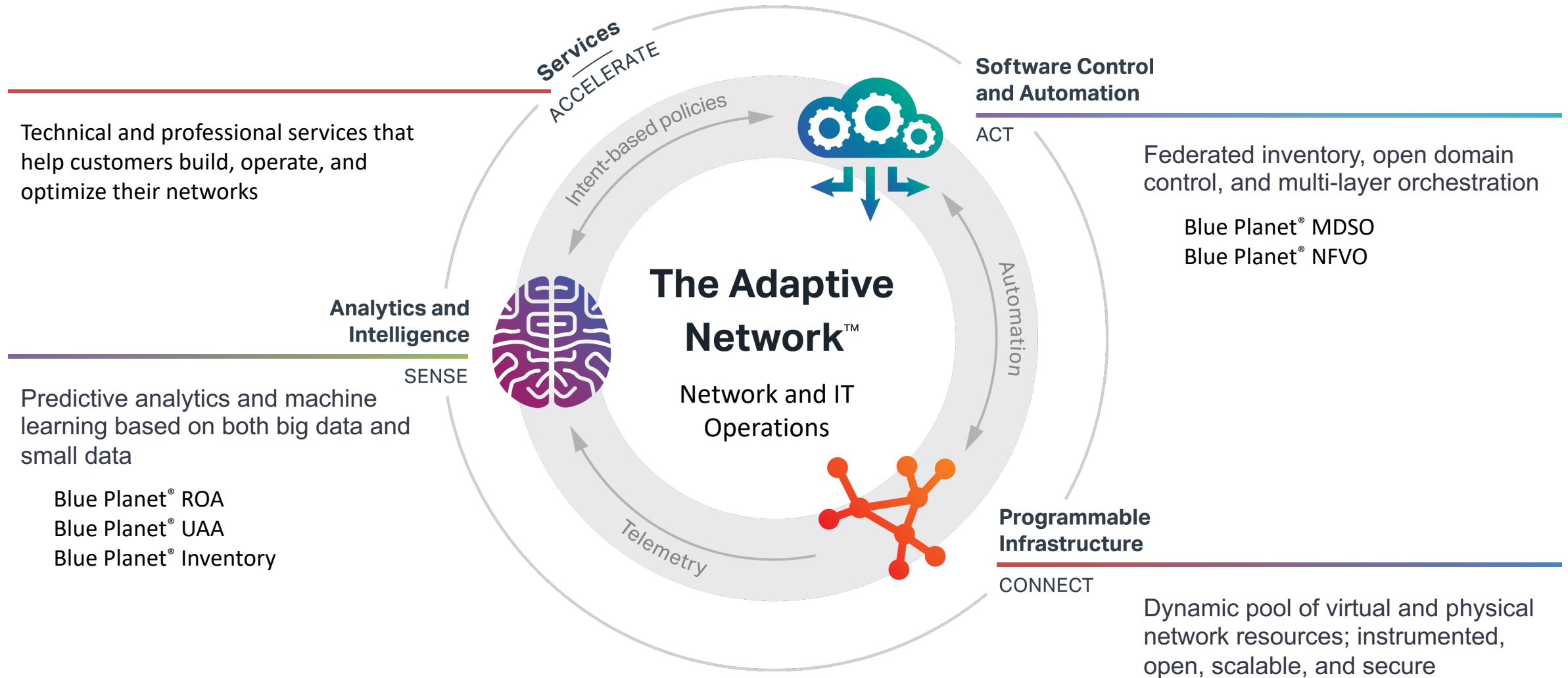


Virtual & Hybrid Lifestyles



# Our vision for a new network end-state

Closing the Loop – to deliver the Adaptive Network



# Next-Gen Metro & Edge is a strategic growth segment

Fiber Broadband Access is a key driver in this space

## Core Transport

**\$6B → \$7B**

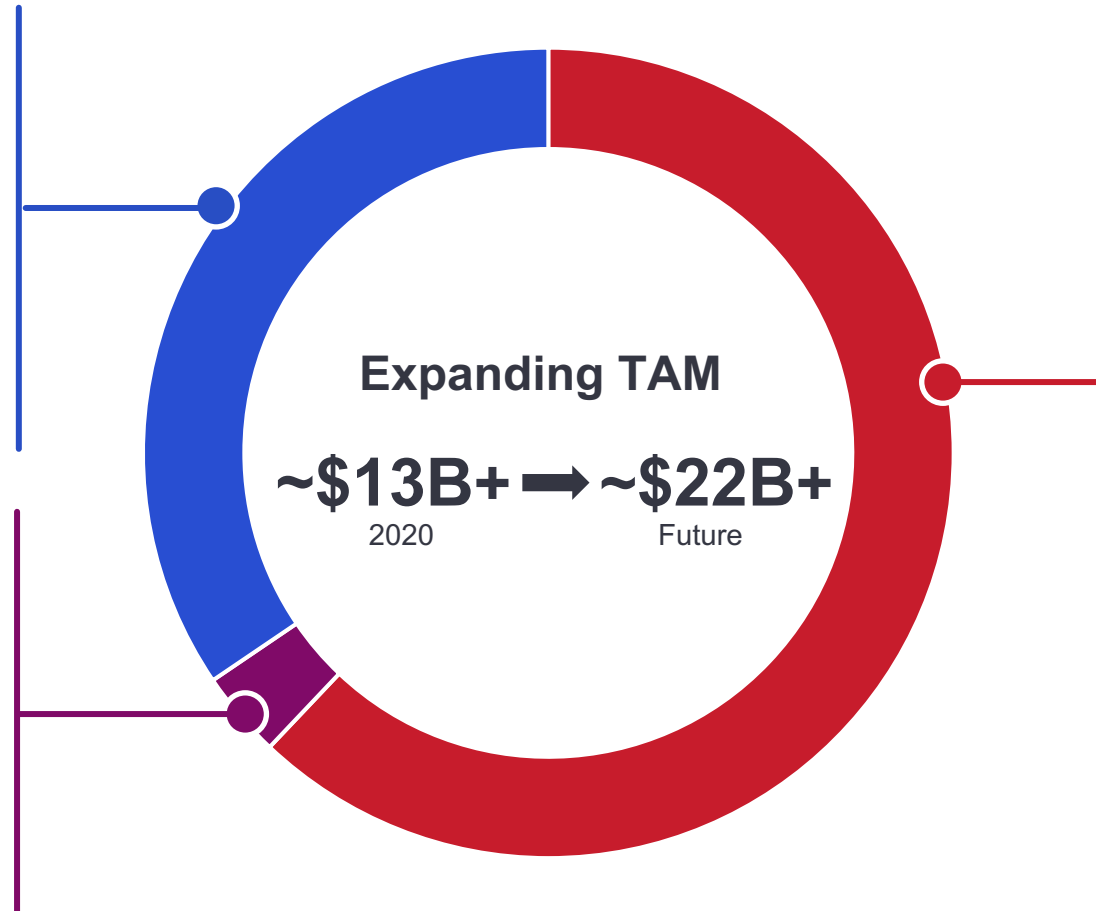
2020 Future

- High-capacity Converged Packet Optical Transport
  - Data Center Interconnect
  - Long Haul
  - Submarine

## Software

**\$1B+**

- Intelligent Automation
  - Orchestration: MDSO & NFV
  - Order Management
  - Inventory
  - Assurance and Analytics



## Next-Gen Metro & Edge

**~\$6B → ~\$14B**

2020 Future

- Fiber Broadband Access
  - Residential
  - Enterprise services
  - Fixed-mobile access
- Cloud Connectivity
- xHaul Solutions
- Converged IP/Optical Infrastructures
- Software Defined Edge
- Ethernet Data Services

\*Market data excludes China, and is based on Omdia, Dell'Oro, Cignal AI, and Ciena analysis

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# Q4 FY 2022 results



# Recent key highlights

## Achieving balanced growth

- Non-telco represented 38% of total revenue in fiscal Q4 2022
- Routing and Switching revenue increased 39% YoY in fiscal Q4 2022, reflecting strong contribution from the recently acquired Vyatta platform and organic portfolio enhancements
- Platform Software and Services increased 8% YoY in fiscal Q4 2022, representing 7% of total revenue

## Driving the pace of innovation

- GAAP R&D investment was approximately 17.2% of total revenue in fiscal Q4 2022
- 776 100G+ total customers, which includes 17 new wins on WaveLogic Ai and 15 new wins on WaveLogic 5 Extreme
- Further expanded our Coherent Routing offering with the introduction and initial orders for our new 14.4T 8190 Coherent Aggregation Router

## Prioritizing long term shareholder value

- Total shareholder return five year CAGR of 16%<sup>1</sup>
- Made strategic investments to expand our addressable market
- Entered into agreement to acquire Tibit Communications, Inc., a provider of passive optical network solutions
- Completed the acquisition of Benu Networks, Inc., a provider of broadband network gateway software

<sup>1</sup> Based on closing share price between 12/1//2017 to 11/30/2022



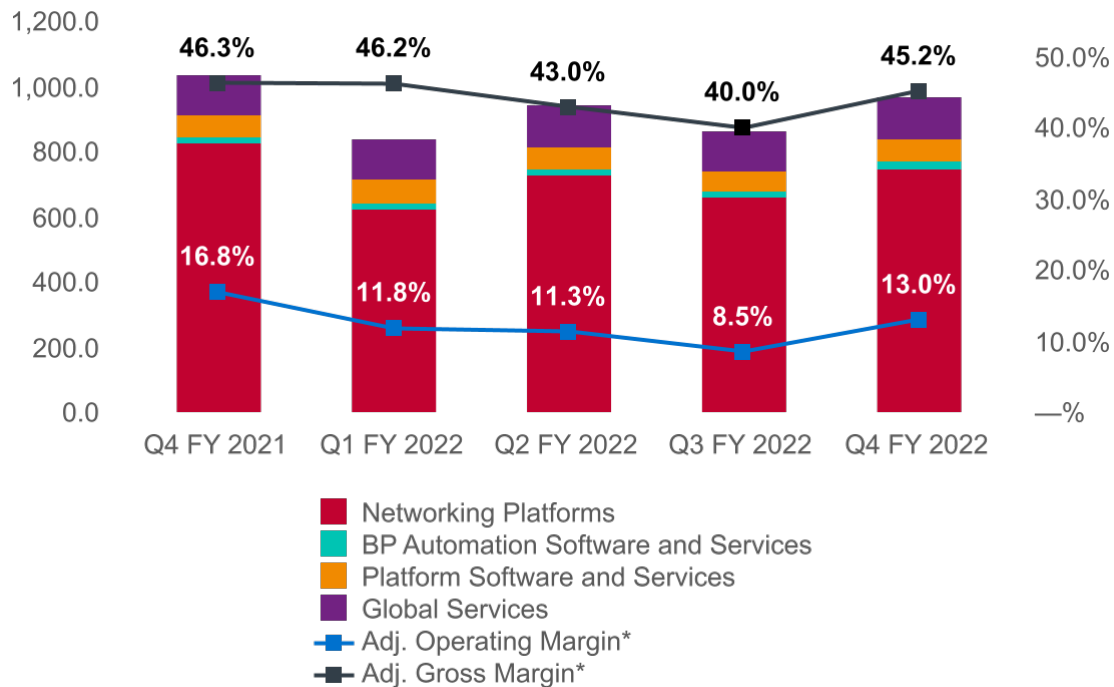
## Q4 FY 2022 comparative financial highlights

	Q4 FY 2022	Q4 FY 2021
<b>Revenue</b>	\$971.0M	\$1,041.5M
<b>Adjusted Gross Margin*</b>	45.2%	46.3%
<b>Adjusted Operating Expense*</b>	\$312.8M	\$307.1M
<b>Adjusted Operating Margin*</b>	13.0%	16.8%
<b>Adjusted EBITDA*</b>	\$153.5M	\$199.2M
<b>Adjusted EPS*</b>	\$0.61	\$0.85

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

# Revenue by segment

(Amounts in millions)

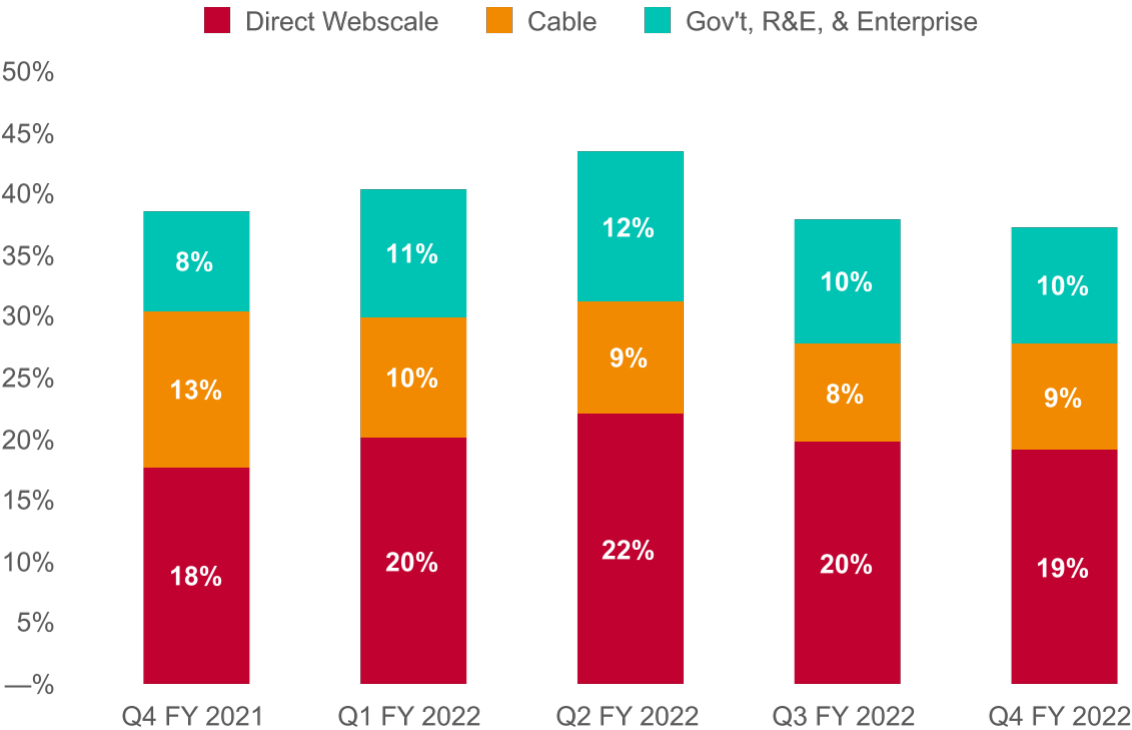
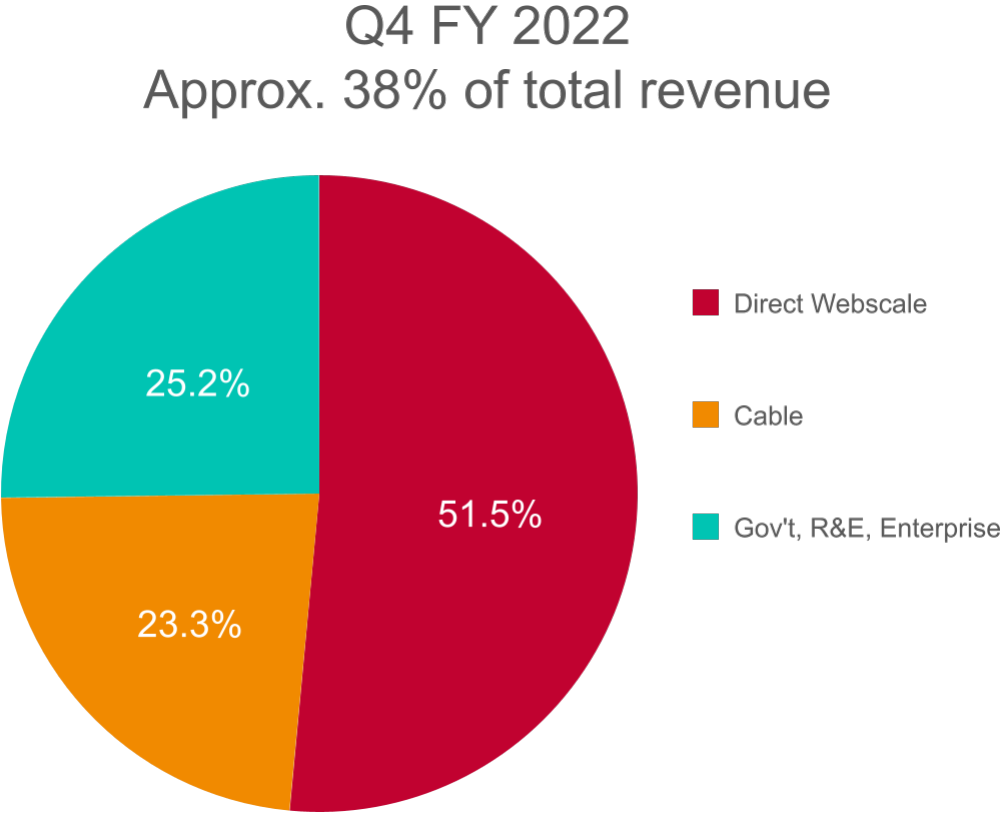


	Q4 FY 2022		Q4 FY 2021	
	Revenue	%**	Revenue	%**
<b>Networking Platforms</b>				
Converged Packet Optical	\$649.9	66.9	\$754.6	72.5
Routing and Switching	102.8	10.6	74.2	7.1
<b>Total Networking Platforms</b>	<b>752.7</b>	<b>77.5</b>	<b>828.8</b>	<b>79.6</b>
<b>Platform Software and Services</b>	<b>71.6</b>	<b>7.4</b>	<b>66.1</b>	<b>6.3</b>
<b>Blue Planet Automation Software and Services</b>	<b>21.2</b>	<b>2.2</b>	<b>19.8</b>	<b>1.9</b>
<b>Global Services</b>				
Maintenance Support and Training	73.1	7.5	71.3	6.9
Installation and Deployment	36.9	3.8	47.2	4.5
Consulting and Network Design	15.5	1.6	8.3	0.8
<b>Total Global Services</b>	<b>125.5</b>	<b>12.9</b>	<b>126.8</b>	<b>12.2</b>
<b>Total</b>	<b>\$971.0</b>	<b>100.0</b>	<b>\$1,041.5</b>	<b>100.0</b>

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

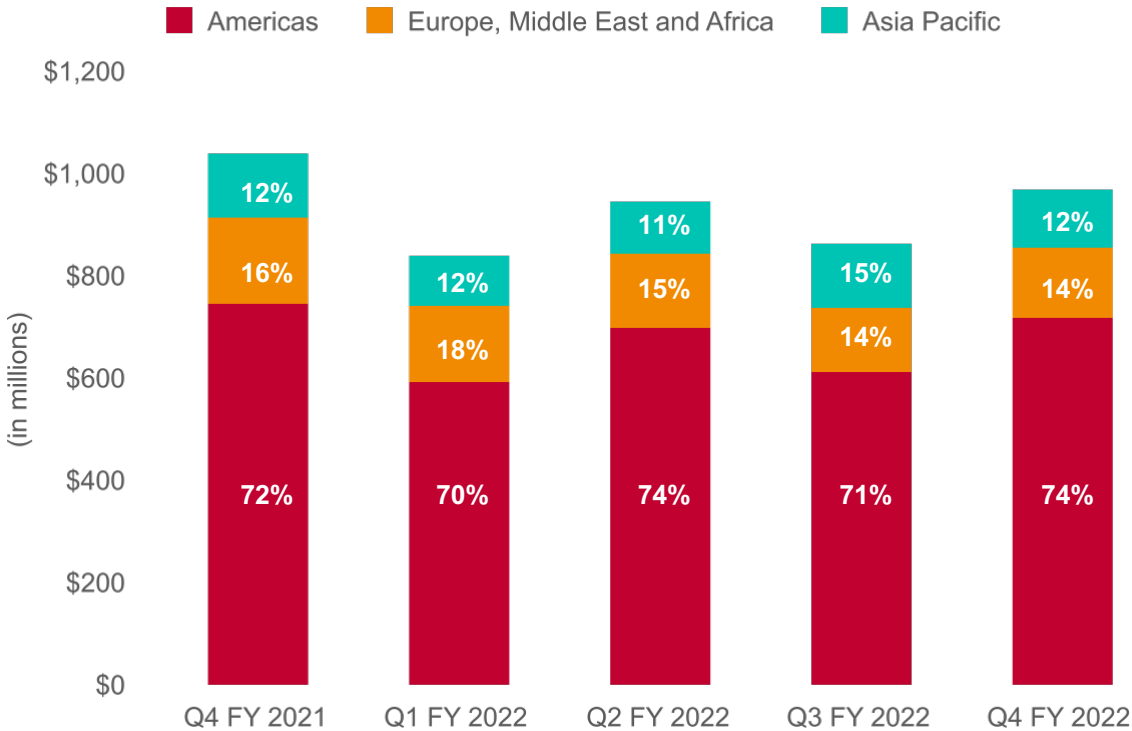
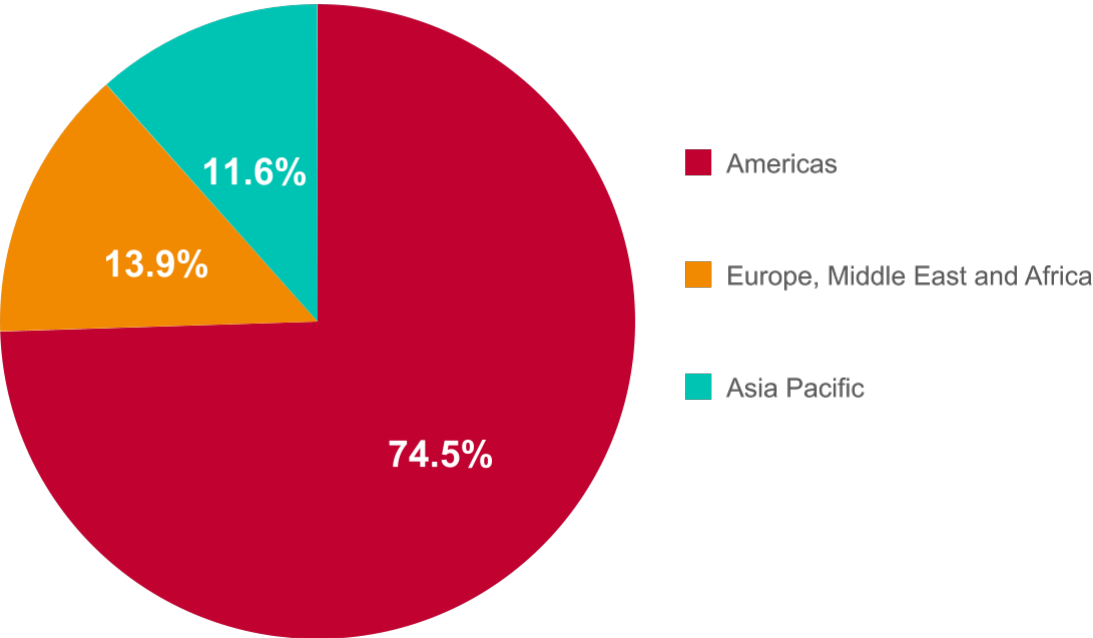
\*\* Denotes % of total revenue

# Continued revenue strength derived from non-telco customers



# Revenue by geographic region

Q4 FY 2022



# Business outlook





# Economic considerations and assumptions in our fiscal 2023 outlook

## Business Assumptions

- Macro environment does not significantly worsen and any adverse effects on our business, including with respect to our customers' capex and their ability to take delivery of product during the year, remain immaterial
- Longer-term fundamental industry demand drivers – including increasing demand for bandwidth, adoption of cloud architectures and network automation requirements – will drive customers to prioritize network capex to address this demand
- Huawei displacement opportunities and government infrastructure spending provide growth tailwinds
- We continue to benefit from strong demand dynamics in our industry given our distinct competitive advantages

## Revenue Assumptions

- Supply chain conditions remain volatile, but continue to improve gradually throughout the year
- Component suppliers largely deliver on their supply commitments and we do not encounter any substantial decommits that we cannot successfully mitigate
- Covid-related lockdowns in China do not continue to exacerbate an already challenging supply environment

## Profitability Assumptions

- Supply and logistics costs remain elevated but begin to ease throughout the year
- As new wins and early deployments accelerate with supply chain improvements, we expect our product mix to include a larger proportion of lower-margin common equipment
- Operating expense increases to fund strategic investments as we expand our addressable market and aim to capture opportunities that advance our position in key growth areas

# Business outlook<sup>1</sup>

## Q1 FY 2023

<b>Revenue</b>	\$910M to \$990M
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<b>Adjusted Gross Margin</b>	Low 40s%
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<b>Adjusted Operating Expense</b>	\$320M to \$325M
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## FY 2023

<b>Revenue Growth</b>	16% to 18%
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<b>Adjusted Gross Margin</b>	42% to 44%
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<b>Adjusted Operating Expense</b>	Approximately \$325 per quarter
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<sup>1</sup> Projections or outlook with respect to future operating results are only as of December 8, 2022, 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<sup>1</sup>

Revenue	Adjusted Gross Margin
3 year CAGR through 2025 of 10% to 12%	Mid-40's%

<sup>1</sup> Projections or outlook with respect to future operating results are only as of December 8, 2022, 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.

# Q4 FY 2022 appendix



## Gross Profit Reconciliation (Amounts in thousands)

	Q4 FY 2022	Q3 FY 2022	Q2 FY 2022	Q1 FY 2022	Q4 FY 2021
GAAP gross profit	\$433,597	\$340,779	\$401,781	\$384,187	\$477,119
Share-based compensation-products	907	1,002	1,058	900	920
Share-based compensation-services	2,066	1,940	1,943	1,584	1,240
Amortization of intangible assets	2,005	3,140	3,313	3,312	2,856
Total adjustments related to gross profit	4,978	6,082	6,314	5,796	5,016
<b>Adjusted (non-GAAP) gross profit</b>	<b>\$438,575</b>	<b>\$346,861</b>	<b>\$408,095</b>	<b>\$389,983</b>	<b>\$482,135</b>
<b>Adjusted (non-GAAP) gross profit percentage</b>	<b>45.2 %</b>	<b>40.0 %</b>	<b>43.0 %</b>	<b>46.2 %</b>	<b>46.3 %</b>



## Operating Expense Reconciliation (Amounts in thousands)

	Q4 FY 2022	Q3 FY 2022	Q2 FY 2022	Q1 FY 2022	Q4 FY 2021
GAAP operating expense	\$356,329	\$313,672	\$343,352	\$324,183	\$339,710
Share-based compensation-research and development	8,507	8,233	8,309	6,830	5,684
Share-based compensation-sales and marketing	8,084	8,075	8,061	7,060	6,192
Share-based compensation-general and administrative	7,610	7,579	7,334	7,912	7,466
Significant asset impairments and restructuring costs	13,621	7,692	9,102	3,409	5,700
Amortization of intangible assets	5,754	8,919	8,920	8,918	5,836
Acquisition and integration costs	—	35	495	68	1,712
Total adjustments related to operating expense	43,576	40,533	42,221	34,197	32,590
<b>Adjusted (non-GAAP) operating expense</b>	<b>\$312,753</b>	<b>\$273,139</b>	<b>\$301,131</b>	<b>\$289,986</b>	<b>\$307,120</b>

## Income from Operations Reconciliation (Amounts in thousands)

	Q4 FY 2022	Q3 FY 2022	Q2 FY 2022	Q1 FY 2022	Q4 FY 2021
GAAP income from operations	\$77,268	\$27,107	\$58,429	\$60,004	\$137,409
Total adjustments related to gross profit	4,978	6,082	6,314	5,796	5,016
Total adjustments related to operating expense	43,576	40,533	42,221	34,197	32,590
Total adjustments related to income from operations	48,554	46,615	48,535	39,993	37,606
<b>Adjusted (non-GAAP) income from operations</b>	<b>\$125,822</b>	<b>\$73,722</b>	<b>\$106,964</b>	<b>\$99,997</b>	<b>\$175,015</b>
<b>Adjusted (non-GAAP) operating margin percentage</b>	<b>13.0 %</b>	<b>8.5 %</b>	<b>11.3 %</b>	<b>11.8 %</b>	<b>16.8 %</b>

## Net Income Reconciliation (Amounts in thousands)

	Q4 FY 2022	Q3 FY 2022	Q2 FY 2022	Q1 FY 2022	Q4 FY 2021
GAAP net income	\$57,645	\$10,512	\$38,922	\$45,823	\$103,499
Exclude GAAP provision for income taxes	7,735	4,319	8,330	9,219	25,826
Income before income taxes	65,380	14,831	47,252	55,042	129,325
Total adjustments related to income from operations	48,554	46,615	48,535	39,993	37,606
Unrealized gain on cost method equity investment	—	—	—	(4,120)	—
Adjusted income before income taxes	113,934	61,446	95,787	90,915	166,931
Non-GAAP tax provision on adjusted income before income taxes	23,015	12,412	19,349	18,365	34,221
<b>Adjusted (non-GAAP) net income</b>	<b>\$90,919</b>	<b>\$49,034</b>	<b>\$76,438</b>	<b>\$72,550</b>	<b>\$132,710</b>
Weighted average basic common shares outstanding	148,548	149,862	152,197	154,151	155,232
Weighted average diluted potential common shares outstanding <sup>(1)</sup>	149,111	150,463	153,344	155,807	156,689

## Net Income per Common Share

	Q4 FY 2022	Q3 FY 2022	Q2 FY 2022	Q1 FY 2022	Q4 FY 2021
GAAP diluted net income per potential common share	\$ 0.39	\$ 0.07	\$ 0.25	\$ 0.29	\$ 0.66
<b>Adjusted (non-GAAP) diluted net income per potential common share</b>	<b>\$ 0.61</b>	<b>\$ 0.33</b>	<b>\$ 0.50</b>	<b>\$ 0.47</b>	<b>\$ 0.85</b>

1. Weighted average dilutive potential common shares outstanding used in calculating Adjusted (non-GAAP) diluted net income per potential common share for the fourth quarter of fiscal 2022 includes 0.6 million shares underlying certain stock option 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 2022	Q3 FY 2022	Q2 FY 2022	Q1 FY 2022	Q4 FY 2021
Net income (GAAP)	\$57,645	\$10,512	\$38,922	\$45,823	\$103,499
Add: Interest expense	13,775	12,642	11,985	8,648	7,916
Less: Interest and other income (loss), net	1,887	366	808	3,686	(168)
Add: Provision for income taxes	7,735	4,319	8,330	9,219	25,826
Add: Depreciation of equipment, building, furniture and fixtures, and amortization of leasehold improvements	27,642	22,250	22,377	23,653	24,315
Add: Amortization of intangible assets	7,759	12,059	12,233	12,230	8,692
<b>EBITDA</b>	<b>\$112,669</b>	<b>\$61,416</b>	<b>\$93,039</b>	<b>\$95,887</b>	<b>\$170,416</b>
Add: Share-based compensation cost	27,174	26,857	26,673	24,297	21,366
Add: Significant asset impairments and restructuring costs	13,621	7,692	9,102	3,409	5,700
Add: Acquisition and integration costs	—	35	495	68	1,712
<b>Adjusted EBITDA</b>	<b>\$153,464</b>	<b>\$96,000</b>	<b>\$129,309</b>	<b>\$123,661</b>	<b>\$199,194</b>



# Thank You