



# **B. Riley 22<sup>nd</sup> Annual Institutional Investor Conference**

May 25, 2022

# Note Regarding Forward-Looking Statements and Non-GAAP Financial Measures

This presentation contains “forward-looking statements” within the meaning of the U.S. Private Securities Litigation Reform Act of 1995, which are subject to a number of risks and uncertainties. All statements other than statements of historical facts contained in this presentation, including without limitation statements regarding the projected financial results for the second quarter 2022 and beyond, costs and savings associated with our strategic restructuring, customer engagement and momentum, expected supply-chain related costs; our capital structure and credit facility; plans and objectives for future operations; and plans for future product development and manufacturing, are forward-looking statements. Without limiting the foregoing, the words “believes”, “estimates”, “expects”, “expectations”, “intends”, “may”, “plans”, “projects” and other similar language, are intended to identify forward-looking statements.

Forward-looking statements are based on our current expectations and assumptions regarding our business, the economy and other future conditions. Because forward-looking statements relate to the future, they are subject to inherent uncertainties, risks and changes in circumstances that are difficult to predict. Our actual results may differ materially from those contemplated in these forward-looking statements due to various risks, uncertainties and other important factors, including, among others, risks related to supply chain disruptions resulting from component availability; the effects of geopolitical instabilities and disputes, including between Russia and Ukraine, the impact of sanctions imposed as a result thereof; risks related to the continuing COVID-19 pandemic, including delays in customer deployments as a result of rises in cases; risks that we will not realize the anticipated benefits from the acquisition of ECI; risks that we will not realize the estimated cost savings and/or anticipated benefits from our strategic restructuring; the impact of restructuring and cost-containment activities; declines in the value of our ongoing investment in AVCT, the purchaser of our Kandy Communications business (“Kandy”); unpredictable fluctuations in quarterly revenue and operating results; risks related to the terms of our credit agreement including compliance with the financial covenants; risks related to cybersecurity and data intrusion; failure to compete successfully against telecommunications equipment and networking companies; failure to grow our customer base or generate recurring business from our existing customers; credit risks; the timing of customer purchasing decisions and our recognition of revenues; macroeconomic conditions; litigation; market acceptance of our products and services; rapid technological and market change; our ability to protect our intellectual property rights and obtain necessary licenses; our ability to maintain partner, reseller, distribution and vendor support and supply relationships; the potential for defects in our products; increases in tariffs, trade restrictions or taxes on our products; and currency fluctuations.

Any forward-looking statements represent our views only as of the date on which such statement is made and should not be relied upon as representing our views as of any subsequent date. While we may elect to update forward-looking statements at some point, we specifically disclaim any obligation to do so, except as may be required by law.

This presentation also includes certain non-GAAP financial measures in addition to the U.S. GAAP financials. Our management believes that presenting certain non-GAAP financial measures provides meaningful information to investors in understanding our operating results and may enhance investors' ability to analyze financial and business trends including the ability to compare period to period more easily by excluding items that could have a disproportionately negative or positive impact on results in a given financial period. The non-GAAP measures have limitations as analytical tools and you should not consider them in isolation or as a substitute for the most directly comparable financial measures prepared in accordance with U.S. GAAP. We urge you to review the reconciliation of our non-GAAP financial measures to the most directly comparable GAAP financial measures set forth in the Appendix to this presentation, and not to rely on any single financial measure to evaluate our business.

Please note that as part of the basis of presentation, totals may not sum due to rounding.

# Ribbon at a Glance



A unique Company **providing open cloud-centric solutions** spanning multiple network layers to **enable secure communications** and deliver **disruptive optical networking innovations**

Headquarters: **Plano, Texas** • NASDAQ: **RBBN**

**1000+**  
Customers<sup>1</sup>

**\$845M**  
Year Ended 2021

**3,685**  
Employees<sup>1</sup>  
(global)

**140**  
Countries<sup>1</sup>

**1000+**  
Patents<sup>1</sup>

## Software & Services

65% of 2021 Revenue

## Maintenance

60%+ of 2022 Renewals  
Completed Going into 2022

## Geographic Mix

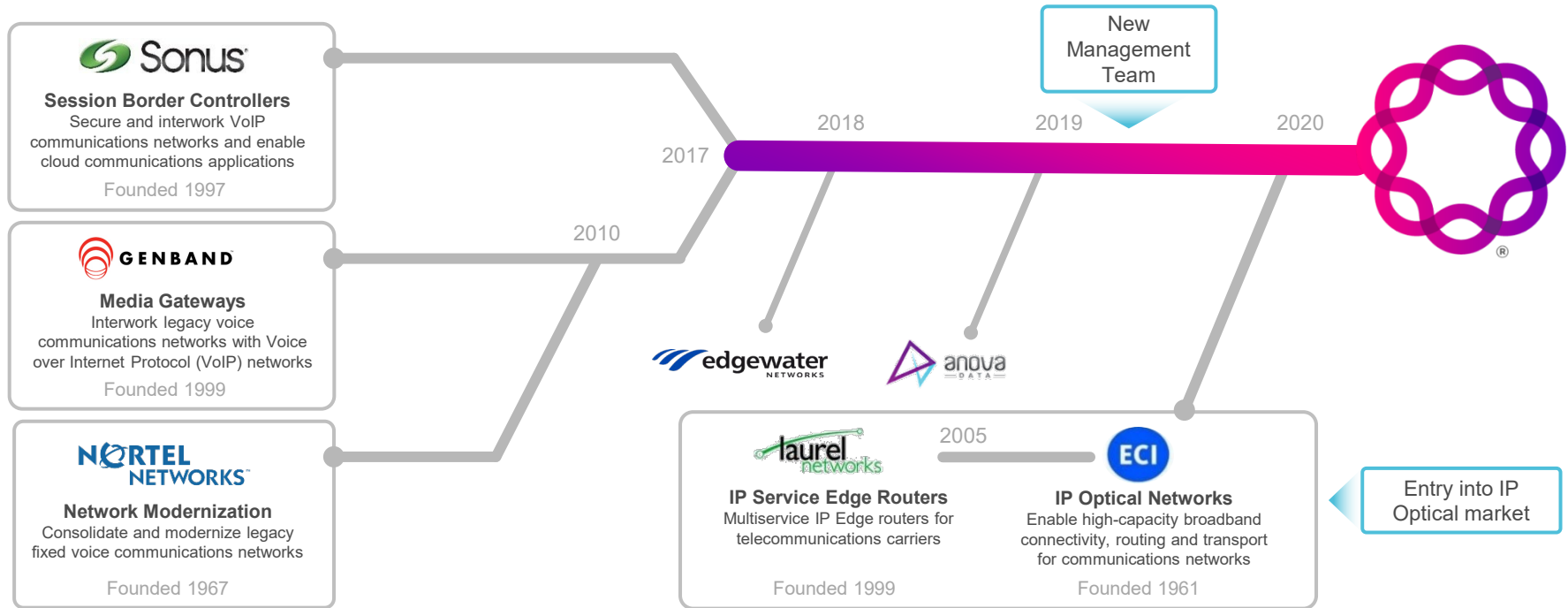
55% of 2021  
Revenues Non-US

### Notes:

1. As of December 31, 2021.

# Rich History of Innovation Brought Together as Ribbon

Ribbon has completed several meaningful transactions over the last few years that have streamlined the business, expanded its market scope and added a transformational second leg to its strategic positioning



# Product Strategy Builds on Key Technology Trends

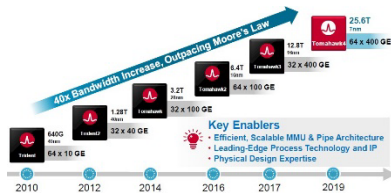
## IP + Optical

- 4.5X growth in global mobile traffic from 2020-2026<sup>1</sup> driving fiber and IP Networking closer to the edge
- Network complexity demanding better management and automation – across Optical transport and IP switching/routing domains
- Next generation IP segment routing and 5G network slicing are a catalyst for new vendor selection
- Heightened sense of urgency to transition legacy TDM voice networks to IP



## Open Networking

- Best-of-breed agile solutions
- Eliminate vendor lock-in
- Faster time-to-market
- Commercial silicon surpassing proprietary solutions
  - Pluggable optics
  - High performance routing
- Disaggregated IP networking solutions from access to core
- Adoption of white box computing



## Unified Communications

- Broad adoption of cloud-based unified communication platforms as a complete replacement of legacy voice systems
- Multiple target markets: Online Collaboration, Desktop and Mobile, Contact Center
- Multiple target verticals: Finance, Government, Education, Critical Infrastructure, Healthcare, Manufacturing
- Specialized solutions needed for advanced applications – survivability, security, 911, etc.



## Service Migration to the Cloud

- Pre-integrated friction-free deployment with opex and capex consumption models
- Large scale analytics leveraging data from multiple deployments and 3<sup>rd</sup> party sources
- Traditional network functions operating in public cloud compute environment
- Improved service velocity leveraging CI/CD
- Expanded partnerships (SI, OEM, Distributors, Technology)



Note:

1. Source: Ericsson Mobility Report, November 2020

# Servicing Multiple Segments Across the Network



## 2020 Serviceable Market

### IP Routing



**\$6B**

Dell'Oro Service Provider Edge Router minus China

### Optical Transport



**\$8B**

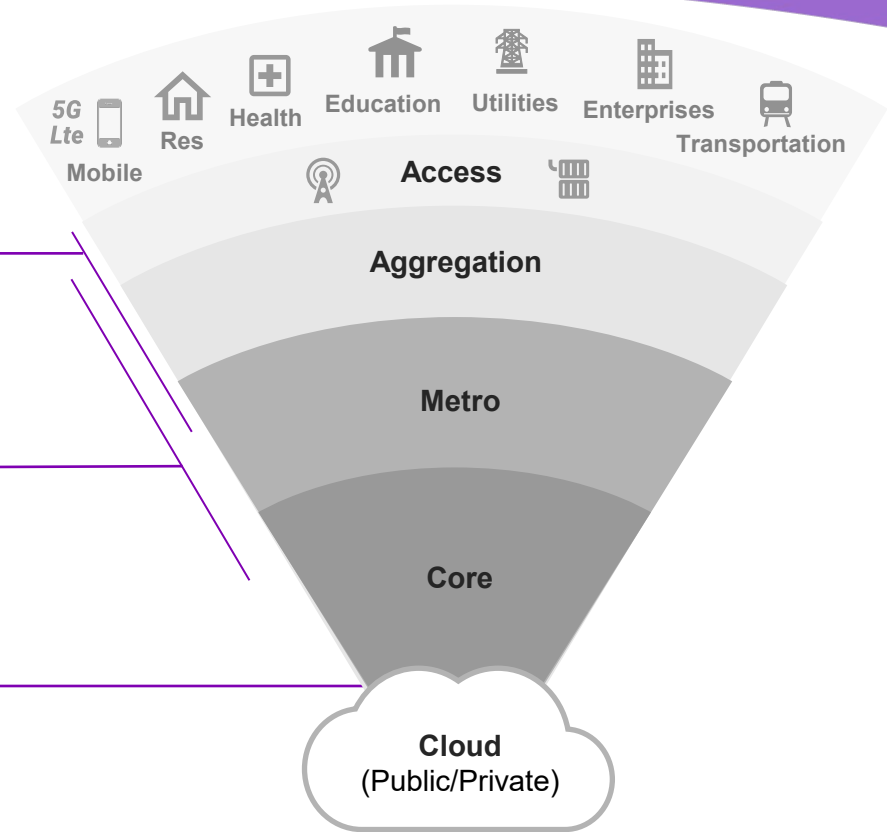
Dell'Oro Metro & Long Haul minus China and DCI

### Secure VoIP



**\$2B**

Omdia & Exact Ventures - SBCs & Voice solutions minus China



Market size numbers are rounded and includes Ribbon Modelling

# IP Optical Networks Business Overview

The acquisition of ECI in 2020 provided Ribbon a strong IP Optical product portfolio with offerings that address access, metro, regional and long-haul geographies for service providers and private networks

## Ribbon IP Optical Portfolio

### Neptune IP Networking



- Offers flexibility through converged support for Ethernet, MPLS, segment routing, FlexE, TDM, OTN and WDM
- Capacities range from 5G to 16Tbps
- Products feature carrier-grade assurance and availability with advanced operations and software
- Products are 5G ready with hybrid slicing capabilities and open ecosystem integration
- Optimized solutions leveraging whitebox platforms and disaggregated NOS SW

### Apollo Optical Networking



- Industry's first 400G ZR+ system solution
- Offers low-latency optical transport with multiple switching options
- Features the industry's lowest TCO, with line speeds ranging from 10G to 600G
- Solutions offer intelligent reporting and are SDN ready and can be deployed as integrated solutions or standalone
- Scalable compact modular form factor leveraging open interoperable pluggable optics technology

### Muse Automation & Orchestration



- Cloud native cognizant multi-vendor domain orchestration platform providing extensive network automation and planning capabilities.
- Software powered by carrier-grade PaaS
- Delivers complete life cycle management for underlying packet and optical transport networks
- Allows for iterative planning in greenfield and brownfield networks and includes plug and play features
- Creates and manages hybrid slices that combine hard slicing resources with soft slicing

# IP Optical Networking Portfolio Delivering Multi-layer Optimization

## Controller - Muse



### Multi-layer Optimization

Increase in automation  
Improved asset utilization  
Capex optimization

## IP - Neptune

**5G**

### 5G x-haul (front/mid/back)

5G transport with elastic scalability



### Multiservice Aggregation

Converged access edge aggregation

## Optical - Apollo



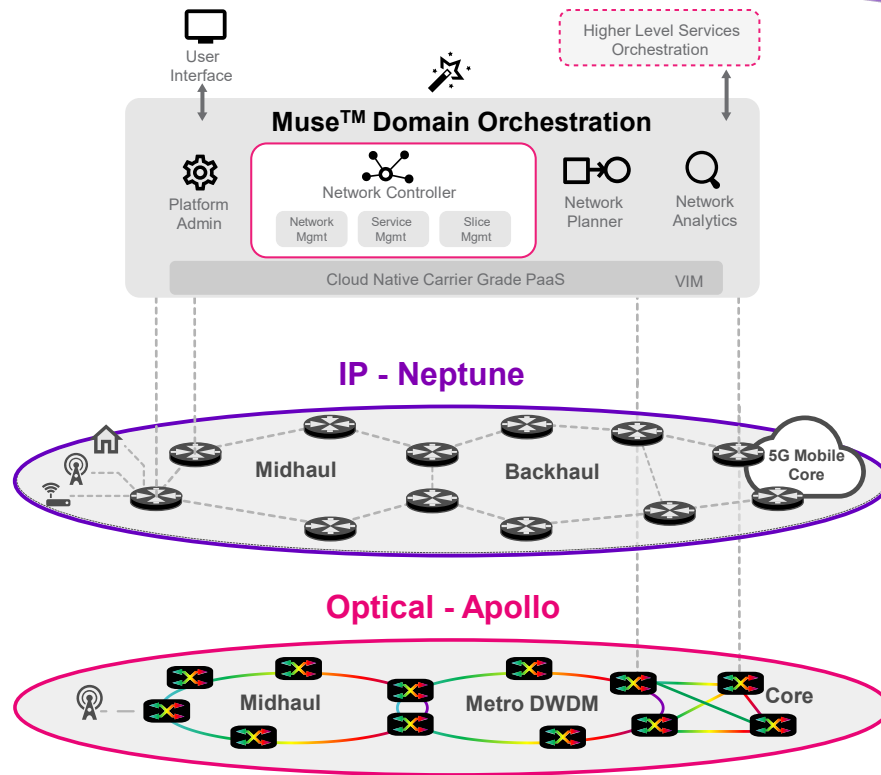
### Open and Powerful

400G ZR+



### Intelligent

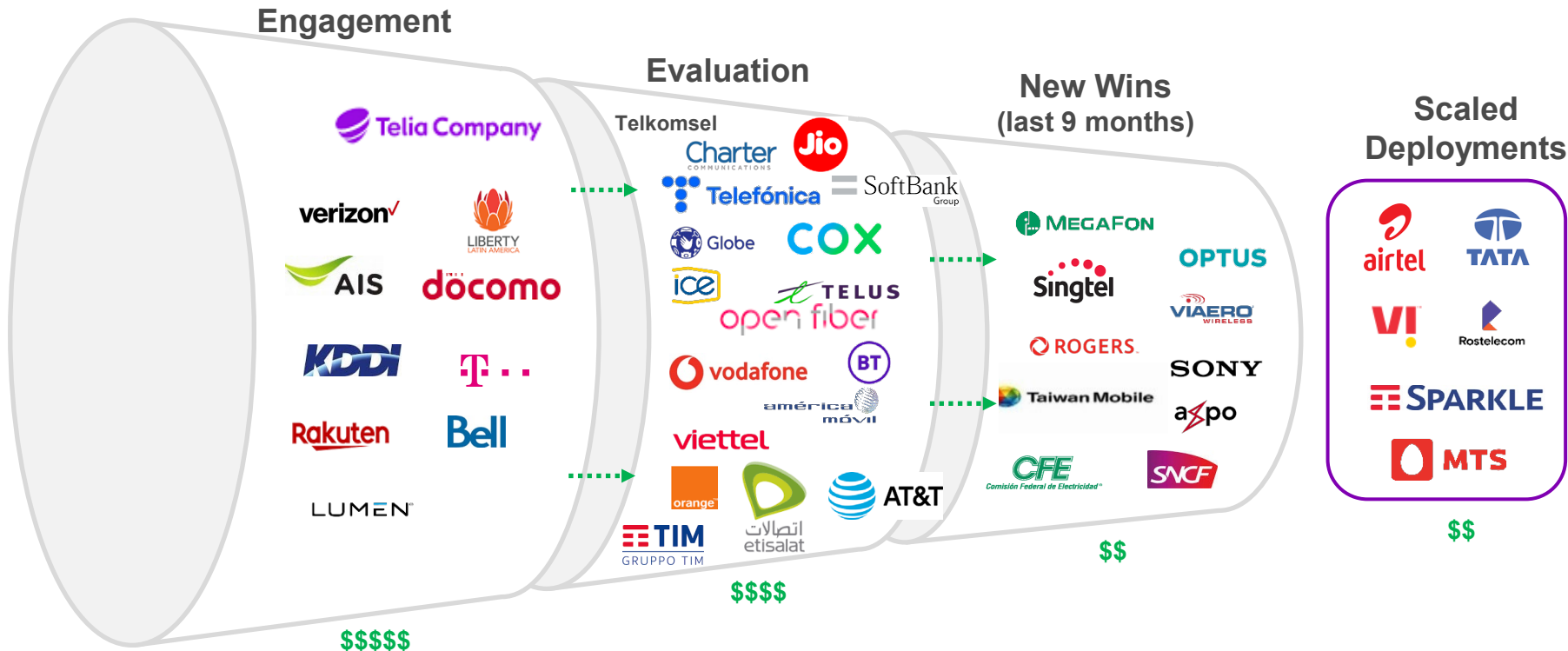
SDN features and integrated monitoring





# IP Optical Global Strategic Accounts Pipeline

## Expanding Tier One IP Optical Wins and Pipeline



# Cloud & Edge Business Overview

The Cloud and Edge business (formed with 2017 merger from Genband and Sonus Networks) provides solutions for secure Voice Over IP (VoIP) and cloud collaboration communications applications, as well as carrier grade voice services

## Ribbon Cloud and Edge Portfolio

### Session Border Controllers



- The 'Voice firewall' for secure VoIP communications for Microsoft Teams, Zoom and many other services
- Provides VoIP SIP trunk session management, security, voice codec transcoding, policy enforcement
- Secure cloud or premises-based Unified Communications sessions
- Centralized policy and routing of voice sessions across communications networks
- Scales from the Enterprise Edge to large service provider networks

### Network Transformation



- Carrier Grade call control, TDM to IP media gateways, network signaling, applications servers, policy servers, voice mail
- Enables the transformation of legacy TDM voice communications networks to Voice over IP and Voice over LTE/5G
- Support virtualized or cloud native deployments with CI/CD and automation
- Feature rich Voice Applications Server platform for Voice over IP based Unified Communications
- Scales to support millions of sessions

### Applications



- Advanced Analytics and Machine Learning platform supporting a growing number of Service Assurance and Network Management use cases including robo-calling and fraud mitigation services
- Unique position in communications networks to enable data collection from millions of deployed network elements
- Cloud native software portfolio deployable in the public or private clouds
- Applications licensed or offered as a service to customers

# Secure VoIP Portfolio Applications Across Networks and the Cloud

## Enterprise

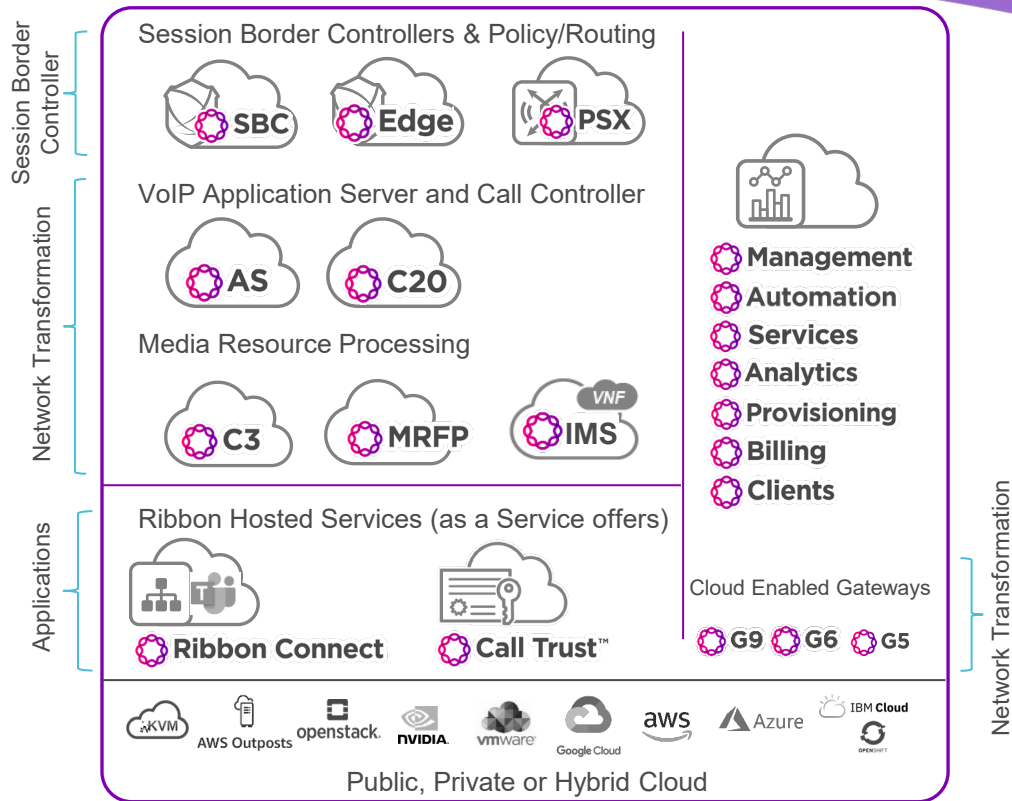
- Secure Unified Communications and Teams and Zoom Calling
- Secure Contact Center

## Cloud

- Secure VoIP, UC applications and Teams
- Analytics and Call Trust
- Secure Contact Center

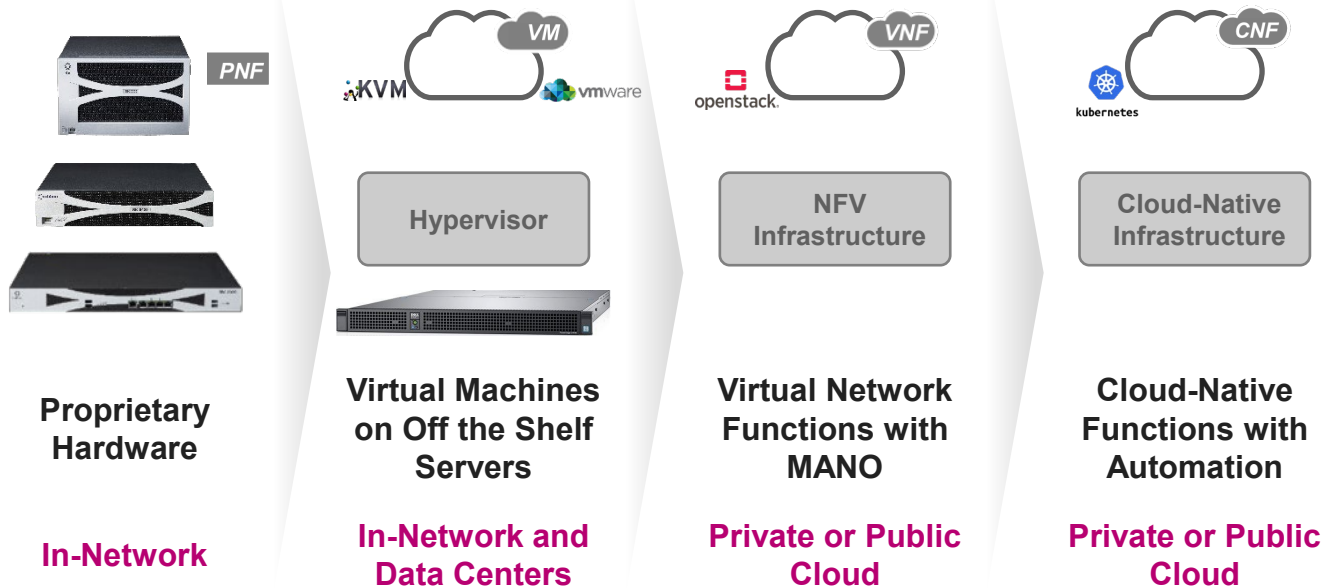
## Service Provider

- VoIP Communications, Secure VoIP and Secure Network Connectivity
- Fixed and 4G/5G Mobile Voice Services
- Analytics

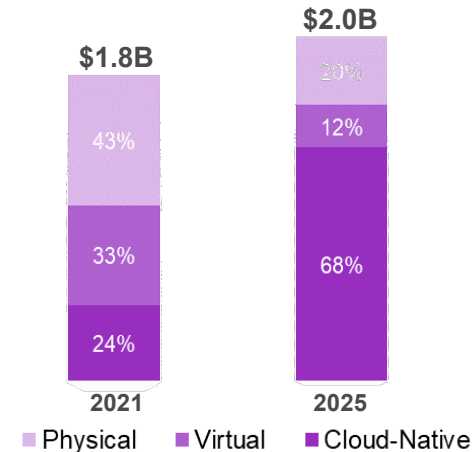


# Network Evolution to Telco Cloud Provides Growth Opportunity

## Cloudification and modernization of fixed and mobile networks to Telco Cloud



## \$2B Serviceable Market for Cloud & Edge Segment



**Cloud-Native/Virtual – 12% CAGR**

Source: Exact Ventures Forecasting and Ribbon Modeling

**Ribbon is well-positioned to benefit from transition to Telco Cloud**

# Cloud & Edge Enterprise Market Expansion

## Strategy



- Target high-growth Unified Communications, Contact Center, and Desktop Application migration to the cloud
- Verticals focus: Finance, Government, Education, Critical Infrastructure, Healthcare, Manufacturing
- Market leader in solution enablement and integration
- Restructured Sales Team
- 5% growth market<sup>1</sup>



## Products



- Session Border Controllers, Application Edge Devices, Call Control, Security, Analytics, and Centralized Management
- “As a Service” for secure Microsoft Teams, Zoom, Ring Central calling
- Analytics-based voice threat prevention
- Cloud and Cloud-Native offers that drive consumption flexibility and automation

 **SBC**  **Ribbon Connect**

 **Application Server**  **Analytics**

## Go To Market



- High touch, direct touch sales engagement for Enterprise organizations
- Offer development for MM/SMB solutions
- Strategic partner fulfillment for defined verticals
- Global Partners (SI, OEM, Distributors, Technology)

 Microsoft  ConvergeOne  verizon<sup>✓</sup>

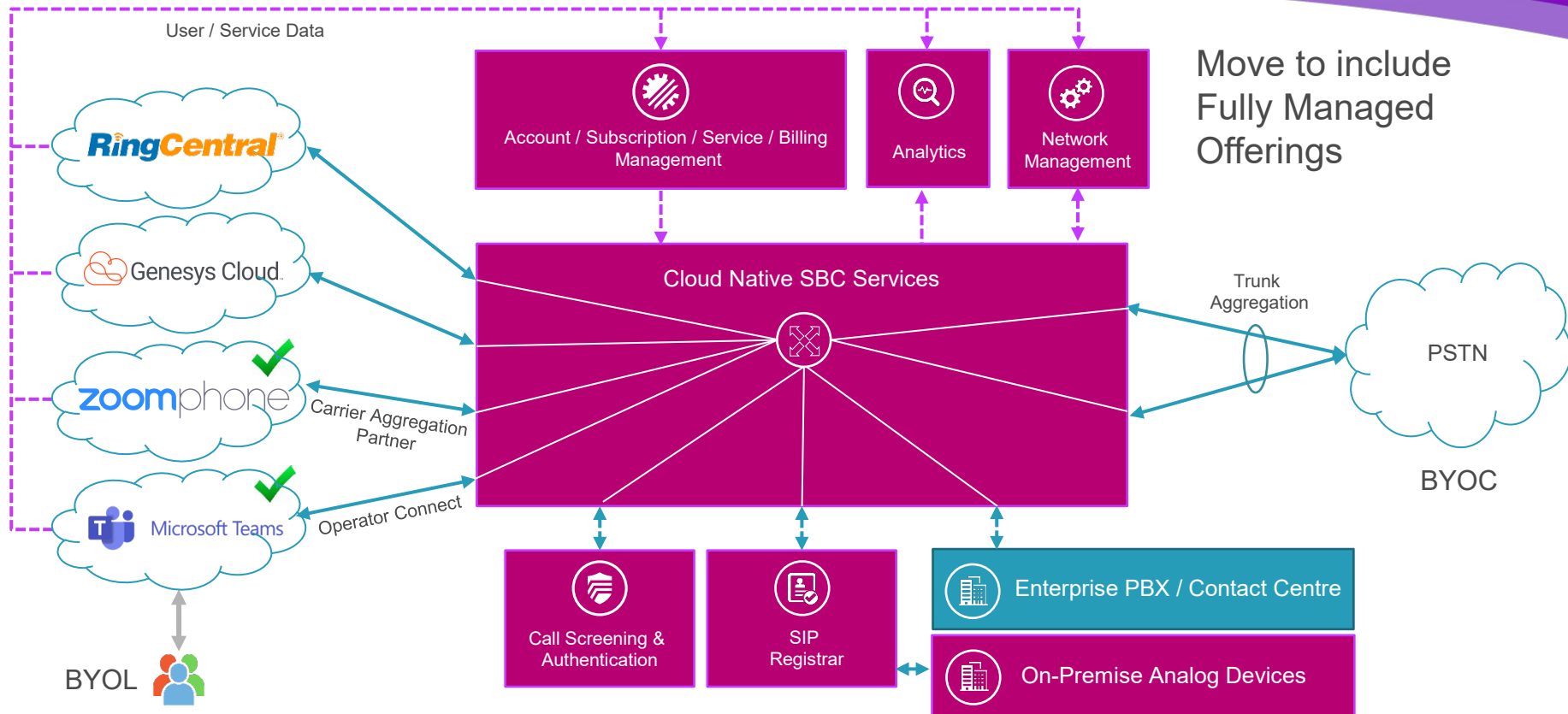
 GENESYS<sup>®</sup>  scansource<sup>®</sup>  Westcon 

 TD SYNnex  poly  AT&T

### Note:

1. Source: Omdia and Exact Ventures

# Ribbon Connect – Platform Evolution to Support Medium / SMB



# Significant Revenue from Services and Recurring Maintenance



## Professional Services Presence and Scale (\$106M revenue in 2021)



Network analysis & consulting



Engineering design & installation



Integration & validation



Transformation & migration



Managed network operation

## Maintenance Provides Durable Recurring Revenue Stream



\$286M revenue in 2021



96%+ Renewal rate in Secure VoIP<sup>1</sup>



60%+ of 2022 renewals completed at the beginning of 2022

Note:

1. Maintenance renewal rate for Cloud & Edge direct sales.

# Large and Diverse Service Provider and Enterprise Customer Base

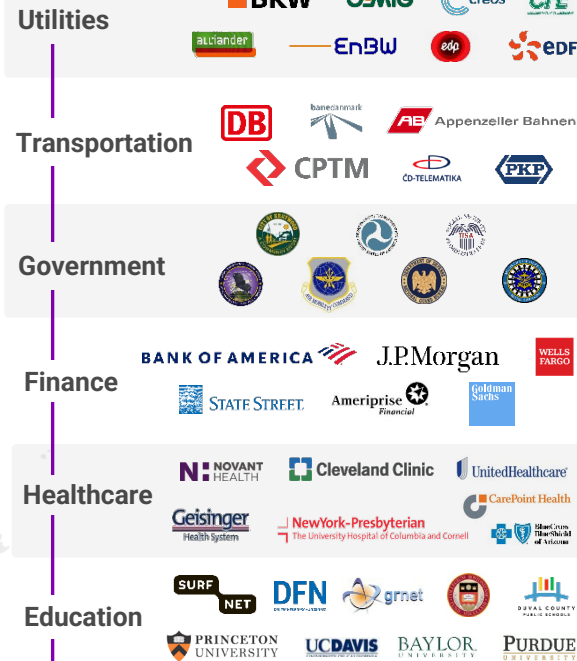
## Telco and Mobile



## Multi-System Operators



## Enterprise Verticals





# Experienced Leadership Team



**Bruce McClelland**  
President, CEO & Director

- 30 years industry experience
- CEO of ARRIS and led its sale to CommScope
- Leader in the successful acquisitions and integrations of Ruckus, Pace and the Motorola Home Business

COMMScope



**Tony Scarfo**  
EVP, GM Cloud & Edge BU

- 30 years industry experience
- EVP of technology at Sonus Networks
- Leadership roles at Polycom, ECI Telecom, Juniper Networks, Unisphere, and Lucent



**Mick Lopez**  
EVP & Chief Financial Officer

- 40 years financial experience
- CFO of multiple public and private companies; Vista Outdoor, Veritas, Harris Corp, and Aricent Group
- Financial roles with Cisco, Tyco, IBM and KPMG



**Patrick Macken**  
EVP, General Counsel

- 20 years of legal experience
- Previously SVP, General Counsel of ARRIS International
- Partner at Troutman Sanders LLP
- Expertise in technology, media & telecom



**Sam Bucci**  
EVP, GM IP Optical Networks BU

- 27 years industry experience
- Led the multi-billion-dollar optical networking business unit for Nokia and Alcatel-Lucent
- Senior Product management roles at Nortel



**Steven Bruny**  
EVP., Sales, Americas Region

- 30 years industry experience
- Executive sales and COO of GENBAND
- CEO of Aztek Networks
- Founder of Connexn Technologies and Information + Graphics Sys



**Steve McCaffery**  
EVP, Sales, EMEA & APAC

- 30 years industry experience
- Executive team of ARRIS managing \$2.4B international business
- Executive sales and management roles at Motorola & Alcatel-Lucent

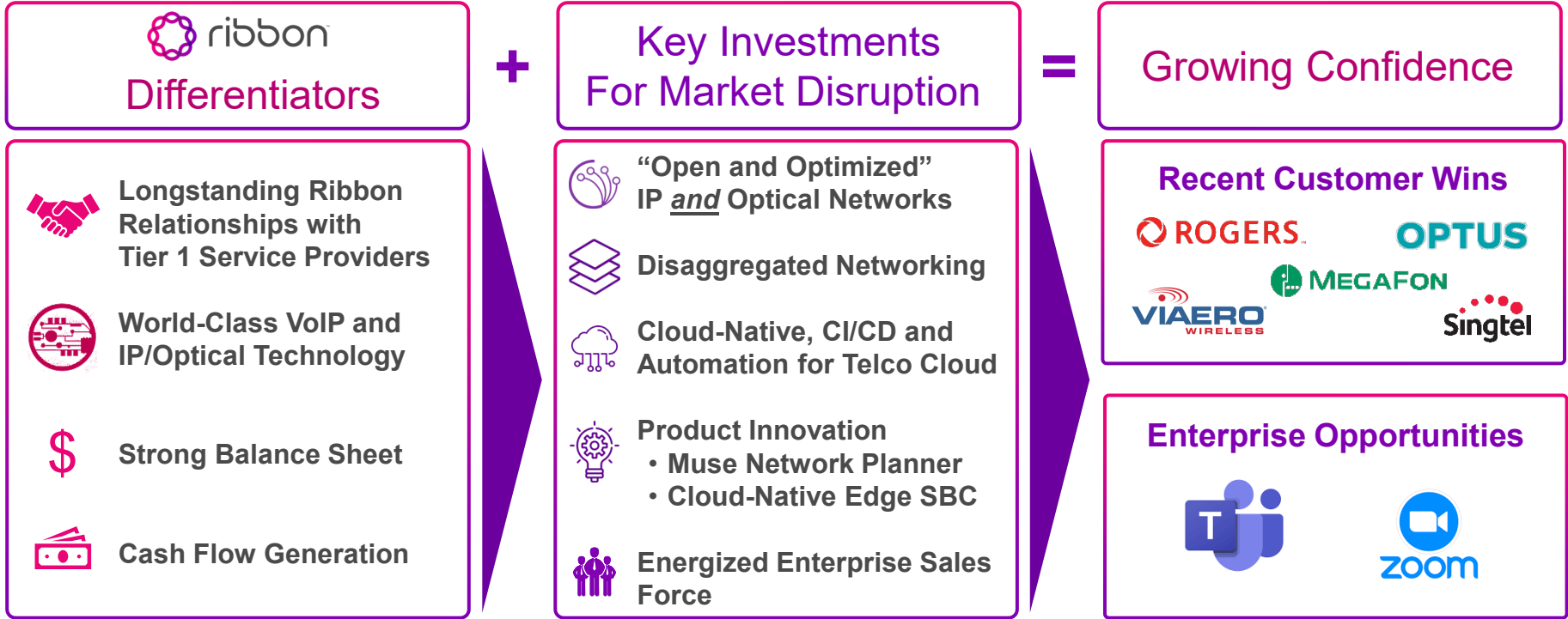


**Pretrena Ferguson**  
SVP Human Resources

- 20 years HR experience in telecom and information technology
- Vice President of HR at GENBAND
- Senior HR roles at Nortel and Newbridge and start-up organizations



# Disruptive Strategy to Achieve Outsized Growth



# First Quarter 2022 Business Overview

Bruce McClelland, President & CEO

Mick Lopez, Executive Vice President & CFO



# Investing in 2022 to capture share and drive growth



## 2021 Accomplishments

- Major new IP Optical wins



- Telco Cloud wins
- Strengthened go-to-market and created dedicated Enterprise sales
- Mitigated supply chain challenges
- New product launches including 400G ZR+ Optics

## Investing for Growth in 2022

- 10%+ IP Optical growth target
- Growth in Enterprise Cloud and Edge secure VoIP market share
- Accelerate innovation with increased investment in IP Optical R&D
- Prioritize investment in Telco Cloud and Enterprise
- Streamline operations and lower corporate overhead
- Pro-active supply chain operations
- Hybrid work environment

## 2023 and Beyond

Significant player in IP Optical

- Optical Transport
  - IP Networking
  - Transition to Open Networking Architecture
  - Orchestration Software
- Cloud & Edge Opportunities
- Enterprise
  - Telco Cloud
  - Network Transformation
  - Software growth
  - Support Services

**Committed to Our Strategy to Drive Growth**

# First Quarter 2022 New Market Activity

## Customers & Partners

### IP and Optical



### Cloud & Edge Enterprise

Google Workspace



### Cloud & Edge Telco Cloud

TOT  
TELECOM OF THAILAND

beanfield  
METROCONNECT

ARTERIA

Continuant.

TURKCELL

## Awards



**2021 Global Sustainability Award Winner**



Active IP Optical RFPs with 12 major mobile and telecom carriers around the globe

# First Quarter 2022 Business Highlights



Ribbon now supports Microsoft's Operator Connect using our Ribbon Connect platform by extending our multi-tenant SaaS Ribbon Connect capability to support service provider deployments of Operator Connect.

Our first customer, Switch Connect in Australia, now offers this turnkey Microsoft Teams service, leveraging the same proven carrier-grade security products and services already trusted and deployed in the world's largest telecom networks.



Google now supports SIP trunking for their Google Voice offering leveraging certified SBCs from Ribbon.

Colt selects Ribbon's cloud-based SBC solution to deliver a complete, secure Microsoft Teams communications service across Japan.



Solid Enterprise momentum with major businesses choosing Ribbon for their most demanding voice communication requirements.



Turkcell, the leading mobile operator in Turkey, selected Ribbon to digitize their mobile / fixed voice network interconnect platform, using our virtualized, cloud-based SBC, Policy and routing management, and element management platforms.



SNCF, the second largest European railway operator, selected Ribbon for a 5-year project to replace obsolete SDH equipment with our OTN WDM optical platforms, and our MPLS IP routing solutions.



MTN Group in Africa, a top-10 mobile network operator, awarded Ribbon with 2 major projects in the region.

# First Quarter 2022 Financial Highlights

## 1Q22 Revenue

**\$173M**; down 10% YoY  
**International 56%** of Sales  
**Enterprise 27%** of Sales

## Balance Sheet

**\$95M** Ending Cash  
**Amended credit facility**  
Average interest rate **3.40%**

## Profitability Metrics

**(\$9M)** Adjusted EBITDA  
**(\$0.08)** Non-GAAP EPS

## Cloud and Edge



### Unified Communications Strength

**31% YoY growth** in NTR  
Gateway product revenue

**Software 44%** of total Cloud  
and Edge product revenue



### Continued Profitability

**62%** Non-GAAP Gross Margin

Reduced OPEX YoY

**15%** Adj. EBITDA

## IP Optical Networks



### Americas Growth

North America revenues  
**up 193% YoY**



### Customer Momentum

**12 major RFPs** in progress

Strong bookings quarter with major  
carrier wins in APAC & Africa

**1.27x** book to revenue ratio

# First Quarter 2022 GAAP Financial Summary

	1Q21	4Q21	1Q22
<b>Revenue</b>	\$193M	\$231M	\$173M
<b>Gross margin</b>	52%	50%	45%
<b>OPEX</b>	\$113M	\$235M	\$117M
<b>Loss from operations</b>	(\$13M)	(\$120M)	(\$39M)
<b>Other expense, net</b>	(\$25M)	(\$9M)	(\$29M)
<b>Net loss</b>	(\$45M)	(\$96M)	(\$70M)
<b>Diluted EPS</b>	(\$0.31)	(\$0.65)	(\$0.47)

4Q21 Opex includes \$116 million impairment against our IP Optical Networks goodwill carrying value

1Q22 includes a \$27M non-cash loss associated with the quarterly mark-to-market of the AVCT investment and an EPS impact of (\$0.18), similar to adjustments in previous quarters



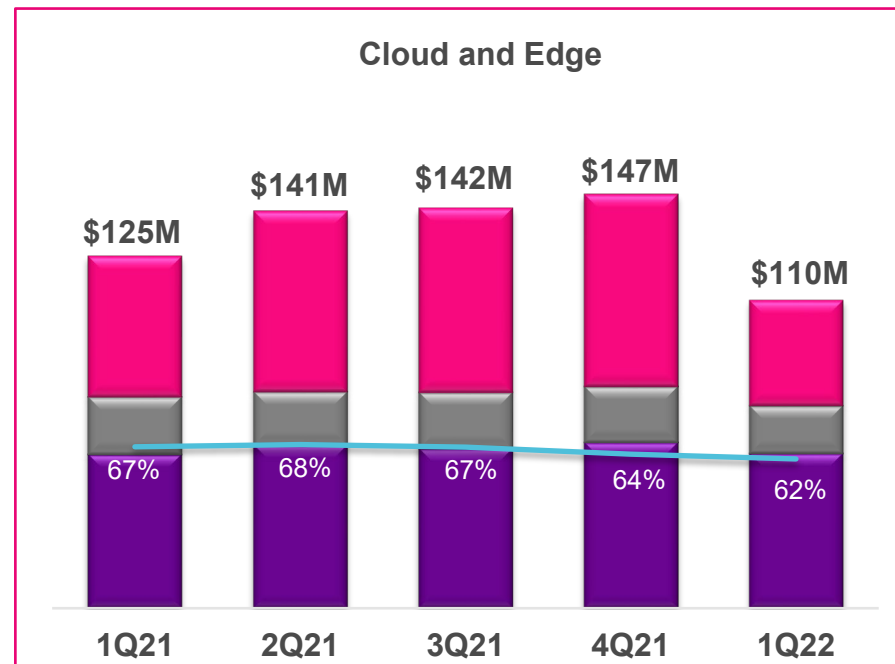
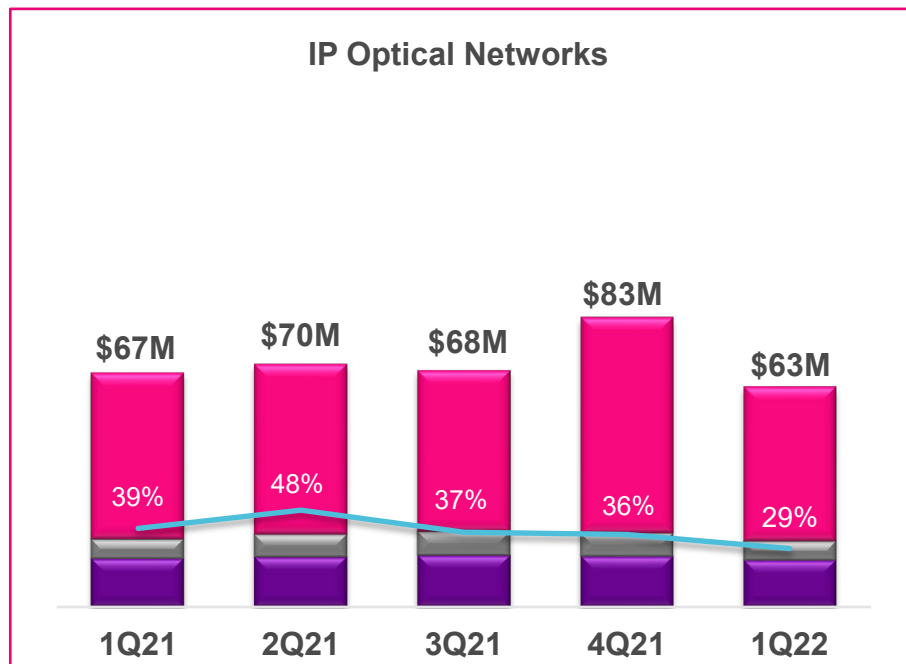
# First Quarter 2022 Non-GAAP Financial Summary

	1Q21	4Q21	1Q22
Revenue	\$193M	\$231M	\$173M
Gross margin	57%	54%	50%
OPEX	\$95M	\$102M	\$99M
Operating margin	8%	9%	(7%)
Adjusted EBITDA	\$20M	\$26M	(\$9M)
Diluted EPS	\$0.03	\$0.01	(\$0.08)

# First Quarter 2022 Non-GAAP Segment Summary

	Cloud and Edge	IP Optical Networks	Consolidated
Revenue	\$110M	\$63M	\$173M
Gross margin	62%	29%	50%
Adjusted EBITDA	\$16M	(\$25M)	(\$9M)

# Quarterly Performance: Revenue & Non-GAAP Gross Margins



■ Maintenance   ■ Product   ■ Professional Services   — Non-GAAP Gross Margin

# First Quarter 2022 Key Metrics

## Pipeline



1Q22 Book to Revenue<sup>1</sup> Ratio of 1.20, up 5% YoY

80% of 2022 maintenance renewals completed as at mid-April

## Revenue Mix



26% Software Revenue<sup>2</sup>

40% Maintenance Revenue<sup>3</sup>

Top 10 Customers Revenue 44%<sup>3</sup>

Enterprise 27%<sup>2</sup>  
Service Provider 73%<sup>2</sup>

Domestic 44%<sup>3</sup>  
International 56%<sup>3</sup>

## Balance Sheet



Cash Balance \$95M

Debt<sup>5</sup> \$355M

Current Annualized Weighted Interest Rate 3.4%

Covenant Ratio Metrics<sup>4</sup>  
Leverage 3.54x vs 4.25x max.  
FCCR 2.12x vs 1.25x min.

## Cash Flow



\$15M Cash from Operations

\$20M principal debt paydown (includes \$15M voluntary prepayment)

\$3M Capex

### Notes:

1. Product and Professional Services (excluding maintenance) Bookings divided by Product and Profession Services Revenue (excluding maintenance) for the three months ended March 31, 2022.
2. As a percentage of total product revenue.
3. As a percentage of total revenue.
4. Calculated in accordance with the Amended and Restated Credit Agreement.
5. Principal balance outstanding.

# Key Trends and Outlook



# New Product Highlights

## Cloud & Edge

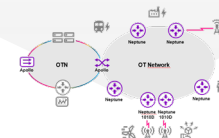
- Ribbon Automation & Management Platform (RAMP)
- Ribbon SBC Software Edition Edge (SWe Edge)
- Enterprise Edge 8000 Voice & Data SBC
- Microsoft Operator Connect Integration



Deploy Cloud-based Teams  
Telephony Services Faster

## IP Optical Networks

- IP Routing Protocols Suite
- Apollo Gen2 400G ZR+ OpenROADM Transponder
- Neptune 2000 Series IP Routers
- Muse – multi-domain, multi-vendor management & orchestration platform



# Second Quarter and Full Year 2022 Business Outlook

	FY21 (Actual)	2Q22	FY22
<b>Revenue</b>	\$845M	\$200M to \$215M	\$850M to \$880M
<b>Non-GAAP Gross Margin</b>	57%	53.5% to 54.5%	55% to 56%
<b>Non-GAAP Adjusted EBITDA</b>	\$120M	\$17M to \$23M	\$110M to \$120M
<b>Non-GAAP Diluted EPS</b>	\$0.32	\$0.03 to \$0.06	\$0.30 to \$0.34
<b>Interest &amp; Other Expense</b>	(\$22M)	~(\$6M)	~(\$23M)
<b>Non-GAAP Income Taxes</b>	39%	~35%	~35%
<b>Diluted Share Count</b>	155M	~156M	~157M

# Appendix





# Ribbon Condensed Statements of Operations

USD Millions except percentages and EPS	1Q21	2Q21	3Q21	4Q21	FY21	1Q22
<b>GAAP FINANCIAL MEASURES</b>						
Product Revenue	98	113	112	130	453	82
Service Revenue	95	98	99	100	392	91
<b>Total Revenue</b>	<b>193</b>	<b>211</b>	<b>210</b>	<b>231</b>	<b>845</b>	<b>173</b>
<b>Gross Profit</b>	<b>100</b>	<b>119</b>	<b>111</b>	<b>115</b>	<b>445</b>	<b>78</b>
<i>Gross Margin %</i>	52%	56%	53%	50%	53%	45%
Research and development	47	47	49	52	195	53
Selling, general and administrative	53	48	48	55	204	50
Amortization of acquired intangible assets	6	7	8	7	28	7
Integration and restructuring-related expenses	7	4	4	5	19	7
Impairment of goodwill	-	-	-	116	116	-
<b>Total Operating Expenses</b>	<b>113</b>	<b>106</b>	<b>109</b>	<b>235</b>	<b>562</b>	<b>117</b>
<b>Income/(Loss) from Operations</b>	<b>(13)</b>	<b>13</b>	<b>2</b>	<b>(120)</b>	<b>(118)</b>	<b>(39)</b>
<i>Operating Margin %</i>	-7%	6%	1%	-52%	-14%	-23%
<b>Net Income/(Loss)</b>	<b>(45)</b>	<b>23</b>	<b>(59)</b>	<b>(96)</b>	<b>(177)</b>	<b>(70)</b>
<b>Diluted EPS</b>	<b>(\$0.31)</b>	<b>\$0.15</b>	<b>(\$0.40)</b>	<b>(\$0.65)</b>	<b>(\$1.20)</b>	<b>(\$0.47)</b>
Shares used to compute GAAP diluted earnings (loss) per share	146	154	148	149	148	149
<b>Cash Flow from Operating Activities</b>	<b>(6)</b>	<b>14</b>	<b>-</b>	<b>11</b>	<b>19</b>	<b>15</b>
<b>NON-GAAP FINANCIAL MEASURE</b>						
<b>Adjusted EBITDA</b>	<b>20</b>	<b>43</b>	<b>32</b>	<b>26</b>	<b>120</b>	<b>(9)</b>

# Ribbon Condensed Balance Sheets

USD Millions	1Q21	2Q21	3Q21	4Q21	1Q22
<b>ASSETS</b>					
Cash and cash equivalents <sup>1</sup>	109	115	104	106	95
Accounts receivable, net	209	220	236	283	221
Inventory	45	47	45	54	62
Property and equipment, net	49	49	49	48	48
Intangible assets, net and Goodwill	818	801	784	652	636
Investment (AVCT)	93	106	50	44	17
Other Assets	129	121	120	161	185
<b>Total Assets</b>	<b>1,453</b>	<b>1,459</b>	<b>1,387</b>	<b>1,348</b>	<b>1,264</b>
<b>LIABILITIES AND EQUITY</b>					
Liabilities	301	287	287	321	311
Deferred revenue	125	124	111	130	128
Debt <sup>2</sup>	384	379	375	370	350
Stockholders' Equity	643	669	614	527	474
<b>Total Liabilities and Equity</b>	<b>1,453</b>	<b>1,459</b>	<b>1,387</b>	<b>1,348</b>	<b>1,264</b>

Notes:

1. Includes cash, cash equivalents, and restricted cash.
2. Net of debt issuance costs and associated amortization.

# Ribbon Condensed Statements of Cash Flows

USD Millions	1Q21	2Q21	3Q21	4Q21	FY21	1Q22
Cash from Operations	(6)	14	-	11	19	15
Purchases of property and equipment	(5)	(5)	(4)	(3)	(17)	(3)
Proceeds from sale of business	-	3	-	-	3	-
Borrowings, net	(4)	(5)	(5)	(5)	(19)	(21)
Other	(12)	(1)	(2)	(1)	(15)	(2)
<b>Net Change</b>	<b>(27)</b>	<b>6</b>	<b>(11)</b>	<b>3</b>	<b>(29)</b>	<b>(11)</b>
<b>Cash<sup>1</sup> Beginning of Period</b>	<b>136</b>	<b>109</b>	<b>115</b>	<b>104</b>	<b>136</b>	<b>106</b>
<b>Cash<sup>1</sup> End of Period</b>	<b>109</b>	<b>115</b>	<b>104</b>	<b>106</b>	<b>106</b>	<b>95</b>

Note:

1. Includes cash, cash equivalents, and restricted cash.

# Ribbon Key Revenue Statistics

USD Millions except for percentages	1Q21	2Q21	3Q21	4Q21	FY21	1Q22
<b>Revenue</b>						
Product	98	113	112	130	453	82
Service	95	98	99	100	392	91
<b>Total Revenue</b>	<b>193</b>	<b>211</b>	<b>210</b>	<b>231</b>	<b>845</b>	<b>173</b>
<b>% of Total Revenue:</b>						
<b>Revenue Mix</b>						
Product	51%	54%	53%	57%	54%	47%
Services	49%	46%	47%	43%	46%	53%
<b>Revenue by Geography</b>						
Domestic	41%	48%	44%	45%	45%	44%
International	59%	52%	56%	55%	55%	56%
<b>Revenue by Channel</b>						
Direct	79%	76%	77%	66%	74%	71%
Indirect	21%	24%	23%	34%	26%	29%
<b>Product Revenue By Market</b>						
Enterprise	23%	22%	18%	34%	25%	27%
Service Providers	77%	78%	82%	66%	75%	73%
<b>10% Total Revenue Customers</b>	Verizon	Verizon	Verizon	Verizon	Verizon	Verizon

# Discussion of Non-GAAP Financial Measures

The Company's management uses several different financial measures, both GAAP and non-GAAP, in analyzing and assessing the overall performance of its business, making operating decisions, planning and forecasting future periods, and determining payments under compensation programs. The Company considers the use of non-GAAP financial measures helpful in assessing the core performance of its continuing operations and when planning and forecasting future periods. The Company's annual financial plan is prepared on a non-GAAP basis and is approved by its board of directors. In addition, budgeting and forecasting for revenue and expenses are conducted on a non-GAAP basis, and actual results on a non-GAAP basis are assessed against the annual financial plan. The Company defines continuing operations as the ongoing results of its business adjusted for certain expenses and credits, as described below. The Company believes that providing non-GAAP information to investors will allow investors to view the financial results in the way its management views them and helps investors to better understand the Company's core financial and operating performance and evaluate the efficacy of the methodology and information used by its management to evaluate and measure such performance.

While the Company's management uses non-GAAP financial measures as tools to enhance its understanding of certain aspects of the Company's financial performance, its management does not consider these measures to be a substitute for, or superior to, GAAP measures. In addition, the Company's presentations of these measures may not be comparable to similarly titled measures used by other companies. These non-GAAP financial measures should not be considered alternatives for, or in isolation from, the financial information prepared and presented in accordance with GAAP. Investors are cautioned that there are material limitations associated with the use of non-GAAP financial measures. In particular, many of the adjustments to the Company's financial measures reflect the exclusion of items that are recurring and will be reflected in its financial results for the foreseeable future.

# Discussion of Non-GAAP Financial Measures (continued)

## *Stock-Based Compensation*

The expense related to stock-based awards is generally not controllable in the short-term and can vary significantly based on the timing, size and nature of awards granted. The Company believes that presenting non-GAAP operating results that exclude stock-based compensation provides investors with visibility and insight into its management's method of analysis and its core operating performance.

## *Amortization of Acquired Technology; Amortization of Acquired Intangible Assets*

Amortization amounts are inconsistent in frequency and amount and are significantly impacted by the timing and size of acquisitions. Amortization of acquired technology is reported separately within Cost of revenue and Amortization of acquired intangible assets is reported separately within Operating expenses. These items are reported collectively as Amortization of acquired intangible assets in the accompanying reconciliations of non-GAAP and GAAP financial measures. The Company believes that excluding non-cash amortization of these intangible assets facilitates the comparison of its financial results to its historical operating results and to other companies in its industry as if the acquired intangible assets had been developed internally rather than acquired.

## *Impairment of Goodwill*

The Company performs its annual testing for impairment of goodwill in the fourth quarter of each year. For the purpose of testing goodwill for impairment, all goodwill has been assigned to one of the Company's two operating segments. The Company performs a fair value analysis using both an income and market approach, which encompasses a discounted cash flow analysis and a guideline public company analysis using selected multiples. Based on the results of its recently completed impairment test, the Company determined that the carrying value of its IP Optical Networks segment exceeded its fair value, and accordingly, recorded a non-cash impairment charge of \$116 million in the fourth quarter of 2021. There was no impairment of the Company's Cloud and Edge segment. The Company believes that such non-cash costs are not part of its core business or ongoing operations. Accordingly, the Company believes that excluding the goodwill impairment charge facilitates the comparison of the Company's financial results to its historical operating results and to other companies in its industry.

# Discussion of Non-GAAP Financial Measures (continued)

## *Acquisition-, Disposal- and Integration-Related*

The Company considers certain acquisition-, disposal- and integration-related costs to be unrelated to the organic continuing operations of its acquired businesses and the Company. Such costs are generally not relevant to assessing or estimating the long-term performance of the acquired assets. The Company excludes such acquisition-, disposal- and integration-related costs to allow more accurate comparisons of its financial results to its historical operations and the financial results of less acquisitive peer companies and allows management and investors to consider the ongoing operations of the business both with and without such expenses.

## *Restructuring and Related*

The Company has recorded restructuring and related expense to streamline operations and reduce operating costs by closing and consolidating certain facilities and reducing its worldwide workforce. The Company believes that excluding restructuring and related expense facilitates the comparison of its financial results to its historical operating results and to other companies in its industry, as there are no future revenue streams or other benefits associated with these costs.

## *Interest Income on Debentures*

The Company recorded paid-in-kind interest income on the Debentures through September 8, 2021, when the Debentures were converted to the Debenture Shares, which increased their fair value. The Company excludes this interest income because it believes that such a gain is not part of its core business or ongoing operations.

# Discussion of Non-GAAP Financial Measures (continued)

## *Gain on Sale of Business*

On May 12, 2021, the Company sold its QualiTech business, which it had acquired as part of the ECI Acquisition, to Hermon Laboratories, Ltd. As consideration, the Company received \$2.9 million of cash and recorded a gain on the sale of \$2.8 million. On December 1, 2020, the Company completed the sale of Kandy to AVCT. As consideration, the Company received units of AVCT securities, comprised of AVCT's Series A-1 convertible debentures ("Debentures") and warrants to purchase shares of AVCT's common stock ("Warrants"), with an aggregate fair value approximating \$84 million on the date of sale. The Debentures were converted to shares of AVCT common stock (the "Debenture Shares") on September 8, 2021 (the "Debenture Conversion Date"). The Company excludes these gains because it believes that such gains are not part of its core business or ongoing operations.

## *Decrease (Increase) in Fair Value of Investments*

The Company calculates the fair values of the Debentures and the Warrants (prior to September 8, 2021) and the Debenture Shares and Warrants (effective September 8, 2021) at each quarter-end and records any adjustments to their fair values in Other (expense) income, net. The Company excludes these and any subsequent gains and losses from the change in fair value of this investment because it believes that such gains or losses are not part of its core business or ongoing operations.

## *Tax Effect of Non-GAAP Adjustments*

The Non-GAAP income tax benefit (provision) is presented based on an estimated tax rate applied against forecasted annual non-GAAP income. The Non-GAAP income tax benefit (provision) assumes no available net operating losses or valuation allowances for the U.S. because of reporting significant cumulative non-GAAP income over the past several years. The Company is reporting its non-GAAP quarterly income taxes by computing an annual rate for the Company and applying that single rate (rather than multiple rates by jurisdiction) to its consolidated quarterly results. The Company expects that this methodology will provide a consistent rate throughout the year and allow investors to better understand the impact of income taxes on its results. Due to the methodology applied to its estimated annual tax rate, the Company's estimated tax rate on non-GAAP income will differ from its GAAP tax rate and from its actual tax liabilities.



# Discussion of Non-GAAP Financial Measures (continued)

## *Adjusted EBITDA*

The Company uses Adjusted EBITDA as a supplemental measure to review and assess its performance. The Company calculates Adjusted EBITDA by excluding from Income (loss) from operations: depreciation; amortization of acquired intangible assets; stock-based compensation; impairment of goodwill; acquisition-, disposal- and integration-related expense; and restructuring and related expense. In general, the Company excludes the expenses that considerate considers to be non-cash and/or not part of its ongoing operations. The Company may exclude other items in the future that have those characteristics. Adjusted EBITDA is a non-GAAP financial measure that is used by the investing community for comparative and valuation purposes. The Company discloses this metric to support and facilitate dialogue with research analysts and investors. Other companies may calculate Adjusted EBITDA differently than the Company does, limiting its usefulness as a comparative measure.

# GAAP to Non-GAAP Reconciliation

\$000's	1Q21			2Q21			3Q21			4Q21			FY21		
	Cloud and Edge	IP Optical Networks	Consolidated	Cloud and Edge	IP Optical Networks	Consolidated	Cloud and Edge	IP Optical Networks	Consolidated	Cloud and Edge	IP Optical Networks	Consolidated	Cloud and Edge	IP Optical Networks	Consolidated
<b>Revenue</b>	\$125,422	\$ 67,350	\$ 192,772	\$141,421	\$ 69,789	\$ 211,210	\$142,437	\$ 67,961	\$ 210,398	\$147,376	\$ 83,201	\$ 230,577	\$556,656	\$ 288,301	\$ 844,957
<b>GAAP Gross profit</b>	\$ 77,523	\$ 22,963	\$ 100,486	\$ 88,836	\$ 29,891	\$ 118,727	\$ 89,000	\$ 21,654	\$ 110,654	\$ 88,105	\$ 26,688	\$ 114,793	\$343,464	\$ 101,196	\$ 444,660
<b>GAAP Gross margin (Gross profit/Revenue)</b>	61.8%	34.1%	52.1%	62.8%	42.8%	56.2%	62.5%	31.9%	52.6%	59.8%	32.1%	49.8%	61.7%	35.1%	52.6%
Stock-based compensation	0.1%	0.1%	0.2%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.2%	0.3%	0.2%	0.2%	0.2%
Amortization of acquired technology	5.3%	5.1%	5.2%	4.7%	4.4%	4.6%	4.6%	4.5%	4.6%	3.9%	3.7%	3.8%	4.6%	4.4%	4.6%
<b>Non-GAAP Gross margin</b>	<b>67.2%</b>	<b>39.3%</b>	<b>57.5%</b>	<b>67.8%</b>	<b>47.5%</b>	<b>61.1%</b>	<b>67.4%</b>	<b>36.7%</b>	<b>57.5%</b>	<b>64.0%</b>	<b>36.0%</b>	<b>53.9%</b>	<b>66.5%</b>	<b>39.7%</b>	<b>57.4%</b>
<b>GAAP Income (loss) from operations</b>	\$ 4,693	\$ (17,297)	\$ (12,604)	\$ 24,931	\$ (11,979)	\$ 12,952	\$ 26,361	\$ (24,369)	\$ 1,992	\$ 20,371	\$ (140,507)	\$ (120,136)	\$ 76,356	\$ (194,152)	\$ (117,796)
Depreciation	3,137	1,089	4,226	3,142	1,107	4,249	3,018	1,191	4,209	2,972	1,306	4,278	12,269	4,693	16,962
Amortization of acquired intangible assets	11,305	4,518	15,823	11,300	5,881	17,181	11,340	5,881	17,221	10,519	5,882	16,401	44,464	22,162	66,626
Stock-based compensation	3,334	1,726	5,060	3,039	1,751	4,790	2,936	1,625	4,561	3,199	1,808	5,007	12,508	6,910	19,418
Impairment of goodwill	-	-	-	-	-	-	-	-	-	-	116,000	116,000	-	116,000	116,000
Acquisition-, disposal- and integration-related	241	956	1,197	29	1,023	1,052	165	1,790	1,955	46	3,382	3,428	481	7,151	7,632
Restructuring and related	5,620	330	5,950	1,095	1,735	2,830	1,125	642	1,767	215	891	1,106	8,055	3,598	11,653
<b>Non-GAAP Adjusted EBITDA</b>	<b>\$ 28,330</b>	<b>\$ (8,678)</b>	<b>\$ 19,652</b>	<b>\$ 43,536</b>	<b>\$ (482)</b>	<b>\$ 43,054</b>	<b>\$ 44,945</b>	<b>\$ (13,240)</b>	<b>\$ 31,705</b>	<b>\$ 37,322</b>	<b>\$ (11,238)</b>	<b>\$ 26,084</b>	<b>\$154,133</b>	<b>\$ (33,638)</b>	<b>\$ 120,495</b>
<b>Adjusted EBITDA Margin (Adjusted EBITDA/Revenue):</b>															
<b>GAAP Income (loss) from operations</b>	3.7%	-25.7%	-6.5%	17.6%	-17.2%	6.1%	18.5%	-35.9%	0.9%	13.8%	-168.9%	-52.1%	13.7%	-67.3%	-13.9%
Depreciation	2.5%	1.6%	2.2%	2.2%	1.6%	2.0%	2.1%	1.8%	2.0%	2.0%	1.6%	1.9%	2.2%	1.6%	2.0%
Amortization of acquired intangible assets	9.0%	6.7%	8.2%	8.1%	8.4%	8.2%	8.0%	8.7%	8.3%	7.2%	7.0%	7.0%	8.1%	7.7%	7.9%
Stock-based compensation	2.7%	2.6%	2.6%	2.1%	2.5%	2.3%	2.1%	2.4%	2.2%	2.2%	2.2%	2.2%	2.2%	2.4%	2.3%
Impairment of goodwill	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	139.4%	50.3%	0.0%	40.2%	13.7%
Acquisition-, disposal- and integration-related	0.2%	1.4%	0.6%	*	1.5%	0.5%	0.1%	2.6%	0.9%	*	4.1%	1.5%	0.1%	2.5%	0.9%
Restructuring and related	4.5%	0.5%	3.1%	0.8%	2.5%	1.3%	0.8%	0.9%	0.8%	0.1%	1.1%	0.5%	1.4%	1.2%	1.4%
<b>Non-GAAP Adjusted EBITDA Margin</b>	<b>22.6%</b>	<b>-12.9%</b>	<b>10.2%</b>	<b>30.8%</b>	<b>-0.7%</b>	<b>20.4%</b>	<b>31.6%</b>	<b>-19.5%</b>	<b>15.1%</b>	<b>25.3%</b>	<b>-13.5%</b>	<b>11.3%</b>	<b>27.7%</b>	<b>-11.7%</b>	<b>14.3%</b>

\* Less than 0.1% impact on non-GAAP Adjusted EBITDA margin

# GAAP to Non-GAAP Reconciliation (Continued)

\$000's	1Q22		
	Cloud and Edge	IP Optical Networks	Consolidated
<b>Revenue</b>	\$ 109,806	\$ 63,392	\$ 173,198
<b>GAAP Gross profit</b>	\$ 62,732	\$ 15,323	\$ 78,055
<b>GAAP Gross margin (Gross profit/Revenue)</b>	57.1%	24.2%	45.1%
Stock-based compensation	0.4%	0.0%	0.3%
Amortization of acquired technology	4.7%	4.9%	4.8%
<b>Non-GAAP Gross margin</b>	<b>62.2%</b>	<b>29.1%</b>	<b>50.2%</b>
<b>GAAP Loss from operations</b>	\$ (2,347)	\$ (36,707)	\$ (39,054)
Depreciation	2,715	1,170	3,885
Amortization of acquired intangible assets	9,528	6,014	15,542
Stock-based compensation	2,665	1,590	4,255
Acquisition-, disposal- and integration-related	44	1,805	1,849
Restructuring and related	3,366	1,448	4,814
<b>Non-GAAP Adjusted EBITDA</b>	<b>\$ 15,971</b>	<b>\$ (24,680)</b>	<b>\$ (8,709)</b>
<b>Adjusted EBITDA Margin (Adjusted EBITDA/Revenue):</b>			
<b>GAAP Loss from operations</b>	-2.1%	-57.9%	-22.5%
Depreciation	2.5%	1.8%	2.2%
Amortization of acquired intangible assets	8.6%	9.6%	8.9%
Stock-based compensation	2.4%	2.5%	2.5%
Acquisition-, disposal- and integration-related	*	2.8%	1.1%
Restructuring and related	3.1%	2.3%	2.8%
<b>Non-GAAP Adjusted EBITDA Margin</b>	<b>14.5%</b>	<b>-38.9%</b>	<b>-5.0%</b>

\* Less than 0.1% impact on non-GAAP Adjusted EBITDA margin

# GAAP to Non-GAAP Reconciliation (Continued)

\$000s	1Q21		2Q21		3Q21		4Q21		FY21		1Q22	
<b>GAAP Operating expenses</b>	\$	113,090	\$	105,775	\$	108,662	\$	234,929	\$	562,456	\$	117,109
Stock-based compensation		(4,798)		(4,228)		(3,973)		(4,422)		(17,421)		(3,675)
Amortization of acquired intangible assets		(5,762)		(7,481)		(7,547)		(7,493)		(28,283)		(7,275)
Impairment of goodwill		-		-		-		(116,000)		(116,000)		-
Acquisition-, disposal- and integration-related		(1,197)		(1,052)		(1,955)		(3,428)		(7,632)		(1,849)
Restructuring and related		(5,950)		(2,830)		(1,767)		(1,106)		(11,653)		(4,814)
<b>Non-GAAP Operating expenses</b>	\$	95,383	\$	90,184	\$	93,420	\$	102,480	\$	381,467	\$	99,496

**(Loss) income from operations as a percentage of revenue ("Operating margin"):**

<b>GAAP Operating margin</b>	-6.5%	6.1%	0.9%	-52.1%	-13.9%	-22.5%
Stock-based compensation	2.6%	2.3%	2.2%	2.2%	2.3%	2.5%
Amortization of acquired intangible assets	8.2%	8.2%	8.3%	7.1%	7.9%	8.9%
Impairment of goodwill	0.0%	0.0%	0.0%	50.3%	13.7%	0.0%
Acquisition-, disposal- and integration-related	0.6%	0.5%	0.9%	1.5%	0.9%	1.1%
Restructuring and related	3.1%	1.3%	0.8%	0.5%	1.4%	2.7%
<b>Non-GAAP Operating margin</b>	8.0%	18.4%	13.1%	9.5%	12.3%	-7.3%

# GAAP to Non-GAAP Reconciliation (Continued)

	1Q21	2Q21	3Q21	4Q21	FY21	1Q22
<b>GAAP Diluted (loss) earnings per share</b>	\$ (0.31)	\$ 0.15	\$ (0.40)	\$ (0.65)	\$ (1.20)	\$ (0.47)
Stock-based compensation	0.03	0.03	0.03	0.03	0.14	0.03
Amortization of acquired intangible assets	0.11	0.11	0.12	0.12	0.44	0.11
Impairment of goodwill	-	-	-	0.77	0.77	-
Acquisition-, disposal- and integration-related	0.01	0.01	0.01	0.02	0.05	0.01
Restructuring and related	0.05	0.02	0.01	0.01	0.08	0.03
Interest income on debentures	(0.01)	(0.01)	(0.01)	-	(0.02)	-
Gain on sale of business	-	(0.02)	-	-	(0.02)	-
Decrease (increase) in fair value of investments	0.16	(0.08)	0.38	0.04	0.50	0.18
Tax effect of non-GAAP adjustments	(0.01)	(0.04)	(0.03)	(0.33)	(0.42)	0.03
<b>Non-GAAP Diluted earnings (loss) per share</b>	<b>\$ 0.03</b>	<b>\$ 0.17</b>	<b>\$ 0.11</b>	<b>\$ 0.01</b>	<b>\$ 0.32</b>	<b>\$ (0.08)</b>
<b>Weighted average shares used to compute diluted earnings (loss) per share (000's):</b>						
Shares used to compute <b>GAAP</b> diluted (loss) earnings per share	145,936	154,160	148,184	148,675	147,575	149,167
Shares used to compute <b>non-GAAP</b> diluted earnings (loss) per share	155,032	154,160	154,061	153,898	154,527	149,167

# GAAP to Non-GAAP Reconciliation (Continued)

Outlook	Three months ending June 30, 2022		Year ending December 31, 2022	
	Range		Range	
Revenue (\$ millions)	\$ 200	\$ 215	\$ 850	\$ 880
<b>Gross margin:</b>				
GAAP outlook	49.2%	50.5%	51.1%	52.2%
Stock-based compensation	0.3%	0.3%	0.3%	0.3%
Amortization of acquired technology	4.0%	3.7%	3.6%	3.5%
<b>Non-GAAP outlook</b>	<b>53.5%</b>	<b>54.5%</b>	<b>55.0%</b>	<b>56.0%</b>
<b>Earnings (loss) per share:</b>				
GAAP outlook	\$ (0.14)	\$ (0.09)	\$ (0.52)	\$ (0.46)
Stock-based compensation	0.03	0.03	0.13	0.13
Amortization of acquired intangible assets	0.10	0.10	0.39	0.39
Acquisition-, disposal- and integration-related	0.01	0.01	0.02	0.02
Restructuring and related	0.01	0.01	0.13	0.13
Decrease in fair value of investments	-	-	0.17	0.17
Tax effect of non-GAAP adjustments	0.02	-	(0.02)	(0.04)
<b>Non-GAAP outlook</b>	<b>\$ 0.03</b>	<b>\$ 0.06</b>	<b>\$ 0.30</b>	<b>\$ 0.34</b>
Weighted average shares used to compute GAAP diluted loss per share (in thousands)	150,000	150,000	151,000	151,000
Weighted average shares used to compute Non-GAAP diluted earnings per share (in thousands)	156,000	156,000	157,000	157,000
<b>Adjusted EBITDA (\$ millions):</b>				
GAAP income from operations	\$ (10.1)	\$ (4.1)	\$ (10.5)	\$ (0.5)
Depreciation	4.1	4.1	16.5	16.5
Amortization of acquired intangible assets	15.4	15.4	60.4	60.4
Stock-based compensation	4.7	4.7	19.8	19.8
Acquisition-, disposal- and integration-related	1.2	1.2	3.8	3.8
Restructuring and related	1.7	1.7	20.0	20.0
<b>Non-GAAP outlook</b>	<b>\$ 17.0</b>	<b>\$ 23.0</b>	<b>\$ 110.0</b>	<b>\$ 120.0</b>

