

# ACCELERATING NETWORK TRANSFORMATION

Thousands of service providers and enterprises around the world depend on our business-driven network transformation solutions.

IP Optical Networking | Secure Cloud Communications

Ribbon Corporate Overview

2023



# 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 release, including without limitation statements regarding the Company’s projected financial results for 2023 and beyond; customer engagement and momentum; plans and objectives for future operations and cost savings; and plans for future product development and manufacturing and the expected benefits therefrom, 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 the Company’s current expectations and assumptions regarding its 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. 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, the effects of geopolitical instabilities and disputes, including between Russia and Ukraine and the impact of sanctions imposed as a result thereof; the potential impact of litigation; risks related to supply chain disruptions, including as a result of component availability; risks related to the continuing COVID-19 pandemic, including delays in customer deployments as a result of rises in cases; risks that the Company will not realize the anticipated benefits from the acquisition of ECI Telecom Group Ltd. (the “ECI Acquisition”); risks that the Company will not realize the estimated cost savings and/or anticipated benefits from its strategic restructuring; the impact of restructuring and cost-containment activities; unpredictable fluctuations in quarterly revenue and operating results; risks related to the terms of the Company’s 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 the Company’s customer base or generate recurring business from existing customers; credit risks; the timing of customer purchasing decisions and the Company’s recognition of revenues; macroeconomic conditions, including inflation; market acceptance of the Company’s products and services; rapid technological and market change; the ability to protect Company intellectual property rights and obtain necessary licenses; the ability to maintain partner, reseller, distribution and vendor support and supply relationships; the potential for defects in the Company’s products; increases in tariffs, trade restrictions or taxes on the Company’s 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.

# Introduction to Ribbon Communications (RBBN)

## Company Overview

- Global provider of software and network solutions to enable real-time communications and high-bandwidth networking and connectivity
- Two business segments: Cloud & Edge and IP Optical Networks
- Key Investors: JPMorgan Chase & Co. and Swarth Group<sup>(1)</sup>



Headquarters: **Plano, Texas**



Employees: **3,300**

NASDAQ: **RBBN**

## Strong Financial & Business Momentum

**\$840–870M**

'23 Est. Revenue

**1,000+**

Customers

**945**

Patents

**\$95–110M**

'23 Est. EBITDA

**\$64M**

22A EBITDA

**1.10x**

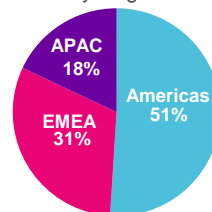
4Q22A Book-to-Bill

## Long-Term Customer Relationships

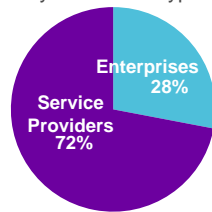


## '22 Revenue Breakdown

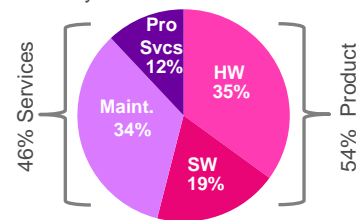
By Region



By Customer Type



By Service / Products



1. Shares held by JPMC Heritage Parent LLC (indirect subsidiary) and Heritage PE (OEP) III, L.P. (general partner indirectly controlled by JPMC Heritage Parent LLC), and deemed beneficial ownership of shares of OEP II Partners Co-Invest, L.P.

# Ribbon Represents a Unique Investment Opportunity



1

**Comprehensive portfolio of best-in-class secure communications and IP optical networking solutions –**

Differentiates with first mover's approach to produce innovative, open-sourced products that service customer demands

2

**Robust market position and continued penetration in the massive communications networking market –**

Favorable industry tailwinds headlined by Federal ~\$81B funding for expansion of connectivity and bandwidth

3

**Long-standing relationships with the top telecom service providers, enterprises and critical**

**infrastructure operators –** Leverageable 1,000+ customer base provides significant cross-selling opportunities

4

**Cloud and Edge segment (“C&E”) will provide the springboard for the IP Optical Networks**

**segment (“Optical”) to continue growing –** C&E provides steady cash flow while Optical drives growth

5

**Strong financial visibility due to the significant pipeline of potential Tier 1 opportunities in N.A., India & Europe –**

Substantial opportunity with ongoing global replacement of Huawei network equipment in many of the world's networks

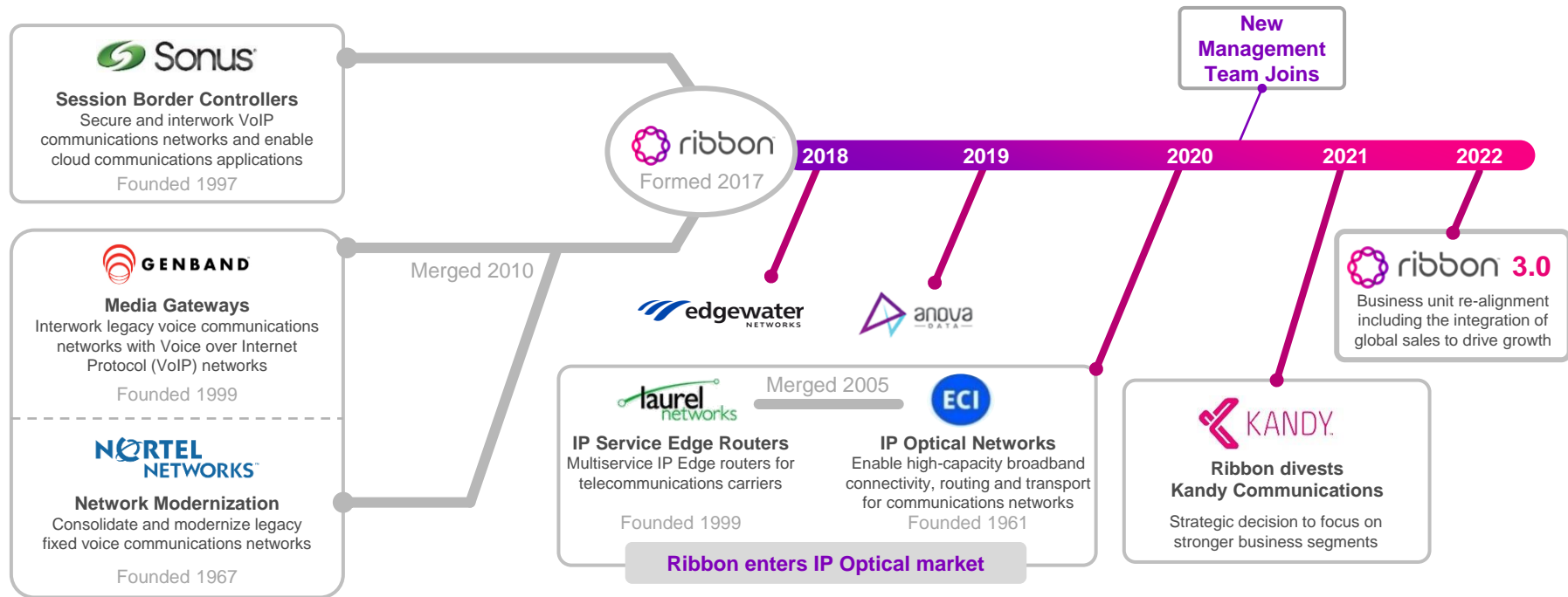
6

**Accomplished leadership team with the playbook on growing multi billion-dollar companies –**

Mr. McClelland, RBBN President, CEO and Director, led Arris' sale to CommScope for \$7.4B in 2019

# Rich History of Innovation Brought Together as Ribbon

Several meaningful transactions have strengthened our market position, expanded our market scope and will provide a major new growth vector in the company's transformation





# Ribbon Experienced Senior Leadership Team



**Bruce McClelland**

President, CEO  
& Director

- Board of Directors



**Mick Lopez**  
EVP, Chief  
Financial Officer

- Financial accounting reporting, controls, & planning
- AP & AR
- Treasury & Tax
- Investor Relations
- Information Technologies



**Sam Bucci**  
EVP, Chief  
Operating Officer

- Business strategy
- Innovation & Product Development
- Portfolio Management
- Global Services
- Supply Chain & Operations



**Dan Redington**  
EVP, Global Sales

- Regional Sales Units
- Pre-Sales Engineering
- Project Management
- Strategic account development



**Joni Roberts**  
SVP, Chief  
Marketing Officer

- Global Marketing Strategy
- Investor Relations
- Global Product Positioning



**Patrick Macken**  
EVP, Chief  
Legal Officer

- General Counsel
- Employment Law
- Contract Law
- Compliance
- Facilities
- Corporate Secretary



**Petrena Ferguson**  
SVP Human  
Resources

- Global HR business partner
- Compensation & Benefits
- Recruiting and Performance Management
- Employee training & development

COMMScope

ARRIS

NORTEL



Arcent



VISTA  
OUTDOOR

IBM

VERITAS

NOKIA

Alcatel-Lucent

NORTEL

JUNIPER  
NETWORKS

NOKIA

FUJITSU

DELL

NORTEL

RAD

ARRIS

troutman  
sanders

GENBAND

NORTEL

NEWBRIDGE

# Blue-chip Customer Base – Service Provider and Enterprise

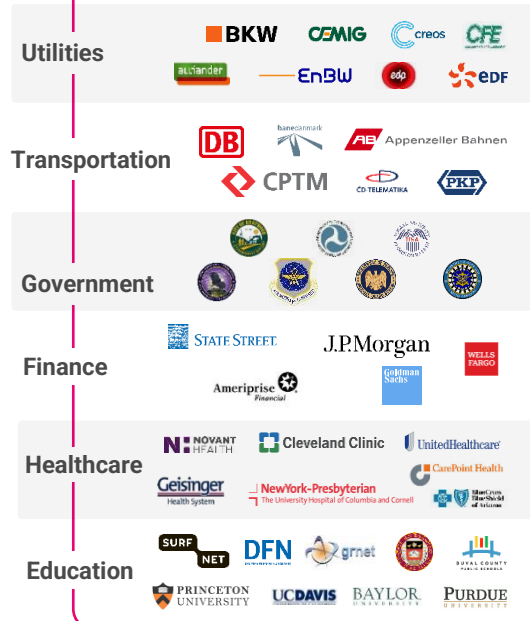
## Telco and Mobile



## Multi-System Operators



## Enterprise Verticals



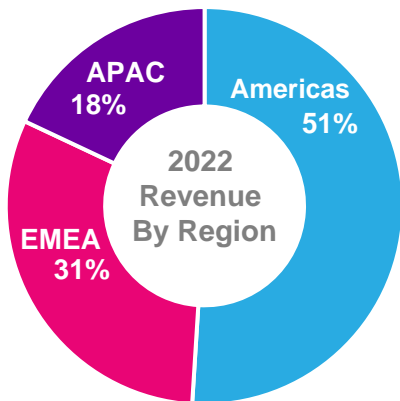
Ribbon is a global company with 57% of 2022 revenues from international customers and does business with more than 80% of the top 50 Telecom Service Providers around the globe (excluding China)

# Ribbon Global Presence

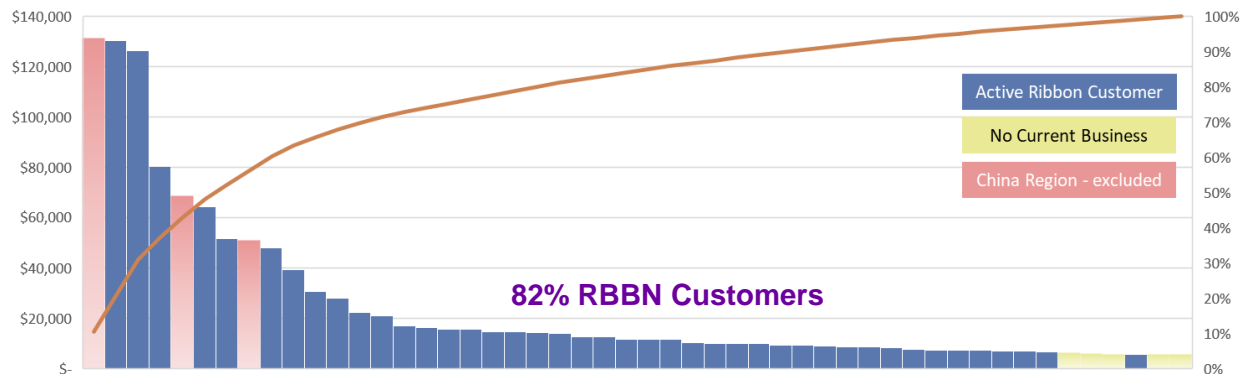


Ribbon is a global company with over 49% of 2022 revenues from international customers.

Excluding China, Ribbon does business with more than 80% of the top 50 Telecom Service Providers around the globe



Top Service Providers by Carrier Revenue





# Global Presence and Scale



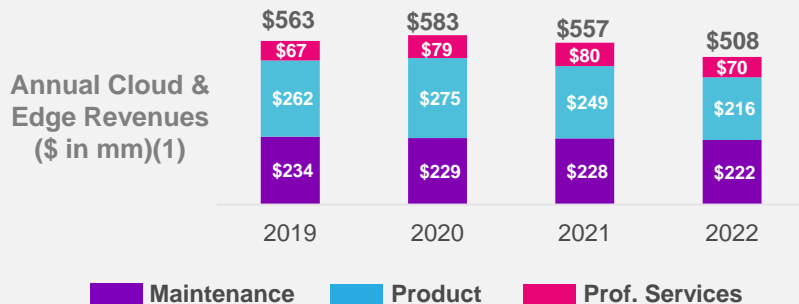
# Ribbon Solutions for Demanding Network Requirements



## “Cloud & Edge” Business Segment

Core business supports telecom carrier and enterprise voice services

- Leading market position with tier one service providers including Verizon
- Significant cash flow generator underpinned by strong recurring maintenance and increasing software component of revenue
- Portfolio addresses fixed and mobile carrier VoIP networks as well as faster growing enterprise communication applications
- Strong market position in Core Session Border Control (“SBC”) products



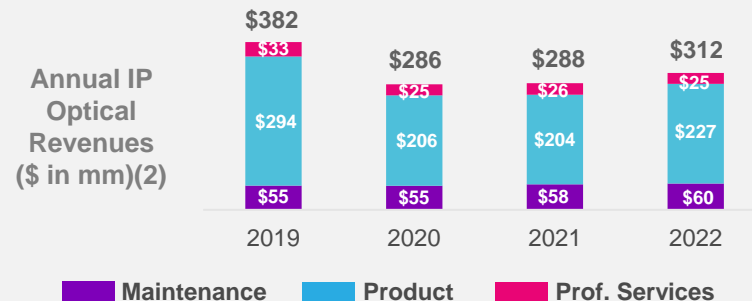
1. Reflects Kandy revenue of \$8mm and \$11mm in 2019 and 2020, respectively.  
 2. Reflects pro forma full year results for periods before the close of the ECI acquisition.



## “IP Optical Networks” Business Segment

Highly-competitive products & substantial market growth opportunities

- Record of success in many of the most competitive global markets, including India and EMEA
- Leveraging N.A. carrier relationships to penetrate the industry's largest, profitable accounts, exploiting its technical advances & competitive cost
- The industry's shift to open networking architectures is highly favorable for Ribbon's product portfolio compared to major competitors such as Ciena
- Global replacement of Huawei network equipment in many of the world's networks provides a once-in-a-lifetime opportunity for IP Optical



# \$10B+ Addressable Market across Multiple Market Segments



## 2023 Serviceable Market

### IP Routing



**\$3.5B**

Dell'Oro Service Provider Edge Router minus China

### Optical Transport



**\$3.3B**

Dell'Oro Metro & Long Haul minus China and DCI

### Secure VoIP



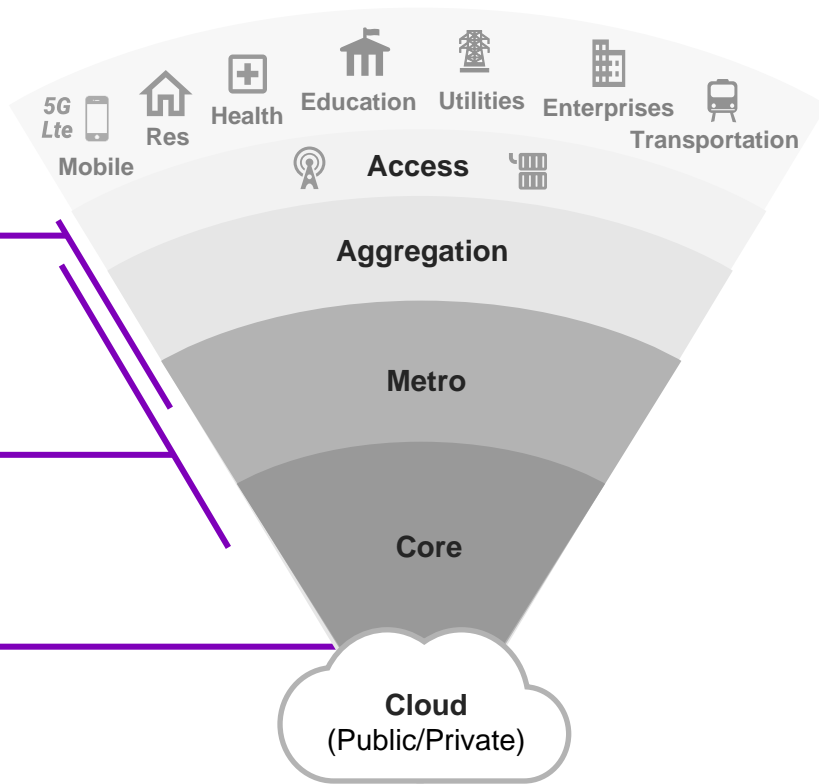
### SDN



**\$3.3B**

Omdia & Exact Ventures - SBCs & Voice solutions minus China

Market size numbers are rounded and includes Ribbon Modelling



# Significant Professional Services and Recurring Maintenance Revenue



## Professional Services Presence and Scale (\$95M revenue in 2022)



Network analysis & consulting



Engineering design & installation



Integration & validation



Transformation & migration



Managed network operation

## Maintenance Provides Durable Recurring Revenue Stream



\$282M revenue in 2022<sup>1</sup>



96%+ Renewal rate<sup>2</sup>



75%+ of 2023 renewals booked by end of Q1<sup>2</sup>

**Note:**

1. Combined Cloud & Edge and IP Optical maintenance revenue.
2. Renewal statistics for Cloud & Edge

# Growing momentum in 2023 as investments provide profitable growth

## Growth and Value



### IP Routing

- New XDR 2000 Series portfolio and rNOS



### DWDM Optical Transport

- Next-gen compact modular Apollo 9400



### Enterprise Secure Cloud Communications

- Microsoft Teams, Zoom, Contact Center, Centrex Replacement



### Critical Infrastructure and Government Sector

- Secure Networking
- Voice Modernization



### Telco Cloud Voice Network Transformation Projects

- US Tier 1, NA Tier 2, Europe, APAC, CALA



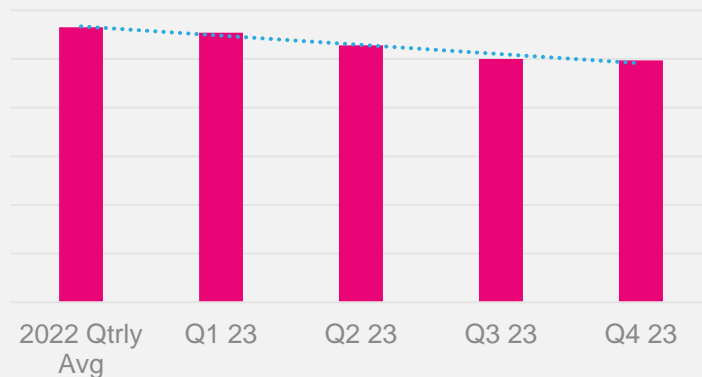
### Carrier Voice Maintenance Services

- 75%+ Gross Margin with high renewal rate

## Operating Efficiencies

### \$20M In-Year Cost Savings Implemented

- ~6% Headcount Reduction
- Continued Operating Expense Optimization
- 2H Run Rate @ \$90M Quarterly Operating Expenses



# Data Explosion Drives Continuous Network Transformation

## Market Drivers

Connected  
Devices

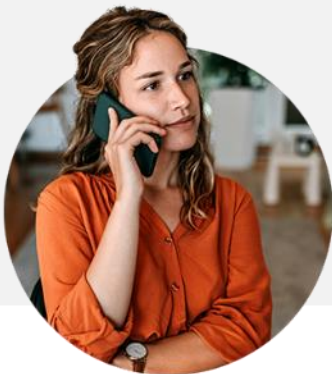
Personalized &  
Customized

Applications for  
Everything

Explosion  
of Data

Work-from-  
anywhere

Broadband  
explosion



## Network Transformation



## Technology Evolution

Nextgen BB  
Access

Everything  
over IP

Automation &  
Orchestration

Cloud  
Networking

Edge  
Computing

Nextgen Mobile –  
5G, 6G, Wi-Fi 6E

Everything as a Service





# 2023 Customer Investment Priorities



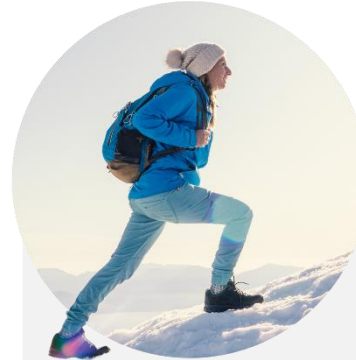
## Mobile Remains a Top Priority

Cell site Router  
Aggregation  
Optical transport



## Surge in Investment Broadband Access (Fiber, HFC, Fixed Wireless)

IP routing  
Metro and Access  
Optical transport



## Relentless Pursuit to Lower Total Cost of Ownership

Analytics  
Enhanced Security  
Energy Efficiency



## Digital Transformation

Telco Cloud  
As-a-Service  
Automation

**Ribbon solutions directly address these key investment priorities**

# Extensive US Federal Investment to Expand Internet Access



## Broadband equity access and deployment (BEAD) program

**\$42.4B** to expand High-speed internet access funded by US Dept. of Commerce



RDOF.COM

## Rural digital opportunity fund

**\$20B** to provide fixed broadband and voice services to unserved homes and small businesses in rural America



## Capital projects fund

**\$10B** as part of the American Rescue Plan Act (ARPA) to provide broadband coverage to un- and under-served locations



## ReConnect loan and grant program

**\$2B** to expand high speed Internet service to rural areas funded by US Dept. of Agriculture



## Secure and trusted communications networks

**\$1.9B** created by the FCC to reimburse providers to replace Huawei or ZTE equipment



## Tribal broadband connectivity program

**\$1B** to be used for broadband deployment on tribal lands funded by US Dept. of Commerce



## Middle mile broadband infrastructure grant program

**\$1B** to expand internet middle mile infrastructure funded by US Dept. of Commerce



**Ribbon is well-positioned to capture investment in fiber infrastructure, with ~30 active or pending projects**

# Key Technology Trends Underpinning our Investment Strategy

## IP + Optical

- 4.5X expected 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 alternative vendors
- 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
- Hybrid IP networking solutions from access to core
- Adoption of white box computing

Open **ROADM** **NETCONF**



gNMI Telemetry



## Unified Communications

- Broad adoption of cloud-based unified communication platforms supporting work-from-anywhere needs
- 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

- Traditional network functions operating in private or public cloud compute environments
- Pre-integrated friction-free deployment with OpEx and CapEx consumption models
- Large scale analytics leveraging data from multiple deployments and 3rdparty sources
- Improved service velocity leveraging CI/CD
- Expanded partnerships (SI, OEM, Distributors, Technology)



**TELCO CLOUD**



kubernetes

1. Source: Ericsson Mobility Report, November 2020

# Industry-leading Telco and Enterprise Communications Portfolio



## Voice Simplification

- Business & consumer voice application server
- Hosted PBX and Contact Centre features
- Scale from thousands to millions of subs
- Solutions for TDM transformation





## Session Border Control

- Cloud Native SBC architecture
- Highly efficient infrastructure needs
- Automation for lifecycle management
- Full VoLTE IMS functionality



## UC Interconnect

- Interconnect support for multiple UCaaS platforms  
 **zoom**phone 
- Comprehensive portal environment
- Customer engagement & automation
- Connectivity and security in public or private cloud



## Fraud & Analytics

- Securing real-time communications
- Incident Detectors for known threats
- Behavioral Analytics reveals new threats
- Recognize and mitigate Fraud and Nuisance Calls

# Continuous Innovation to Meet Customer Needs

## IP WAVE



### IP Routing with **Neptune**

- Proven state of the art IP stack with common NOS
- Right fit with range of form factors and capabilities
- New high performance router family - Neptune XDR

### Optical Networking with **Apollo**

- Best in class metro transport with performance or power-cost optimized 400G/200G/100G and OTN
- Tailored solutions with smooth capacity growth
- Delivering new wavelengths fast with Ribbon Alien Wavelengths

### Domain Orchestration with **Muse**

- Practical Automation
- Multi-vendor, multidomain, multilayer
- Low code CI/CD

**Continuous Innovation** for Next Generation Optimized, Automated Open IP Optical

Thank You

