

BRINGING THE WORLD TOGETHER

NEEDHAM NETWORKING, COMMUNICATIONS & SECURITY CONFERENCE

Roger Shannon – SVP of Finance & CFO

November 13, 2018

BRINGING THE WORLD TOGETHER

Safe Harbor Statement

During the course of this meeting, ADTRAN representatives expect to make forward-looking statements, which reflect management's best judgment, based on factors currently known. However, these statements involve risks and uncertainties, including the successful development and market acceptance of core products, the degree of competition in the market for such products, the product and channel mix, component cost, manufacturing efficiencies, foreign exchange rate variations and other risks detailed in our Annual Report on Form 10-K for the year ended December 31, 2016. These risks and uncertainties could cause actual results to differ materially from those in the forward-looking statements, which may be made during this meeting.

2018 © ADTRAN, Inc.

General Business

ADTRAN At A Glance



FOR THE PAST THREE DECADES, ADTRAN HAS BEEN BRINGING THE WORLD TOGETHER.

Top 3 Global Provider of Broadband Access Infrastructure Solutions

- *$667M Revenue[1]*
- *2000 employees*
- *68 countries*
  - *45% international revenue (2018 ytd)*
- *500+ service providers (Telco/MSO)*
  - *Tier 1s in NA, EMEA, APAC*
- *1000+ Gigabit communities*

[1] 2017


Enabling Communities Connecting Lives
Economic Development
1.1% increase in GDP
Advancing the Gigabit Society


Enabling Communities Connecting Lives
Real Estate
3.1% increase
in home values
Advancing the Gigabit Society



Enabling Communities Connecting Lives

Education

Flexible Learning Environment

Advancing the Gigabit Society


Enabling Communities Connecting Lives
Rural Healthcare
Telemedicine
Advancing the Gigabit Society

Our Focus

ENABLING COMMUNITIES, CONNECTING LIVES

- *Advancing the Gigabit Society*
- *Amplifying the Subscriber Experience*

DEFINING THE FUTURE NETWORK

- *Accelerating the Path to SD-Access*
- *Building Networks for Today and Tomorrow*

How We Do It

EXPEDITING BROADBAND EXPANSION

EXPANDING INTO ADJACENT MARKETS

EVOLVING THE SERVICE DELIVERY PLATFORM



Broadband Access

ADTRAN
BRINGING THE WORLD TOGETHER



Fiber Aggregation
Site & Data Center

MOSAIC
Open. Programmable. Scalable.

Vectoring	FTTN	Fiber	FTTN DSLAM	Copper
G.fast	FTTdp/FTTB		FTTB DPU	Biz CPE
10G PON	FTTP			RG/ ONT
Cable/MSO v-CCAP	DAA		D-CCAP	Coax / Biz CPE
G.fast	FTTB		FTTx DPU	
NGPON2	5G			
FWA	Backhaul			

Home
Wi-Fi
MDUs
Wi-Fi
Enterprise
Wi-Fi
Internet of Things

2018 © ADTRAN, Inc.

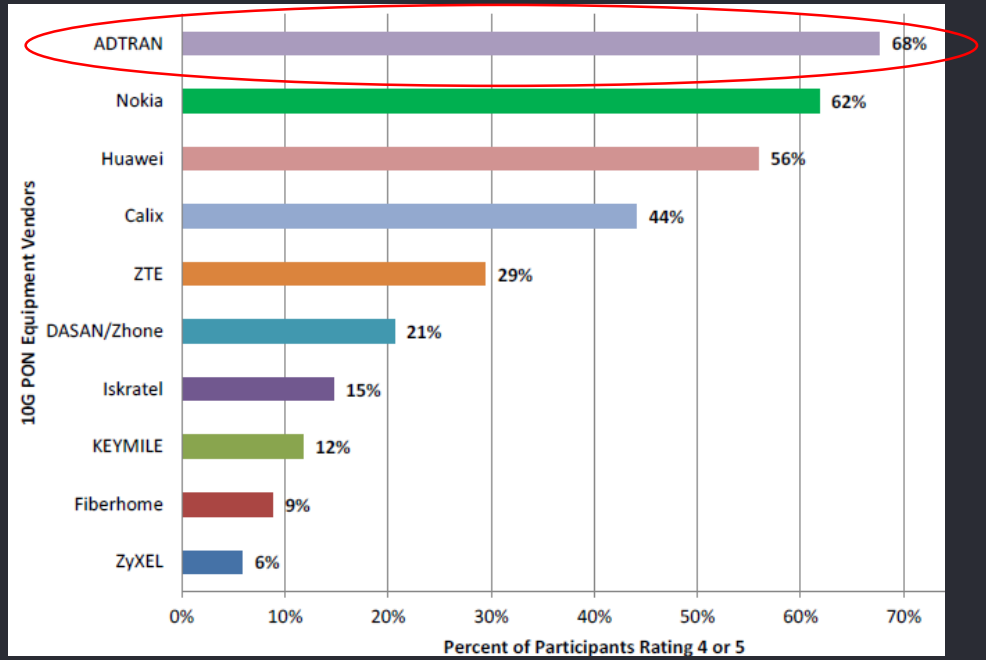
Top 3 Global Provider

Broadband Access Solutions

- **Vectoring / SuperVectoring**
  - 18.6M Vectoring ports shipped (as of 3Q)
  - 1.5M SuperVectoring ports shipped (as of 3Q)
    - Tier 1 Operators in EMEA and North America
- **Gfast**
  - Nationwide deployments on 4 continents
    - Tier 1 Operators
  - Largest shipment of Gen2 in world to date
- **10G Fiber Access**
  - NG-PON2 – US Tier 1
  - XGS-PON – US, EMEA, Australia
    - Electric Coop, Muni, Over-builders
  - 10G-EPON – Cable/MSO
- **CAF Projects (CAF2, A-CAM)**
  - Full turnkey services

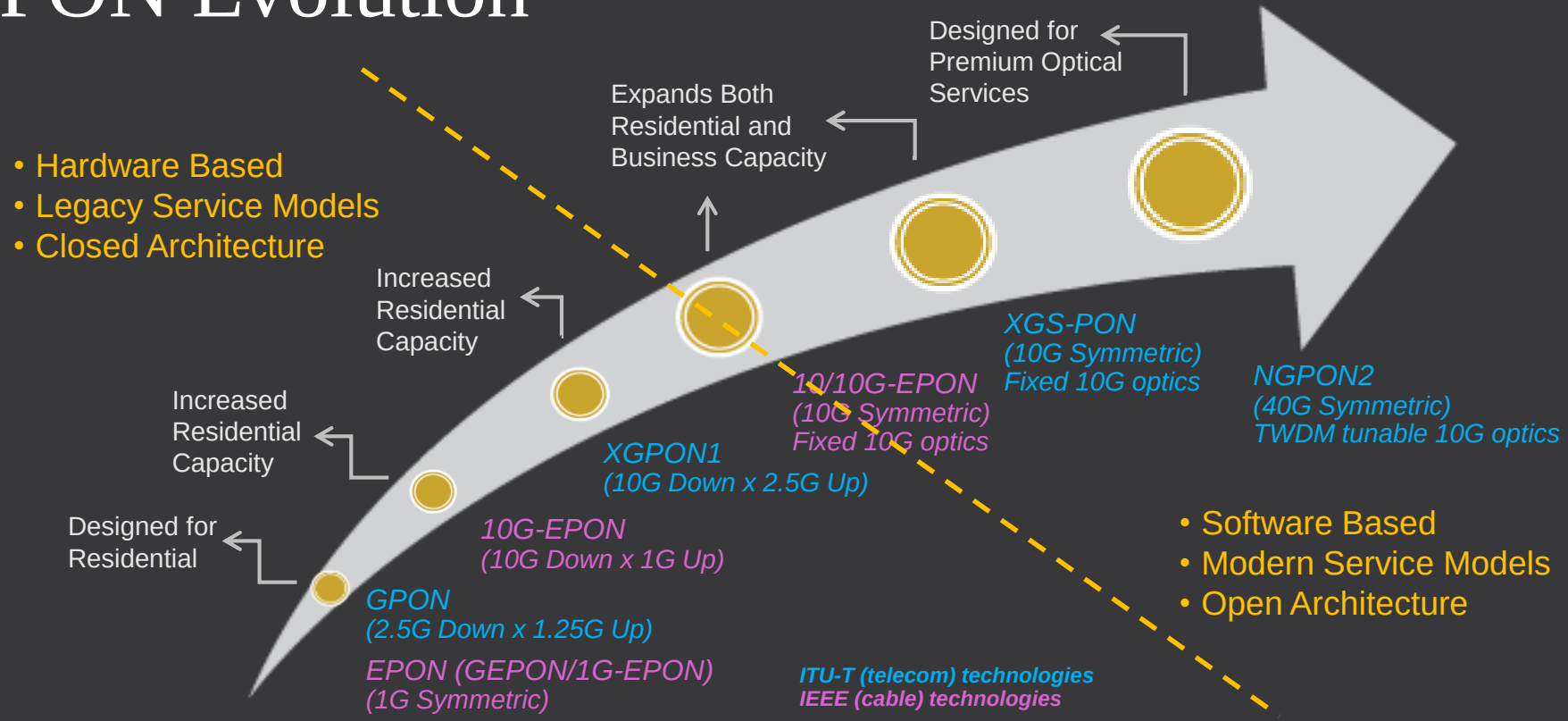
10G PON Vendor Familiarity Survey

(Broandband Trends 10/30/18)



2018 © ADTRAN, Inc.

PON Evolution



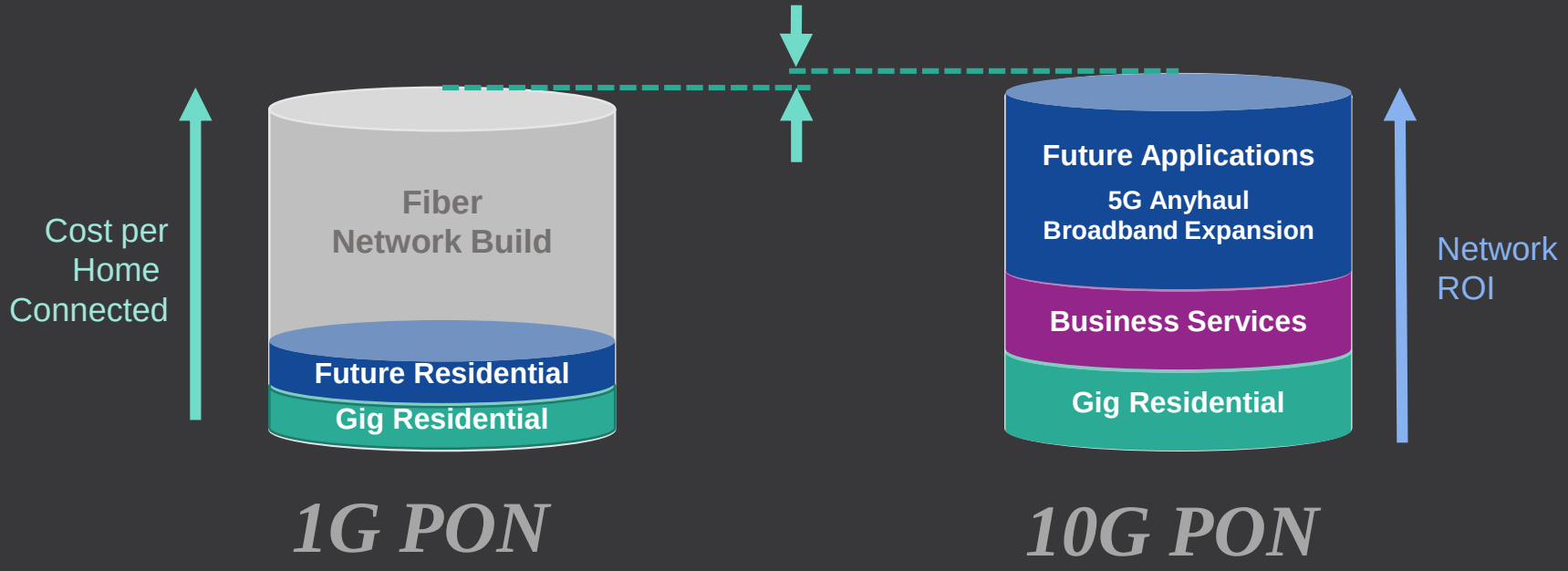
10 Gigabit Broadband

- Drive operational profitability converging residential, business, and mobile services
- Deliver economically Multi-Gigabit services
- Extend the life and profitability of the PON network infrastructure
- Expand network capacity to support business and 5G anyhaul services



COMPARING 1G and 10G PON

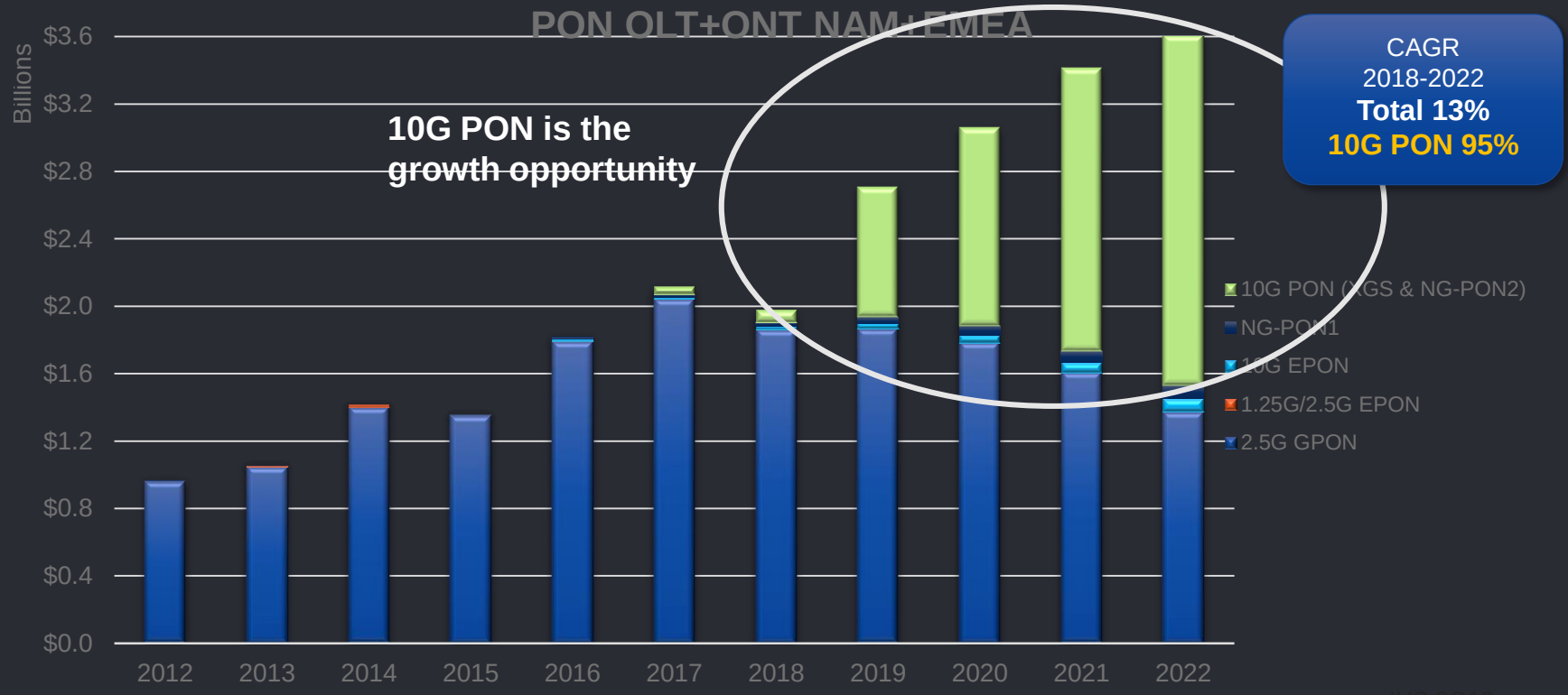
Marginal Cost Delta → Material Revenue Add



2018 © ADTRAN, Inc.

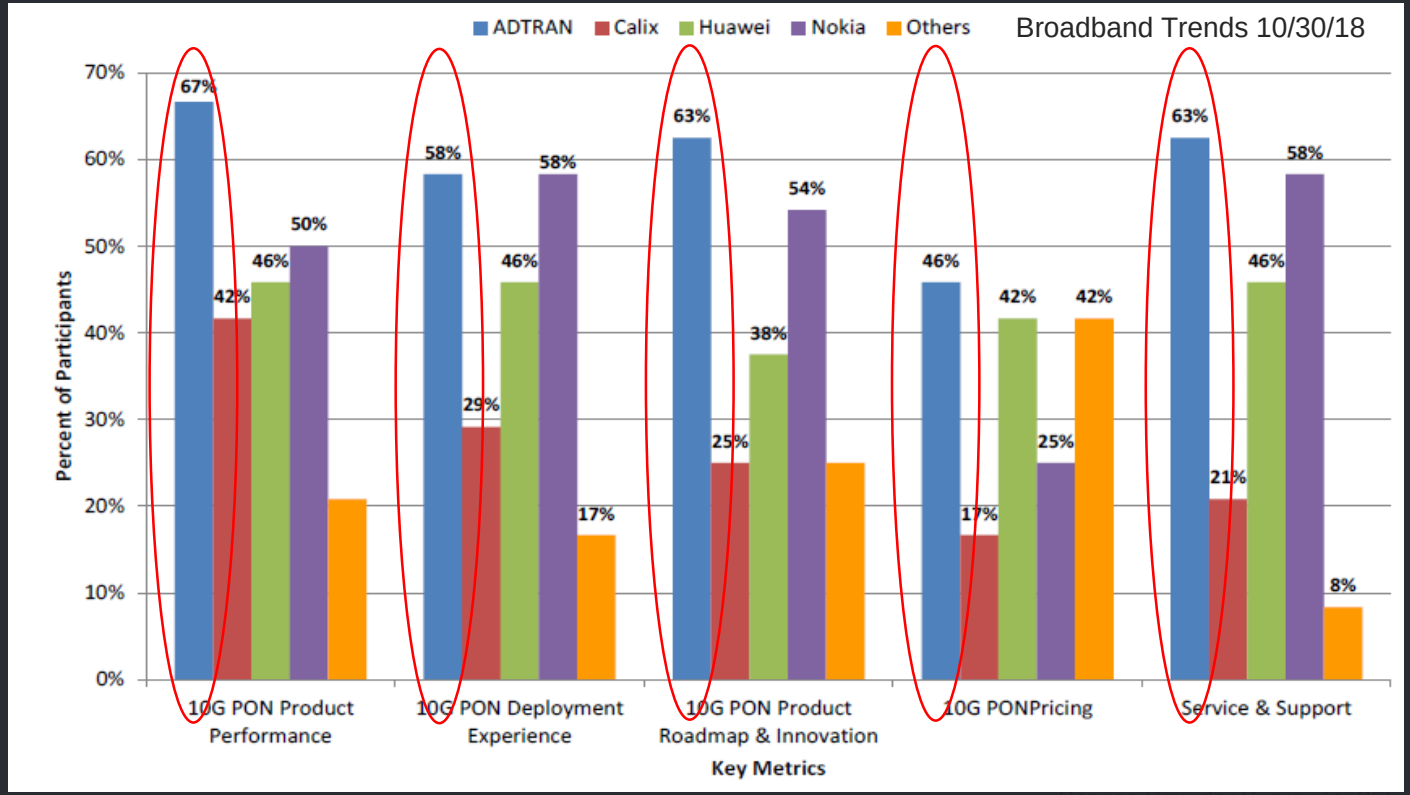
Total Addressable Market

BRINGING THE WORLD TOGETHER



2018 © ADTRAN, Inc.

ADTRAN Top Ranked 10G PON



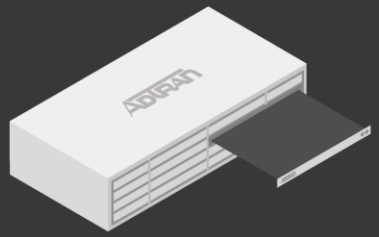
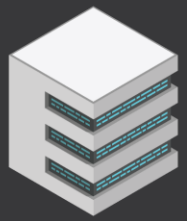
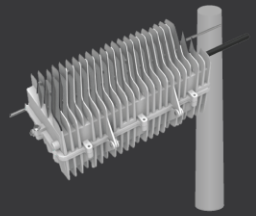
Service Provider Survey (n=36)
Broadband Trends (10/30/18)

2018 © ADTRAN, Inc.

Full Market Applicability

ADTRAN 10Gig Fiber Portfolio

Open Source SDN Control & Orchestration

Fiber Over-builders Muni/Utilities	Major Carrier ONF Alignment	Major MSO DAA/Fiber Deep
		

Flexible Optics Approach, OLT - ONT Interop

XGS-PON → ← **NG-PON2** → ← **10G-EPON**

ILL590B

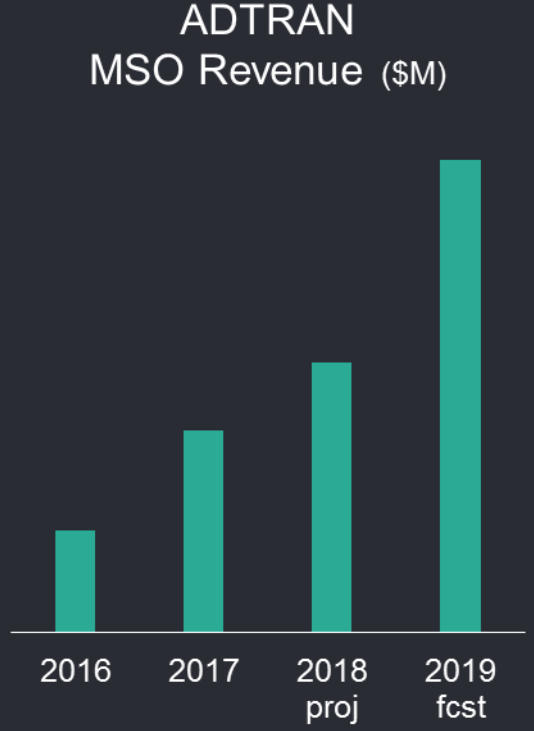
2018 © ADTRAN, Inc.

Pursuing Adjacent Markets

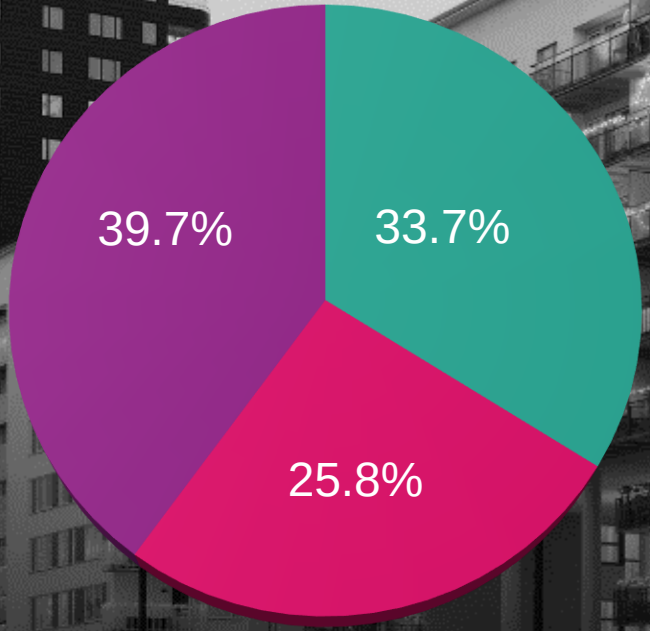
BRINGING THE WORLD TOGETHER

Entry into Cable/MSO broadband fiber access market

- Acquisition of EPON and Fiber Access portfolios
  - Commscope
  - Sumitomo
- Organic development of R-OLT
  - Selected as 1 of 2 suppliers for R-OLT business for Tier 1 MSO
  - Major R-OLT deployments with different Tier 1 MSO (over 300 units shipped)
- Strong MSO revenue growth



2018 © ADTRAN, Inc.



MDUs (EU-28)

~40%

Up to 2/3rds

THE WORLD LIVES IN MDUs

Advancing the Gigabit Society


GFAST
LEADERSHIP
SDN
Enabled
Sealed
Low TCO
Gigabit
Open
Architecture
Most Market Momentum
Most Technical Innovation
Most Comprehensive Portfolio
Most Industry Recognition



SD-ACCESS

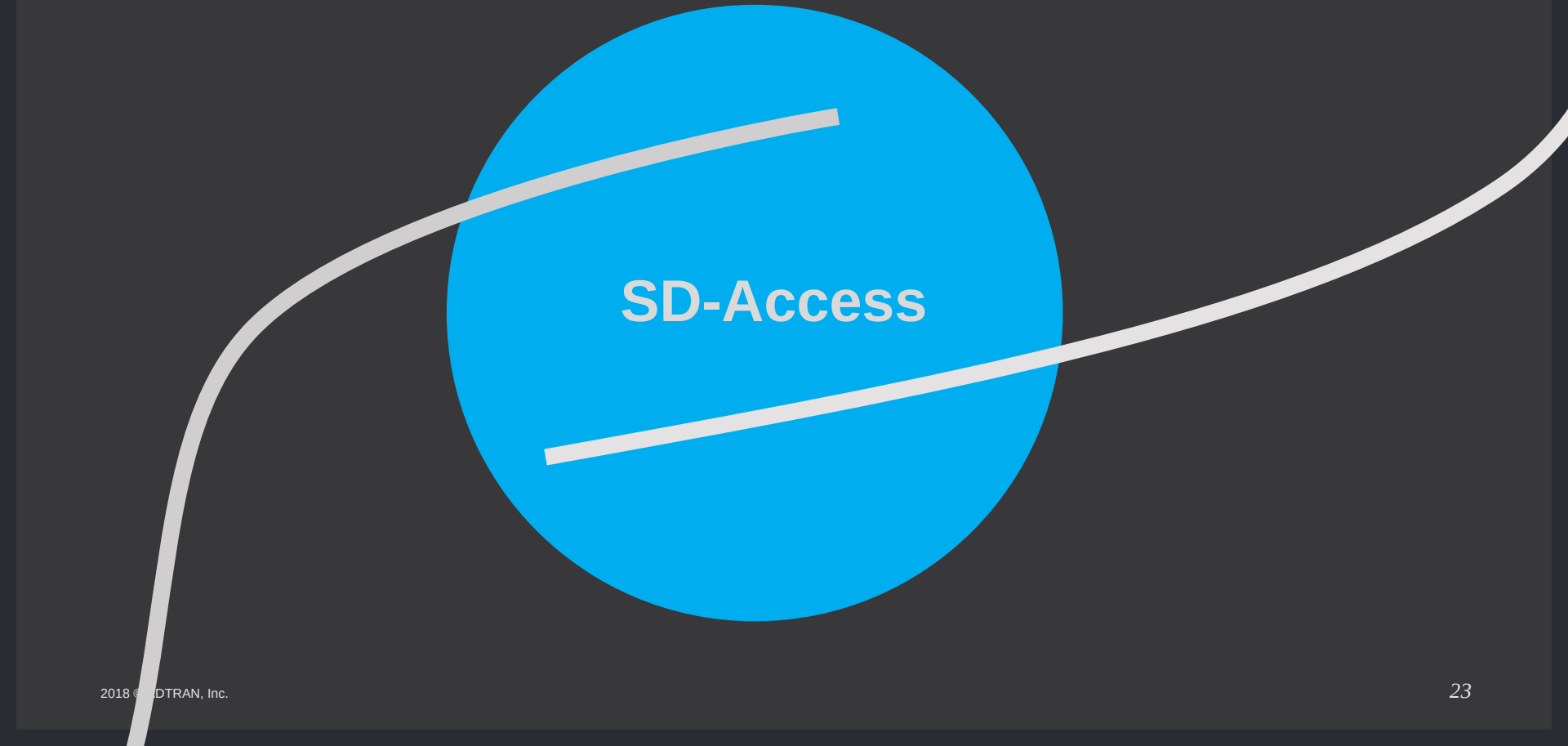
Open Networks, Endless Possibilities



Catching The Next Wave

Requires Embracing Disruptive Innovation

EVOLVING THE SERVICE DELIVERY PLATFORM



2018 © ADTRAN, Inc.

SOFTWARE-DEFINED ACCESS



User-Driven Service Models

Automated Operations

Service Orchestration

Speed Time-to-Market

Lower Costs

2018 © ADTRAN, Inc.

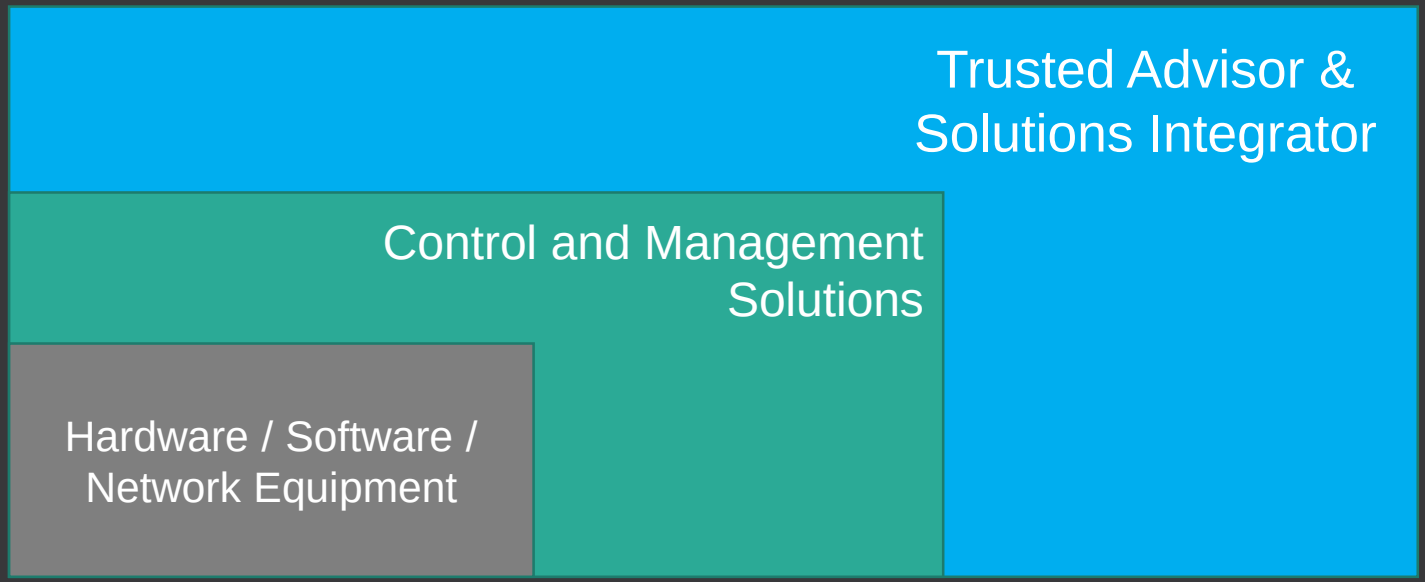
Multi-Vendor Solution Integration

- ADTRAN drives the ecosystem, from all angles, to accelerate the evolution of technology
  - Embracing and leading the Open Communities
  - Creating Innovative solutions guiding paths to standardization
  - Augmenting solutions with customers specific adaptations, maintaining alignment for future technology cycles



2015 © ADTRAN, Inc.

SI Ecosystem



Wide range of Flexible Hardware and/or Software Products + *Open Reference Designed Solutions* = *Integrated and optimized deployment into customer's environment*

The Value of Open Networks

- Eliminating the High Cost of Network Overhead
- Addressing Limitations of Monolithic Systems and Vendor Lock-in
- Creating Open, Programmable and Scalable Next-Gen Access Networks for Converged Service Delivery



2016 © ADTRAN, Inc.

Mosaic

Most Awarded SD-Access Solution in the Industry



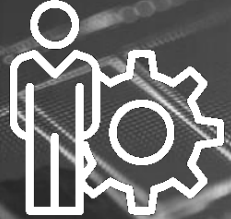
2018 © ADTRAN, Inc.

Mosaic Activate



Orchestrate

Mosaic Subscriber Insight



Personalize

Mosaic Device Mgr



Streamline

Whole Home Mesh Wi-Fi



Extend



$1M
Savings
Per 10K subs



ARPU
$10
Incremental



20%
Increase
Customer Loyalty



Wall-to-Wall
Gigabit coverage

MOSAIC SUBSCRIBER EXPERIENCE SUITE

Monetizing the Subscriber Edge

Key Takeaways



- 10G PON is the growth opportunity
  - ADTRAN is well positioned
    - Leading in innovation
    - Strong customer traction globally
- Excellent 10G synergy in adjacent markets
  - ADTRAN is establishing a leadership position in MSO Fiber Access
- The world is going to software and open architectures
  - ADTRAN is the only access vendor selected by the world's leading Operators (Telco & MSO) to design the SDN-Access reference designs (ONF SEBA)
- Market leadership in CAF, Vectoring, Gfast provide runway as ADTRAN leads industry transformation to SD-Access

2016 © ADTRAN, Inc.

Company Financial Performance



Financial Stability

- Publicly Traded for 23 Years with Full Transparency (NASDAQ-ADTN)
- Ongoing Strong Balance Sheet and Cash Flow
- Historically, significant amount of capital returned to Shareholders through Share Repurchases and Dividends



Historically Strong Cash Flow and Solid Balance Sheet

Last 5-year	Sept. 30, 2018		
Capital Returned to Shareholders	Cash & Investments	Debt	Total Assets
Dividends	$244M	$26M	$649M
$92M			
Share Repurchases			
$224M			

2018 © ADTRAN, Inc.

General Business

ADTRAN - Historical 5-year Annual Financial Highlights

	2013	2014	2015	2016	2017
Revenue	$642M	$630M	$600M	$637M	$667M
Gross Margin (GAAP)	48.1%	49.4%	44.5%	45.8%	45.6%
Operating Expense (GAAP)	$260M	$264M	$253M	$257M	$266M
Operating Margin (GAAP)	7.6%	7.5%	2.2%	5.5%	5.7%
GAAP EPS (diluted)	$ 0.77	$ 0.80	$ 0.36	$ 0.72	$ 0.74*
Non-GAAP EPS** (diluted)	$0.95	$ 0.94	$ 0.54	$ 0.84	$ 0.90*

**FY 2017 GAAP and Non-GAAP EPS do not include the one-time tax impact of $12 million relating to the Tax Cuts and Jobs Act of 2017.*

***Non-GAAP EPS excludes the expense of stock-based compensation, acquisition related amortizations and other expenses, and restructuring expenses. Please refer to the ADTRAN's Investor Relations website for details of non-GAAP adjustments*

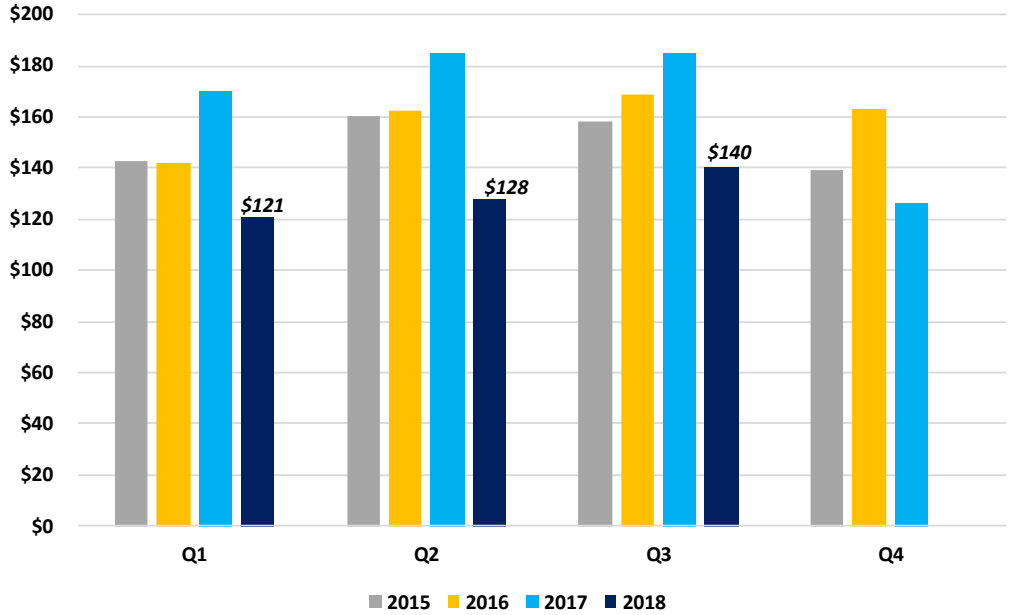
2018 © ADTRAN, Inc.

General Business

Quarterly Financial Highlights

Merger-related review (mid-fourth quarter 2017) and slowdown in spending at a domestic Tier 1 customer reflected negatively on YoY revenue growth in 9-mth 2018, coupled with slower-than-expected orders of an ultra-broadband product by a large domestic customer…

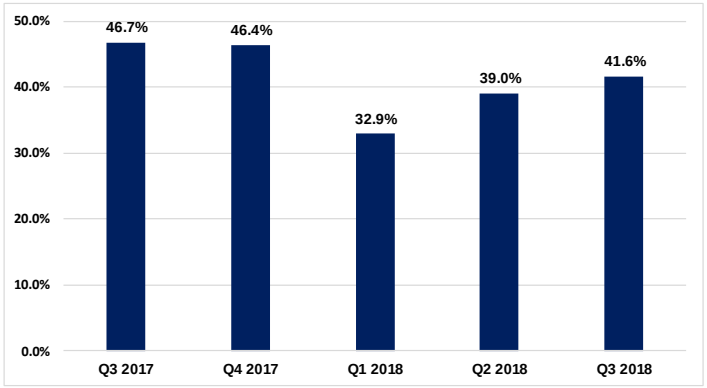
…partially offset by an increase in EMEA sales, a network expansion program and a services award by a large European Tier-1 customer, and APAC sales, a network expansion program in Australia.



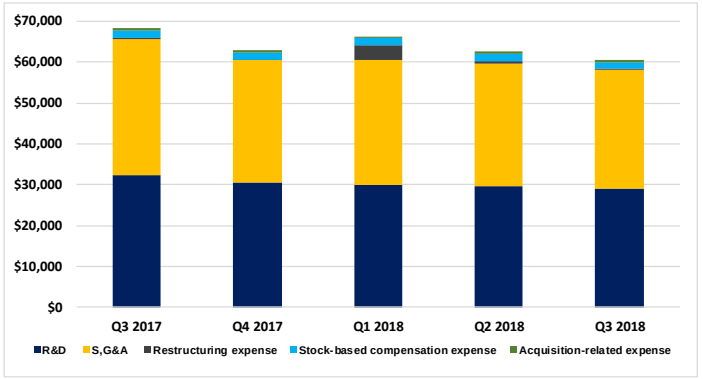
2018 © ADTRAN, Inc.

A prudent financial management limited the impact of domestic revenue slowdown in 9-mth 2018…

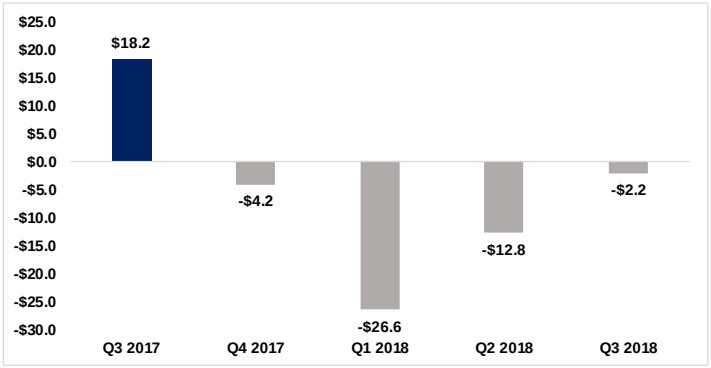
Gross Margin (%)



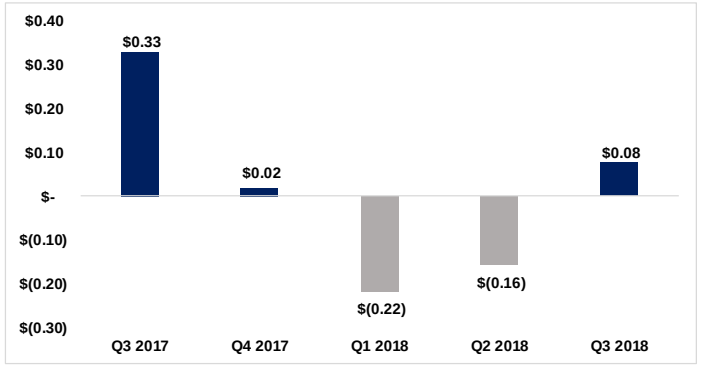
OPEX (M)



Operating Profit (M)



EPS*



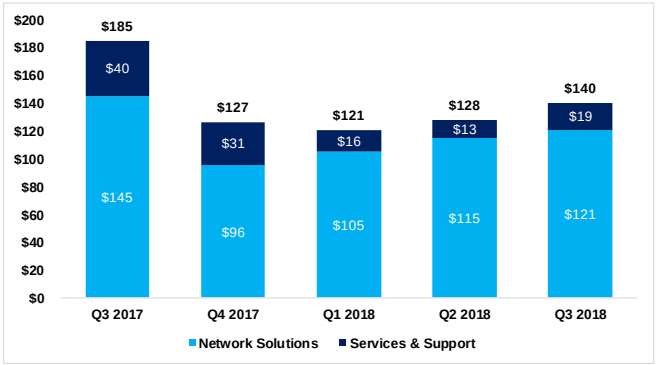
** Q4 2017 and Q3 2018 GAAP EPS do not include the one-time tax law change impacts of $12mn expense and $4mn benefit, respectively.*

2018 © ADTRAN, Inc.

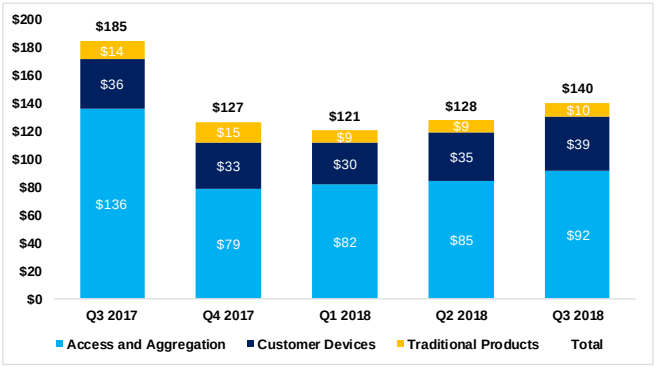
General Business

Revenue by Operating Segment

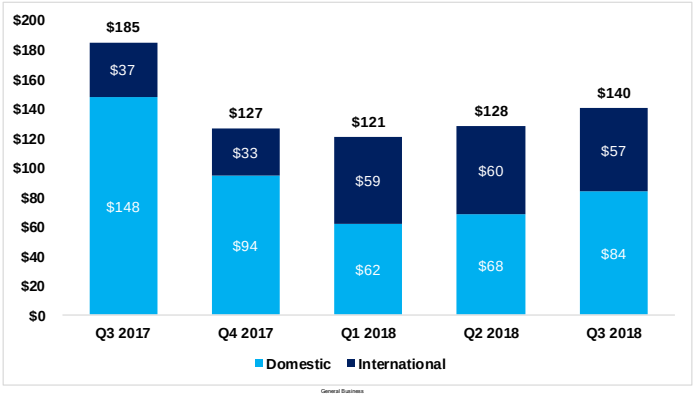
Sales by Segment (M)



Sales by Category (M)

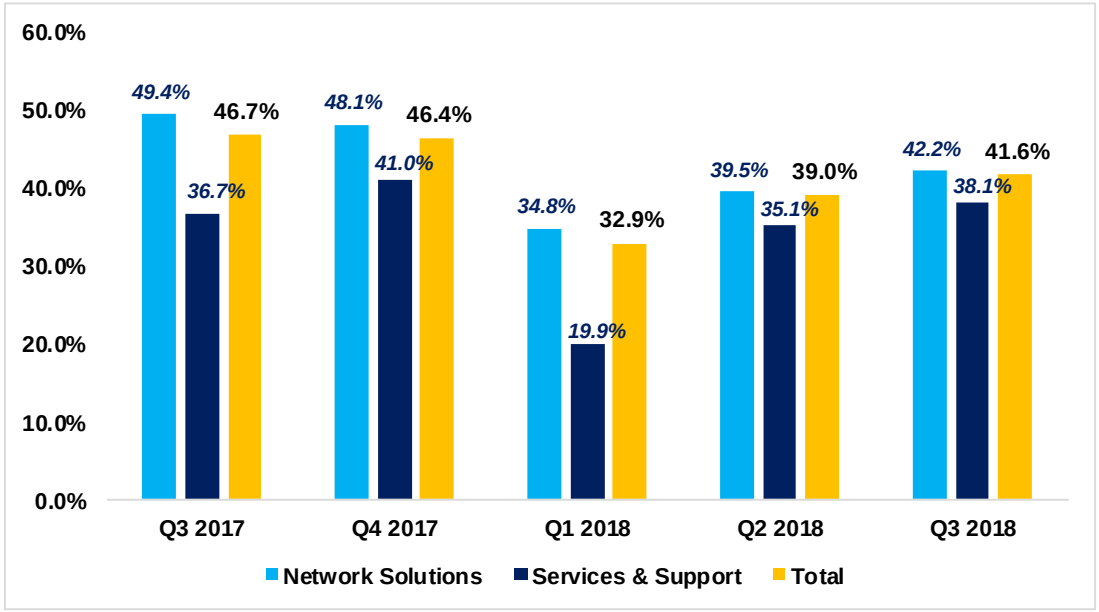


Domestic & International Sales (M)



2018 © ADTRAN, Inc.

Gross Margin (GM) by Segment



2018 © ADTRAN, Inc.

General Business

Business Outlook*

Looking forward, significant revenue opportunities from a number of large customer projects including, next generation PON projects with large carriers, both domestically and internationally, the beginnings of deployment for a large project in the APAC region, a significant network upgrade by a Tier 1 European customer, as well as continued expansion and opportunities for our EPON products to two of the *top North American cable MSO operators.*

Q4 18	
Revenue	**In the range of $135M+/-$5M**
Gross Margin	**~ 40%**
OpEx	**~ $62M**
Tax	**Benefit of ~ 20%**

**Guidance or Outlook with respect to Q4 18 is as of October 17, 2018, the date presented on the 3Q18 earnings call. Actual results may differ materially from these forward looking statements.*

2018 © ADTRAN, Inc.

General Business