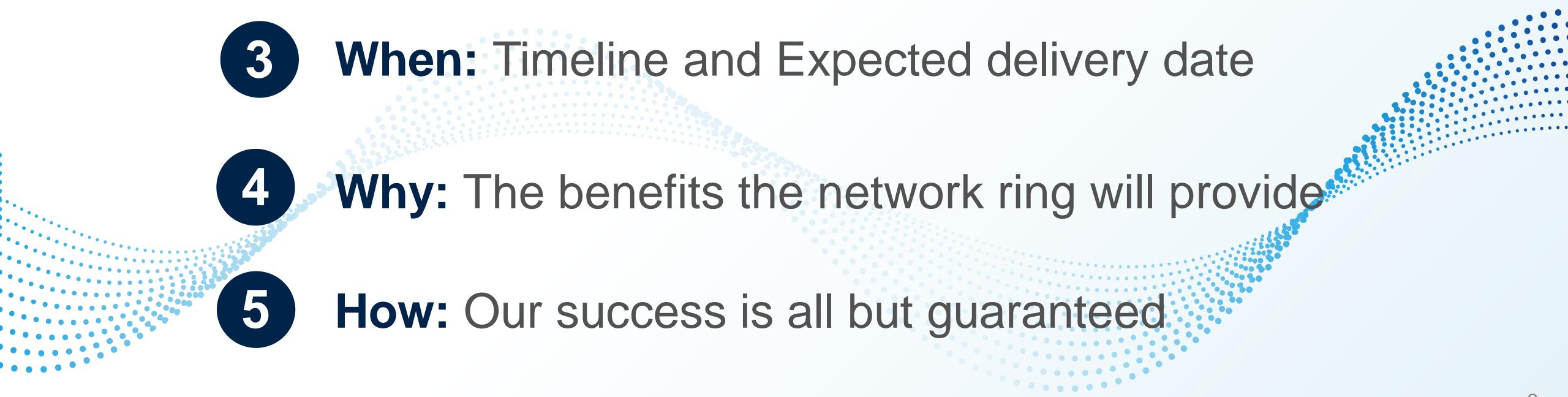


# 757Connects

**Southside Network Authority Fiber Network Ring**

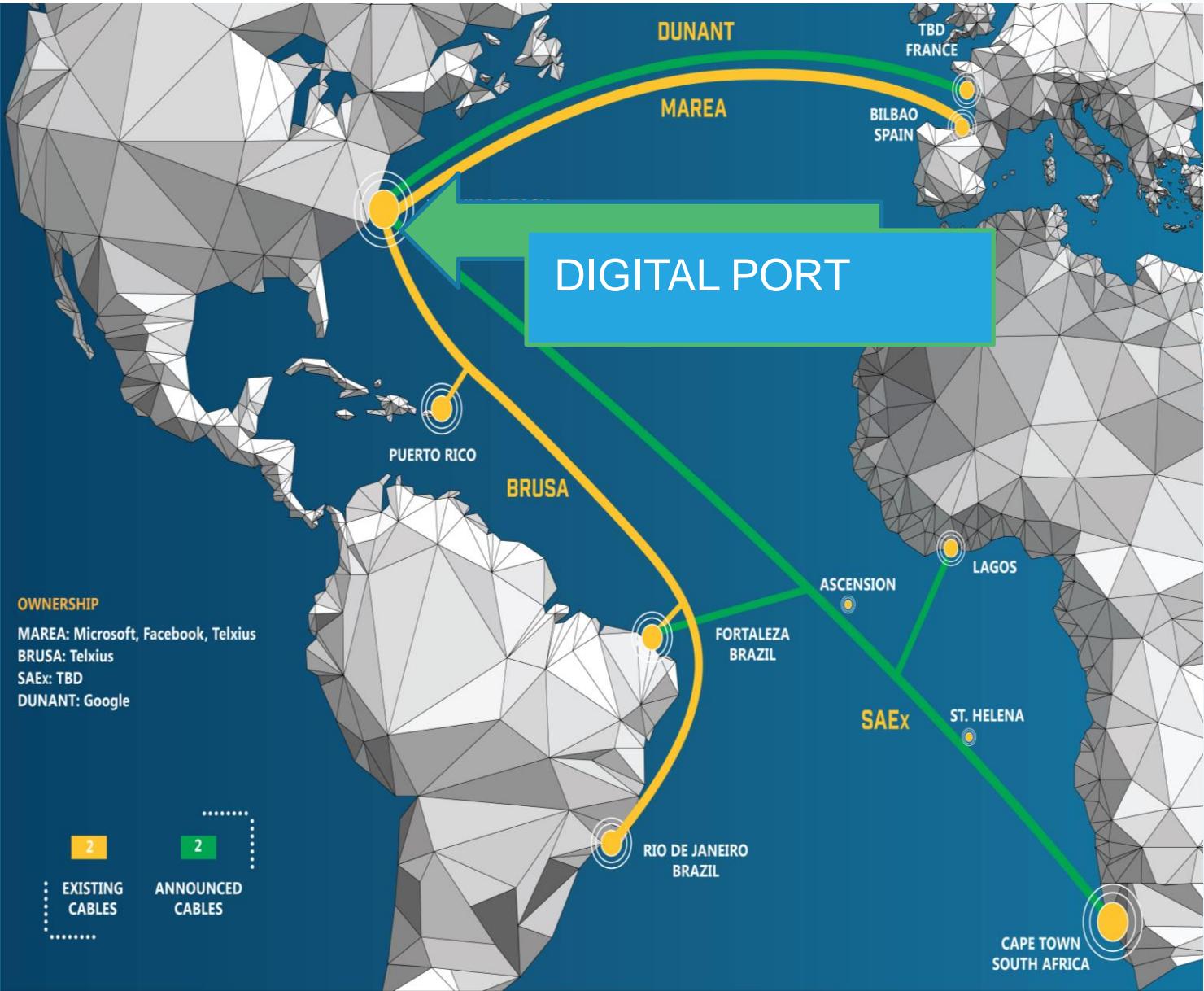
Faster Service - Expanded Coverage - Lower Cost

# Agenda



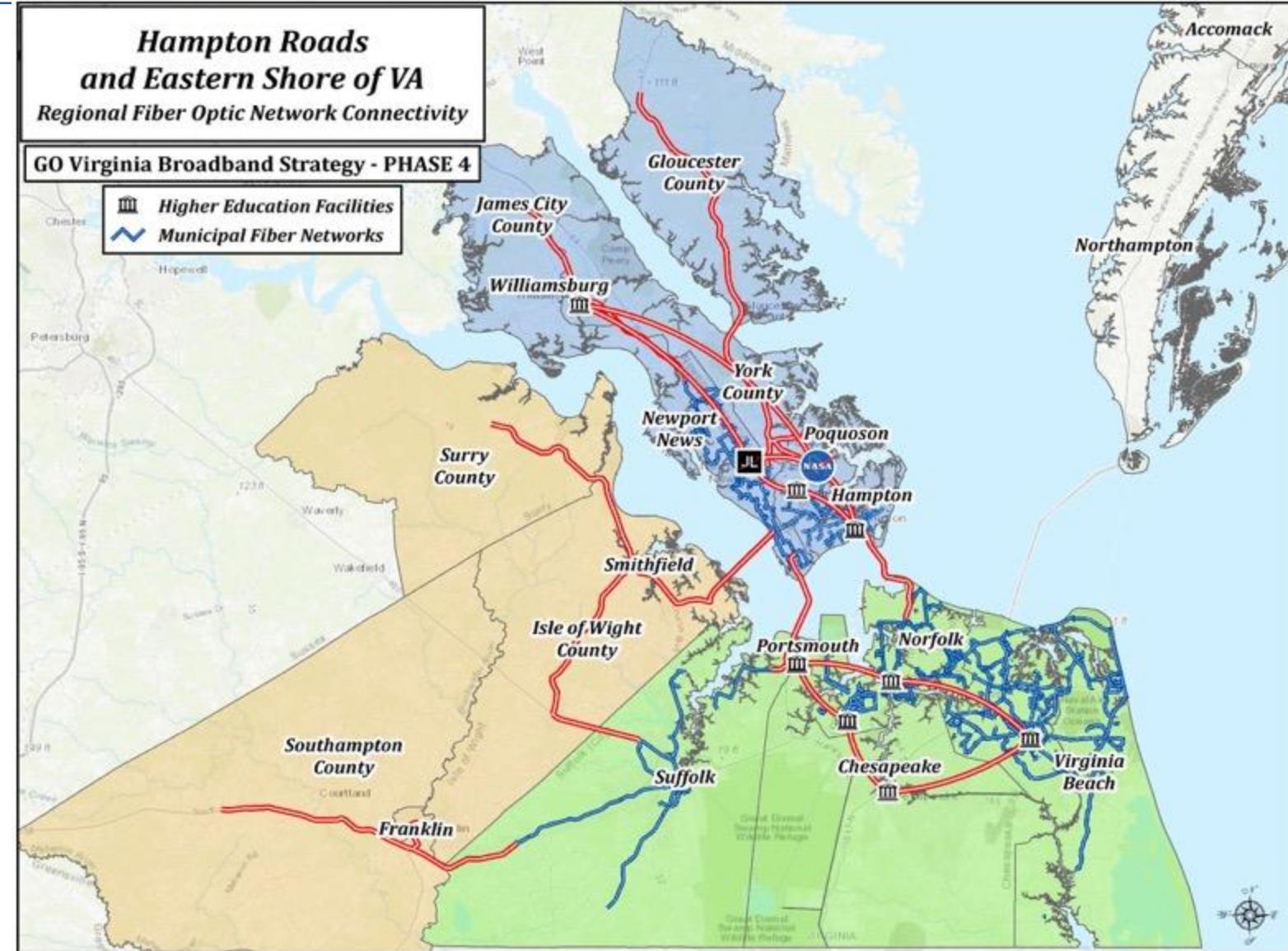
- 1 **What:** The regional network ring
- 2 **Where:** The location of the network ring
- 3 **When:** Timeline and Expected delivery date
- 4 **Why:** The benefits the network ring will provide
- 5 **How:** Our success is all but guaranteed

# The Network Ring will connect to the Trans-Atlantic Subsea Cables



## *Our Vision*

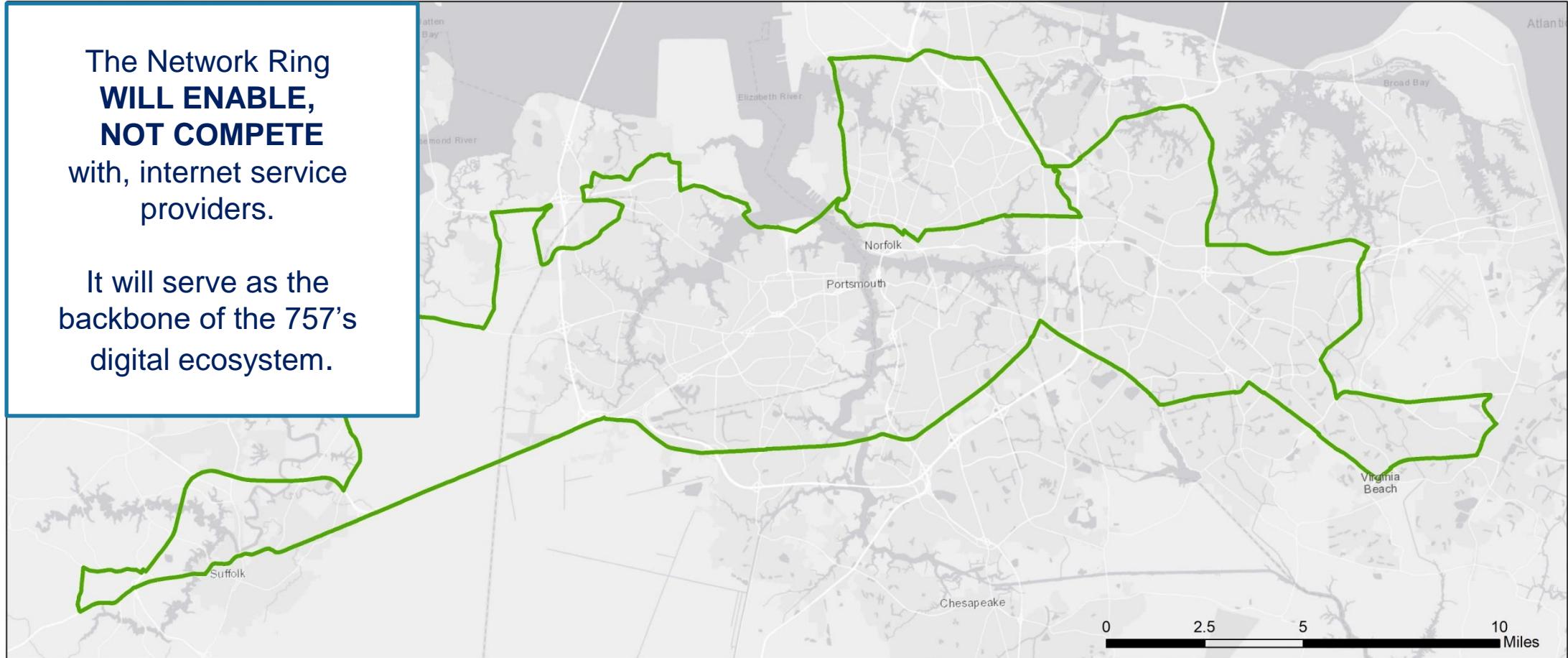
Ultimately,  
this will be a  
**Fiber Optic  
Network Ring**  
that will connect our  
entire 757 Region.



# Updated Regional Fiber Ring Southside Phase I

The Network Ring  
**WILL ENABLE,  
NOT COMPETE**  
with, internet service  
providers.

It will serve as the  
backbone of the 757's  
digital ecosystem.



# Think National Highway System Without Any Secondary Roads

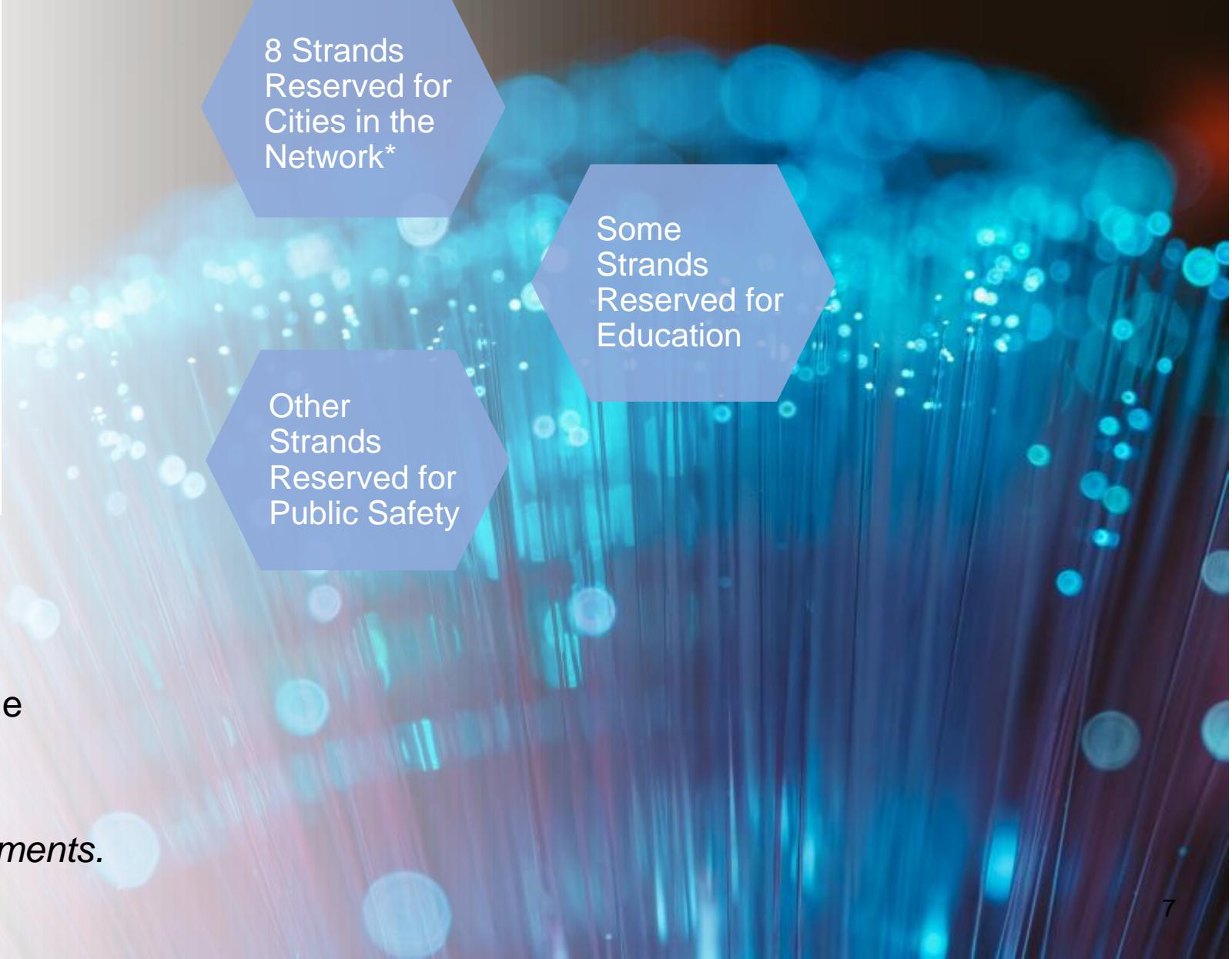
*Our Interstates are the Backbone of the Entire U.S. Roadway System*



# Our Digital Highway Consists of 288 Digital Strands

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Fiber optics (optical fibers) are long, thin strands of very pure glass about the diameter of a human hair.

A close-up photograph of fiber optics, showing numerous thin, glowing blue and white strands against a dark background. Three light blue hexagonal callout boxes are overlaid on the image, containing text.

8 Strands  
Reserved for  
Cities in the  
Network\*

Some  
Strands  
Reserved for  
Education

Other  
Strands  
Reserved for  
Public Safety

*\*Every city has come with their requirements.*

# RCR cost estimates

Cost Component	Estimated Cost
Fiber Optic Outside Plant (OSP) Construction	\$22,962,000
Network Hardware	\$658,000
Network Integration and Testing	\$165,000
<b>Total</b>	<b>\$23,785,000</b>

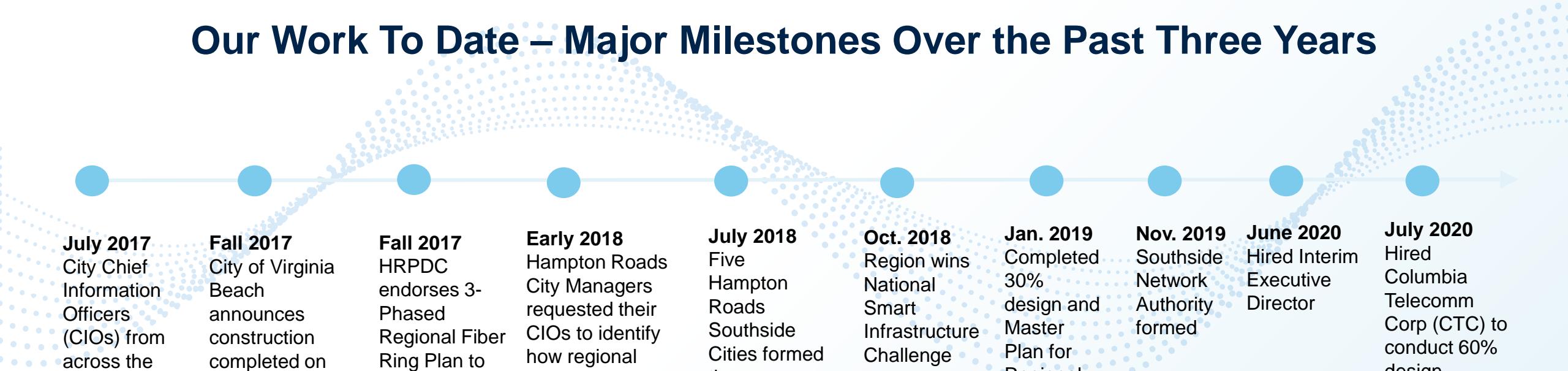
## Capital Construction and Equipment

## Fixed Operations and Maintenance

Maintenance and Operating Costs	Qty	Unit	Unit Cost	Extended Cost
Fiber Plant Maintenance	119.1	Mile	\$3,600	\$428,760
Equipment Maintenance Contracts (Year 2+)	1	Year	\$60,000	\$60,000
NOC Fee (\$150 per element per month)	10	EA	\$1,800	\$18,000
Network Engineer	0.25	FTE	\$200,000	\$50,000
Network / GIS Manager	0.50	FTE	\$150,000	\$75,000
Network Technician	0.25	FTE	\$100,000	\$25,000
Incidentals	1	EA	\$10,000	\$10,000
Equipment Replacement Fund (7-year lifecycle)	1	EA	\$94,000	\$94,000
<b>Total Annual Maintenance and Operating Costs</b>				<b>\$760,760</b>

# Our Five-Year Pathway to Lower Cost, Faster Service and Expanded Broadband Coverage

## Our Work To Date – Major Milestones Over the Past Three Years



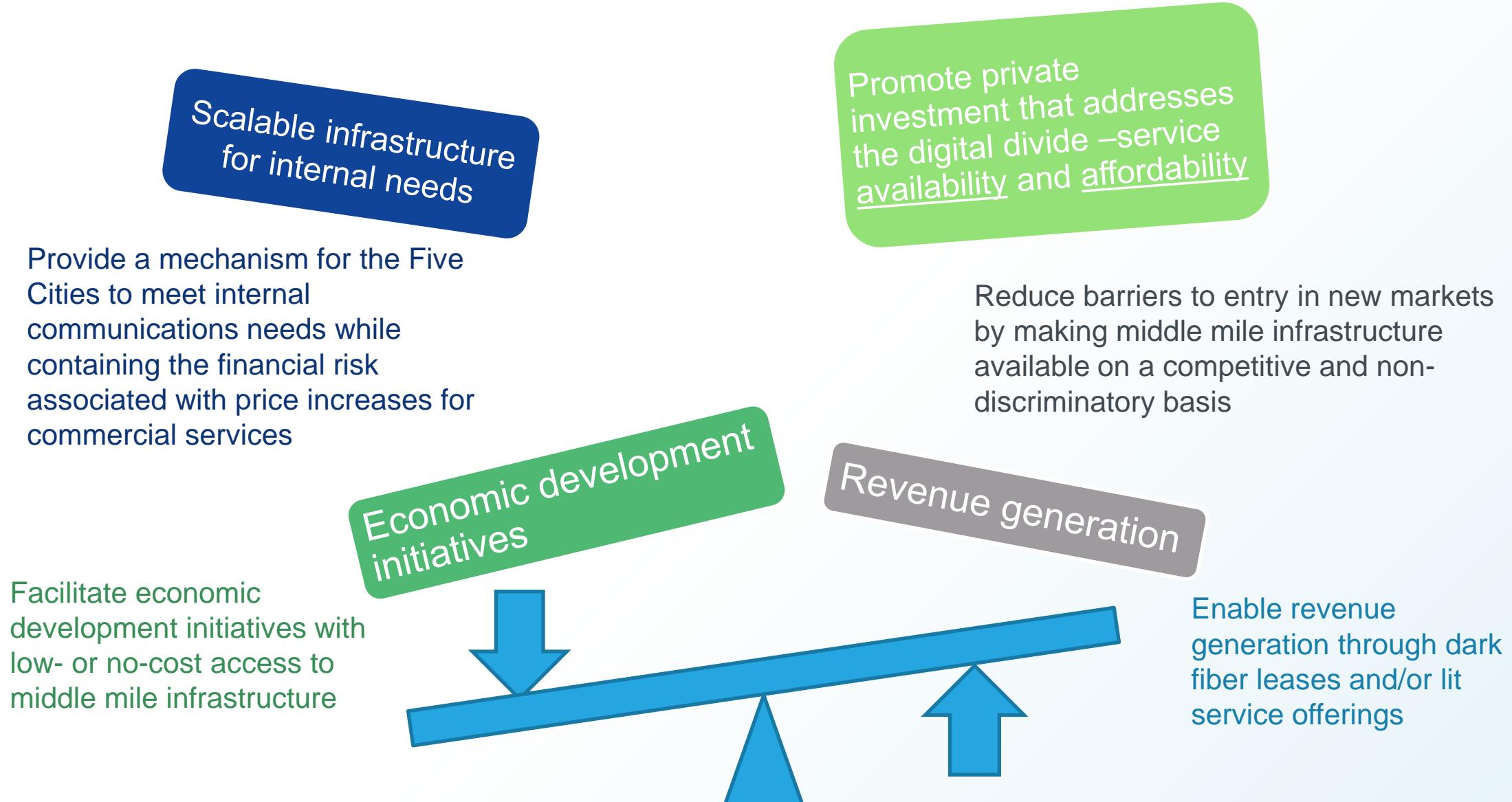
July 2017										
City Chief Information Officers (CIOs) from across the region started to discuss a regional broadband concept.										
	<b>Fall 2017</b>									
City of Virginia Beach announces construction completed on 1 <sup>st</sup> transatlantic cable (Marea).										
		<b>Fall 2017</b>								
		HRPDC endorses 3-Phased Regional Fiber Ring Plan to GoVA								
			<b>Early 2018</b>							
			Hampton Roads City Managers requested their CIOs to identify how regional connectivity can benefit public safety, higher education, and economic development.							
				<b>July 2018</b>						
				Five Hampton Roads Southside Cities formed the Broadband Steering Committee.						
					<b>Oct. 2018</b>					
					Region wins National Smart Infrastructure Challenge					
						<b>Jan. 2019</b>				
						Completed 30% design and Master Plan for Regional Fiber Ring				
							<b>Nov. 2019</b>			
							Southside Network Authority formed			
								<b>June 2020</b>		
								Hired Interim Executive Director		
									<b>July 2020</b>	
									Hired Columbia Telecomm Corp (CTC) to conduct 60% design, develop construction cost estimate and Business Case Analysis	

# Our Work Ahead: Major Milestones for the Next Two Years



**Phase 1 Will Be Delivered  
to 757 Southside by early 2023**

# Balancing Goals for the Regional Connectivity Ring



# Our Goal - Smart Region

## Use Technology to Address our Challenges and Opportunities

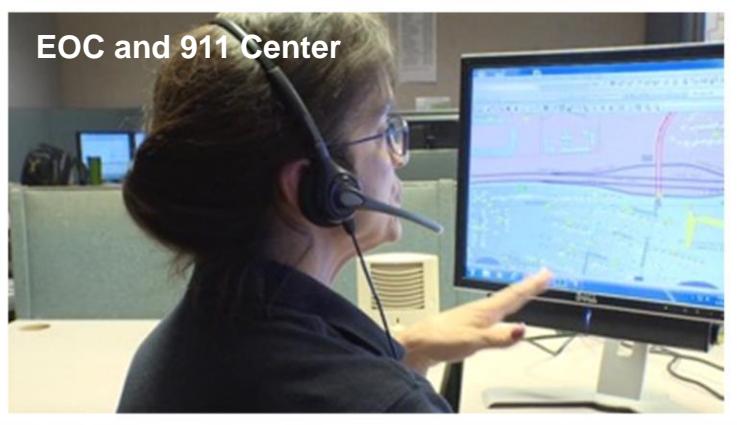
- Sea Level Rise/Recurrent Flooding
- Emergency Communications
- Transportation – Managed Lanes
- Autonomous Vehicles
- Remote Learning
- Teleworking
- Job Creation
- Public Safety
- College/University Research
- Center for Innovation
- High Tech Companies
- Technology Ecosystem



The Regional Network Ring Will

# Improve the Interoperability of Our Region's Emergency Response System

EOC and 911 Center



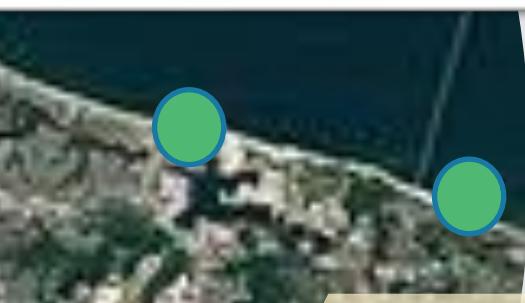
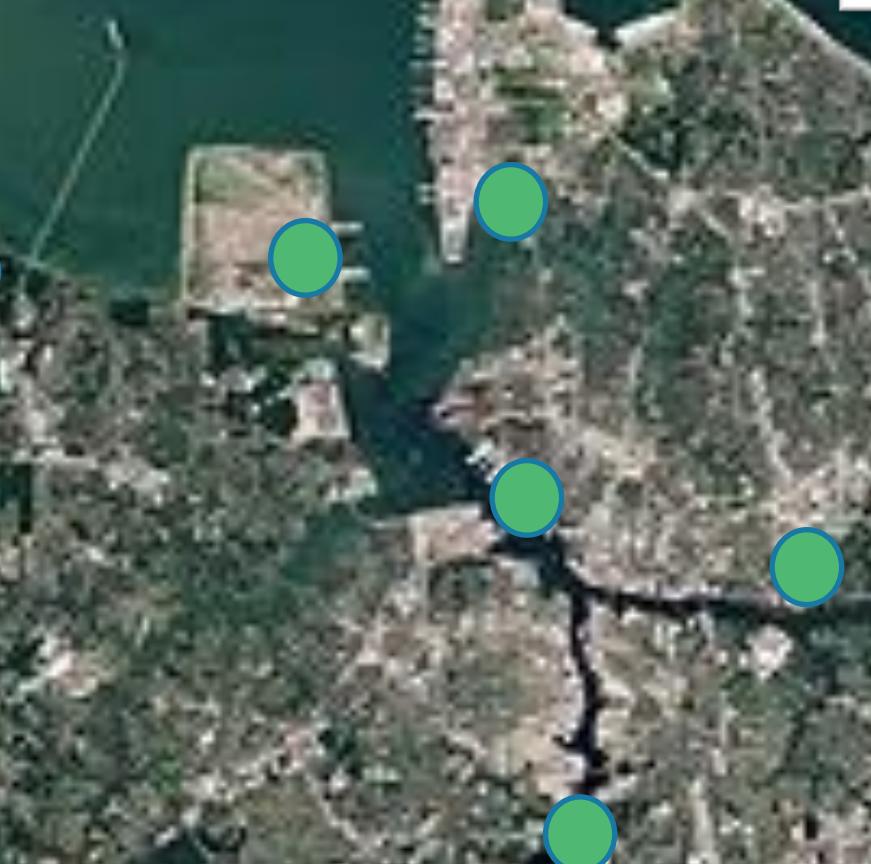
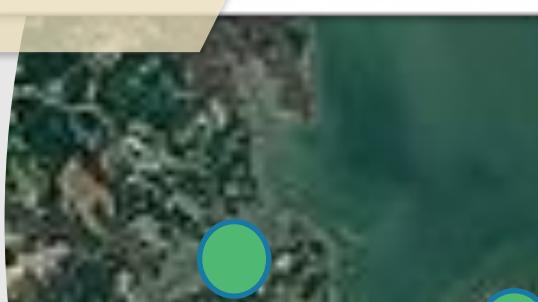


The Regional Network Ring Will

**Help The Region Navigate  
Flooding and Sea Level Rise**

TITAN:

Tidal inundation  
tracking application –  
storm surge tracking





The Regional Network Ring Will  
**Help Support the Future  
of Autonomous Vehicles**

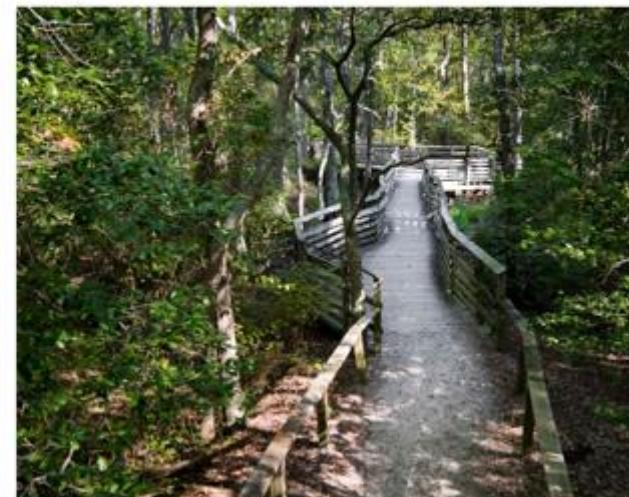
## The Regional Network Ring Will Support Growing Industries in the 757

- Financial Services: High Frequency Trading
- Data Transfer & Storage: Microsoft / Facebook / Amazon
- Cybersecurity Industry: An immediate need for 17,000 more cyber security professionals in Virginia alone
- Medical/Bioscience & Health Industries: Data analytics are key to driving down cost while improving care
- Ecosystem for Business Investment and Entrepreneurs: Backbone connectivity at speeds of 10Gbps and beyond



**Our Region's  
Quality of Life Will  
Attract Remote  
Workers...**

**Our Regional  
Network Ring Will  
Support Them.**



# Pre-COVID-19, the Distributed Workforce Was Growing and Projected to Be 50% By 2030



# COVID-19 Impact: The Distributed Workforce Is Projected to Reach 50% By **2025**

*\*In the middle of COVID-19, Hampton Roads Business Leaders report that over 50% of their workforce currently works remotely.*

Source: Alliance Wave 3 Survey



10%

1990s

30%

TODAY

50% \*

2025

Source: SIR



The Regional Network Ring Will

## Help Make a Case For BRAC.

BRAC will return in three to four years. The Navy wants 30% of their local workforce to telework. Regions that can support this goal will have a stronger case to make when BRAC reappears.

Summary, our regional broadband ring is arriving just in time to

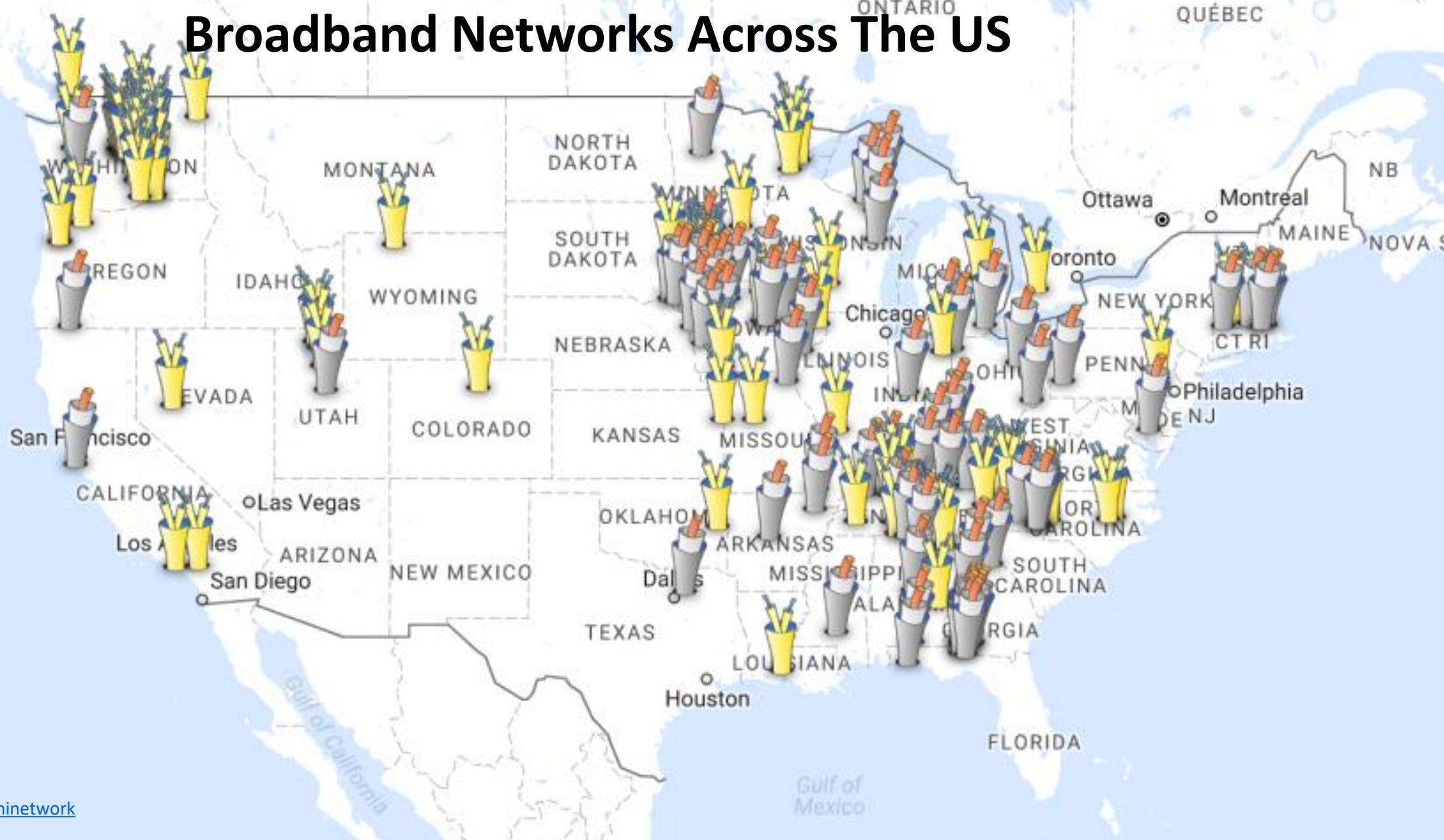
## Future-Proof the 757



# Our Network Ring has the Unanimous Support of 17 Local Jurisdictions that make up the 757 Region



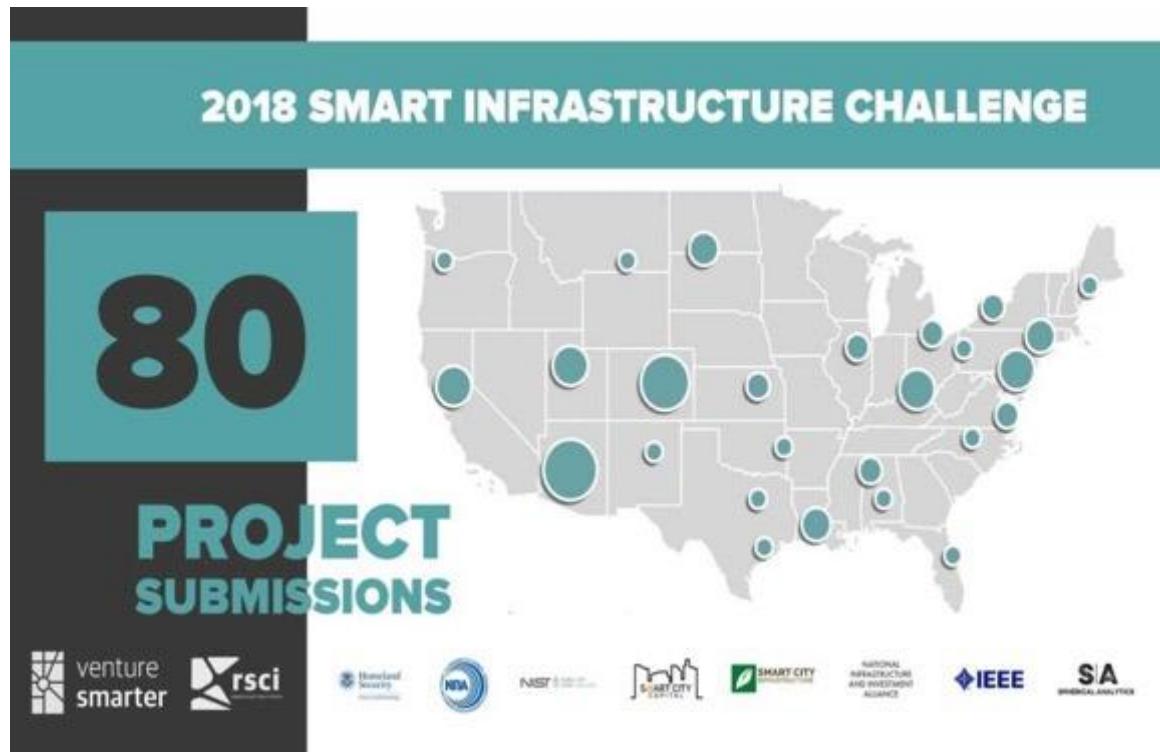
# There Are Now Over 500 Community Broadband Networks Across The US



# Our Network Ring Concept has been Recognized Nationally.

## Grand Prize Winner:

### Hampton Roads Regional Connectivity Ring



- 69 Regional Response Teams
- 80+ Project Plans
- 250+ Collaborating Governments and Universities
- 500+ participating organizations
- \$3+ billion in project financing available for projects to scale

# Thank You