

757Connects

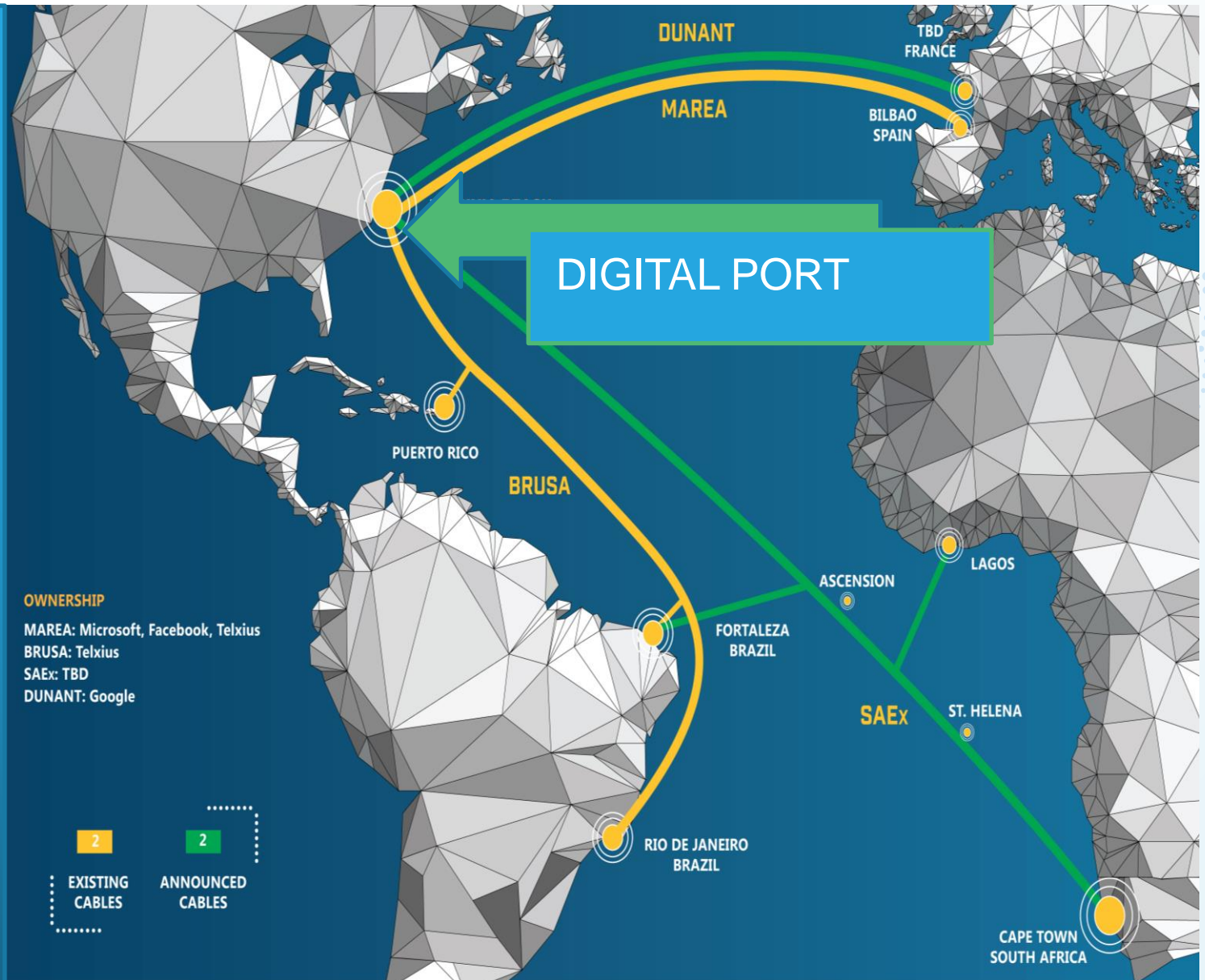
Southside Network Authority Fiber Network Ring

Faster Service - Expanded Coverage - Lower Cost

Agenda

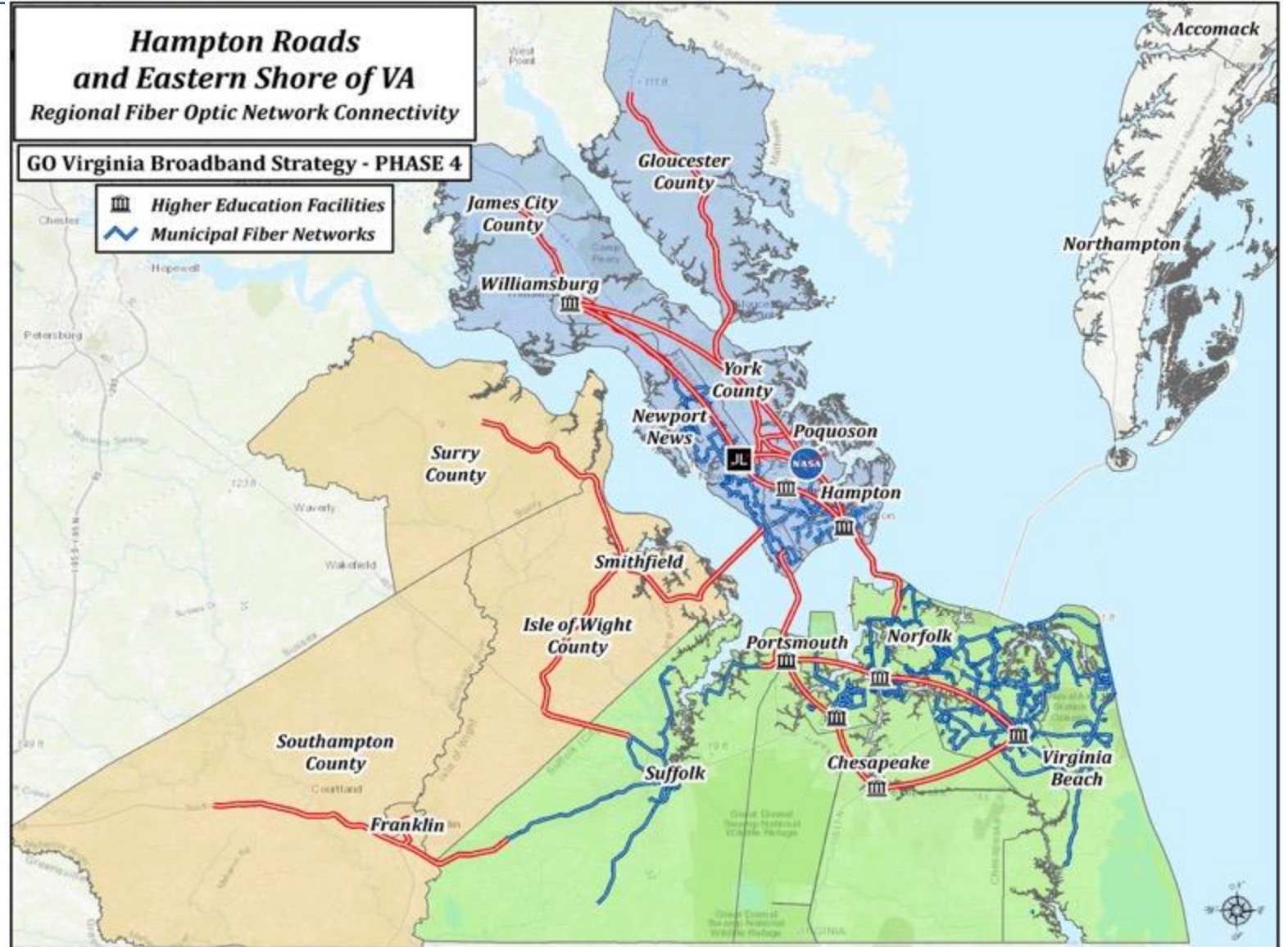
- 1 **What:** The regional network ring
- 2 **Where:** The location of the network ring
- 3 **When:** Timeline and Expected delivery date
- 4 **Why:** The benefits the network ring will provide
- 5 **How:** Our success is all but guaranteed

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



Our Vision

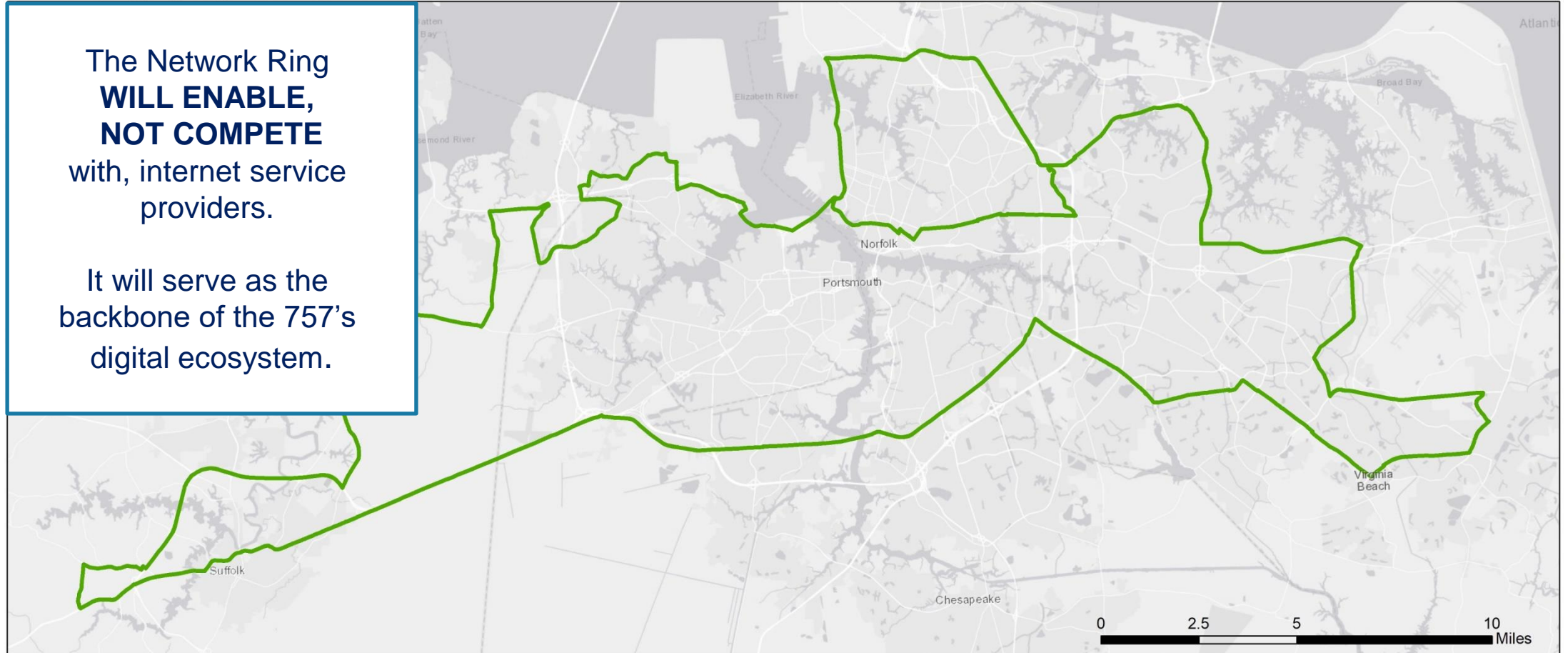
Ultimately,
this will be a
**Fiber Optic
Network Ring**
that will connect our
entire 757 Region.



Updated Regional Fiber Ring Southside Phase I

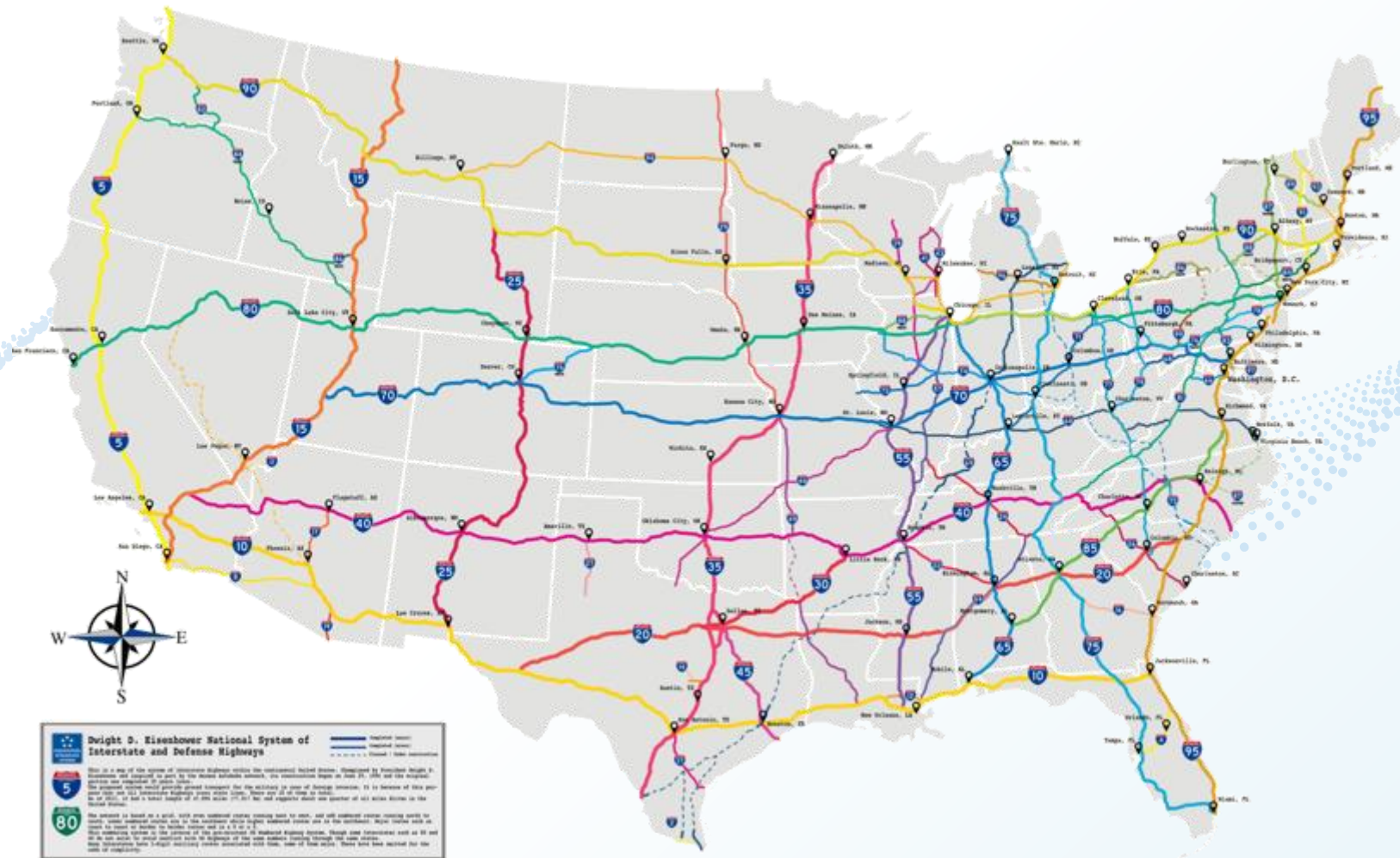
The Network Ring
**WILL ENABLE,
NOT COMPETE**
with, internet service
providers.

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

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

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
Total	\$23,785,000

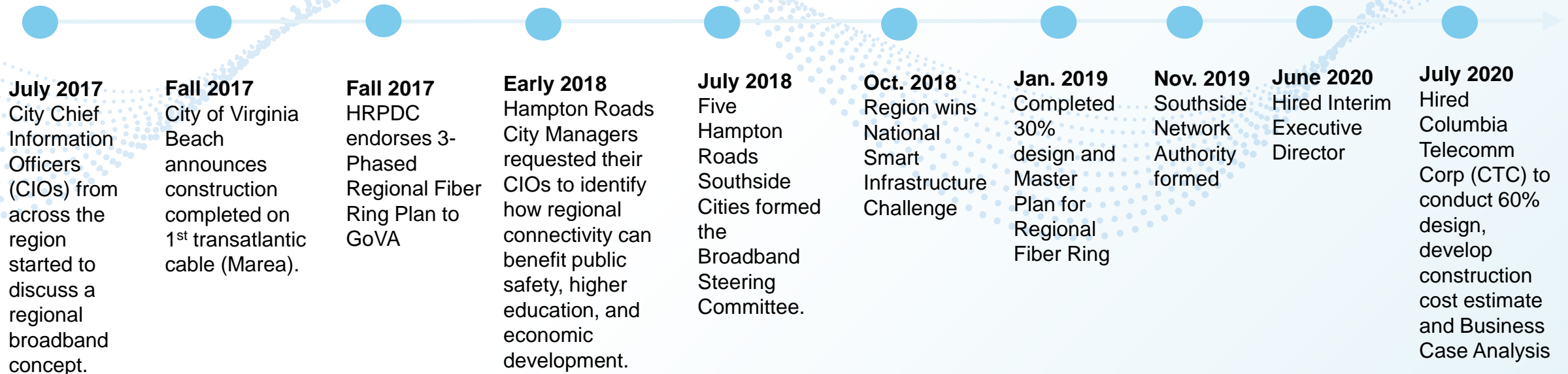
Capital Construction and Equipment

Fixed Operations and Maintenance

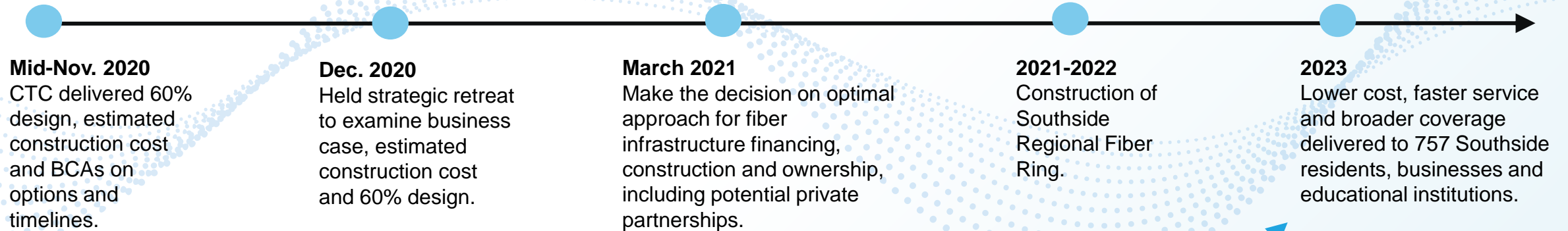
Maintenance and Operating Costs	Qty	Unit	Unit Cost	Extended Cost
Fiber Plant Maintenance	119.1	Mile	\$3,600	\$428,760
Equipment Maintenance Contracts (Year 2+)	1	Year	\$60,000	\$60,000
NOC Fee (\$150 per element per month)	10	EA	\$1,800	\$18,000
Network Engineer	0.25	FTE	\$200,000	\$50,000
Network / 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
Total Annual Maintenance and Operating Costs				\$760,760

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

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



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

Scalable infrastructure
for internal needs

Provide a mechanism for the Five Cities to meet internal communications needs while containing the financial risk associated with price increases for commercial services

Promote private investment that addresses the digital divide –service availability and affordability

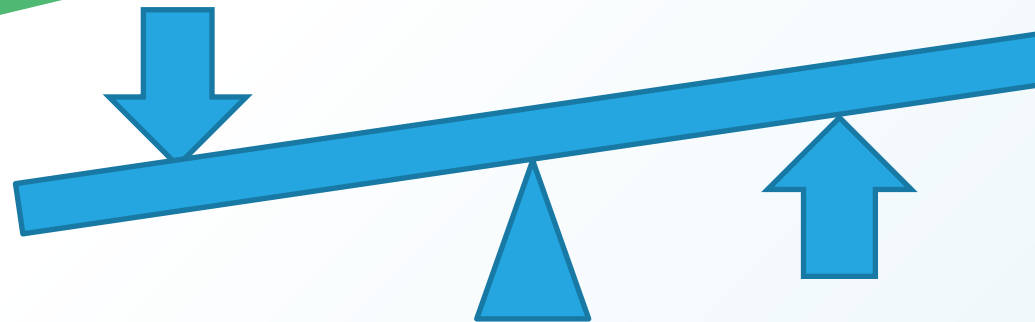
Reduce barriers to entry in new markets by making middle mile infrastructure available on a competitive and non-discriminatory basis

Economic development
initiatives

Facilitate economic development initiatives with low- or no-cost access to middle mile infrastructure

Revenue generation

Enable revenue generation through dark fiber leases and/or lit service offerings



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



Improving Real
Time Response



TITAN:

Tidal inundation
tracking application –
storm surge tracking

sensors every
where

STORM SENSE
Weather Event
Analysis, Maps



Water Level
Monitoring
System(WLMS)

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



Source: SIR

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



1990s



TODAY



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.

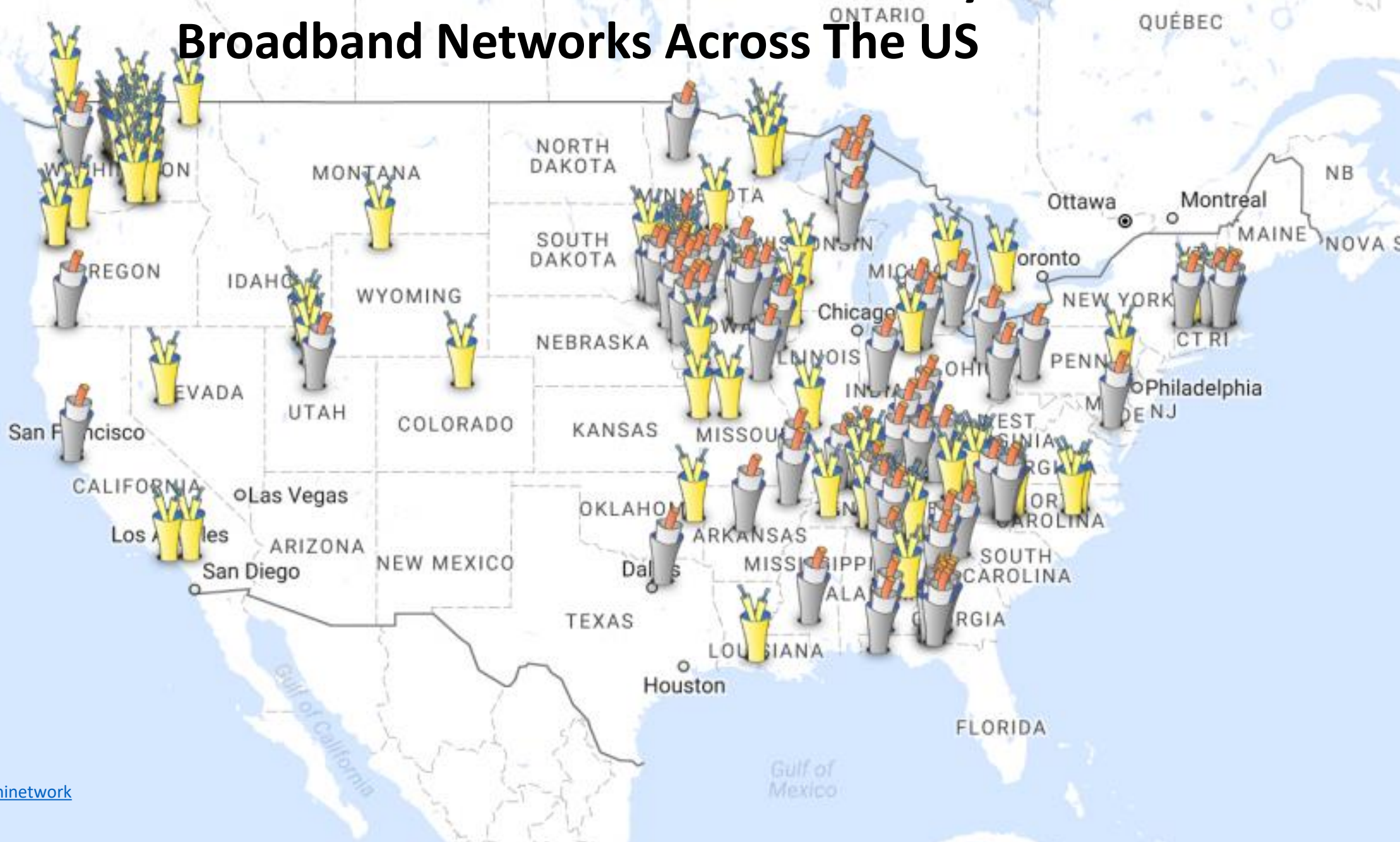
Summary, our regional broadband ring is arriving just in time to

Future-Proof the 757

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



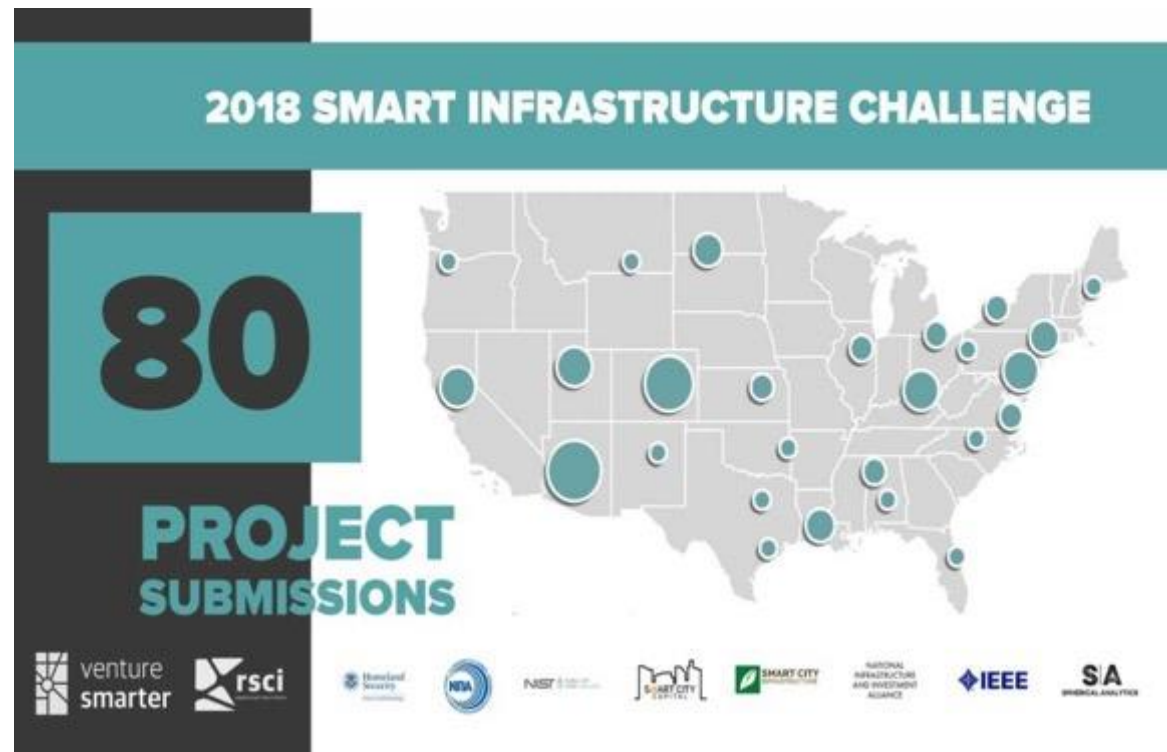
There Are Now Over 500 Community Broadband Networks Across The US



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

