



# Global Internet Hub Strategic Plan Update

June 9, 2023



I-64  
**INNOVATION**  
CORRIDOR

# Today's Agenda



**1) Overview of RVA757 Connects**

**2) Global Internet Hub Strategic Plan**

**1.**  
**Overview  
of RVA757  
Connects**

*Cities around the world have learned that **intentional collaboration, not competition**, with nearby metro areas drives scale and the economic success of both localities.*

# The Original Three Megaregions



**Boston's  
Rt.128 Corridor**

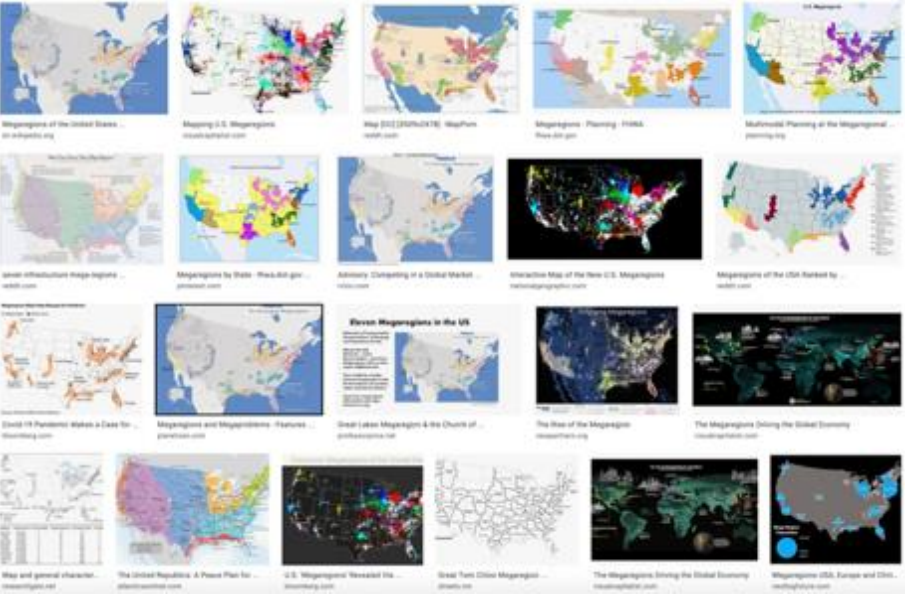


**North Carolina's  
Research Triangle**



**California's  
Silicon Valley**

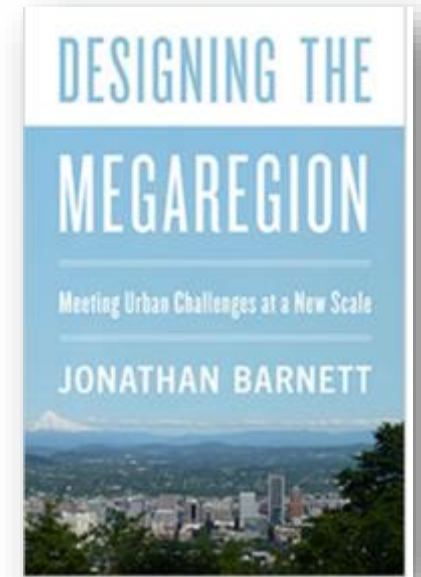
# Today's U.S. Map of Megaregions



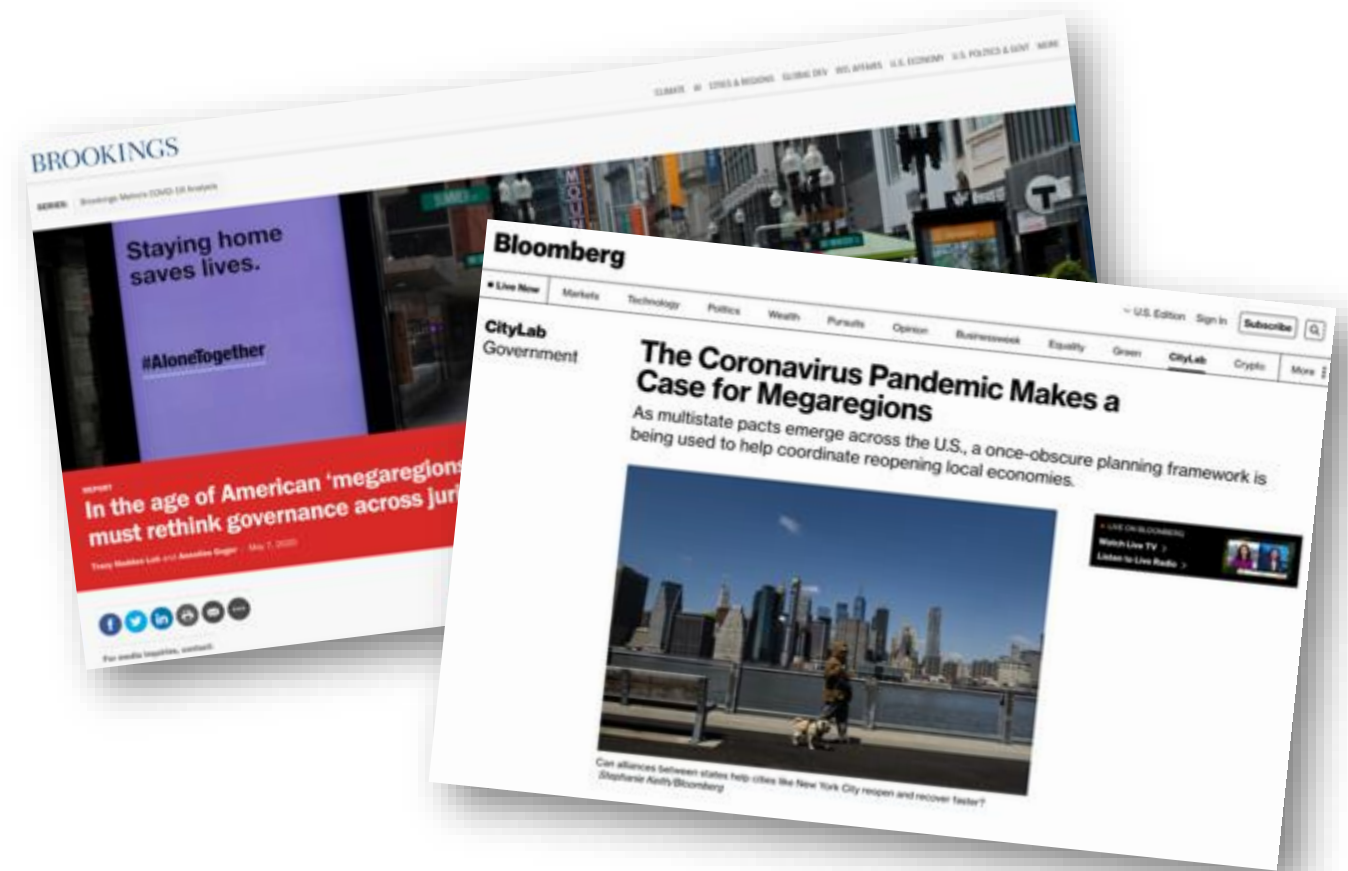
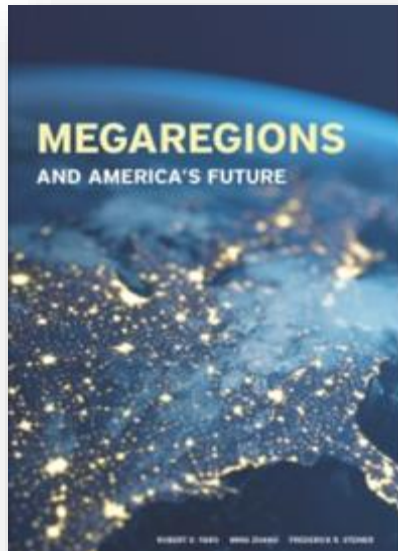
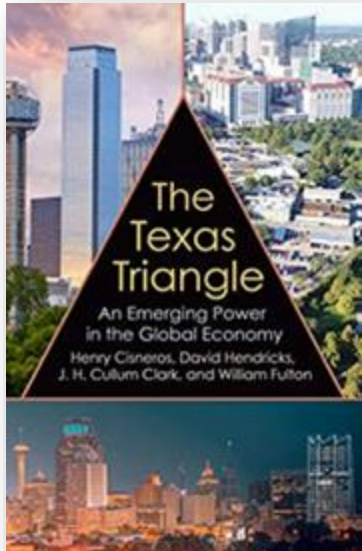
# Consider these facts



- US population will grow by 20% in the next three decades.
- 88% of the growth will be in the US megaregions.
- By 2045, the US Population will be predominantly non-white, requiring attention to growing racial and economic inequality.
- By 2050, country's share of people 65+ will reach 22% (14% today).
- Throw in climate change and sea level rise.
- These are mega issues . . .



# The Megaregion Perspective Is Gaining Traction





One can view the Richmond–Hampton Roads relationship from several perspectives:



### **Regional Collaborators**

Two neighboring regions that are collaborating to help each other thrive and grow in a global economy.

### **The 12th Megaregion**

While relatively smaller than most megaregions, this area meets the common criteria for being a megaregion: a contiguous area with more than one major city center; a large, combined population; and significant output measured by GDP.

### **An Innovation Corridor**

The I-64 Innovation Corridor that runs from Richmond to Hampton Roads along I-64.

Given the rise of innovation corridors in the markets surrounding Richmond and Hampton Roads, RVA757 Connects is most often using the I-64 Innovation Corridor designation.

## Our Purpose

Improve the economic success and quality of life for everyone in the RVA and 757 regions.

## Our Mission

We identify, support, and advance major opportunities, initiatives, and projects that will meaningfully benefit our communities for generations to come.

## Board of Directors

75 Director Positions

Brian Anderson  
 Ted Chandler \*  
 Cliff Fleet  
 Wilson Flohr  
 Moses Foster

## Board Executive Committee

Tom Frantz \*  
 Nancy Grden  
 Ross Grogg  
 Bob Holsworth

Mitch Hadden  
 Sarah Jane Kirkland  
 Aubrey Layne  
 Peggy Layne  
 Chris Lloyd

\*Co-chairs of Board

John Martin  
 John Reinhart  
 Bryan Stephens  
 Jim Spore

## Megaregion Institutional Council (The “MIC”)

21 Organizations

### Nominations & Governance Committee

Moses Foster  
 Sarahjane Kirkland

### Development Committee

Mitch Haddon

### Government Relations Committee

Ross Grogg  
 Chris Lloyd

### Communications Committee

Greg Gilligan

### Ad Hoc

(Not a Board Committee)

- I-64 Innovation Corridor Opportunity Study Research Council
- Global Internet Work Group
- Global Internet Hub Steering Committee

### STAFF:

**CEO:** John W. Martin

**Business Manager:** Laura Robidoux

**Communications Director:** Greg Gilligan

# Megaregion Institutional Council (aka “MIC”)

*Planning and implementation organizations from both regions*

RVA MIC Members	757 MIC Members
PlanRVA	HRPDC
Community Foundation for a greater Richmond	Hampton Roads Community Foundation
ChamberRVA	Chamber Hampton Roads
	Virginia Peninsula Chamber
	Greater Williamsburg Chamber Business Council
Greater Richmond Partnership	Hampton Roads Alliance
GOVirginia (Region 4)	GOVirginia (Region 5)
Capital Region Workforce Partnership	Hampton Roads Workforce Council
	CIVIC Leadership Institute
Grow Capital Jobs Foundation	Reinvent Hampton Roads
Management Round Table (MRT)	Hampton Roads Business Roundtable

*In addition, the Virginia Hispanic Chamber and Asian Chamber serve on the MIC.*

# Our Greatest Asset ... Leading Companies from Both Markets Are Our Board Members

Co-Chairmen		
Theodore L. Chandler, Jr.	Co-founder and Managing Director	NRV
Thomas R. Frantz	Partner	Williams Mullen

Directors		
Name	Title	Organization
Dr. Makola M. Abdulla	President	Virginia State University
Monique Adams	Executive Director	757 Angels
Javaune Adams-Gaston	President	Norfolk State University
Matt Anderson	Executive Vice President	Colliers International
Sherrie Armstrong	President/CEO	Community Foundation for a greater Richmond
Glenn Ballard	President/CEO	Dragonfil Group, LLC
Marty Barrington	Chairman of the Board	Anheuser-Busch InBev
Gilbert T. Bland	President and Chairman	Urban League of Hampton Roads
Robert M. Blue	Chairman and President/CEO	Dominion Energy
Jamie Booth	Director of Client Solutions	Hourigan
Jennifer R. Boykin	Executive Vice President and President	Newport News Ship Building
Anne Conner	President, Public Finance and Community Investment	TowneBank
Kelsey Daugherty	Richmond Community Leader	
Robby Demerta	Chief of Staff	Phlow Corporation
Deborah M. DiCroce	President/CEO	Hampton Roads Community Foundation
William B. Downey	CEO	Riverside Health System
Robert Duvall	President	Virginia Natural Gas
Stephen A. Edwards	CEO and Executive Director	The Port of Virginia
Dawna L. Ellis	Chief Financial Officer and Chief Operating Officer	Harvey Lindsay Commercial Real Estate
Cliff Fleet	President/CEO	Colonial Williamsburg Foundation
Wilson H. Flohr Jr.	CEO	GROW Capital Jobs Foundation, GO Virginia (Region 4)
Moses Foster	President/CEO	West Cary Group
Calvin W. "Woody" Fowler, Jr.	Partner	Williams Mullen
W. Taylor Franklin	CEO	The Franklin Johnston Group
Greg Garrett	Senior Partner/CEO	Garrett Realty Partners
Robbyn Gayer	First Vice President, Wealth Management	UBS Financial Services, Inc.
Donald Graul	CEO	Branch Group
Nancy Grden	President/CEO	Hampton Roads Executive Roundtable
Ross Grogg	Vice President	Kemper Consulting
Kasia Grzelkowski	President/CEO	VersAbility
Mitch Haddon	President/CEO	ColonialWebb Contractors Company
Renee S. Hallom	Vice President and Regional Executive	Federal Reserve Bank of Richmond
Todd P. Haymore	Managing Director	Hunton Andrews Kurth
Brian O. Hemphill	President	Old Dominion University
Stuart Henderson	Director	Jefferson Lab

Graham Henshaw	Executive Director	Alan B. Miller Entrepreneurship Center, William & Mary
Bob Holsworth	Managing Partner	DecideSmart
Lisa Howard	President/CEO	E3: Elevate Early Education & The New E3 School
Harvey L. Johnson	Partner, Chief Executive Officer	PBMares
Martin A. Joseph	President/CEO	360 IT PARTNERS
Sarah Jane Kirkland	Associate Vice President for Corporate Partnership	Old Dominion University
John R. Lawson, II	Executive Chairman	W. M. Jordan Company
Aubrey L. Layne, Jr.	Senior Corporate Vice President and Chief of Staff	Sentara Healthcare
Peggy Layne	Retired, Community Volunteer	Dominion Energy
Harry T. Lester	Chairman	Hampton Roads Business Roundtable
Christopher D. Lloyd	Senior Vice President and Director, Infrastructure and Economic Development	McGuireWoods Consulting
John A. Luke, Jr.	Retired Chairman	WestRock Company
John W. Martin	President/CEO	SIR & the Institute for Tomorrow
Thomas J. McInerney	President/CEO	Genworth Financial
Shamim Mohammad	Executive Vice President, Chief Information and Technology Officer	CarMax
J.D. Myers, II	Senior Vice President, Region Manager of Virginia	Cox Communications
Thomas L. Ransom	Executive Vice President, President, Virginia Region	Truist Financial
Michael Rao	President	VCU
John F. Reinhart	Retired, Executive Director Emeritus	The Port of Virginia
Bernard Robinson, Sr.	Founder and President	Networking Technologies and Support (NTS)
Katherine A. Rowe	President	William & Mary
James Spore	Retired President/CEO	Reinvent Hampton Roads
Maria Tedesco	President	Atlantic Union Bank
Rony Thomas	President/CEO	LifeNet Health
Bruce Thompson	CEO	Gold Key   PHR
Jim Ukrop	Co-Founder and Managing Director	NRV
Hans VonKruger	Senior Vice President, Market Executive	Bank of America
Tom Walker	Founder and CEO	DroneUp
Jeff Wassmer	President/CEO	Spectrum
Laura White	Chief Risk Officer	PRA Group
Darrell K. Williams	President	Hampton University
Alan Witt	Dean	Luter School of Business, Christopher Newport University
John O. "Dubby" Wynne	Retired President/CEO	Landmark Communications
Ting Xu	Founder and Chairwoman	Evergreen Enterprises

# RVA757 Connects' Corporate Supporters



## . . . And RVA757 Connects' Individual Supporters



- Theodore L. Chandler, Jr.
- Kelsey Daugherty
- Cliff Fleet
- Wilson H. Flohr, Jr.
- Thomas R. Frantz
- Moses Foster
- Robbyn Gayer
- Ross Grogg
- Kasia Grzelkowski
- Bob Holsworth
- Martin A. Joseph
- Sarah Jane Kirkland
- Peggy Layne
- Harry T. Lester
- John A. Luke, Jr.
- John W. Martin
- John F. Reinhart
- Bernard Robinson, Sr.
- Douglas L. Smith
- James Spore
- Jim Ukrop
- John O. "Dubby" Wynne

# RVA757 Connects' Priorities



1. Advocate for I-64 widening (29-mile gap from RIC to Williamsburg)
2. Help the I-64 Innovation Corridor become a Global Internet Hub
3. Support the extension of the Virginia Capital Trail – the BoAT Trail
4. Increase passenger rail service
5. Support directors' and members' initiatives (VNG, Dominion, Jeff Lab)
6. Advance our megaregion's brand – I-64 Innovation Corridor



[www.RVA757Connects.com](http://www.RVA757Connects.com)

**RVA757**  
connects

About Our Initiatives Virtual Innovation Spotlight Convergence Media [Contact Us](#)

# Igniting a new corridor of innovation

## I-64 INNOVATION CORRIDOR

Learn more about our leading initiatives:

- Global Internet Hub
- I-64 Gap
- Bike/Walk Trails
- Passenger Rail

Any Questions?

**2.**  
**Overview  
of GIH  
Strategic  
Plan**

# GIH Strategic Plan - Draft

The page shows the Table of Contents for the report. It includes the RVA757 connects logo at the top left. The title "Table of Contents" is centered. The table lists seven sections with their corresponding page numbers. A quote from Vinay Nagpal is included in a box, and the RVA757 connects logo is in the bottom right corner.

Table of Contents	
I. Introduction.....	1-2
II. Benefits of Being a Global Internet Hub.....	2-5
III. Situation Review.....	5-9
IV. Strategic Recommendations.....	9-22
V. Funding Resources.....	23-24
VI. Steering Committee.....	26-28
VII. References.....	28

*"As the President of InterGlobe, I travel the world helping companies and communities develop their digital infrastructure. I thought I had seen everything, but this Global Internet Hub Strategic Plan is a first. This is the first time 60-plus leaders from two neighboring regions have worked together to create a comprehensive strategic plan to become a Global Internet Hub – not as a city, but as a megaregion. Your vision and unprecedented collaboration have already put Virginia's I-64 Innovation Corridor in a growing number of conversations across the globe about emerging Global Internet Hubs."*

**Vinay Nagpal**  
President of InterGlobe  
Executive Director and Founding Member of IIC

RVA757connects.com

IGNITING THE I-64 INNOVATION CORRIDOR

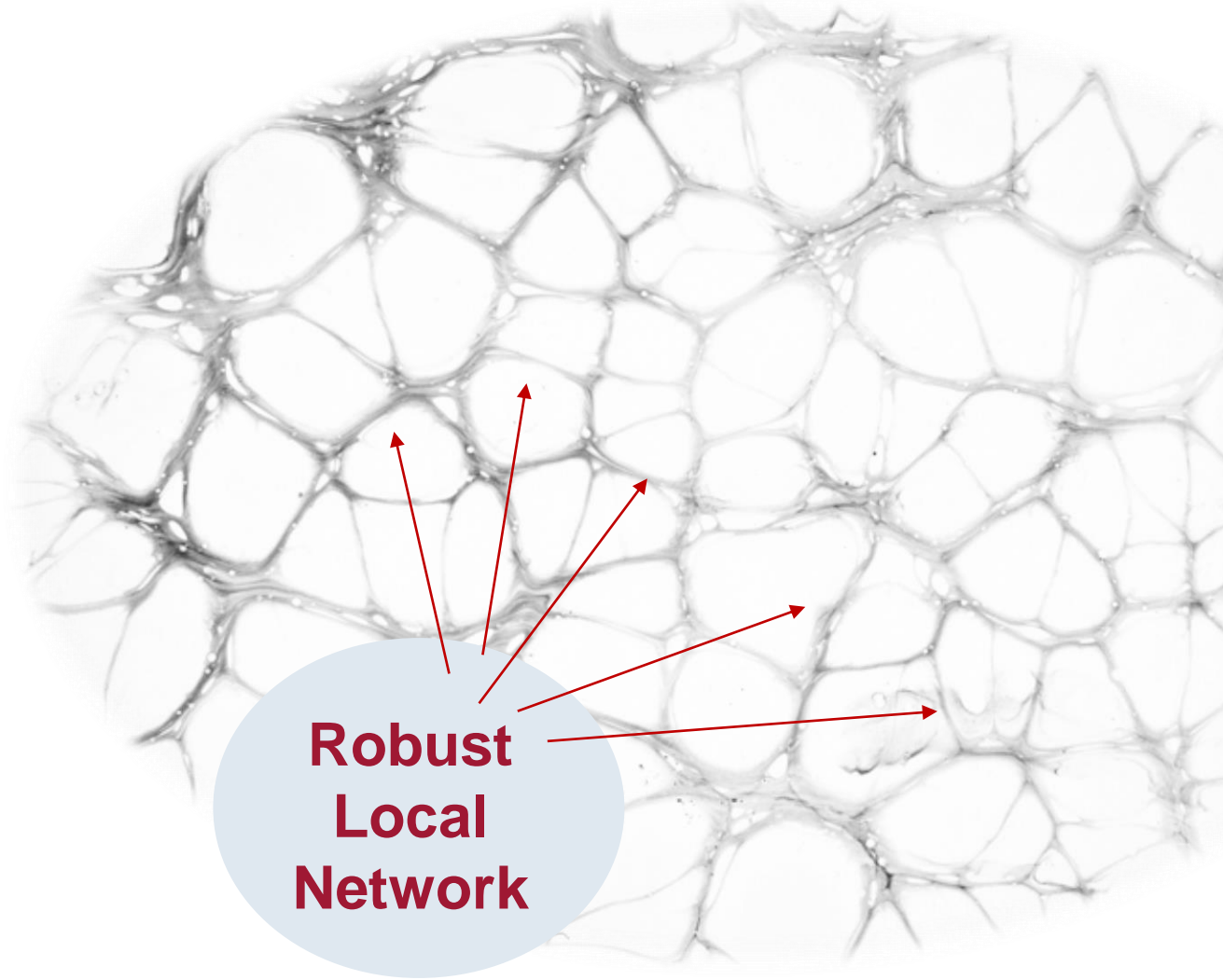
**WHAT**

# Visualizing Components of a Robust Digital Infrastructure Hub



**Let's Look At A  
Hypothetical Major  
City or Large Region**

# Components of a Digital Infrastructure Hub



Data runs on robust, diverse, and redundant networks that provide the connectivity that defines the worldwide Internet.

Dark and lit cable owners, ISP – Internet Service Providers, and satellite services form the network.

# Components of a Digital Infrastructure Hub

**Multiple  
Data  
Centers**

RVA-Hampton  
Roads  
Megaregion  
currently has 11  
data centers.

At its simplest, a data center is a physical facility that organizations use to house their critical applications and data. A data center's design is based on a network of computing and storage resources that enable the delivery of shared applications and data. The key components of a data center design include routers, switches, firewalls, storage systems, servers, and application-delivery controllers. SOURCE: CISCO



# Components of a Digital Infrastructure Hub

## Fiber Network Ring

Main network trunk that connects a region's governments, universities, large business parks, etc.

A growing number of cities and regions are standing up broadband authorities to install and manage their network rings.

The 757 has established the Southside Network Authority. Five cities have invested \$30M to build a 100+ mile fiber optic network ring to connect the assets of the 757 region.

## Fiber Network Ring

## SERVING THE UNDERSERVED

A fiber network ring makes it easier and less expensive to run broadband the last mile to reach and serve local underserved neighborhoods.

## LOCAL PRICING

This attracts more ISPs, stabilizing local service pricing.

# Components of a Digital Infrastructure Hub

Data centers are one of the most energy intensive structures. For every one input of data, five other inputs are produced, relaying the information to other data centers. This requires substantial electricity to keep the systems running.

Leaders in the data center industry are moving towards carbon-free energy. Meta (Facebook parent company), Microsoft, Google, and Amazon plan to power 100% of their future data center operations with some form of carbon-free energy.



**Reliable  
Power**

Supporting data centers is a priority for Dominion Energy. This segment accounts for 20% of the electricity sold by the utility. Dominion Energy has connected 69 data centers with 2,637 MW of capacity since 2019 (which is equivalent to 659,000 residential homes).

Dominion has enough generation to meet Northern Virginia's expanding data center demand. But new data centers require new transmission infrastructure. This requires local permitting which takes time with many variables out of Dominion's control.

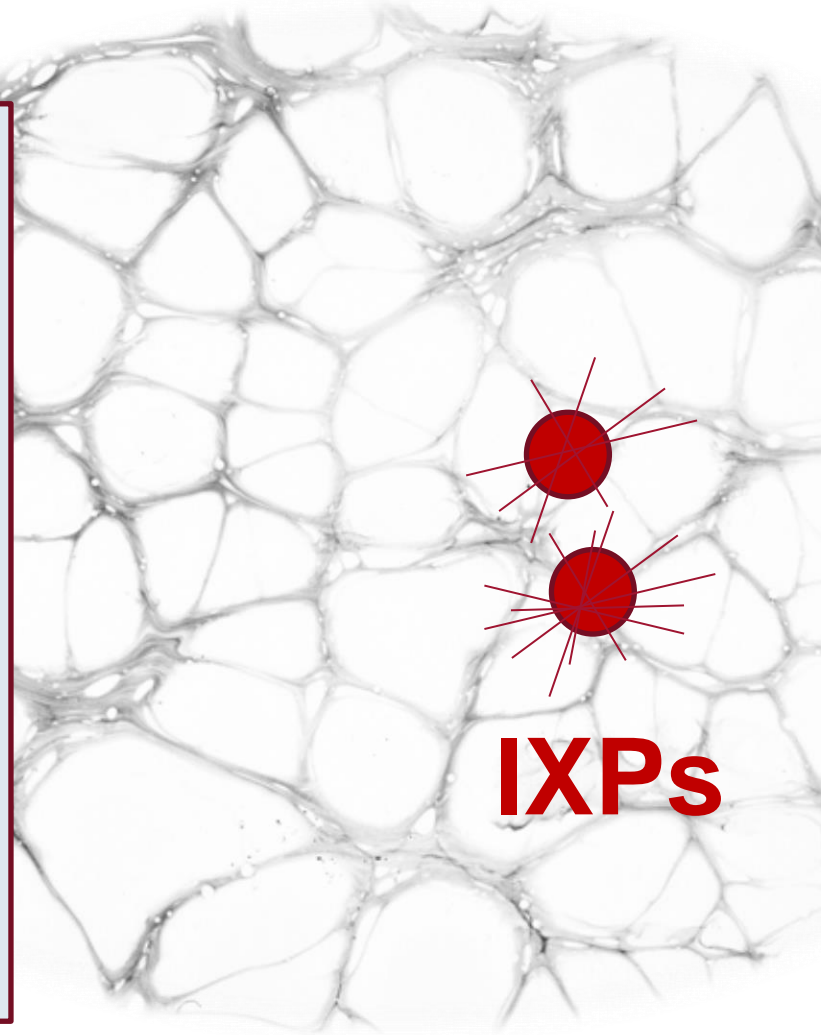
# Components of a Digital Infrastructure Hub

## IXPs

(Internet Exchange Points) IXPs are a "fabric" of Ethernet switches within one or more big data centers. They provide a platform for interconnections between networks.

A few IX are free or no cost. Most IXPs like DE-CIX charge a port cost. Then all the members exchange traffic at no cost. But you do have to pay a fee to get access.

This is the lowest cost unit of traffic moved between networks.



IXPs connect a growing number of local "eyeballs" that attract content providers (Facebook, Microsoft, Google, and Netflix) and incentivize them to store their content on local servers. This means local users have faster connections to their accounts.

Example: Richmond has 3 IXPs. Netflix stores its most popular movies on a Richmond IXP server using the DE-CIX exchange (IXP) as there are so many "local eyeballs" who use this service.

When you watch a Netflix movie in Richmond, you have almost instantaneous access to the streaming data. Without this IXP, the data would come from a Netflix server in Ashburn or Atlanta.

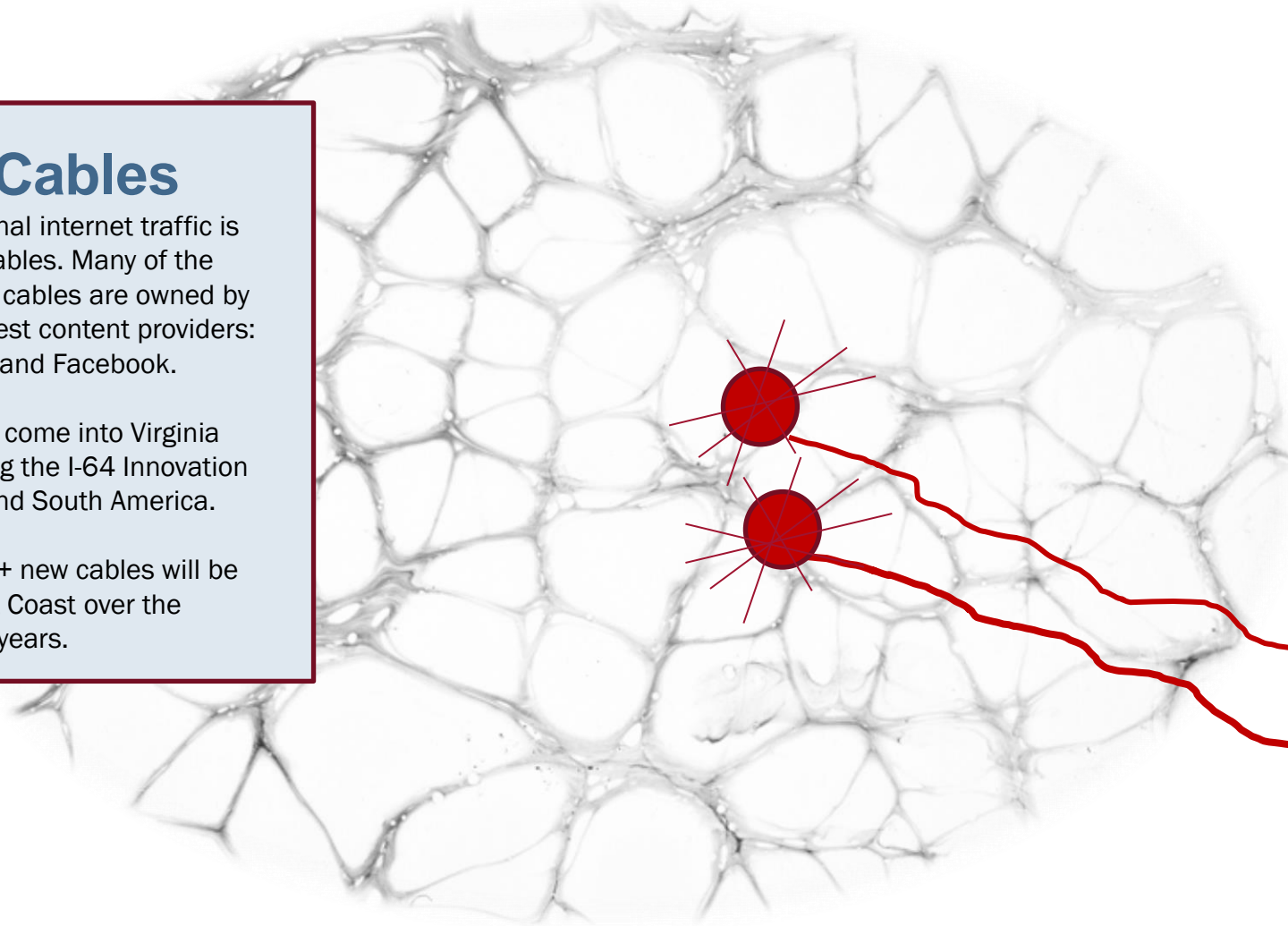
# Components of a **Global** Digital Infrastructure Hub

## Subsea Cables

99.7% of all international internet traffic is carried on subsea cables. Many of the newest, fastest subsea cables are owned by hyper-scalers – the largest content providers: Google, Amazon, and Facebook.

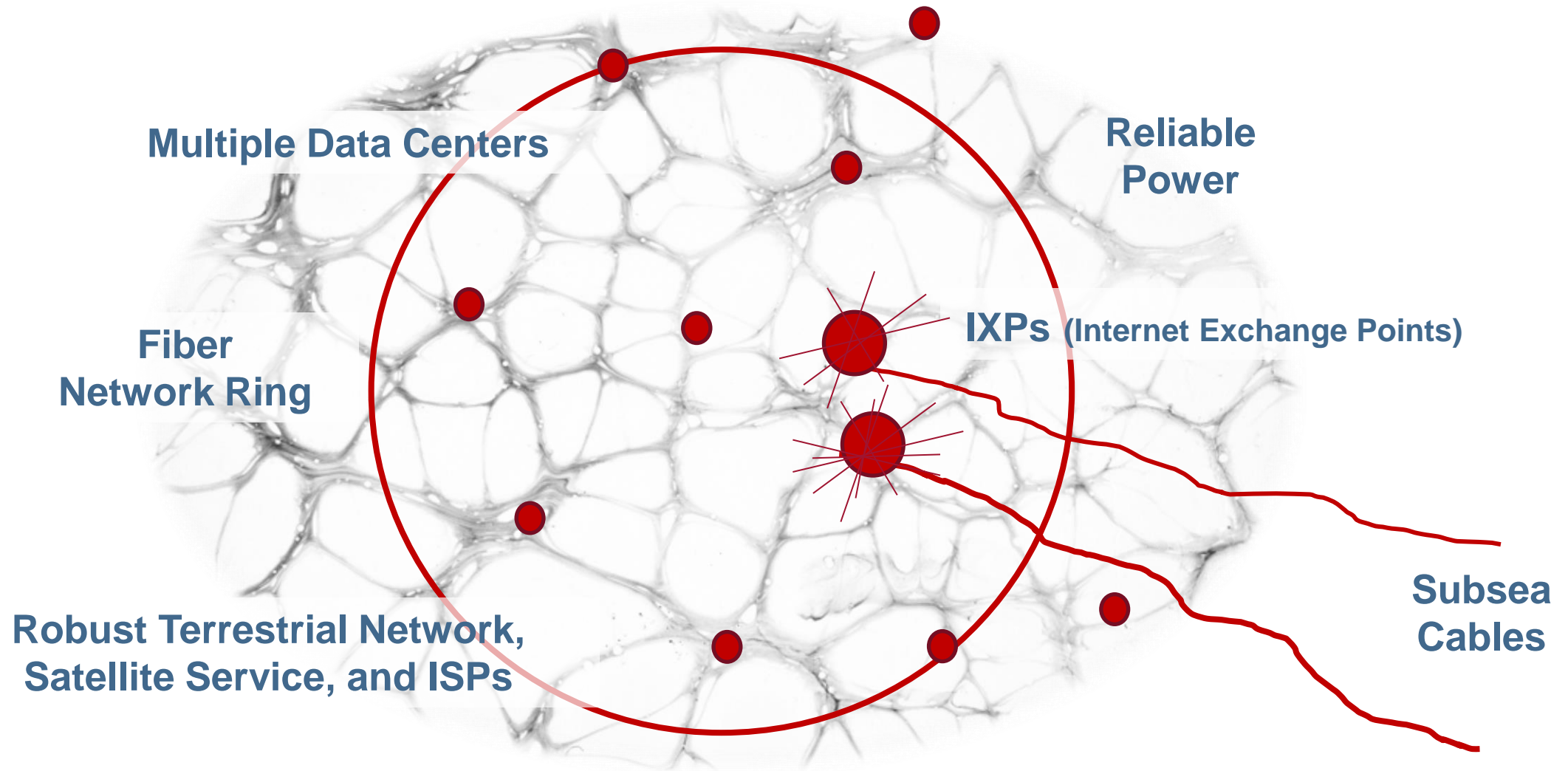
Three subsea cables come into Virginia Beach today, connecting the I-64 Innovation Corridor to Europe and South America.

It is estimated that 10+ new cables will be added to the East Coast over the next 10 years.



**Subsea  
Cables**

# Components of a **Global** Digital Infrastructure Hub



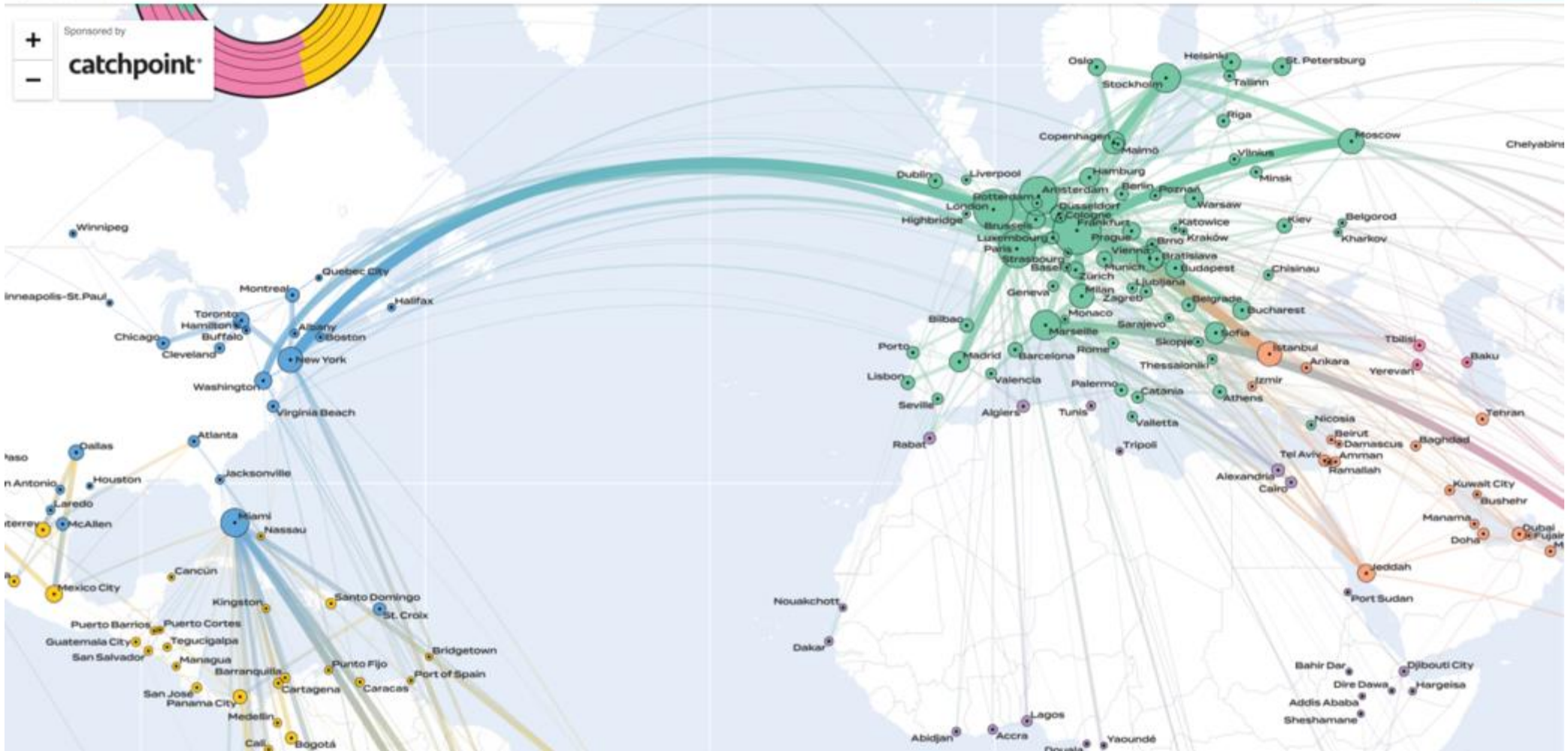
# Visualizing the International Internet

*Interdependent Hubs and Spokes*

Global Internet Map 2022

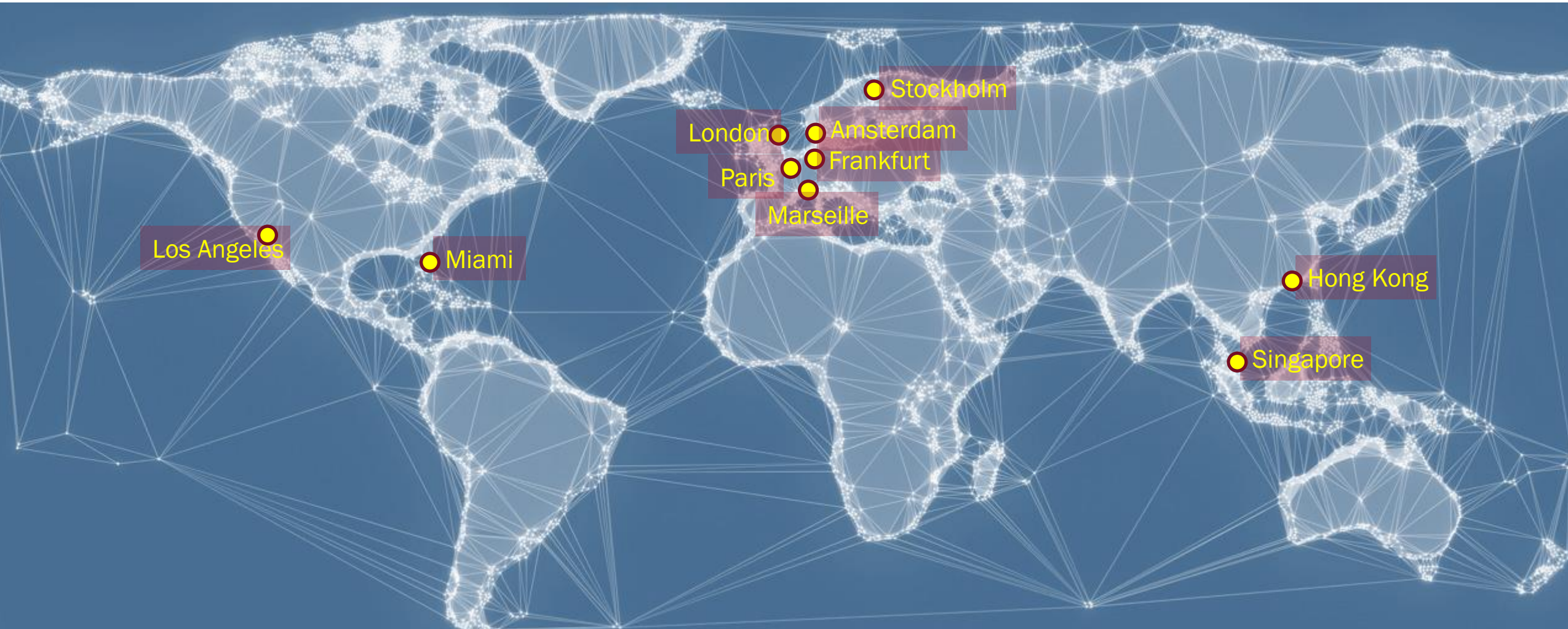
Capacity Traffic Prices Exchanges Cloud Infrastructure

Buy the Wall M



# Recognized Leading Global Internet Hubs

 TeleGeography International Research Firm that tracks the development of global interconnection hubs



**WHY**



# Benefits of Being A Hub

- Provides the most advanced digital platform to support operations.
- Equity – helps serve all underserved neighborhoods.
- Faster, more reliable, and potentially lower cost residential and business service.
- For those businesses that need it, faster service to Europe, South America, and South Africa.
- Supports “Smart City” development.
- Supports connected vehicles and autonomous vehicles.
- Produces additional municipal revenue.
- Supports dramatic rise in I of T devices in our lives
- Future proofs a community

# 70%

of new value created in the economy over the next decade will be based on digitally enabled platform business models.

# WORLD ECONOMIC FORUM

The screenshot shows the World Economic Forum website. At the top, there is a navigation bar with the WEF logo, the text 'WORLD ECONOMIC FORUM', and buttons for 'Join us' and 'Sign in'. Below the navigation bar, there is a breadcrumb trail: 'Platforms > Shaping the Future of Digital Economy and New Value Creation'. The main content area features a large, stylized green bar chart with various data points and labels. The title 'Shaping the Future of Digital Economy and New Value Creation' is prominently displayed. Below the title, there is a button that says 'Watch the overview'. At the bottom of the page, there is a section titled 'Read more' with a sub-section 'Featured Articles' and a link to 'Follow us on LinkedIn'.

# Future-proofing a Community

- Every “next generation” of technology adds new functionality, capacity, and performance, often by an order of magnitude.  
In this industry, a generation is one to three years.
- The leading-edge hub regions and users will have digital resources, tools, and capabilities that are not widely accessed to others – real-time massive data acquisition / analytics, use of augmented intelligence and creation of new, highly beneficial knowledge.
  - All of this will drive the winning cities of tomorrow – future economic growth and prosperity.

# 21<sup>st</sup> Century Econ. Dev.



7. Generates greater investment in digital infrastructure

1. Data center market grows

2. Attracts initial wave of tech workers

## New 21<sup>st</sup> Economic Development Model

4. Attracts businesses looking for competitive advantage – internet speed

6. Drives economic development-related recruitment strategies

*(highly specialized manufacturing, clean energy, edge and cloud computing, data analytics, media and communications, and more).*

5. Attracts businesses looking for tech talent

4. Attracts more tech and tech adjacent talent

# We are behind!

Metropolitan Statistical Area (MSA)	Total Tech Jobs 2022	10 Year Annual Tech Job Growth	Average 2022 Tech Job Wages	10 Year Worker Productivity Growth	10-Year GDP Growth (All Industries)
<b>USA – Total</b>	<b>5,850,692</b>	<b>6.4%</b>	<b>\$111,800</b>	<b>31%</b>	<b>47.4%</b>
<b>Mature Digital Infrastructure MSAs*</b>					
Seattle	176,170	9.7%	\$140,000	51%	85.1%
Denver	95,663	8.1%	\$118,800	30%	63.0%
Dallas	187,019	8.0%	\$110,100	28%	64.9%
Atlanta	129,922	6.9%	\$113,000	31%	60.7%
Jacksonville	24,111	6.7%	\$99,500	26%	56.6%
Portland	60,125	6.0%	\$116,000	35%	57.4%
		<b>7.6% Avg.</b>	<b>\$116,233 Avg.</b>	<b>33.5% Avg.</b>	<b>64.6% Avg.</b>
<b>RVA &amp; 757's Direct Competitors**</b>					
Nashville	35,538	8.2%	\$93,500	30%	74.6%
Raleigh	42,056	8.2%	\$114,500	34%	72.3%
Charlotte	54,435	8.1%	\$113,100	29%	68.6%
Miami	91,494	7.9%	\$100,400	35%	62.1%
Orlando	43,097	7.9%	\$100,600	27%	57.4%
Tampa	52,474	7.5%	\$99,900	31%	60.8%
Myrtle Beach	2,873	7.4%	\$84,800	26%	53.3%
Atlanta	129,922	6.9%	\$113,000	31%	60.7%
Jacksonville	24,111	6.7%	\$99,500	26%	56.6%
Charleston	11,116	6.5%	\$99,200	40%	74.1%
New Jersey	180,936	5.1%	\$119,700	26%	35.5%
		<b>7.3% Avg.</b>	<b>\$103,473 Avg.</b>	<b>30.0% Avg.</b>	<b>56.8% Avg.</b>
<b>I-64 Innovation Corridor</b>					
Richmond	24,900	4.6%	\$107,900	26%	39.9%
Virginia Beach/Norfolk	25,879	4.1%	\$103,900	23%	26.7%
		<b>4.4% Avg.</b>	<b>\$105,900 Avg.</b>	<b>24.5 % Avg.</b>	<b>33.0% Avg.</b>

**HOW**

The world has looked at us as separate markets. We don't show up. Together we're an emerging global hub.

$$\begin{array}{ccccc} \mathbf{757} & + & \mathbf{RVA} & = & \mathbf{GIH} \\ \mathbf{Hampton Roads} & & \mathbf{Richmond} & & \mathbf{Global Internet Hub} \end{array}$$

Subsea cables

Regional fiber  
network  
ring coming

QTS Data Center

Meta Data Center

Robust Terrestrial  
networks

IX and 3 IXPs (DE-CIX)

# Our Strategic Planning Process

Core  
Planning  
Group



GO

Virginia  
Grant and  
Matching  
Funds  
from Core  
Group



Steering  
Committee  
Formed







## \$160K Cash Funding in Place

- Dominion Energy: \$10,000
- City of Virginia Beach: \$10,000
- Henrico County: \$10,000
- Hampton Roads Alliance: \$10,000
- Old Dominion University: \$10,000
- Dragonfli Group (Williamsburg): \$10,000
- GO Virginia Grant: \$100,000

## \$100K In Kind Contribution



## Steering Committee

- Educational institutions, including the major universities and colleges in the I-64 Innovation Corridor.
- Leading Chambers:
  - ChamberRVA
  - Hampton Roads Chamber
- Companies representing multiple digital infrastructure users
- Data
  - Defense
  - Telecom
  - Energy / Utilities
  - Technology
  - Finance
  - Health
  - Transportation / Supply Chain
  - Higher Education
  - Agriculture
- Military representatives
- Workforce development organizations

# Who's Involved?

# 60-plus Leaders

## Steering Committee

More than 60 leaders from 10 different industry and business categories are members of the Steering Committee:

**Misty Allen**, Vice President, Government and Regulatory Affairs, Community Impact, Comcast – Beltway Region

**Mitchel Allen**, Executive Vice President, Business Development, Greater Richmond Partnership

**Brian Anderson**, President and CEO, ChamberRVA

**Shawn Avery**, President and CEO, Hampton Roads Workforce Council

**Glenn Ballard**, President and CEO, Dragonfly Group, LLC

**Serena Barry**, Communications Director, GROW Capital Jobs Foundation, GO Virginia, Region 4

**Capt. Lamont Bazemore**, Coast Guard District Five, Chief of Planning and Force Readiness

**Stan Blackwell**, Director, Customer Service and Strategic Partnerships, Dominion Energy

**Gerardo Bonilla**, Head of Sales, Telxius

**Keith Boswell**, President and CEO, Virginia Gateway Region

**Scott Brown**, Owner, Pixel Factory Data Center

**Lt. Luis Caquias**, Coast Guard District Five, C5I

**Morris Foster**, Vice President of Research, Old Dominion University

**Nancy Grden**, President and CEO, Reinvent Hampton Roads

**Tracy Gregorio**, CEO, G2Ops

**Ram B. Gupta**, Associate Dean for Research and Graduate Affairs, College of Engineering, Virginia Commonwealth University

**William R. Hardy Jr.**, Director, Network Enterprise Center, Fort Lee

**David Harold**, Director, Technology Operations, CarMax

**Steve Harrison**, Vice President, Business Intelligence and Communications, Hampton Roads Alliance

**Stephen Hartka**, Vice President of Research, Virginia Economic Development Partnership

**Martha Heeter**, Executive Director, PlanRVA

**Stuart Henderson**, Director, Jefferson Lab

**Steve Herbert**, Economic Development, City of Virginia Beach

**Robert Holsworth**, Managing Partner,

**Kelly Newman**, General Manager, PointOne

**Angela Oakes**, Vice President of Strategy, Greater Richmond Partnership

**Joel Ogren**, CEO, Assured Communications Advisors

**Paula P. Pando**, President, Reynolds Community College

**Mark Pike**, Navy Region Mid-Atlantic Chief Information Officer/N6

**Bernard Robinson**, President and CEO, Networking Technologies + Support

**Anthony Romanello**, Executive Director, Henrico Economic Development Authority

**Katherine Rowe**, President, William and Mary

**Douglas L. Smith**, President and CEO, Hampton Roads Alliance

**James Spore**, Board of Directors, RVA757 Connects

**Bryan Stephens**, President and CEO, Hampton Roads Chamber

**Gary Tarpley**, CEO, Cable Associates Inc.

**Jeffrey Thomas**, Vice President and Chief



**Jon Hjembo**



TeleGeography



**Vinay Nagpal**



**Dr. Terry Clower**



15 Case Studies on GIHs – How did each region rise to global leadership status? Lessons for the I-64 Innovation Corridor

What is the non-data center job growth that comes with the growth a digital infrastructure?

# Our Strategic Planning Process



# Situation Overview



1. By all accounts the worldwide volume of data is exploding exponentially.
2. The Richmond and Hampton Roads regions are already far behind in growing their IT / tech talent workforce, workforce productivity, and GDP.
3. When viewed together, the Richmond and Hampton Roads regions can, realistically, grow into a Global Internet Hub to help attract tech talent and drive economic growth.
4. There are tremendous benefits to becoming a Global Internet Hub.
5. Intentionality is the leading key to success – 10 case studies confirm this.
6. Building digital infrastructure “neutrality” and orchestrating a comprehensive game plan are also two proven pathways to transformation.
7. Time is of the essence. Digital infrastructure investors are diversifying. 10 new cables coming to the east coast. Myrtle Beach and soon to be announced NC site.

# 10 Core Strategies

- ● ●
- 1. Establish a Global Internet Hub Industry Council.
- 2. Through outreach and education, increase the awareness, familiarity, and support among local stakeholders in the I-64 innovation corridor for digital infrastructure development.
- 3. Increase international awareness of and familiarity with the I-64 Innovation Corridor among the global digital infrastructure community, in general, and digital infrastructure investors, in particular.
- 4. Support the growth of robust local internet networks and routes concerning other hub markets.
- 5. Attract additional international subsea cables.
- 6. Support the growth of data centers.
- 7. Encourage the growth of IXs and IXPs – Internet Exchanges and Internet Exchange Points.
- 8. Explore the potential of an I-64 Innovation Corridor network ring from Hampton Roads to Richmond.
- 9. Promote Dominion Energy’s ability to provide reliable and inexpensive power and facilitate greater local understanding of optimal data center site considerations.
- 10. Provide a growing tech-savvy workforce.

# #1. Establish a Global Internet Hub Industry Council

## Steering Committee

More than 60 leaders from 10 different industry and business categories are members of the Steering Committee.

**Misty Allen**, Vice President, Government and Regulatory Affairs, Community Impact, Comcast – Beltway Region

**Mitchel Allen**, Executive Vice President, Business Development, Greater Richmond Partnership

**Brian Anderson**, President and CEO, ChamberVA

**Shawn Avery**, President and CEO, Hampton Roads Workforce Council

**Glenn Ballard**, President and CEO, Dragonfly Group, LLC

**Serena Barry**, Communications Director, GROW Capital Jobs Foundation, GO Virginia, Region 4

**Capt. Lamont Bazemore**, Coast Guard District Five, Chief of Planning and Force Readiness

**Stan Blackwell**, Director, Customer Service and Strategic Partnerships, Dominion Energy

**Gerardo Bonilla**, Head of Sales, Telxus

**Keith Boswell**, President and CEO, Virginia Gateway Region

**Scott Brown**, Owner, Pixel Factory Data Center

**Lt. Luis Caquias**, Coast Guard District Five, CB

**Morris Foster**, Vice President of Research, Old Dominion University

**Nancy Gorden**, President and CEO, Reinvent Hampton Roads

**Tracy Gregorio**, CEO, Q2Ops

**Ram B. Gupta**, Associate Dean for Research and Graduate Affairs, College of Engineering, Virginia Commonwealth University

**William R. Hardy Jr.**, Director, Network Enterprise Center, Fort Lee

**David Harold**, Director, Technology Operations, CarMax

**Steve Harrison**, Vice President, Business Intelligence and Communications, Hampton Roads Alliance

**Stephen Hartka**, Vice President of Research, Virginia Economic Development Partnership

**Martha Heeter**, Executive Director, PlanRVA

**Stuart Henderson**, Director, Jefferson Lab

**Steve Herbert**, Economic Development, City of Virginia Beach

**Robert Holsworth**, Managing Partner,

**Kelly Newman**, General Manager, PointOne

**Angela Oakes**, Vice President of Strategy, Greater Richmond Partnership

**Joel Ogren**, CEO, Assured Communications Advisors

**Paula P. Pando**, President, Reynolds Community College

**Mark Pike**, Navy Region Mid-Atlantic Chief Information Officer/H8

**Bernard Robinson**, President and CEO, Networking Technologies + Support

**Anthony Romanello**, Executive Director, Henrico Economic Development Authority

**Katherine Rowe**, President, William and Mary

**Douglas L. Smith**, President and CEO, Hampton Roads Alliance

**James Spore**, Board of Directors, RVA757 Connects

**Bryan Stephens**, President and CEO, Hampton Roads Chamber

**Gary Tarpley**, CEO, Cable Associates Inc.

**Jeffrey Thomas**, Vice President and Chief

# #2. Get I-64 Corridor's Cities and Counties Global Internet Hub-Ready

*How to be very strategic -- set real expectations and work with the elected officials within the community. Define the envelope where digital infrastructure would be appropriate.*

## Time Kills Deals

HOME > NEWS > CLOUD & HYPERSCALE

### AWS data center plans in Maryland fall through due to timeline disagreements

Discussions were had last year, but Amazon walked away after officials said 'aggressive and impractical' timelines couldn't be met

February 10, 2022 By: Dan Swinhoe Be the first to comment



Plans to locate AWS data centers in Frederick County in Maryland have fallen through.

The [Frederick News Post](#), citing local officials, said the project fell through after Amazon and county government couldn't reach an agreement on the project's timeline.

Private discussions began sometime in early- to mid-2021 before officials noted the proposals in August 2021 meetings. The project was reportedly due to bring data centers to at least three communities in the southern part of the county.

Officials, however, said Amazon asked for too much, too fast. While one official said the proposal was aggressive but feasible, several referred to Amazon's terms as "close to impossible" and "impractical."



— Sebastian Moss

When the county tried to negotiate, Amazon walked, county officials said. One Frederick County



**#3.  
Increase  
Awareness of I-64  
Corridor Among  
Digital  
Infrastructure  
Investors**



Value creation for the long term

Chirisa is a global investor active across Digital Infrastructure, Communications and Real Estate in Europe and the Americas.

We seek situations where our capital, strategies, expertise and operational support help create substantial and sustainable value.

Chirisa draws on the insights and experience of an extensive network of industry professionals to originate and execute high quality investments.

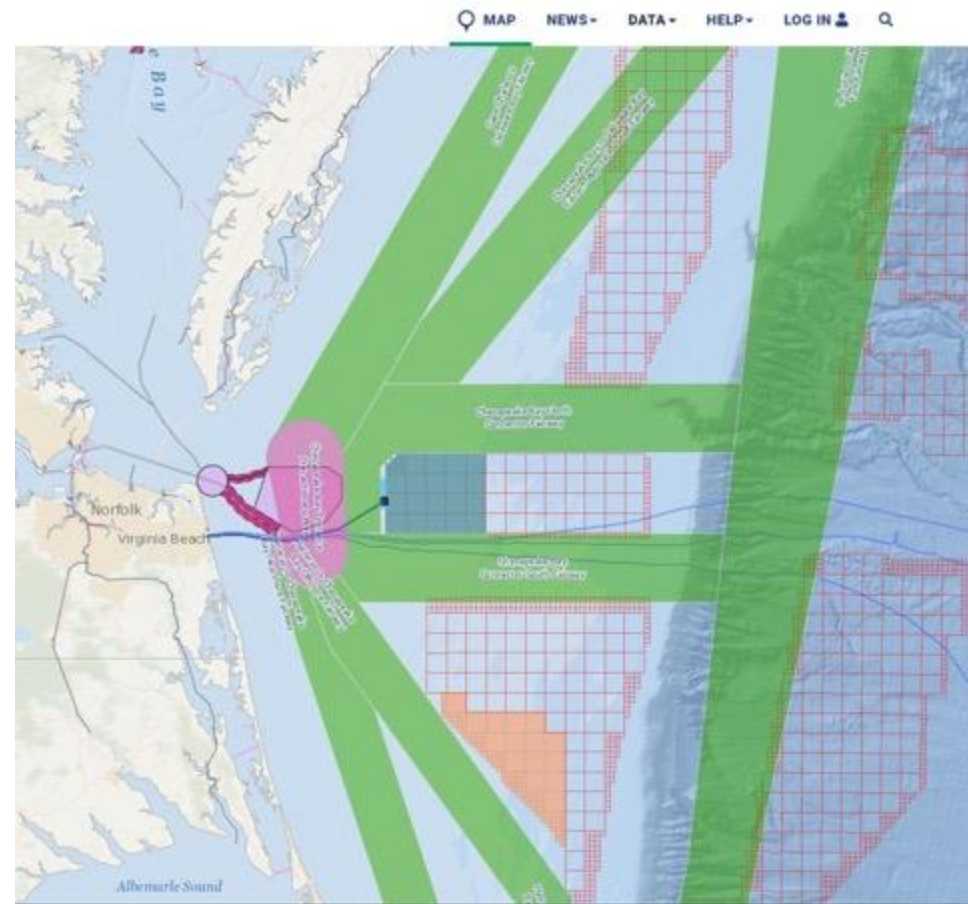
[Contact Chirisa](#)

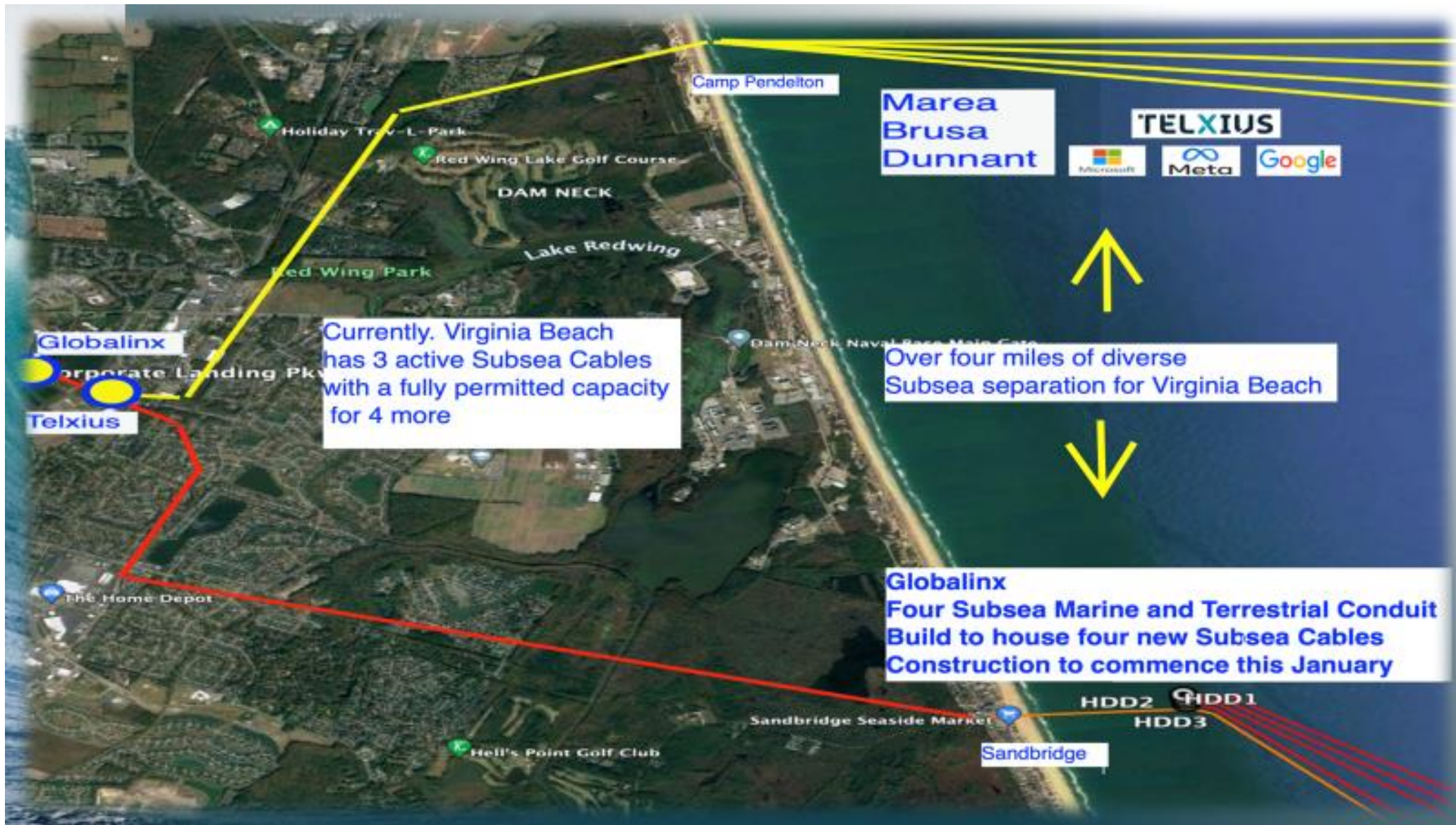


**#4.**  
**Support the  
Growth of Robust  
Local Internet  
Networks**



# #5. Pitch Subsea Cable Investors on Virginia landings





# #6. Prepare Data Center Sites

## Certified Sites



Southern Virginia Megasite at Berry Hill

**Certification Type:** VEDP Business Ready Sites Program Certified, Quest Site Solutions Certified Mega Site/Super Park  
**Largest Parcel Size:** 2102 Acres  
**Locality:** Pittsylvania County  
**Site Ownership:** Public  
**Zoning:** M-2, Heavy Industry  
**Distance to Closest Interstate/Highway:** 4 miles to U.S. Route 58



Mid-Atlantic Advanced Manufacturing Center

**Certification Type:** VEDP Business Ready Sites Program Certified, CSX Certified Megasite  
**Largest Parcel Size:** 1000 Acres  
**Locality:** Greenville County  
**Site Ownership:** Public  
**Zoning:** M-1  
**Distance to Closest Interstate/Highway:** 2.3 miles to I-95



White Oak Technology Park

**Certification Type:** VEDP Business Ready Sites Program Certified, Dominion Certified Data Center Site  
**Largest Parcel Size:** 711 Acres  
**Locality:** Henrico County  
**Site Ownership:** Public  
**Zoning:** M-2, General Industrial  
**Distance to Closest Interstate/Highway:** 1 mile to I-295

**#7.**  
**Encourage the  
Growth of IXs  
and IXPs**

**DE-CIX – Part of the Largest Network**



# RVA Major U.S. Network Access Point – IXPs



1.



1.4M sq. ft. **World's 4<sup>th</sup> largest**  
Eastern Henrico County



2.



Atlee Commons Drive  
Hanover County



3.



1450 E. Parham Rd.  
Northern Henrico



#8.  
Support the  
Fiber Network  
Ring Concept

## Hampton Roads Network Ring

Southside Network Authority

About the Project Project Benefits Project Timeline FAQs Title

Building a path toward:  
**Lower Cost.**  
**Faster Service.**  
**Enhanced Coverage.**

Uniting and future-proofing the 757 region through  
unprecedented broadband expansion and access for all.

[Learn More](#)



- Public-private partnership
- Five Southside cities — Norfolk, Virginia Beach, Chesapeake, Portsmouth and Suffolk - \$5M each.
- GTS will lease 96 strands of the ring when its construction is finished, as well as provide maintenance and marketing services.
- \$24.5 million contract.



## Phase 1

Connects the 5 Southside cities of Chesapeake, Portsmouth, Norfolk, Suffolk and Virginia Beach as well as close proximity fiber paths to higher education, military, commerce, biomedical, and ports as well as connectivity to the Virginia Beach undersea cables.

## Phase 2

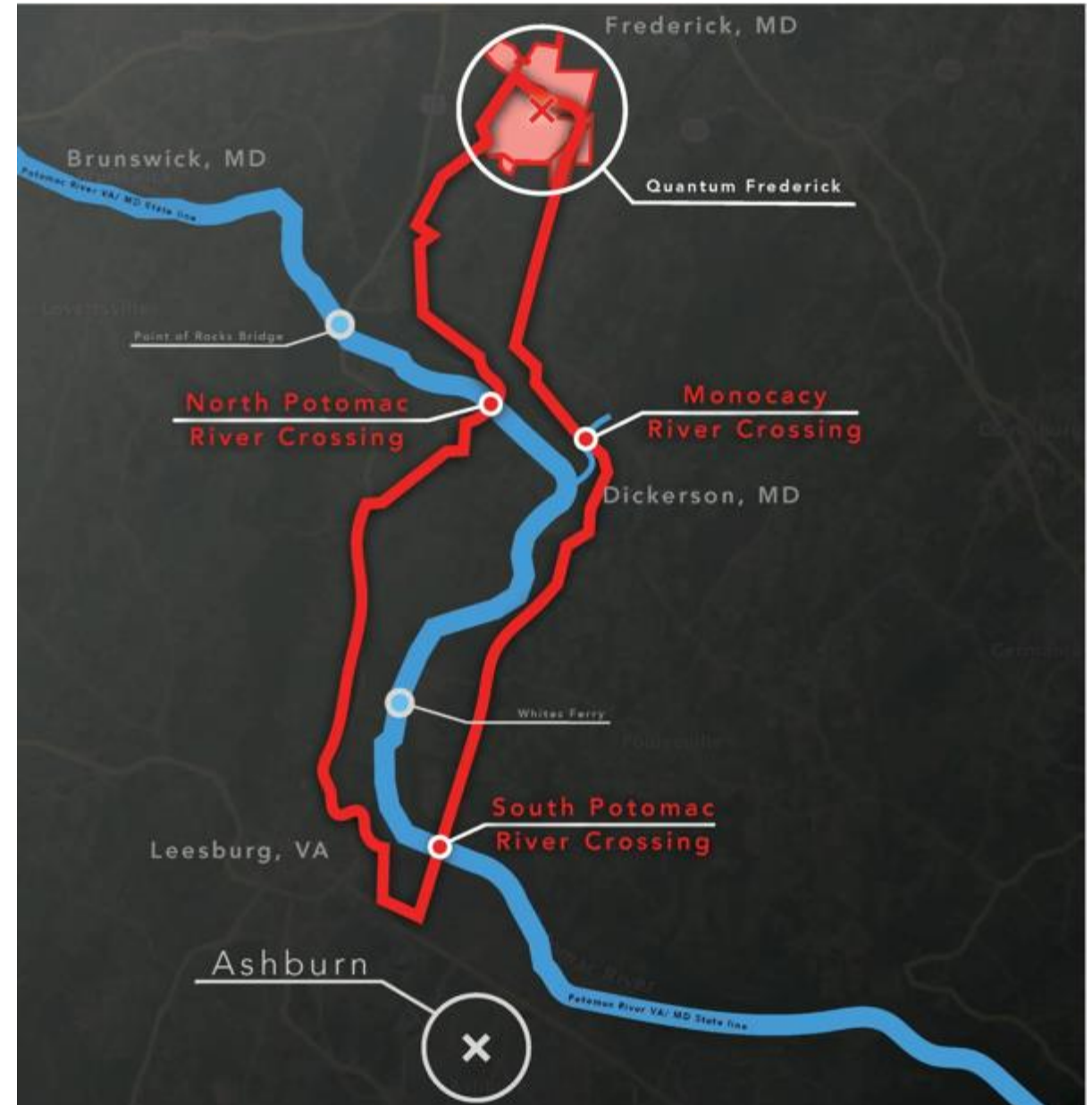
Connects Peninsula cities and municipalities including Hampton, Newport News, York County, Williamsburg, Poquoson, James City County, Gloucester County, and military, commerce, and biomedical.



# QLoop Network

A massive a **40± mile** hyperscale fiber ring connecting Quantum Loophole's **2,100+ acre** Frederick data center development in Maryland tied directly to Northern Virginia's Data Center Alley.

## RVA to 757?



# #9. Promote Dominion's Ability to Provide Power



WJLA  
Prince William County ...



WJLA  
Prince William County ...



insideNoVa.com  
Northern Virginia lawmakers' bills ...



NBC4 Washington  
Data Center Development Near Manassas ...



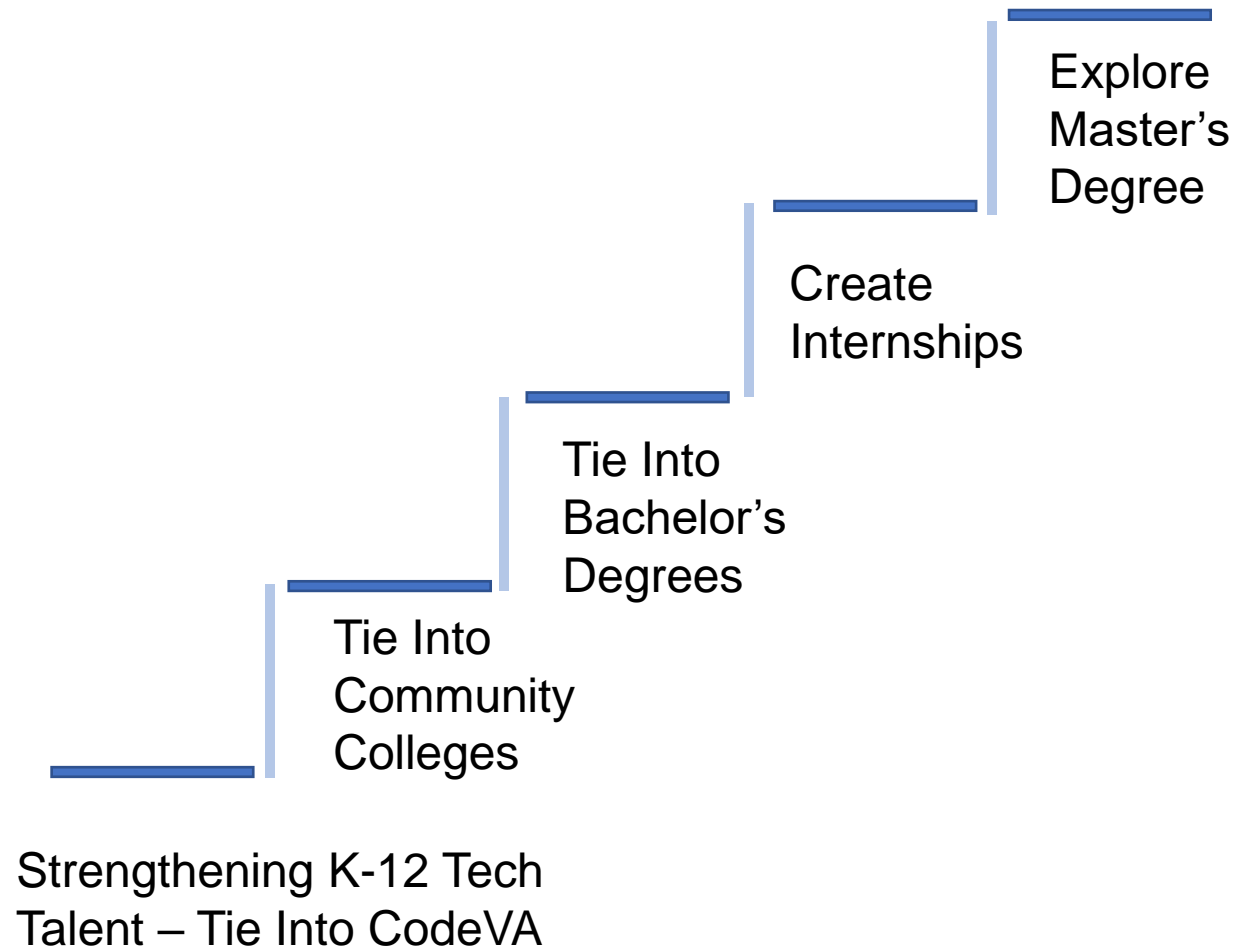
DC News Now | Washington, DC  
Protesters voice frustration with data ...



WJLA  
Prince William Co board vote in favor ...



# #10. Advance Tech Talent Pipeline



The **M.S. in Datacenter Systems Engineering at Southern Methodist University's** Lyle School of Engineering located in Dallas, TX is the first program designed to create leaders in the critical field of digital infrastructure.

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# Introducing The World's First Master Of Science In Datacenter Systems Engineering

The program developed by digital infrastructure leaders that prepares professionals to be the industry leaders of tomorrow

By Klyne Smith and Christian Belady

FEATURED VIDEO

Launch of InterGlobix Magazine Issue 10

InterGlobix Magazine Issue 10



**ONWARD!**