

VIRGINIA'S I-64 INNOVATION CORRIDOR: RICHMOND REGION AND HAMPTON ROADS

The World's Next Global Internet Hub

I-64 INNOVATION CORRIDOR

A handful of locations around the world make the world wide web work. They are called Global Internet Hubs, and all are thriving cities. But this is about to change.

The world's next Global Internet Hub isn't a single city but rather an area from the Richmond region to Hampton Roads. Known as the I-64 Innovation Corridor, located just two hours south of Washington, D.C., this 8,000 square mile megaregion has a combined population of 3 million-plus residents, placing it among the top 20 largest U.S. regions.

Global Internet Hubs have seven core interrelated components that define their world-class digital infrastructure. As highly collaborative neighboring localities, Richmond and Hampton Roads have all seven of these components and more, putting the I-64 Innovation Corridor on the global interconnection hub map while delivering the fastest, most reliable, and cost-effective digital services to everyone who calls this corner of the world home.



1 Reliable and Sustainable Power
 Dominion Energy

- 23% of Dominion Energy's output powers data centers today
- Dominion Energy has the capacity to support digital infrastructure growth for years to come
- Dominion Energy is committed to achieving net zero emissions by 2050

2 Robust Local Terrestrial Networks

- More than 30 major carriers and communication providers
- Growing dark fiber availability
- Increasing capacity for local networks

3 Internet Exchanges (IXs)

- One Internet Exchange - DE-CIX - in Richmond area
- DE-CIX connects carrier and data center neutral Internet Exchanges in the U.S. - New York, Dallas, Chicago, Phoenix and Richmond - and connects to 40 IXs worldwide, 3,000-plus networks, and 500-plus data centers

4 Growing Number of Data Centers

- 12 data centers operate in the megaregion
- More data centers are planned
- Two world-class data centers

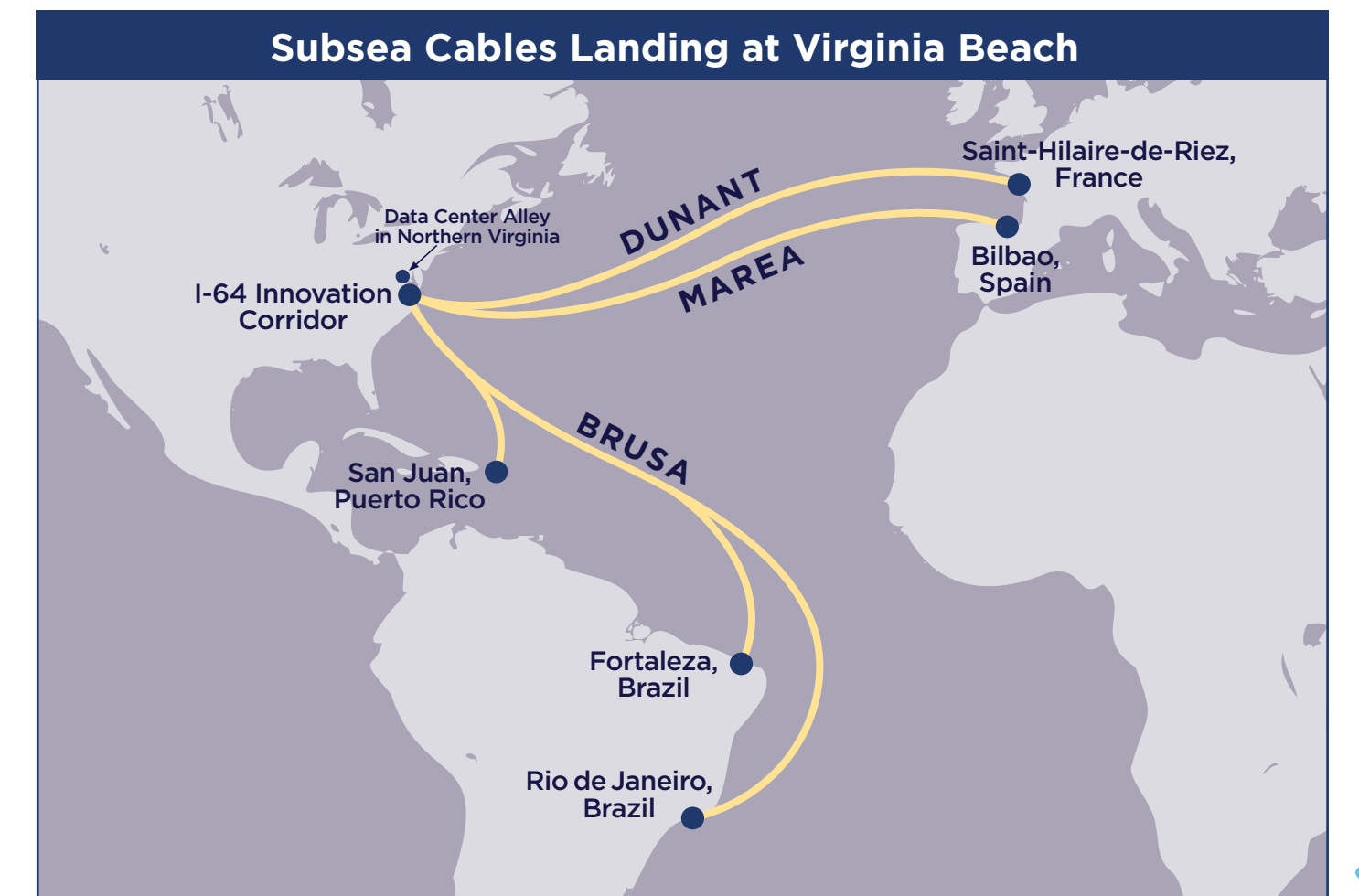
5 Abundant Intercity Digital Connections

- Multiple diverse terrestrial fiber routes between Hampton Roads and Richmond
- Major universities linked through the Mid-Atlantic Research Infrastructure Alliance (MARIA)
- Growing and diverse connections to major centers including Ashburn (Northern Virginia), Chicago, and Atlanta

10 Largest Global Internet Hubs

(Defined as Metropolitan Markets for International Internet Bandwidth)

1. Frankfurt
 2. Singapore
 3. London
 4. Amsterdam
 5. Paris
 6. Hong Kong
 7. Marseille
 8. Stockholm
 9. Miami
 10. Vienna
- Source: TeleGeography



Cybersecurity Expertise

The I-64 Innovation Corridor stands as a beacon of cybersecurity excellence, bolstered by its rich history of military and defense expertise. This megaregion seamlessly integrates advanced digital safeguards with its expansive digital infrastructure. Tens of thousands of experienced cyber security and national security employees work in the I-64 Innovation Corridor, one of the greatest concentrations of cyber experts in America. For instance, the Richmond area is home of the Federal Reserve's National IT organization - a nationwide team delivering technology solutions and support across the Federal Reserve System including cybersecurity/cyber intelligence positions.

Virginia's I-64 Innovation Corridor Digital Assets

- Data Centers**
- Data Center and DE-CIX Internet Exchange**
- Digital Assets**
- Power**

Innovation Center

- 1 CarMax Innovation Center, Richmond
- 2 Activation Capital, VA Bio+Tech Park, Richmond
- 3 Michael Wassmer Innovation Center, Richmond
- 4 Lighthouse Labs, Richmond
- 5 Dominion Energy Innovation Center, Ashland
- 6 Lockheed Martin Center for Innovation (also known as The Lighthouse) Suffolk
- 7 Innovate Hampton Roads, Hampton
- 8 757 Collab (757 Startups Studios, 757 Accelerate, and 757 Angels), Norfolk
- 9 Launchpad, Williamsburg
- 10 ReAKTOR Technology Innovation Center, Hampton

The Megaregion's Educational Assets

The I-64 Innovation Corridor is home to many universities, community colleges, and trade schools:

- Brightpoint Community College
- Bryant & Stratton College
- Camp Community College
- Centura College
- Christopher Newport University
- Eastern Shore Community College
- ECPI
- Fortis College
- Hampton University
- Norfolk State University
- Old Dominion University
- Randolph-Macon College
- Regent University
- Reynolds Community College
- Richard Bland College
- South University
- Tidewater Community College
- University of Richmond
- Virginia Commonwealth University
- Virginia Peninsula Community College
- Virginia State University
- Virginia Union University
- Virginian Wesleyan University
- William & Mary

Megaregion Digital Infrastructure Providers

1 Energy Dominion Energy

2 5 Network Carriers and Communications Providers AOC CONNECT, allied, ALL POINTS BROADBAND, Arelion, AT&T, cogent, COMCAST, COX, CROWN CASTLE, glofiber, GTS, GLOBAL TECHNICAL SYSTEMS, GTT, Hosted BACKBONE, HURRICANE ELECTRIC INTERNET SERVICES, LUMEN TECHNOLOGIES, LUMOS, Megaport, METRO FIBER NETWORKS, INC., Mid-Atlantic BROADBAND, orange, PACKETFABRIC, SEGRA, Spectrum, SummitIG, TELCOM SYSTEMS, TELXIOUS, T-Mobile, THE LINK, UNITAS GLOBAL, Uniti Fiber, verizon, SkyWire, windstream, zayo

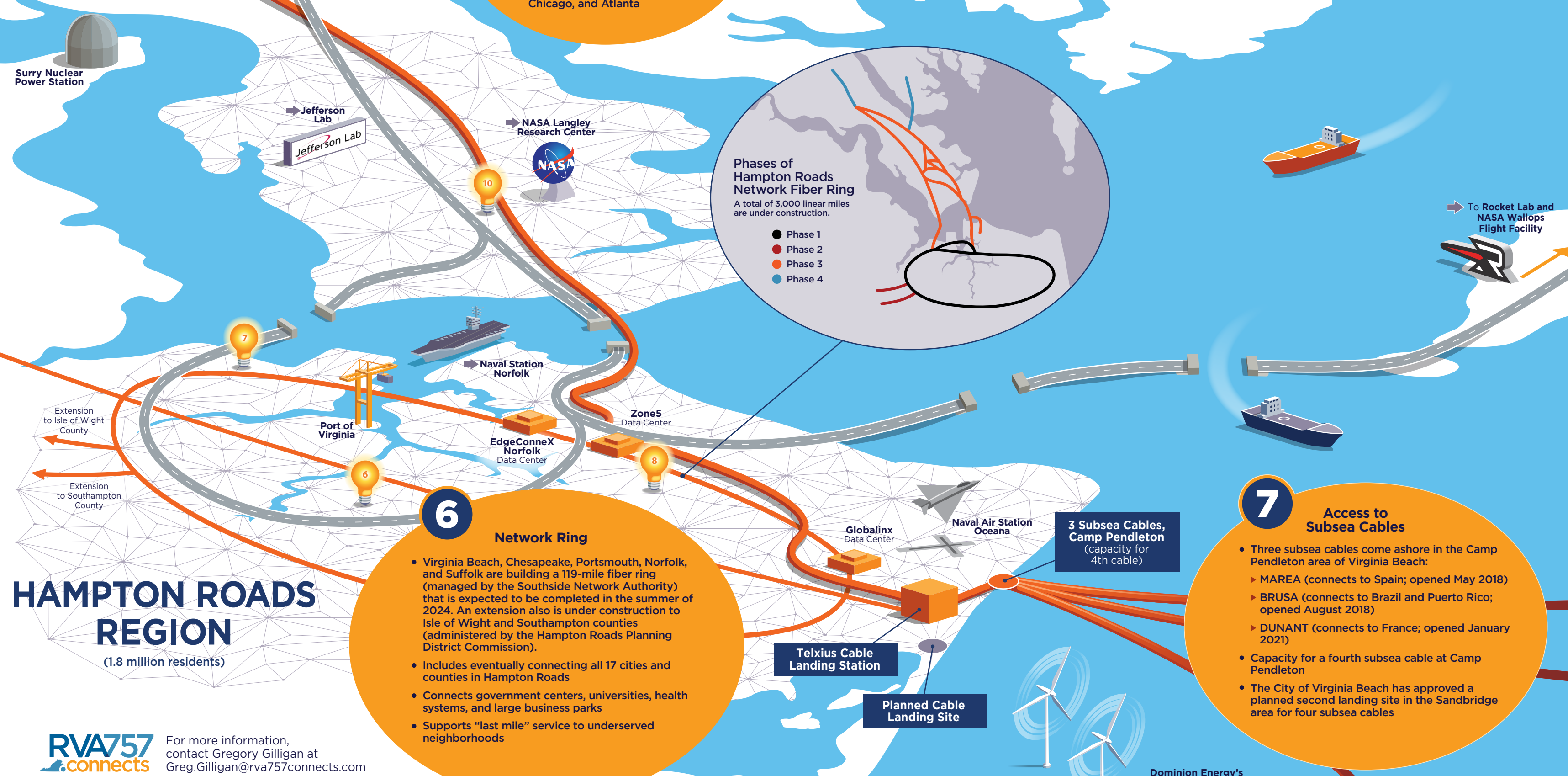
4 Data Centers in Richmond BANK OF AMERICA, CHIRISA, edgeconnex, FLEXENTIAL, INFOTEL, LUMEN TECHNOLOGIES, Meta, PIXEL FACTORY, QTS

4 Data Centers in Hampton Roads edgeconnex, GLOBALINX, ZONE5

3 Internet Exchange DE-CIX

Software-Defined Networking Providers Megaport, MOX, PACKETFABRIC

7 Subsea Cables BRUSA, DUNANT, MAREA



6 Network Ring

- Virginia Beach, Chesapeake, Portsmouth, Norfolk, and Suffolk are building a 119-mile fiber ring (managed by the Southside Network Authority) that is expected to be completed in the summer of 2024. An extension also is under construction to Isle of Wight and Southampton counties (administered by the Hampton Roads Planning District Commission).
- Includes eventually connecting all 17 cities and counties in Hampton Roads
- Connects government centers, universities, health systems, and large business parks
- Supports "last mile" service to underserved neighborhoods

Phases of Hampton Roads Network Fiber Ring
 A total of 3,000 linear miles are under construction.

- Phase 1
- Phase 2
- Phase 3
- Phase 4

7 Access to Subsea Cables

- Three subsea cables come ashore in the Camp Pendleton area of Virginia Beach:
 - MAREA (connects to Spain; opened May 2018)
 - BRUSA (connects to Brazil and Puerto Rico; opened August 2018)
 - DUNANT (connects to France; opened January 2021)
- Capacity for a fourth subsea cable at Camp Pendleton
- The City of Virginia Beach has approved a planned second landing site in the Sandbridge area for four subsea cables

RVA757 connects For more information, contact Gregory Gilligan at Greg.Gilligan@rva757connects.com

Dominion Energy's Planned Offshore Wind Project (Construction planned to begin in 2024 and be completed in 2026)