HAMPTON ROADS, VIRGINIA REGIONAL CONNECTIVITY RING
BUILDING SMARTER CONNECTIONS ACROSS THE WORLD

October 23, 2018
Currently:
• Network is comprised of city-owned and leased fiber from Cox
• 11 city facilities are now connected to 32 miles of new city-owned fiber

Looking Forward:
• Within three years additional city facilities will be moved on to the city-owned fiber
Hampton Roads Planning District Commission established a **Steering Committee**, representing the region’s 17 localities.

**SCORE** was introduced and presented as a replicable framework to evaluate, manage, track, prepare for smart city/region initiatives, and report to the Steering Committee.

**A unified approach to:**

- Evaluating best practices
- Managing smart city initiatives
- Tracking longitudinal progress
- Preparing for smart region initiatives starting with the five cities
To connect our region and expand access, the five cities have invested in an initiative to implement an open access, dark fiber Regional Connectivity Ring (RCR).

The RCR will accelerate the growth of digitally-empowered communities.

The investment will continue to include other Hampton Roads municipalities, as an ongoing initiative to connect to Richmond and Northern Virginia.
The **Regional Connectivity Ring** is a **103.11 mile** dark fiber, open access ring, which will serve as the foundation for smart region development and digitally-empowered communities.

Each city will house a **Network Operations Center (NOC)** to manage their portion of the ring.
GLOBAL CONNECTIONS

MAREA: faster, stronger, more resilient
✓ Speed: 160 tbit/s (16 million times faster than average home internet)
✓ Length: 4,000 miles long
✓ Diversifies connectivity through the Atlantic

BRUSA: the highest capacity subsea cable connecting the Americas
✓ Speed: 138 tbit/s
✓ Length: 6,500 miles long

The cables will have a route-diverse backhaul that connects to Ashburn, VA, which houses the most dense concentration of data centers in the world.
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Cable Landing Station

MAREA and BRUSA Beach Manhole

City of Virginia Beach
ENGAGING REGIONAL COLLABORATION

**Project:** Regional Connectivity Ring

**Priority Areas:** Public Safety, Infrastructure, Open Data and Cybersecurity

**Goal:** Create a 103.11 mile regional dark fiber, open access ring, which will serve as the foundation for smart region development and digitally-empowered communities

**Overview:**

- Leverages the transatlantic fiber capabilities to bring unprecedented broadband speeds to the region
- Serves as a foundation for Smart City and IoT development in each connected city
- Connects regional critical infrastructure, including higher education facilities, to a network that provides top-of-the-line cybersecurity
- Uses cutting-edge analytics to constantly learn and iterate local projects, as well as creates overall efficiency through multi-project last-mile analytics
- Gives easier access to high-speed broadband for underserved/unserved areas, spurring economic development at all levels

**Cost:** $28,404,310

**ROI Description:**

- Brings high-speed transatlantic cable to the 5 cities
- Supports and spurs economic growth
- Regional governments have their own fiber optic government networks and assets to draw on for building out a more robust regional infrastructure
- Catalyst for technological and cultural change with a goal of empowering citizens within their own communities
- Laying the groundwork for deploying future technologies and security enhancements