



The Commonwealth Cyber Initiative

Research, Innovation, and Workforce
Development in Cybersecurity

September 18, 2024

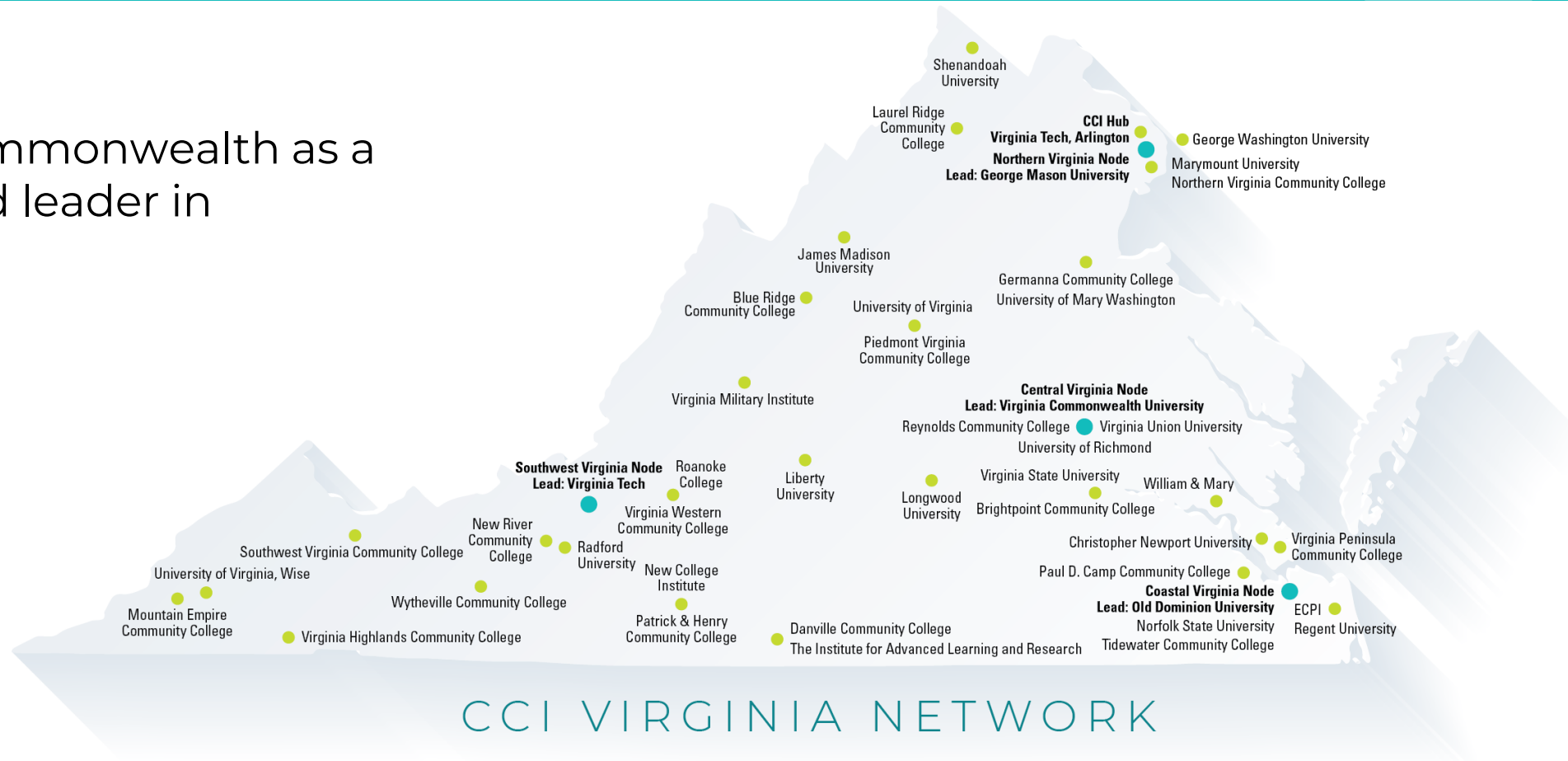
John Delaney
Managing Director

The Commonwealth Cyber Initiative



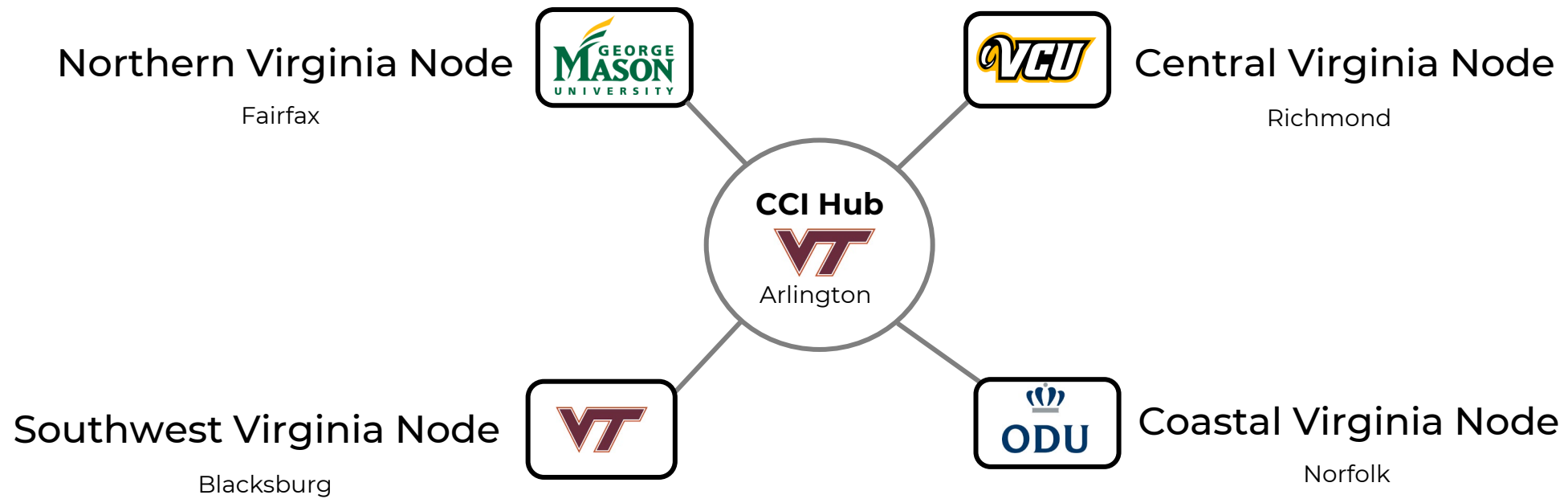
Vision:

Positioning the commonwealth as a globally recognized leader in cybersecurity



45 Higher Education Institutions
300+ Faculty members

CCI Structure



The CCI Mission



Serve as an engine for research, innovation, and commercialization of next-generation **cybersecurity** technologies, and address the Commonwealth's need for growth of advanced and professional degrees within the cyber workforce

Mission Lines



Research



Innovation



**Workforce
Development**

Research

Our role:

CCI is a **leader** of cybersecurity research with impact, through collaborative multi-institution research teams with a depth and breadth of cybersecurity expertise.

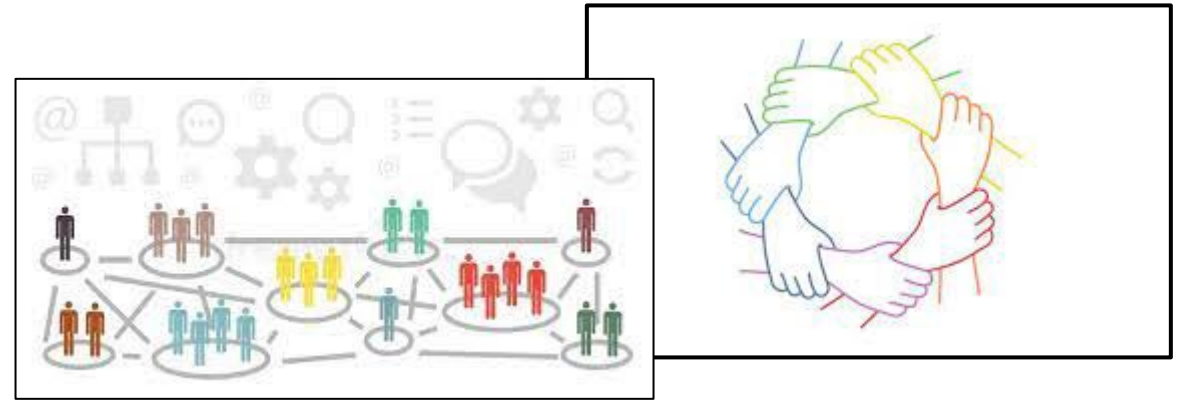
CCI Research Programs FY24-25



Supply Chain Cybersecurity



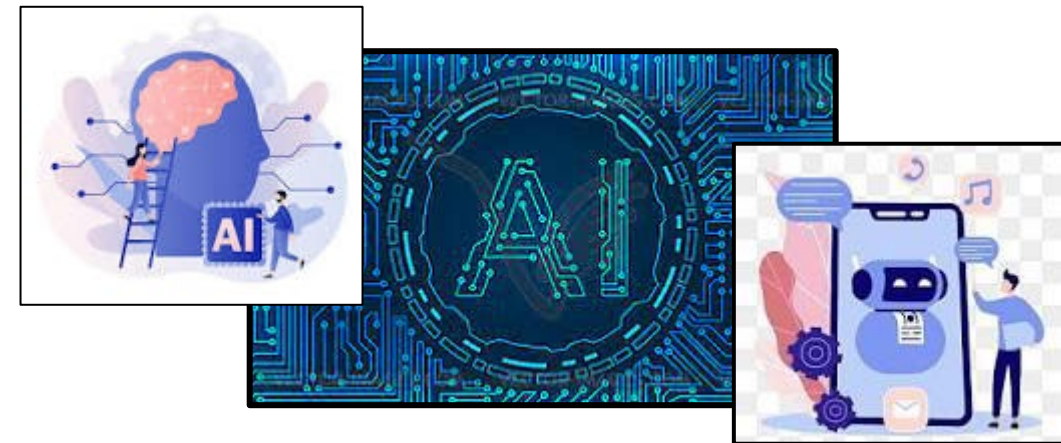
Inclusion and Accessibility of Cybersecurity



Cybersecurity Arts & Design



AI for Cybersecurity / Cybersecurity for AI

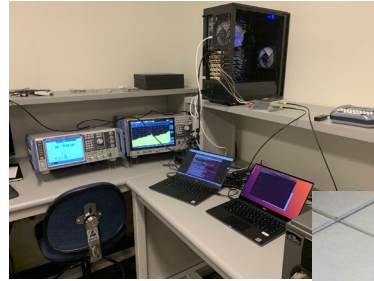




CCI Hub xG Testbed



OTIC: Indoor Testbed



**OPEN
TESTING AND
INTEGRATION
CENTRE**

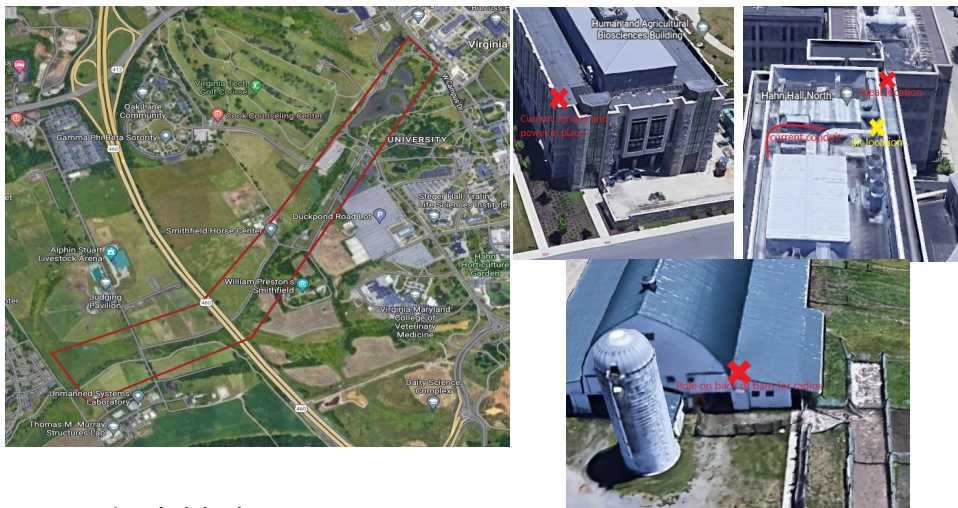


**CCI-SRS Lab
announced in 2023**



Member since 2021

Outdoor Testbed



Member since 2021



**Member, with a seat in the
NSC O-RAN advisory board**

Regional Node Testbeds



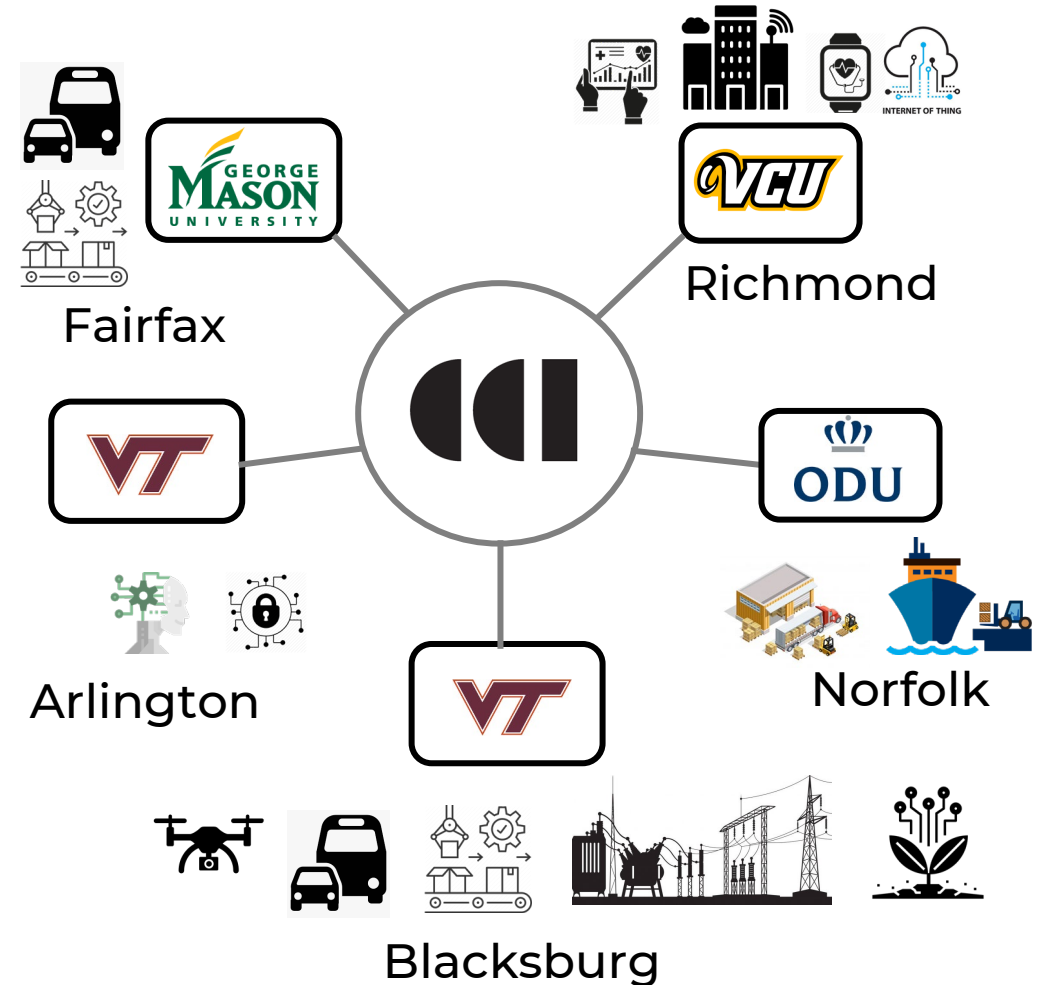
Node Unique Verticals:

VCU: medical devices, IoT, smart cities

ODU: ports and warehouses

VT: power grid, manufacturing, transportation, UAVs, Agriculture

GMU: transportation, manufacturing



Workforce Development

Our role:

CCI is a **connector** between Virginia students and employers and a **creator** of experiential learning opportunities for cybersecurity careers.

Workforce Development



Cyber Clinic

- Pilot program where cybersecurity students provide a no-cost cybersecurity assessment of micro to small businesses.
- In Spring 2024, 8 students worked with 2 micro businesses on this cybersecurity assessment



Cyber as a Service CFP

Open Call: Rolling Basis

Projects, performed primarily by students, should provide a cyber service (e.g., penetration or pen testing, cyber risk analysis) to Virginia small businesses or not-for-profits in the same county as the institution of higher education.



FY23 Project-Based Learning



CACI

Pilot Program: Build the CTF catalog of challenges to be used in CACI's annual CACIthon to be held summer 2024.

- 7 Students Accepted



Microsoft

Project: Borrow and use a Flipper Zero to measure the device's capabilities to determine how it can be used and if more safeguards are needed.

- 5 students will be selected

Project Duration: Summer 2024

Student Notification for Selection: May 1, 2024



Future Project-Based Learning Opportunities



CACI

Project: *Tasks will include generating, documenting, and implementing a project plan to create and build a repository of about 30 challenges to be used for CACI capture-the-flag (CTF) employee and outreach events.*

Project Duration: August 23 – December 13, 2024

Recruitment opens: April 8, 2024

Recruitment closes: April 26, 2024

Microsoft

Project: *To develop cyber early-in-career workforce skills with cloud-based technologies.*

Students will build out an Azure hosted infrastructure and GEN AI architecture designed by Microsoft to enable cloud Capture The Flag activities.

Project Duration: September 3 – December 20, 2024

Recruitment opens: Anticipated end of April 2024

Innovation

Our role:

CCI is a **broker and a resource** for
the cybersecurity innovation
ecosystem in Virginia

Startup & VC Collaboration



- Internships and experiential learning programs
- Innovation investments CCI Incubator and Accelerator (CCI+A)
- Innovate Cyber
- MeetUp2StartUp Program
- Innovation Boot Camp

Cybersecurity represents 27% of venture deals in VA in 2022/2023

Economic Impact





Questions