

Cyber Vigilance: The Virginia Way

First state in the nation to...

- ✓ Adopt National Institute of Standards and Technology Cyber Framework
- ✓ Declare itself an Information Sharing and Assessment Organization (ISAO)
- ✓ Require enhanced security on debit or credit card transactions (ED 5)
- ✓ Enact landmark digital identity legislation (now used by many other states)
- ✓ Register apprenticeships for cyber security jobs (first in Virginia history)
- ✓ Establish a pay-for-performance workforce training program
- ✓ Sign an MOU with the Government of Victoria (Australia) enabling innovation through research and development, building a pipeline of future technologies
- ✓ Host a Cyber Physical Systems Summit to build awareness of the challenges of securing autonomous systems, critical infrastructure, and the Internet of Things

CYBER INNOVATION

Building the Cyber Ecosystem

MACH37: Innovative accelerator for emerging cyber security firms. To date Mach37 has launched 35 leading edge companies in Virginia; www.mach37.com

Virginia Cyber Security Partnership: Established by Governor McAuliffe; researches technologies to safeguard citizens and agencies from cyber attacks against smart vehicles

Cyber Portal: Public website provides reputable information on cyber standards and best practices for citizens, businesses, and government organizations; cyberva.virginia.gov

Cyber Jobs: Connecting Virginia cyber professionals with Virginia cyber jobs; cyberjobs.virginia.gov

Virginia Partners with SANS Institute to Offer Cyber Challenge for Students

Students from Virginia who excel in the CyberStart program will have the opportunity to share in \$150,000 in scholarships for further cyber education, and ultimately an additional \$500,000 in scholarships for college and graduate-level training and preparation for highly sought-after industry certifications.

"Growing Virginia's cyber workforce is foundational to maintaining our position as a national leader in cyber security. This is a great opportunity for us to expand our talent pipeline by engaging young people interested in learning more about cyber security and directing them to the appropriate training and career coaching," said Governor McAuliffe.

CYBER VIRGINIA CYBER VETERANS INITIATIVE

"We will continue to work with our partners and the private sector to build innovative pathways for job training and career development for veterans in Virginia."

GOVERNOR MCAULIFFE

Learn more at
cybervets.virginia.gov

CYBER VIRGINIA CYBER SECURITY JOBS

36,000

Open Cyber Jobs in Virginia

\$88,000

Average Cyber
Starting Salary in Virginia

Virginia has the most cyber security companies per capita in the nation.

cyberjobs.virginia.gov



As chair of the National Governors Association, Governor McAuliffe has made it his priority to develop strategies for strengthening cyber security practices as they relate to state IT networks, health care, education, public safety, energy, transportation, critical infrastructure, economic development and workforce.

<https://www.nga.org/MeetTheThreat/>

CYBER JOBS: VIRGINIA CYBER FIRMS ARE HIRING!
Virginia has the most cyber security companies per capita in the nation.

Cyber Policy Leadership

Executive Order #8 Launched Cyber Virginia and the Cyber Security Commission

Executive Directive #5 Mandates a clear path to secure consumer transactions using authentication technology, such as “chip and pin”

Executive Directive #6 Improved cyber protocols, expanded cyber related risk management activities and conducted inventory of the Commonwealth’s critical and sensitive systems

Executive Directive #13 Established an executive work group to develop a strategy to equip Virginia communities with the support, tools, and resources they need to become Smart Communities

2015 Legislation

HB1946/SB919 Sealed administrative subpoenas for electronic communications and social networking data

SB1109 Secured FOIA exemptions for meetings and discussions which include sensitive information regarding cyber security vulnerabilities

SB1121 Defined IT responsibilities of agency directors

HB1562/SB814 Electronic identity management standards; liability

SB1307 Clarified language for search warrants for seizure of computers, networks, and other electronic devices

SB1129 Secured FOIA exemptions for plans, information, or responses to terrorism regarding cyber security threats and vulnerabilities

2016 Legislation

HB924 Allowed providers to verify the authenticity of reports or records with an affidavit from the custodian of the records

2017 Legislation

HB1815 Increased computer trespass crimes to a felony if the computer affected is one used by or for the Commonwealth or certain public utilities

HB2113/SB1033 Requires payroll companies to notify the Attorney General after breaches of sensitive employee data

HB2360 Requires state agencies to comply with federal laws and regulations pertaining to information security and privacy

Virginia is Training its Workforce Now

Innovative cyber training to speed worker readiness for the New Virginia Economy:

- **Cyber Boot Camps:** Cyber Education training for high school teachers
- **Conference on Cyber and Education:** Discussion and education on the importance of training for cyber careers
- **Cyber Veterans Initiative:** an innovative initiative to provide veterans with access to cyber security training opportunities and resources to help veterans enter the Virginia cyber security workforce; cybervets.virginia.gov
- **Cyber Security Higher Education in Virginia:** Many universities and colleges around the state are meeting the workforce needs by enrolling students in cyber and IT pathways. New programs are developed every year; cyberva.virginia.gov/colleges/
- **Cyber Range:** Secure platform built for training, research, and collaboration
- **NSA Day of Cyber:** 110 schools and more than 7000 students took part in rigorous, real-life virtual cyber scenarios, discovered the skills and tools used by NSA cyber professionals, and explored careers in cyber security
- **Cyber Apprenticeships:** Registered apprenticeship programs through Virginia Department of Labor and Industry to connect cyber companies with candidates looking for cyber careers
- **CyberStart (SANS):** Exciting opportunity for students to test their cyber acumen and potentially earn scholarships for advanced industry-relevant training and certification

Cyber Attacks Thwarted In the Commonwealth

78,129,727

Attack attempts (6 per second)

832,632,021

Spam messages blocked

102,692

Pieces of malware blocked

116

Attack attempts became cyber security incidents

Data collected January - May 2017

Cyber Centers of Academic Excellence

Virginia has 16 National Cyber Centers of Academic Excellence across 12 institutions.

*George Mason University**

*Hampton University**

James Madison University

Longwood University

Marymount University

Norfolk State University

*Virginia Polytechnic Institute**

Radford University

Danville Community College

Northern Virginia Community College

Lord Fairfax Community College

Tidewater Community College

Thomas Nelson Community College

* Denotes multiple Cyber Centers of Academic Excellence

FOR MORE INFORMATION
visit <http://cyberva.virginia.gov> or call **804-786-9579**