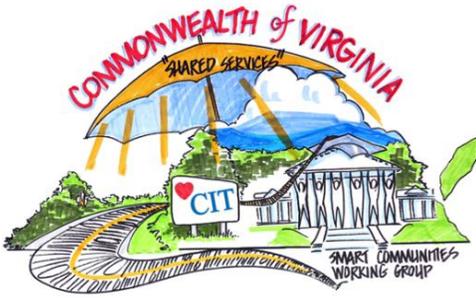


Smart Communities in Virginia

Technology is rapidly changing many aspects of our daily lives. The development of "Smart" Communities presents an opportunity for the Commonwealth to build the New Virginia Economy, spurring continued economic expansion in high-growth industry sectors, enhancing citizen services, creating jobs, and attracting capital investment.

What is the difference between a Smart Community and a Smart City?



A Smart Community is a town, suburb, rural area, county, or city that uses a variety of technologies to enhance quality of life. A Smart City is just one example of a Smart Community. Smart Communities employ technology to address unique local needs such as improving government services, boosting performance and lowering costs, lessening environmental impacts, and bettering where we work, live, and play.

The benefits of Smart Communities come from new technology-based job opportunities, new public services, and cost efficiencies of using data proactively to address local issues. These benefits are the result of better access to broadband networks, sensor-driven data, analytics, and newly enabled information applications. Smart Communities are the building blocks for smart regions, states, and countries.

What are some examples of Smart Technology improving people's lives?

Smart Communities use data to help improve the lives of local citizens, businesses, non-profits, and visitors. The data comes from Internet of Things (IoT) sensors and technology-connected devices. Through apps, people obtain access to data, communication channels, and more so that they can do everyday things such as avoiding traffic jams, finding a parking spot, reporting a pothole or an overflowing dumpster, and communicating with local elected officials. Below are a few examples of how Smart Communities make areas safer and improve quality of life.

- Environmental monitoring – flood and wildfire sensors provide early warning to vulnerable people and facilities
- Agriculture – nutrient & moisture sensors and livestock geotagging improve agricultural efficiency
- Integrated data – multi-purpose route plans can improve refuse collection, tag potholes and identify social service needs
- Health – wastewater monitoring provides early community indication of COVID infections, opioid use, other concerns
- Broadband – access for school children without internet; access to telehealth services
- Smart Buildings – improve energy efficiency and public safety while reducing lifetime maintenance costs
- Public Safety – firefighters locate and rescue victims faster, UAVs help traffic safety assess congestion and crashes faster
- Virtual Reality – a new platform for tourism, e-commerce and gig economy jobs

CIT | SMART | Program Overview

CIT is providing national thought leadership, vision, and implementation of Smart Communities as a model for places across the Commonwealth and beyond. Our Community-Driven Innovation approach harnesses a range of leading-edge technologies in support of the public interest and unique needs of individual communities. This focus lets us tailor technology solutions to communities large or small, urban, suburban, or rural. Our approach builds on a foundation of data security, privacy, and governance that puts community and citizen interests first. CIT SMART has been providing leadership for the Commonwealth since 2017.

Smart Community pilot projects rely on "Community-Driven Innovation" to identify topics relevant to each community and connect commercial technology partners to demonstrate solutions. CIT Smart helps coordinate the Community-Driven process by jointly developing a technology vision with the community, establishing partnerships, and providing pilot project funding.

Virginia is well-positioned to support Smart Communities' development by leveraging advanced resources across the Commonwealth, including our vibrant universities, entrepreneurial ecosystems, and technologies in areas such as cyber, autonomous systems, healthcare, public safety, and transportation. Enhancing the impact of Smart Communities on the economy and job creation, while leveraging these activities to foster economic growth, is critical for Virginia's Smart Communities effort. While federal efforts often focus on the national perspective, states such as Virginia are seizing the opportunity to address their communities' unique needs, particularly around digital access and equity, and to enhance citizen benefit and engagement, whether urban, suburban, or rural.

CIT SMART | Current Projects | Partners | Opportunities

The CIT Smart Communities team helps entrepreneurs and stakeholders move Smart ideas, innovations, and inventions through the testing and pilot phases to prepare them for commercialization, funding, and success in the market. CIT Smart creates opportunities through facilitating partnerships, research support, raising capital, and community development. The goal is to connect public and private resources so that Virginia can more quickly realize the value and benefits of Smart Communities initiatives for our citizens, businesses, non-profits, and visitors.

CIT SMART Projects & Initiatives



CIT created the Smart City IoT Innovation Labs (SCITI Labs - pronounced 'CITY') Commercial First process

CIT has partnered with the U.S. Department of Homeland Security (DHS) Science and Technology Directorate (S&T), Smart City Works and TechNexus to launch SCITI Labs - prototyping internet of things (IoT) and Smart City technologies for public safety and emergency response. SCITI Labs uses the CIT Commercial First approach to innovation, seeking out companies and innovations in adjacent markets that can also support the DHS enterprise.

CIT helped create the Smart City Works Business Actuator

CIT helped design and launch Smart City Works (SCW) the first business "actuator" focused on helping startups and more mature companies transition new ideas or inventions related to Smart technologies into viable growing companies.

CIT led the team that won the Smart City Council 2018 Readiness Challenge Grant

Virginia was selected as a recipient of a Smart Cities Council 2018 Readiness Challenge Grant to build a framework for its multiple initiatives, including expanding broadband throughout the state, adopting interoperability standards, setting out a cybersecurity and privacy plan, and creating sustainable funding for Smart projects.

"Virginia has established itself as a pioneer in the smart community industry by launching new initiatives that integrate smart technologies into our communities and attract cutting edge companies," Governor Ralph Northam

CIT SMART | Who We Help and How

CIT is helping Stafford County, VA

Stafford County partnered with CIT to help define "Smart" for the new "Smart" Downtown Stafford, near the current Stafford Government Center. CIT helped with the vision and plan and is an active part of ongoing project execution through pilot funding and technical expertise.

CIT is helping Fredericksburg, VA

The Fredericksburg Riverfront Park is on track to open in Fall 2020. CIT has worked with city planners and IT staff to help design and define what will make the park "Smart." Solutions include fiber conduit replacing electric conduit to save costs, a leading-edge electronics package for the lighting poles to support Wi-Fi access, cameras, sensors, and built-in room for future technology growth. Plans for a concert area and informational kiosk and integration to the city IT infrastructure are also focal points of this project.

CIT helped S&T Partner with New Innovators to Bring Smart Cities Technologies to First Responders

Working with the Department of Homeland Security (DHS) Science & Technology Directorate (S&T), CIT has pioneered the "Commercial First Innovation" methodology for smart community technologies that DHS S&T is adopting across several mission areas. This methodology looks for commercially relevant technology in similar or adjacent markets as the starting point for innovation; the result is more responsive innovation, much higher success rates in transitioning to market and significant support for early-stage innovators. Living laboratories such as Stafford and Fredericksburg provide a direct path to market for promising technologies.

CIT SMART | Next Steps | CIT is helping Virginia

The Center for Innovative Technology (CIT) is proactively soliciting interest in Smart Communities projects throughout the Commonwealth of Virginia. We have several programs to support innovation in Smart Technologies, including grants and seed-stage funding opportunities. Please send questions to VASmart@CIT.org