

NC DIT Technology Strategy Board

Friday, September 17, 2021
9:00am—12:00pm



Agenda



Call to Order

Opening Remarks

Committee Reports

- Digital Transformation Committee
- Cybersecurity/Privacy Committee

Other Business

- Statewide Strategic Plan
- Pending Legislation
- Broadband
- Citizen Portal

Adjournment

Opening Remarks

Secretary Jim Weaver, Board Chair



Committee Reports

Digital Transformation





How do we define *Digital Transformation?*

Fundamentally, Digital Transformation will help the State create better outcomes by connecting its people, places, and things

Digital Transformation Committee

Tracy Futhey, Chair
Jo Abernathy, Keith Briggs
Keith Collins, Anne Hungate, Teena Piccione



Digital Transformation Roadmap

- Context
- Scope
- Vision
- Mission

Vision: North Carolina delivers seamless and easy access, at constituent's fingertips, to the full array of governmental services that enhance their living, learning, working, and recreation.

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Digital Transformation Roadmap

- Purpose
- Driving Factors
- Principles

Purpose

To empower citizens by delivering technology that meets their needs and is easy to use.

Principles:

- Constituent data changes propagate to all systems
- Use industry-standard platforms and tools
- Bring services to users, not vice versa
- Embrace best practices across agencies
- Deliver seamless experience across state
- Prioritize projects with biggest impact

Digital Transformation Committee

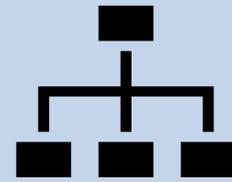
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Digital Transformation Roadmap Strategies



1) Promote
Enabling
Infrastructure
& System
Integration



2) Stimulate
Inter-agency
Collaboration,
Coordination
toward
Common
Solutions



3) Improve
Awareness of
and Easy Access
to Secure
Systems for All
Constituents

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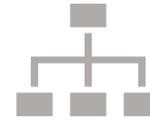
Strategies and Goals

Enabling infrastructure, system integration



- One digital identity for all state systems/services.
- Replace inefficient paper-based processes with digital and paperless access.
- Map the ecosystem of siloed systems to scope the integration effort.

Inter-agency coordination, collaboration



- Leverage DOT & DHHS as early adopters of one identify; propagate solutions across other agencies.
- Identify maturity levels of individual agency IT functions and strategies to mature and support as needed.
- Devise strategy for local government interconnection.

Better awareness of, access to secure systems



- Complete development of the Constituent Portal.
- Establish a data hub for citizens to transparently expose what the state knows about them, and to control the release of data among systems/ services when it is optional versus required
- Ensure all state systems are secure and protect individual privacy

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Digital Transformation Roadmap

- **Outcomes**
- **Conclusion**

Outcomes:

- Initially focusing on systems that support education and particularly digital identity for K-20.
- Streamlining processes related to starting and maintaining your business.
- Making healthcare easier and more efficient.
- Adoption of a single, common identity as a foundational element.
- A “One North Carolina” perspective for constituent access to digital services.

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Digital Transformation Roadmap

- Reactions, comments, or questions from the ITSB?
 - Missing issues
 - Help identify accelerants that can help us moving forward
 - How do we leverage the full ITSB to move this forward
- Next Steps

Committee Reports

Cybersecurity/Privacy

Cybersecurity/Privacy Committee

Composition



Committee Members

Jeff Tarte (Senate) - Chair

Gerald Poplin (House)

Keith Werner (UNC System delegate by statute)

Randy Cress (CISO Local Government)

LTC Robbie Felicio (National Guard)

Staff: Rob Main (SCRO DIT)

Technical Advisors/Guests

- Secretary of DIT
- CISOs Largest Agencies/Departments
- ITSB Vice Chair

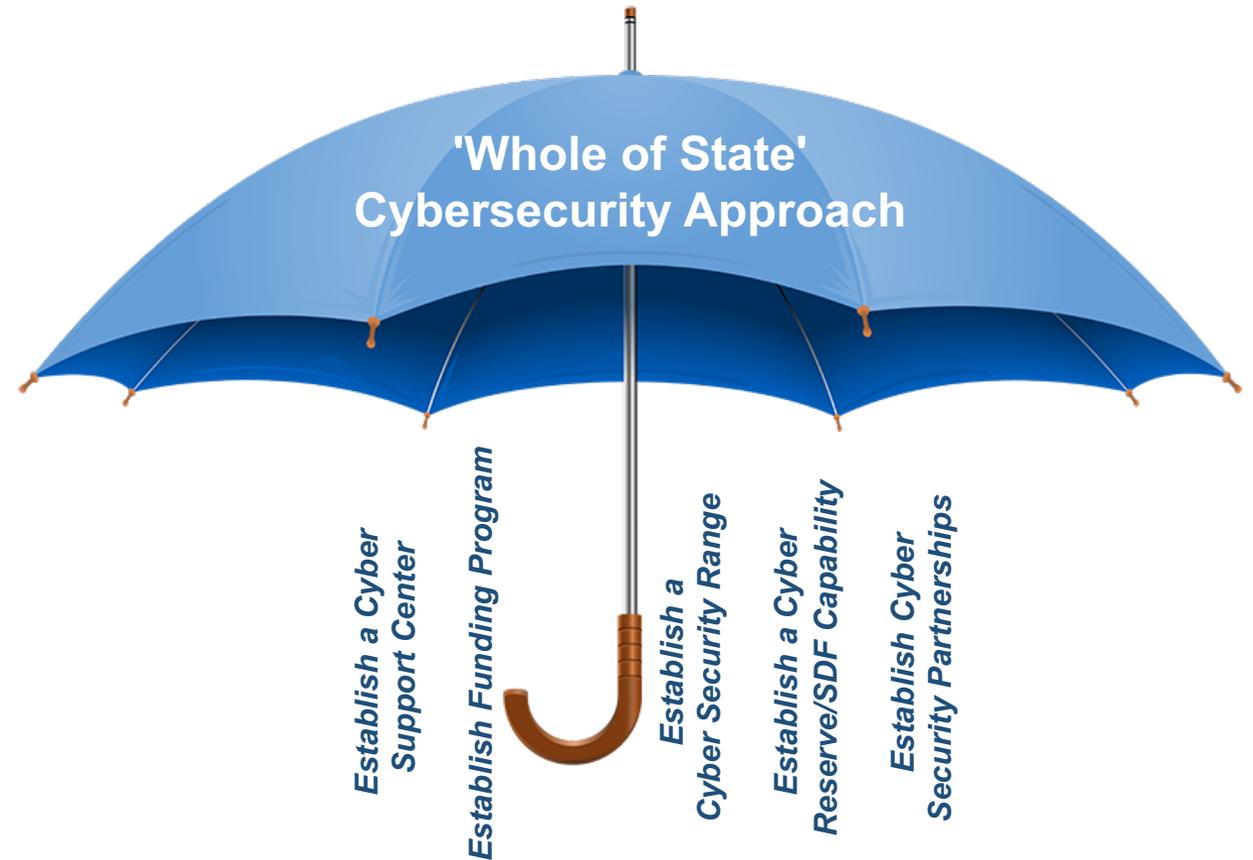


Cybersecurity/Privacy Committee

Vision and Purpose



- Whole-of-State Approach
- Resilient Environment
- Threat Intelligence
- Zero Trust Landscape
- Continuous Monitoring
- Advocate for Legislative Action



Cybersecurity/Privacy Committee

Guiding Principles



- Data is Gold – Must Protect
- Protect, Defend, Contain, and Monitor
- Do Not Outspend Our risks
- Fix Problems We are Already Aware of
- Reduce and/or Eliminate Duplicative Efforts



Cybersecurity/Privacy Committee Priorities



- Educational Initiatives & Cybersecurity Workforce Pathways
- Legislative Funding
- Cybersecurity Maturity
- Combine DIT & DPI Pilot
- Exempt Status Selected Positions
- Intrusion Prevention Services



Cybersecurity/Privacy Committee

Open Items and Topics of Conversation



- Workgroup on Career Pathways
- Veteran Cybersecurity Apprenticeship Program
- Carolina Cyber Network
- Funding Tier 1 & 2 Counties
- Pending & Needed Legislation
- Leverage Common Tools & Platforms
- Local Government Access to State Contracts

10 COOLEST JOBS IN CYBERSECURITY

WHY THEY MAKE A DIFFERENCE AND HOW TO QUALIFY FOR THEM

Initial Jobs With Lots of Advancement Opportunities

- 1 DIGITAL FORENSIC ANALYST/INVESTIGATOR**
"The thrill of the hunt is a call for cyber geeks! You never encounter the same crime twice."
You are the detective in the world of cybersecurity - searching computers and networks for evidence in the wake of an incident.
- 2 PENETRATION TESTER FOR SYSTEMS AND NETWORKS**
"As a hacker, but do it legally and get paid a lot of money!"
You look for security vulnerabilities in target systems and networks to help enterprises improve their security.
- 3 APPLICATION PEN TESTER**
"We desperately need more of this, application security has been such a black hole for so long."
You're a programming/security wizard - testing applications before deployment so they don't present opportunities for intruders.
- 4 SECURITY OPERATIONS CENTER (SOC) ANALYST**
"The fire ranger better catch the initial blaze, or there goes the forest."
With an eye for detail and anomalies, you see things most others miss. You implement active prevention, active detection, active monitoring, active response.
- 5 CYBER DEFENDER; SECURITY ENGINEER (ENTERPRISE AND ICS)**
"A legit job you'll see engineering buddies talk shop with them but you are saving the world from the bad guys too."
You implement and tune firewalls, IPS/IDS, patching, admin rights, monitoring, application white listing, more.

More Advanced Jobs - Open After A Few Years of Great Performance and Specialized Training

- 6 HUNTER/INCIDENT RESPONDER**
"The secret agent of geekdom. You walk in and say 'Oh! I take it from here.'"
While everyone else is running around shouting, "The system's dead," you have the sense and skills to rationally figure out why.
- 7 SECURITY ARCHITECT**
"You get to design the solution, and not just for the perimeter."
You are creative and on top of the game both technically and in business. You design and build defensible systems and are part of an adept team.
- 8 SECURE SOFTWARE DEVELOPMENT MANAGER**
"Coolest software developers"
You protect the development team from making errors that will allow hackers to penetrate your organization and steal data. You are a programmer, but a programmer with special powers.
- 9 MALWARE ANALYST / REVERSE ENGINEER**
"The technical elite! Only go here if you have been called. You know who you are."
You look deep into malicious software to understand the nature of the threat, how it got in, what fix it exploited, and what it is trying to do or has done.
- 10 TECHNICAL DIRECTOR / CISO**
"Making decisions making things happen. That's coolness."
You are at the top of the tech ladder. A strategic thinker, you're hands on the design and deployment of solutions. You hold the keys to tech infrastructure.

CYBER FAST TRACK

- 1** **DISCOVER IF YOU HAVE THE APPTITUDE CYBERSTART: THE GAME**
"I loved CyberStart challenge - the coolest game I ever played."
"Thought me a lot, (even) cybersecurity wasn't too hard to learn."
"The most fun I ever had learning."
We now have cybersecurity programs (even live) based on majority of those found above! CISO, market leaders from Valley tech leaders!
[LEARN MORE AT CYBERSTARTUS](#)
- 2** **MASTER THE FOUNDATIONS CYBERSTART: ESSENTIALS**
Core technologies. How they work and are attached.
On-line, hands-on immersion training, in 48 modules
Progress at your own pace. Quizzes and tests on each module.
National exam to reach silver or gold levels.
[LEARN MORE AT USCYBERACADEMY.SANS.ORG](#)
- 3** **EMPLOYER INTERVIEWS SECURE ACCEPTANCE**
GET SKILLS EMPLOYERS NEED AND A COOL JOB!
* Veterans' Academies, Women's Academies, and Open Academies
* Three SANS immersion courses and three high value CIAC certifications
* 180+ job placement in 6 months
* Also available to Certificates in Applied Cyber Security (ACS) at SANS labs and other accredited colleges and universities.
[LEARN MORE AT USCYBERACADEMY.SANS.ORG](#)

UNITED STATES CYBER ACADEMY

"Completing the SANS VetSuccess Academy not only influenced my career plans, it defined them - opening doors that were inaccessible to me otherwise. In fact, being selected into the VetSuccess program was a "hitting the jackpot" moment for me."
Ed Russell, USAF (ret) NTT Security

© 2018 The SANSInstitute More information: CyberStart.US

Other Business

Statewide Strategic Plan

Secretary Jim Weaver, Board Chair

Sarah Porper, Director of Business Strategy



Vision

Government that strategically leverages technology for an equitable, prosperous, healthier, and educated North Carolina.

Mission

Enable trusted business-driven solutions that meet the needs of North Carolinians.

Priorities

Broadband/Connectivity • Cybersecurity & Privacy • Digital Transformation

Guiding Principles

Collaboration • Innovation & Creativity • Transparency • Accountability • Agility • Integrity • Customer Focused

Statewide IT Strategic Plan

Statewide Goals

Foster a connected NC to improve opportunities and outcomes for all North Carolinians

- Provide resources to our partners in the private, not-for-profit, and public sectors to expand broadband and increase digital equity
- Collaborate with partners to establish guidance and policy to improve the digital landscape
- Develop better data mapping of served, unserved, and underserved populations
- Enhance 911 capabilities across the state
- Support improved health outcomes through the adoption of innovative technologies
- Improve access to online learning opportunities for all of NC's students while ensuring data privacy
- Foster and promote digital government

Transform the delivery of services

- Enhance service management by improving transparency, and streamlining and securing day-to-day operations
- Adopt broker service model and supporting capabilities
- Improve our ability to forecast the needs of our customers
- Develop and implement a new funding model for IT in the state
- Develop scalable services that meet the current and emerging needs of our customers
- Invest in modern authentication services to support the state's current and future needs

Optimize and secure the state's IT and application portfolios

- Leverage the Enterprise Portfolio Management Tool to identify technology convergence opportunities across the state
- Implement enterprise IT governance to optimize IT investments
- Develop a statewide resiliency and security plan for critical applications for all levels of government
- Make strategic decisions about our portfolio based on the needs of the business
- Modernize state infrastructure to broadly include cloud and on-demand models and supporting capabilities
- Develop an application modernization program

Promote an inclusive and innovative workforce

- Attract, develop and retain a skilled and diverse workforce
- Establish a culture of empowerment and collaborative thinking
- Invest in people through increased training and education opportunities
- Develop and implement advancement opportunities for our employees
- Create a succession strategy for IT staff to ensure continuity of service across the enterprise
- Improve communication and transparency with employees

Leverage data assets and analytics to further advance a data-driven government

- Execute enterprise data governance strategies to promote data sharing while ensuring data privacy and security
- Inventory and invest in critical data assets across the enterprise
- Advance the data integration and analytics program statewide
- Implement an enterprise data management program that addresses data standards, quality, and accessibility
- Expand the use of modern data visualization capabilities to measure performance and impacts

Other Business

Pending Legislation

**Nate Denny, Deputy Secretary for
Broadband and Digital Equity**



Other Business

Broadband

**Nate Denny, Deputy Secretary for
Broadband and Digital Equity**



The Digital Divide in North Carolina¹



Approximately 1.1 million North Carolina households lack access to high-speed internet in their homes² and cannot afford it. Many residents also lack the skills to effectively use it. We can **achieve digital equity in North Carolina** by addressing the following factors:



Infrastructure

At least **266,000 North Carolina households**, likely much higher, currently do not have access to high-speed internet of 100/10+ due to lack of infrastructure.³



Affordability

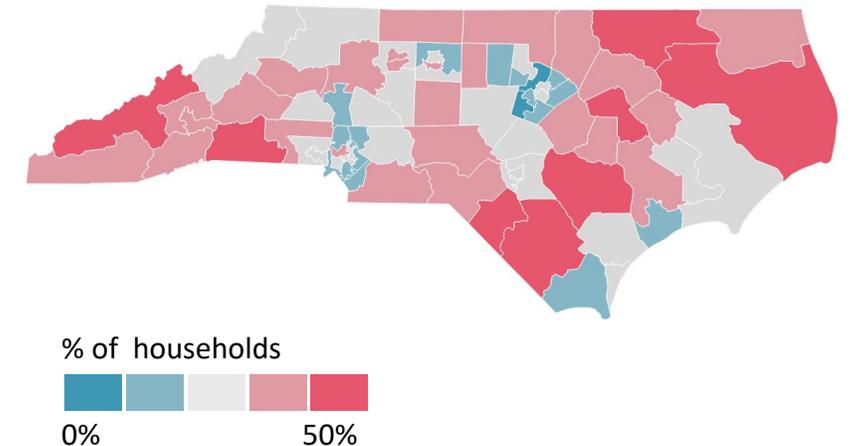
Approximately **1.3 million households** would have to pay more than 2% of their annual income to afford a broadband cost of \$60/month.⁴



Digital Literacy and Enablement

An estimated **430,000 households** are without a home laptop or desktop computer. Of those, **approximately 180,000** do not have a smartphone.⁵ As many as **1.2 million adults** may lack the digital literacy required to begin taking advantage of digital services.⁶

Percent of Households Without a High-Speed Internet Subscription (2019)⁷



1. Data on this slide is based on a 2021 study by McKinsey & Company. | 2. U.S. Census Bureau, 2019 American Community Survey (ACS) Microdata | 3. FCC Form 477, FCC 2019 block demographic estimates | 4. U.S. Census Bureau, 2019 American Community Survey (ACS) Microdata | 5. U.S. Census Bureau, 2019 American Community Survey (ACS) Microdata; 2021 Census Pulse Survey | 6. National Center for Education Statistics | 7. U.S. Census Bureau, 2019 American Community Survey (ASC) Microdata, for respondents who don't have an internet subscription or that only have cellular data or only have dial-up, satellite or other.



By 2025, North Carolina will become a top-5 state for high-speed internet adoption rates while equitably eliminating North Carolina's digital divide by:

- Making home internet subscriptions affordable to all households, especially those with children
- Making targeted investments to close gaps in adoption that impact Native American, Black and Latinx households
- Catalyzing access to devices, digital training and tools that will connect residents to the digital economy

Measuring Success



Key Success Metrics	N.C. Today	N.C. 2025
 Households with broadband internet access	95.5%	98%
 Households with broadband internet subscriptions	73%	80%
 Households with children with broadband internet subscriptions	81%	100%
 Adoption rates across racial subgroups		
• Native American	57%	80%
• Black	64%	80%
• Latinx	68%	80%
• White	76%	80%

Approach & Initiative Investment



Governor Cooper proposes closing the digital divide with a \$1.2 billion state investment, using funds from the American Rescue Plan, in the following areas to **achieve digital equity in North Carolina**. We will also leverage significant private sector investment.

 Infrastructure	\$600M	Ensure availability of internet service at speeds of at least 100/20 Mbps for more than 98% of North Carolina households.
	\$350M	<ul style="list-style-type: none">• GREAT Grant 2.0
	\$150M	<ul style="list-style-type: none">• Competitive Bidding
	\$100M	<ul style="list-style-type: none">• Stop Gap Solutions
 Affordability	\$420M	Lower cost barriers for North Carolinians.
 Digital Literacy and Enablement	\$165M	Improve awareness and enable North Carolinians to realize the benefits of high-speed internet through digital literacy and upskilling aimed at accessing the digital economy.
	\$70M	<ul style="list-style-type: none">• Device Support and Break-Fix Services
	\$95M	<ul style="list-style-type: none">• Awareness and Digital Literacy
 Administrative	\$15M	Supplement existing state administrative capacity to support high-speed internet efforts.

Other Business

Constituents Portal

Glenn Poplawski, State Solutions Director



Agenda

- Design Update
- Portal Capabilities
- Pilot Options
- Next Steps



Design Update

Design Update

- Tree test results
- Wireframes for search/search results
- New theme development
- Upgrade to Drupal 9. Will help accelerate improving Search.
- Working with DHHS to validate content for "How-to content guides" for high volume transactions such as Apply for Vital Records, Apply for WIC, Apply for Food and Nutrition Services.



Static Wireframes for nc.gov

New Wireframes:

Search page: [Desktop](#)

Search Results page: [Desktop](#)

Home page:

[Desktop](#) | [Mobile](#)

Top-level Landing page:

[Desktop](#)

How-To page:

[Desktop](#)



Portal Capabilities

Portal Capabilities

- Identified potential solutions for various portal capabilities.
 - Identity and access management
 - Content management
 - Application/data integration
 - Transactions
 - Accessibility and
 - More

Ideally identify standard solutions for key capabilities



Pilot Options

Pilot Options

- Business one-stop-shop (In progress)
- How-to Content Guide (confirmed)
 - [Apply for Medicaid](#)
 - [Apply for Recreational Fishing License](#)
 - [Apply for North Carolina Drivers License](#)



Adjournment

Thank you for your time this morning—have an excellent weekend!