Restructuring IT in North Carolina
Why DIT?

The 1000s of reasons

5000+ Servers
1100+ Agency Applications
591 Contracts Over $25,000
40+ Centers
285 Unique titles for ~ 2000 Staff
74% IT Projects That Exceeded Budget & Schedule

“We’ve found that the piecemeal approach we’ve taken during the past decade for the information technology has had disastrous results. 74% of the State’s IT projects have come in over budget and behind schedule.”

Governor Pat McCrory
Governor McCrory’s Vision:

- Accountable and efficient governance and management of IT across NC
- Efficient and effective services for the citizens of North Carolina

Leadership

- Importance of IT restructure
- Enhance Citizen Interaction

Efficiency
Complexity
“Interacting with government should be as easy as checking the latest scores on the internet or even shopping online.”

- NC Governor Pat McCrory
**Scope of DIT**

Session Law 2015-241 creates DIT

- OITS
- Office of SCIO
- SECTION 7A.1.(b)
- DIT
Transition to DIT

Who

- Environmental Quality
- Natural & Cultural Resources
- Transportation
- Budget Management
- Military & Veterans Affairs
- Health & Human Services
- Administration
- Human Resources
- Governor’s Office
- Revenue
- Commerce
- State Controller
“develop documentation to support the consolidation of enterprise information technology functions”

§143B-130

<table>
<thead>
<tr>
<th>Transition to DIT</th>
<th>What</th>
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<tbody>
<tr>
<td></td>
<td>“develop documentation to support the consolidation of enterprise information technology functions”</td>
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<tr>
<td>§143B-130</td>
<td>5</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Personnel Management</th>
<th>Project Management</th>
<th>Procurement</th>
<th>Hardware Configuration &amp; Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Software Acquisition &amp; Management</td>
<td>Data Center Operations</td>
<td>Network Operations</td>
<td>Security</td>
</tr>
</tbody>
</table>
DIT Transition Planning:

When

Step 1

DIT will conduct initial meeting with agencies

Step 2

DIT will work with agencies to develop plans for the transition, which will consider:
- how IT support will be provided;
- unique agency issues

Step 3

Once plans are completed for each agency, transition planning for personnel and functions will commence.
Despite change in leadership, no change in direction

DIT transition team

Efficient collaborative solutions

Greater advancement opportunity

Competitive, consistent pay throughout agencies

DIT Transition Key Points

Strategy to Implementation

- DIT transition team
- Functional transition

Benefits to Agencies

- Efficient collaborative solutions
- Greater advancement opportunity
- Competitive, consistent pay throughout agencies

Staying the Course

- Despite change in leadership, no change in direction

- DIT transition team

- Functional transition

- Efficient collaborative solutions

- Greater advancement opportunity

- Competitive, consistent pay throughout agencies
Guiding DIT Transition Principles

**Don’t Break The Business**
- Business as usual operationally
- IT professionals will still serve their agencies.
- There are no plans to relocate most IT professionals.
- There are no plans to cut positions/people.

**Collaborative**
- DIT Transition Office
- Planning process includes agency staff.
- No “One-size-fits all” model
- oneit.nc.gov – “Ask Us” section

**Transparent**
- Written Communications
- No surprises

**Done Right**
- Not cutting corners
- Committed to success
- Thorough and thoughtful planning
- These principles are our promise to you, and they will drive the planning and implementation of the transition.
Building Blocks of Transition
DIT Financial Model: Rate-Setting

Figure 3: DIT Rate-Setting Process

- Publish rates
- Forecast consumption
- Conduct agency impact analysis
- Update budget and cost allocation
- Update rates
- Industry benchmark analysis
# HR Work Stream: Policies & Procedures

## HR Transition Phase Impact - Policies and Procedures

<table>
<thead>
<tr>
<th>ID</th>
<th>Category</th>
<th>Description</th>
<th>Impact/Implementation</th>
<th>Complexity</th>
<th>Pre Transition</th>
<th>Transition</th>
<th>Fiscal Transition</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>POLICY</td>
<td>Payroll Implementation</td>
<td>HR positions will move to DIT, payroll execution remains with releasing agency</td>
<td>High</td>
<td>Releasing Agency maintaining payroll</td>
<td>DIT manages changes/updates</td>
<td>DIT assumes payroll responsibility from DIT cost center</td>
<td>CHANGES CURRENT POLICIES</td>
</tr>
<tr>
<td>8</td>
<td>POLICY</td>
<td>NC Flex Benefits (BCBS)</td>
<td>Ensure no coverage gaps in benefits. SHP transitions to DIT at transition but releasing agency pays premiums</td>
<td>High</td>
<td>Retain current coverage</td>
<td>SHP to DIT, Releasing agency pays all premiums</td>
<td>DIT assumes payroll responsibility from DIT cost center</td>
<td>CHANGES CURRENT POLICIES</td>
</tr>
<tr>
<td>11</td>
<td>POLICY</td>
<td>Supplemental Insurance (Agency Unique Benefits)</td>
<td>Retain benefits until fiscal model transition</td>
<td>High</td>
<td>Retain current coverage</td>
<td>Releasing agency pays all premiums</td>
<td>All employees use DIT benefits package - DIT pays all premiums</td>
<td>CHANGES CURRENT POLICIES</td>
</tr>
<tr>
<td>22</td>
<td>PROCEDURE</td>
<td>Employee Files</td>
<td>Files move with employees - DIT to coordinate transition and resource requirement - implies a budgetary impact</td>
<td>High</td>
<td>Recommend Options</td>
<td>Identify funding and implement upgraded file management</td>
<td>Potential DIT Budget Impact</td>
<td>CHANGES CURRENT POLICIES</td>
</tr>
<tr>
<td>23</td>
<td>PROCEDURE</td>
<td>Parking</td>
<td>DIT employees retain parking spaces - fiscal impact requires coordination with DOA</td>
<td>High</td>
<td>Releasing agency funds parking</td>
<td>Releasing agency funds parking</td>
<td>DIT assumes payroll responsibility</td>
<td>Procedural changes</td>
</tr>
</tbody>
</table>
DIT Operating Model

Innovate & Trend

Plan & Guide

Buy & House

Build & Test

Operate & Serve

Leverage & Analyze

Secure & Monitor

Administer & Support
Rationale for Operating Model

Rationale
• Unified department
• Stabilized organizational structure
• Traditional, best practices organizational design
• Appropriate organizational balance

Anticipated Outcomes
• Organizational balance
• Span of control
• Appropriate chain of command
• Strategic focus
• Standardization
• Reliable service delivery
Our Vision

A performance-driven, transparent and secure IT organization with an unyielding commitment to connecting people, resources and partners

Our Mission

To lead, partner and facilitate in order to provide easy, cost-effective government services to the citizens of North Carolina
Continuing the Conversation

@NCDIT
@oneitnc
@ncicenter
@Werner_NC_CIO

it.nc.gov
oneit.nc.gov
icenter.nc.gov
Broadband Infrastructure Office
A GOOD NEWS STORY
OUR INFRASTRUCTURE

North Carolina has more than 100 Internet Service Providers including world communications leaders like Google Fiber, AT&T, Frontier, Time Warner, and Century Link.

93% of North Carolina households have access to high speed internet.

Providers are coming to the table to increase connectivity and speed across the state.

CAPITALIZING ON ASSETS TO HELP REACH OUR DESTINATION

ACCESS & SPEED

INCREASING DAILY
More than $23 million to expand Wi-Fi access to K-12 classrooms throughout the state, bringing the total funding for this initiative to nearly $60 million.
BROADBANDIO & FIRSTNETNC

- **ONGOING**
  - Education and Outreach

- **LATE 2015**
  - Federal FirstNet issued the request for proposals

- **APRIL 2015**
  - State Coordination Meeting with federal FirstNet

- **2016-17**
  - FirstNetNC develops recommendation on participation
CURRENT PICTURE
BROADBAND AVAILABILITY

SPEED
≥ 25 MBPS DOWNLOAD

Legend
- Broadband ≥ 25mbps/3mbps
- County Boundaries
- State Boundary
OUR STATE’S BROADBAND AVAILABILITY

MCNC’s open access fiber ring runs through 82 of our counties with speeds that scale up to 100 Gigabits per second.

Many new Gig connectivity efforts underway across the state.
OUR STATE COMPARED TO THE REST OF THE NATION

Information Technology
OUR STATE COMPARED TO THE SOUTHEAST

<table>
<thead>
<tr>
<th>State</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Florida</td>
<td>93%</td>
</tr>
<tr>
<td>North Carolina</td>
<td>93%</td>
</tr>
<tr>
<td>Georgia</td>
<td>90%</td>
</tr>
<tr>
<td>U.S.</td>
<td>90%</td>
</tr>
<tr>
<td>Tennessee</td>
<td>85%</td>
</tr>
<tr>
<td>Kentucky</td>
<td>80%</td>
</tr>
<tr>
<td>South Carolina</td>
<td>75%</td>
</tr>
<tr>
<td>Alabama</td>
<td>70%</td>
</tr>
<tr>
<td>Mississippi</td>
<td>65%</td>
</tr>
</tbody>
</table>

Information Technology
CURRENT PICTURE
FIBER CONNECTIVITY

- Fiber to the Curb (December 2014)
- Fiber Coverage Added in 2015
- Fiber Coverage With Increased Speed* from 2014-2015
- Low to Moderate Income Areas with Fiber Coverage Added in 2015
- Low to Moderate Income Areas with Increased Fiber Coverage Speed* from 2014-2015

Based on Maximum Advertised Download Speed
Source: Federal Communications Commission
CURRENT PICTURE
FIXED WIRELESS

Information Technology

Based on Maximum Advertised Download Speed
Source: Federal Communications Commission
(accessed March 2016)
BROADBAND AVAILABILITY CHALLENGES

738,306 North Carolinians (7%) no access to broadband

661,224 or 89% live in rural North Carolina

Source: FCC 2016 Broadband Progress Report
CURRENT PICTURE
ADOPTION

Rates

- 0.47 - 0.59
- 0.60 - 0.68
- 0.69 - 0.77
- 0.78 - 0.86

Information Technology
CURRENT PICTURE ADOPTION CHALLENGES

While 90% of NC households have access to higher speeds, only 10% of NC households have adopted at FCC suggested threshold, 25 MBps/3Mbps.

- COST OF SERVICE
- COST OF EQUIPMENT
- DIGITAL LITERACY
- RELEVANCY TO DAILY LIVES
CURRENT PICTURE
ADOPTION CHALLENGES

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Critical Barrier for Progress</th>
<th>Challenging but Manageable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of local external resources</td>
<td>16.7%</td>
<td>33.2%</td>
</tr>
<tr>
<td>Affordability of local external resources</td>
<td>22.2%</td>
<td>33.6%</td>
</tr>
<tr>
<td>Lack of internal resource with skills</td>
<td>18.4%</td>
<td>39.6%</td>
</tr>
<tr>
<td>Higher priorities to focus on</td>
<td>23.4%</td>
<td>40.6%</td>
</tr>
<tr>
<td>Too much information to research (time)</td>
<td>21.0%</td>
<td>48.4%</td>
</tr>
<tr>
<td>Time and Effort to Develop Expertise</td>
<td>18.3%</td>
<td>49.7%</td>
</tr>
</tbody>
</table>

Information Technology
BROADBAND CHALLENGES

- Respondents rated the following issues as most important:
  - Expanding access, particularly for K-12 students
  - Increasing adoption/digital literacy of citizens
  - Developing statewide policies that enhance access

- Key challenges associated with these issues include:

<table>
<thead>
<tr>
<th>K-12 Home Access</th>
<th>Digitally Literate Workforce</th>
<th>Leverage Infrastructure</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Low population density</td>
<td>• Awareness of digital literacy training programs</td>
<td>• Clarity of existing policies for easements/tower access</td>
</tr>
<tr>
<td>• Infrastructure cost</td>
<td>• Awareness of how digital literacy impacts employment</td>
<td>• Tower owners’ willingness to work together</td>
</tr>
</tbody>
</table>
By 2019, global fixed broadband speeds will reach **43 Mbps**, up from 20 Mbps in 2014.

-Cisco Visual Networking Index™ (Cisco VNI™), May 27, 2015

By **2020**, mobile-connected tablets will generate nearly **8x** more traffic than generated in 2015.

-Source: Akamai 3Q 2015.
You’re in a Chair in the Sky!

Have we lost the ability to stand in awe?
ACTIVE AND ENGAGED
BROADBANDIO

TECHNICAL ASSISTANCE PROGRAM
Fostering an environment that creates ubiquitous connectivity from Murphy to Manteo, creating the nation’s first giga-state by 2020

COORDINATION & COLLABORATION
Align & coordinate the state’s digital infrastructure resources, programs & relevant state agencies

STRATEGY & GUIDANCE
Provide policy & strategy guidance & recommendations

CREATING THE NATION’S FIRST GIGA-STATE BY 2020

EXTENDING WI-FI ACCESS TO EVERY CLASSROOM IN THE STATE

EXPANDING BROADBAND ACCESS TO UNDERSERVED COMMUNITIES
ACTIVE AND ENGAGED
BROADBANDIO
BEING A RESOURCE

UNSERVED POCKETS
NC continues to have the challenge of unserved and underserved pockets in the state with no connectivity, or extremely low speeds

PARTNERSHIP
Partnership between ODI regional staff – Technical Analyst and Economic Development Analyst – in partnership with Commerce Rural Division

ON-THE-GROUND
Provide technical expertise and facilitation for county leaders and economic developers to:
• map coverage
• aggregate demand
• leverage assets and reduce barriers
• identify potential broadband funding opportunities
ACTIVE AND ENGAGED

**Public Safety**
Working with private sector to test small cell technology in difficult environments, like hospitals

**Appalachian Regional Commission**
Grant program for small downtown WiFi network

**NC Department of Commerce**
Working closely to identify projects that could benefit from various economic development grant funds

**Friday Institute**
Homework Gap pilot project partnering with schools and providers

**Libraries**
Assisting State Librarian to create library consortium to leverage federal grant dollars
One lesson from the last year is that in a few years, the **gigabit divide** will **NOT** be about **wealth** or **density**; it will between those **communities** that had a **plan** and those who didn’t.

- Blair Levin
TECHNICAL ADVISOR

To help businesses & communities as an on-the-ground resource to:

**TECHNICAL EXPERTISE**
Provide technical expertise & facilitations for county leaders & economic developers to aggregate demand

**REDUCING BARRIERS**
Leverage assets & reduce barriers to attract providers

**FUNDING OPPORTUNITIES**
To identify potential broadband funding opportunities
SUCCESES AND MOMENTUM

SUCCESSFUL USDA GRANT DEPLOYMENT
YANCEY COUNTY, NC
Residential customers can get 500 megabits-per-second connections

ECONOMIC DEVELOPMENT
GRAHAM COUNTY, NC
Provider deployment into a region previously deemed uncompetitive

INFRASTRUCTURE DEVELOPMENT
CONNECT AMERICA
More than $19 million in annual funding during the next six years will help with the buildout of broadband service
ACTIVE AND ENGAGED

- Graham County
- Vance County
- McDowell County
- Swain County
- Jackson County
- Wayne County
- Catawba County
- Watauga County
- Jones County
- Alexander County
- Orange County
- Haywood County
WORKING WITH OUR REGIONAL PARTNERS
CONTINUING THE CONVERSATION

CONTACT US

✉️ Broadband@NC.Gov

🐦 @BroadbandIO
  @FirstnetNC

🌐 NCBroadband.gov
  FirstNet.nc.gov