Court Technology Overview

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Where We Are Headed and How

- Virtual courthouses

- Documents filed, retrieved, and work-flowed electronically

- Convenient access to information and services for the public

- Advanced analytical capabilities

"The right information, at the right time, right where you are."
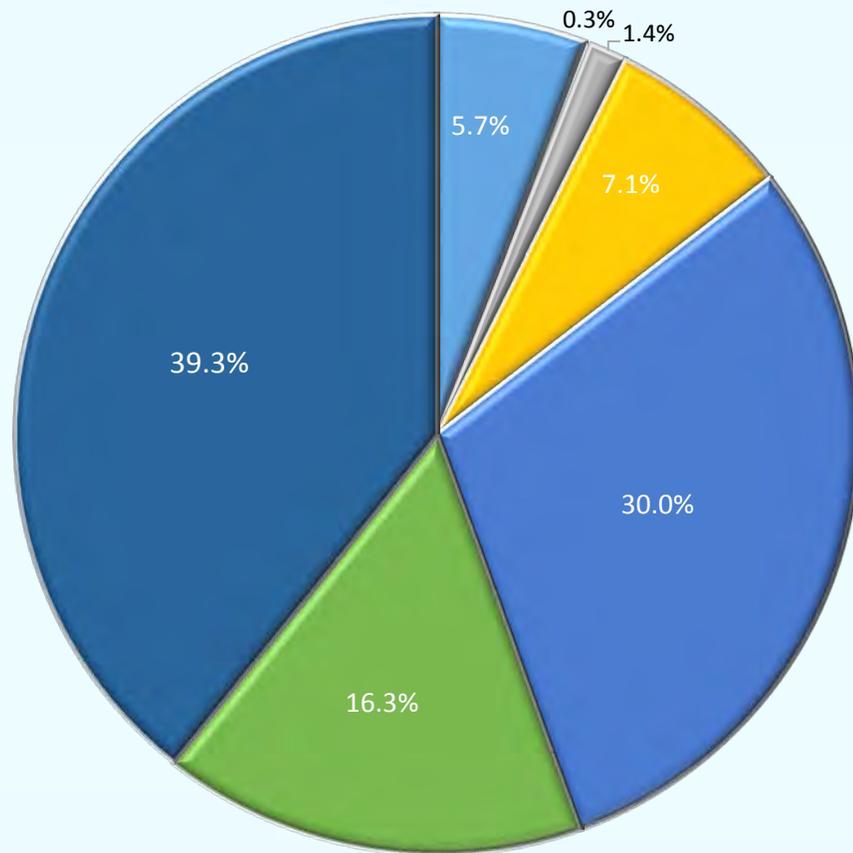
NCAOC Serves a Diverse User Base

- 533 elected officials
  - 7 Supreme Court Justices
  - 15 Court of Appeals Judges
  - 97 Superior Court Judges
  - 270 District Court Judges
  - 44 District Attorneys
  - 100 Clerks of Court

- 696 appointed officials
  - 15 Special Superior Court Judges
  - 681 Magistrates

- 10 million citizens

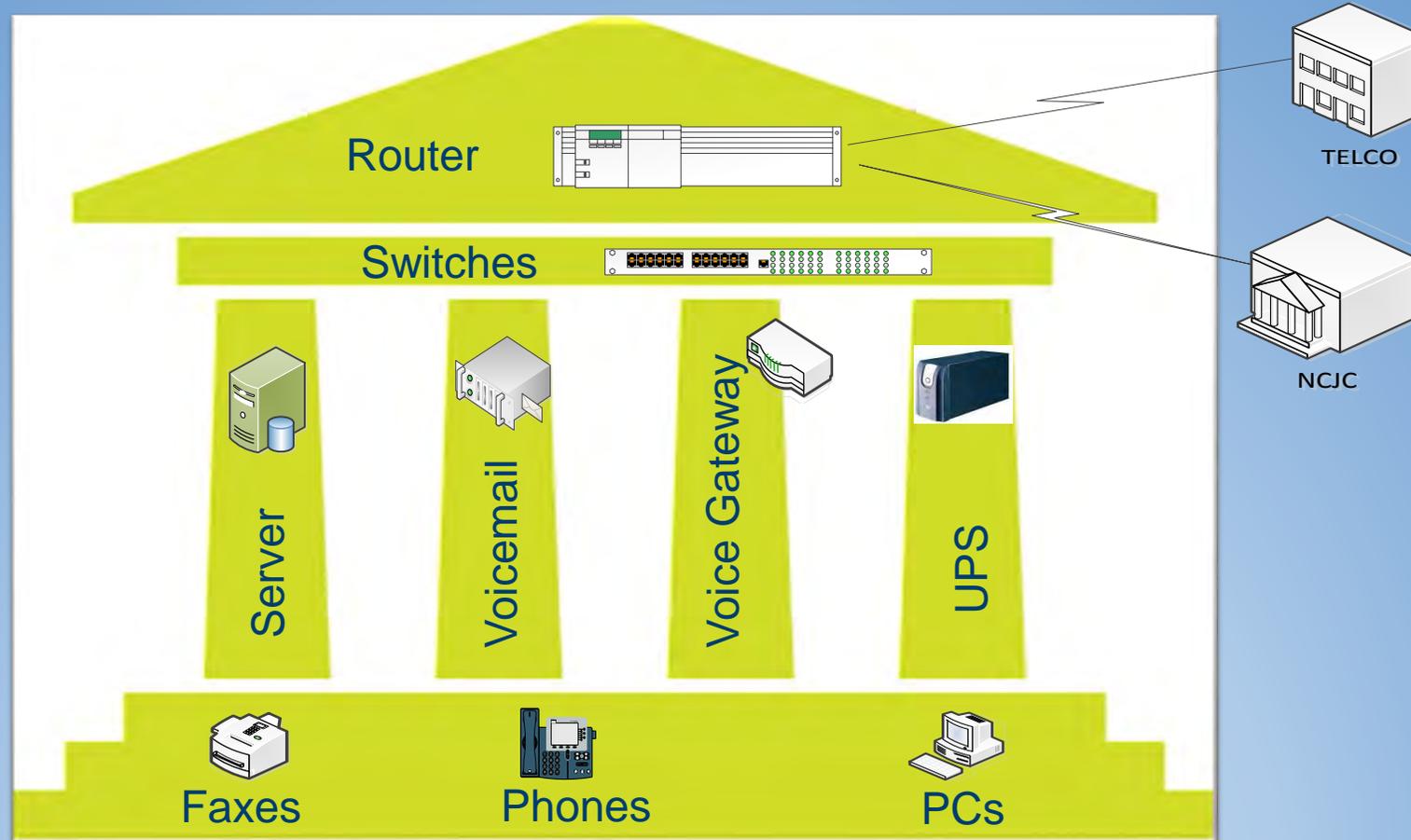- 6,500 judicial branch employees

- 33,000+ law enforcement officers

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Technology Services Division Staff	Permanent	Contract
Total	**196**	**18**
Infrastructure Support	**96**	**0**
Administrator and Disaster Recovery Coordinator	2	
Network Engineering	18	
Mainframe Systems/Database Management	19	
Distributed Systems Engineering/Security Access	15	
Helpdesk/Desktop/Network Operations Center	42	
Application Development	**90**	**18**
Project Management Office	12	1
Business System Analysis	22	5
System Engineering/Programming	34	10
System Testing/Quality Control	10	1
Business Relationship Management	2	
Enterprise System Architecture	10	1
Administration/Budget/Portfolio Management/Remote Public Access	**10**	**0**

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6 Year Average Enterprise IT Spend (~$29M)

The Anatomy of a Courthouse

Router

TELCO

Switches

NCJC

Server

Voicemail

Voice Gateway

UPS

Faxes

Phones

PCs

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A Judicial Network Connects Our Unified Court System

Locations: 250+
Courtrooms: 540+
IT Components: 25,000+
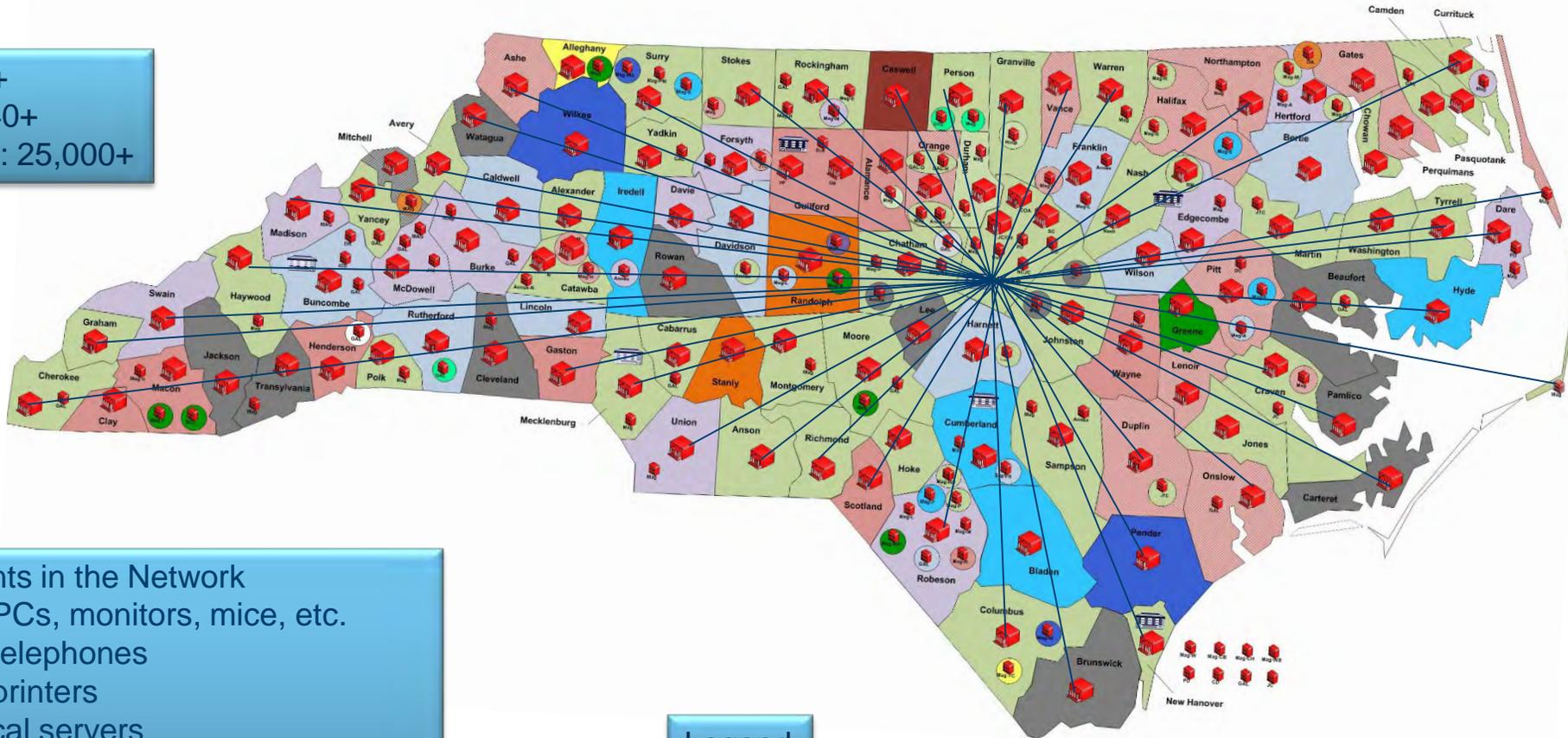
Components in the Network
- 9,500+ PCs, monitors, mice, etc.
- 9,300+ telephones
- 4,900+ printers
- 100+ local servers
- 250+ network circuits
- 420+ public access terminals
- Faxes, routers, switches, copiers, etc.

Legend

Courthouse	Courthouse Annex (Annex)	Indigent Defense Services (IDS)
Training Center (JTC)	Justice Center (JC)	
Guardian ad Litem (GAL)	Business Court (Bus)	Public Defender (PD)
Detention Ctr Visit (SupVis)	Disaster Rec Center (DR)	
Magistrate Office (Mag)	District Attorney (DA)	Dorothea Dix Hospital (DD)
Capitol Def Office (CD)	Regional Network POP	

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Regional Points of Presence Connected by Backbone
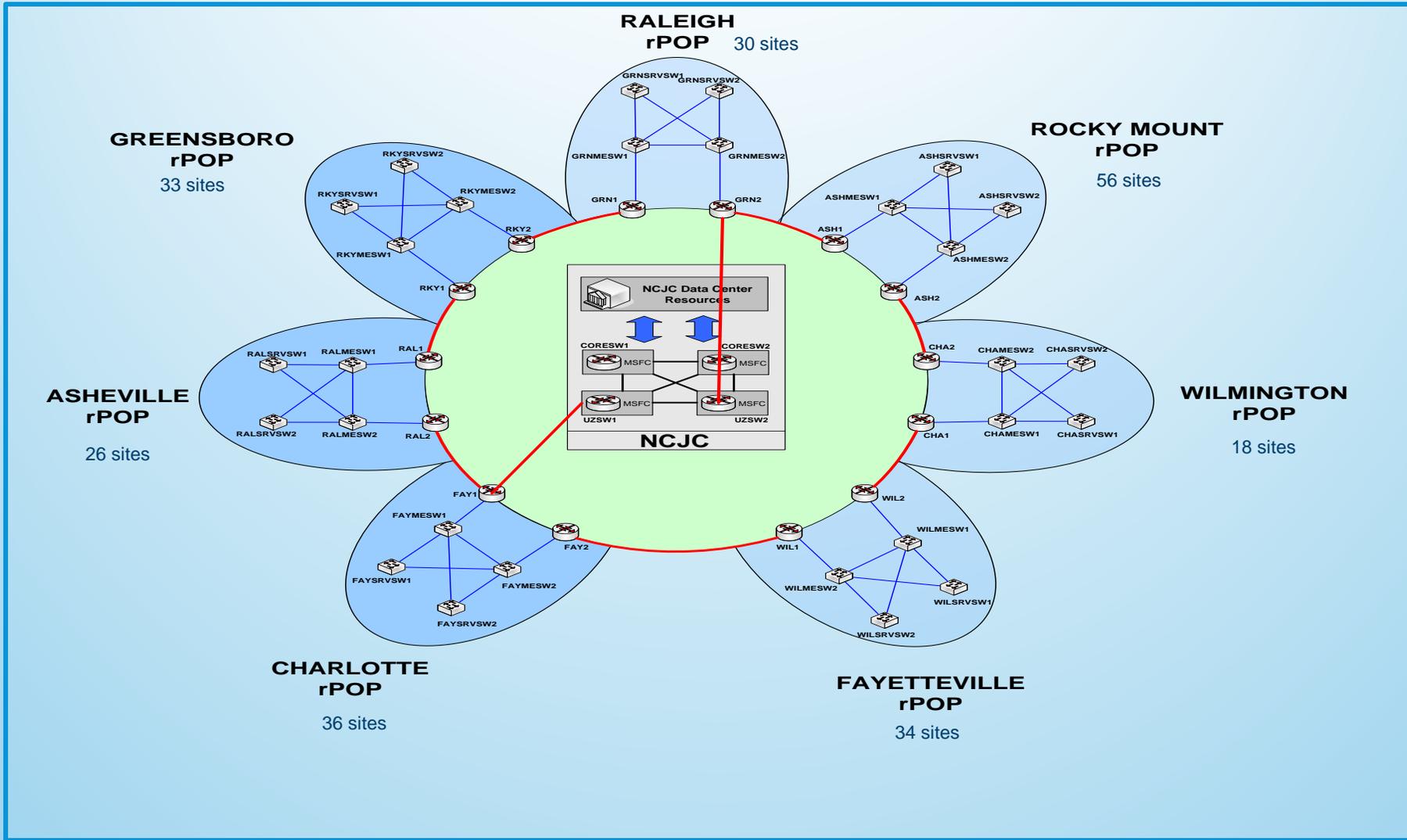
Distributed Computing Services Support Map
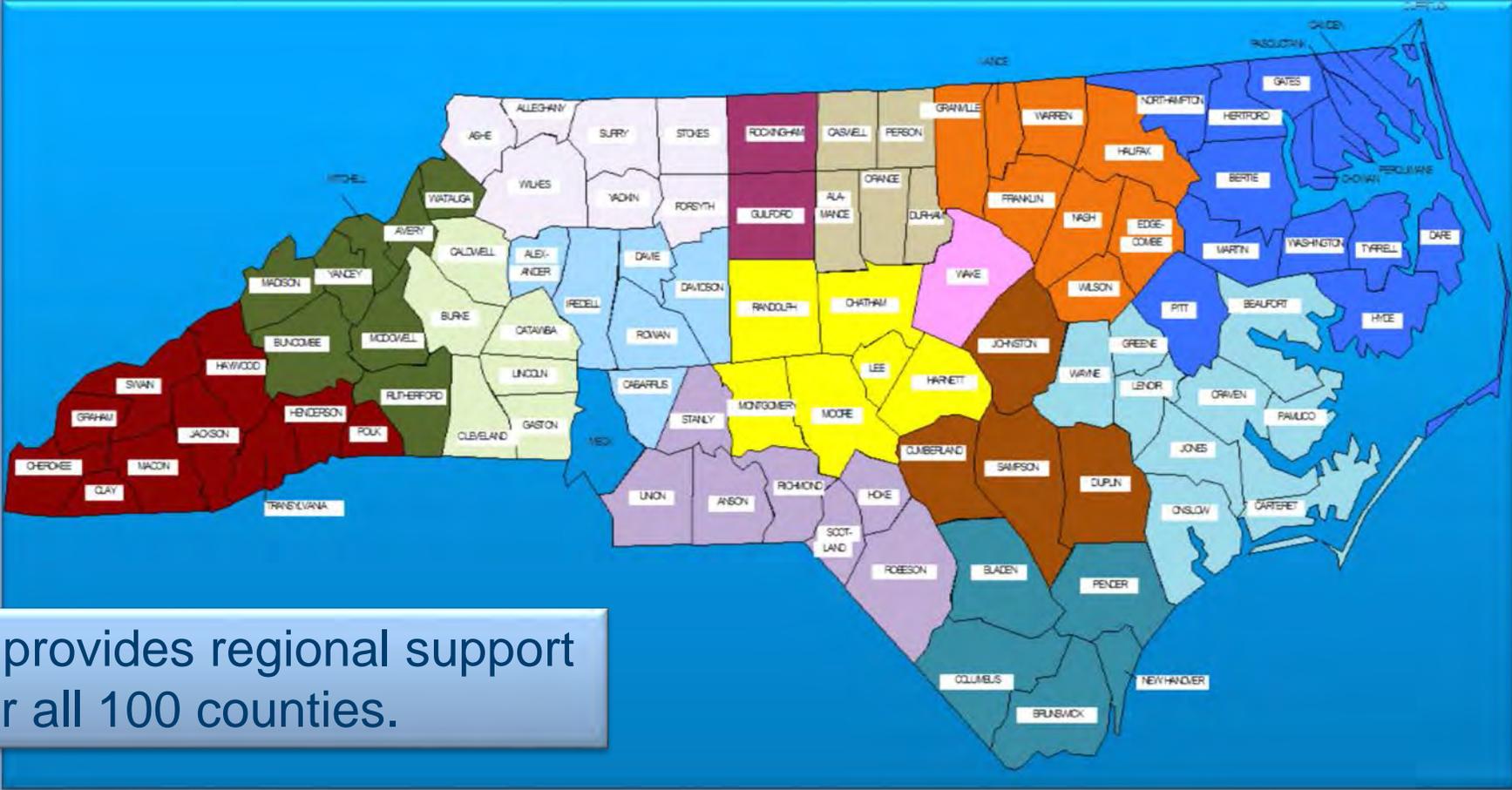
NCAOC provides regional support teams for all 100 counties.

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North Carolina Judicial Center
Network Operations Center

Provides 24 x 7 x 365 network monitoring

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North Carolina Judicial Center
Data Center – Partial Equipment List

- 2 mainframe computers
- 575 data center servers
- 3 storage area networks (~1.4 PB)
- Data replication system
- Tape backup systems
- Uninterruptible power supplies
- Backup power generator
- High availability/redundant architecture
- Disaster Recovery

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Fun Fact: How Big Is a Petabyte Anyway?

- 1 petabyte = 1 quadrillion bytes = 1 followed by 15 zeroes.

- If you counted one byte per second, it would take 35.7 million years.

- 500,000,000,000 (500 billion) sheets of paper.

- 20 million four-drawer filing cabinets.

- Four times the content of the U.S. Library of Congress.

- A petabyte of songs would play continuously for 2,000 years.

Court Information System

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NCAOC Judicial Branch Applications

NCAOC supports over 150 applications

- Age of existing enterprise-level applications:

  - Less than 5 years   11
  - 5 – 10 years old   21
  - 11 – 15 years old   10
  - 16 – 20 years old   2
  - More than 20 years old   9

Transactions Flowing through the Court Information System

- **NCAWARE**
  - Over 10 million processes (served and unserved)
  - 1.9 million+ processes added in 2014
  - 42,000+ court and law enforcement users
  - 2,000+ processes served each day

- **Automated Criminal/Infractions System (ACIS)**
  - ~2.3 million cases filed
  - ~2.4 million case dispositions
  - >1.1 million transactions/day
  - 27,000 users

- **Criminal Court Information System – Clerk Component (CCIS-CC)**
  - ~2 million cases processed/year (2012-2013)
  - ~25,000 automatic record corrections fed to DMV systems

- **Criminal Court Information System – District Attorney (CCIS-DA)**
  - Over 7 million cases tracked
  - 1,300 users

Transactions Flowing through the Court Information System

- **Discovery Automation System (DAS)**
  - Over 500,000 documents under management
  - Over 63 million pages
  - Over 4,500 users

- **eCitation®**
  - ~8 million ecitations processed since inception (1999)
  - 90% of all non-arrestable citations statewide
  - 1.5M ecitations created annually
  - Used by over 17,000 officers in over 400 law enforcement agencies

- **payNCticket®**
  - 675,000 citations paid; $150 million collected since inception

- **Credit Card Payments**
  - Over 232,500 transactions and over $39.4 million collected since 1/2014

Transactions Flowing through Administrative Systems

- **Email System**
  - 62,000,000 messages received in 2014
  - 47,000,000 (75.8%) blocked due to spam or malware

- **57,000 Help Desk Requests Fulfilled**

- **97,000 Application Security Access Requests Fulfilled**

- **Financial Management System (FMS)**
  - 2.5 million receipts taken
 - 522,000 disbursements made; $740 million

Criminal Court Systems Interfaces

- 12 real time interfaces

- 17 batch interfaces

- 14 government agencies

- Vendors

- Private entities

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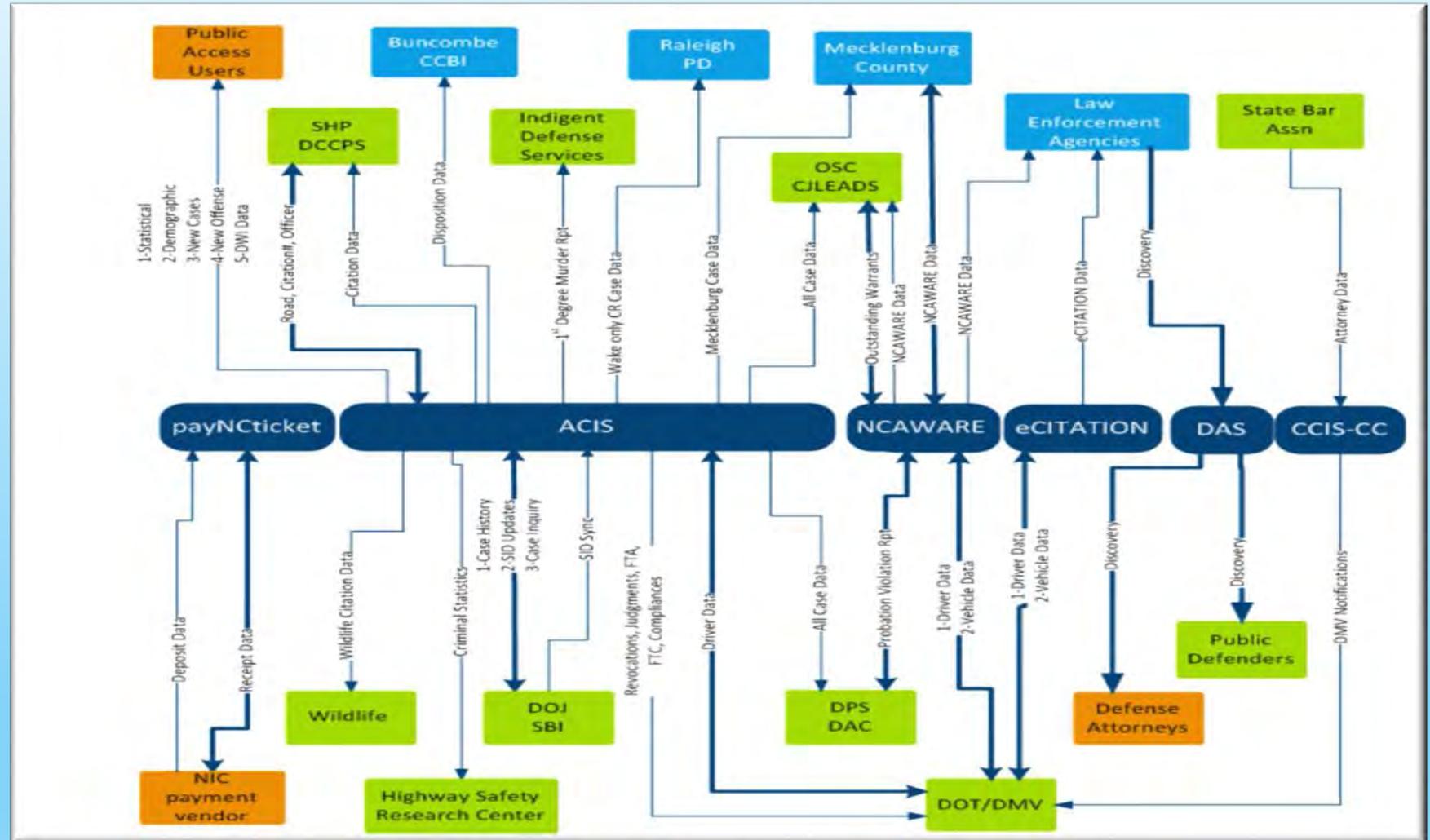
Non-Criminal Court Systems Interfaces

- 1 real time interface
- 18 batch Interfaces
- 14 government agencies
- Vendors
- Private entities

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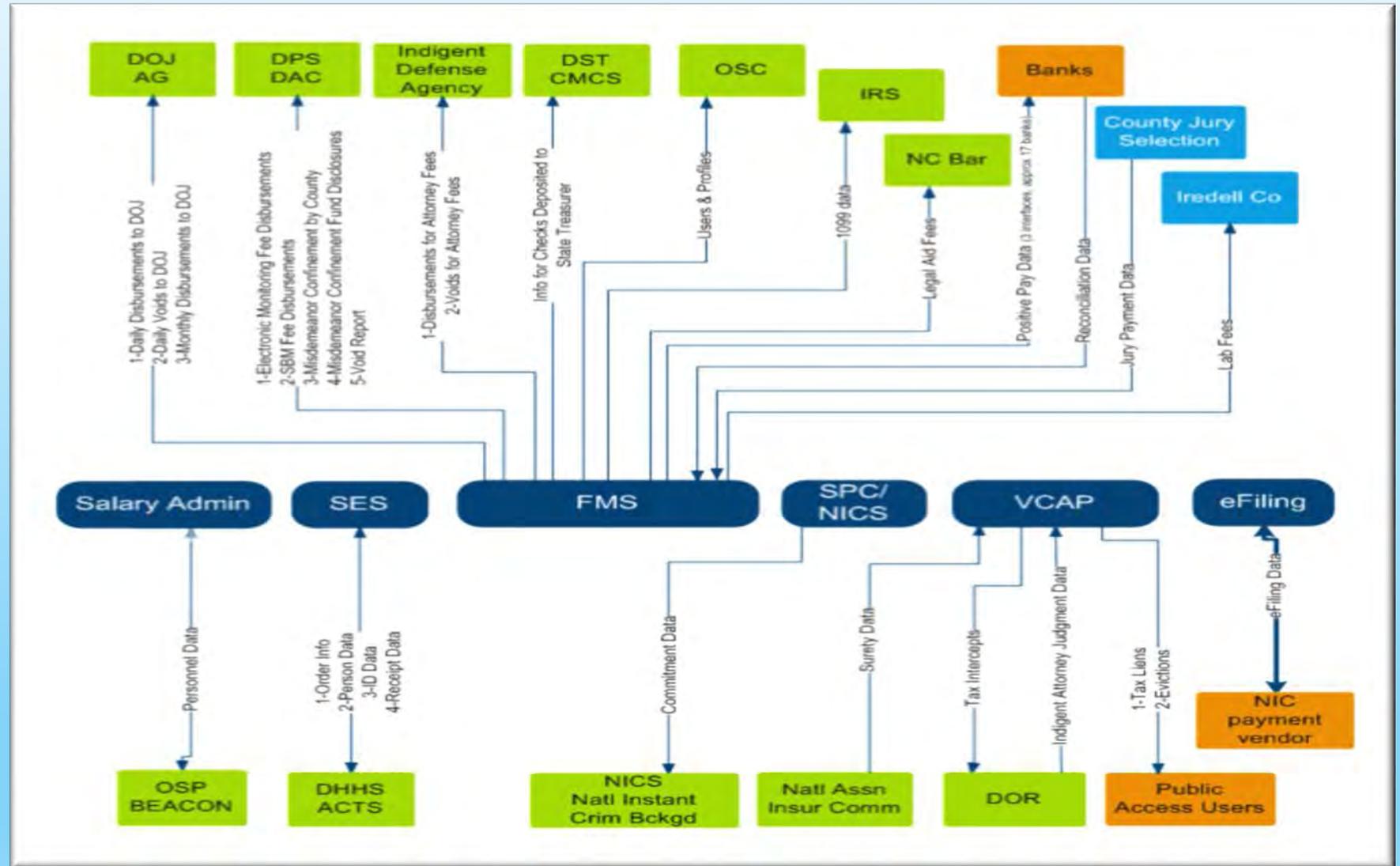
Recent Accolades

Domestic Violence Electronic Protective Order System – Alamance

- 2014 Government Computing News award for *Outstanding Information Technology Achievement in Government*

- 2014 NCSC Court Information Technology Officers Consortium award for *Innovation in Technology*

- 2014 Government Innovation (GIGa) Award for *technology-based innovation across governments in North Carolina*

Soon to be Completed

Browser-Based Public Access for Criminal Records Search

- Replacement of "green screen" lookup in courthouses
- Parameter-driven searches
- User-friendly screens
- Printing or emailing of search results
- Rollout beginning in June

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Current eCourt Priorities

- ## Infrastructure/foundational Technology Components

  - Infrastructure Capacity Upgrades (storage, networks, servers, high availability)
  - Enterprise Information Management System (EIMS) platform
  - Enterprise Data Warehouse/Analytics
  - Upgrade of Court Digital Recording Technology

- ## Application Development/Engineering

  - eCourts Strategic Planning
  - eCitation/Law Enforcement Module Replacement
  - eCourts eCitation Development
  - eCompliance/eDismissal (potentially 200-300K cases/year)
  - Expanded Use of Online Payments

IT Governance Principles

- **Stakeholder driven**
  - The perspective of Judicial Branch users will be represented in the formal decision making structure.

- **Performance and efficiency**
  - Every effort should be made to select information technology projects that provide the most benefit for the judicial system as a whole at any given time. The implementation and rollout of information technology projects will be completed expeditiously and uniformly across all jurisdictions.

- **Fact based decision making**
  - Technology investment decisions must be justified using objective measures of business value and impact. Staff analysis should provide information such as return on investment and cost-benefits to assist in the prioritization process and ensure solutions will be cost effective and meet business objectives. Committees will utilize a formal delegation criteria matrix and scoring criteria guide.

- **Protect the installed base**
  - Lifecycle replacement, hardware redundancy, timely upgrades, license renewals, and other maintenance and support processes are important to ensure information systems are stable, reliable, performant, secure, and available every day.

- **Move toward simplicity, reduce complexity**
  - Technology should make jobs easier. The number of technologies used should be minimized to reduce the amount of resources required to maintain varied platforms and equipment. Applications should be developed in a way that maximizes design simplicity while considering the business needs of users from diverse jurisdictions. As new technology is delivered, older technologies should be retired.

Questions and Comments