

North Carolina Criminal Justice Information Network Governing Board Report

Submitted to the

Senior Chair, Chairs, Co-Chairs, and Vice Chairs of the
Senate and House Appropriations Committees

and the

Chairs, Co-Chairs, and Vice Chairs of the
Senate and House Appropriations Subcommittees on Justice and Public Safety

April 2008

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Executive Summary

During the 1994 Special Crime Session, the North Carolina General Assembly created the Criminal Justice Information Network Study Committee and appropriated monies to study and develop a plan for a statewide criminal justice information network. The legislation was enacted based on the recognition of the need for further coordination and cooperation in establishing standards for sharing criminal justice information between state and local agencies.

The Criminal Justice Information Network Study Final Report, dated April 7, 1995, outlined a comprehensive strategic plan that provided the vision for the statewide Criminal Justice Information Network in North Carolina. Based on recommendations and strategies identified in the plan, the General Assembly established the Criminal Justice Information Network (CJIN) Governing Board in Section 23.3 of Chapter 18 of the Session Laws of the 1996 Second Extra Session.

The Criminal Justice Information Network Governing Board created pursuant to Section 23.3 of Chapter 18 of the Session Laws of the 1996 Second Extra Session shall report by April 1st of each year, to the Chairs of the Senate and House Appropriations Committees, the Chairs of the Senate and House Appropriations subcommittees on Justice and Public Safety, and the Fiscal Research Division of the General Assembly on:

- The operating budget of the Board, the expenditures of the Board as of the date of the report, and the amount of funds in reserve for the operation of the Board; and
- A long-term strategic plan and the cost analysis for statewide implementation of the Criminal Justice Information Network. For each component of the Network, the initial cost estimate of the component, the amount of funds spent to date on the component, the source of funds for expenditures to date, and a timetable for completion of that component, including additional resources needed at each point.

North Carolina is recognized today in the nation as one of the leading states in developing a statewide Criminal Justice Information Network (CJIN). Our success is due directly in part to the North Carolina General Assembly recognizing the need for further coordination and cooperation between state and local agencies in establishing standards for sharing of criminal justice information. During the 1994 Special Crime Session, the General Assembly mandated a visionary study to develop a long-range plan for a statewide CJIN. One of the distinguishing aspects of this study was that it took into account the existing major components of the criminal justice information network and the fact that a statewide CJIN would provide a mechanism for targeting and coordinating expenditures.

The 2008 Annual Report updates the major accomplishments and activities of the CJIN Governing Board. The report also provides recommendations, priorities, and the future direction of the Board.

Introduction

Vision

To develop a statewide criminal justice information network in North Carolina that will enable a properly authorized user to readily and effectively use information, regardless of its location in national, state, or local databases.

Study Final Report Findings

The North Carolina Legislature, during their 1994 Special Crime Session, created a 'blue ribbon' Study Committee to identify alternative strategies for developing and implementing a statewide criminal justice information network in North Carolina that would permit the sharing of information between state and local agencies. An examination of the state's current criminal justice information systems revealed the following deficiencies:

- It takes too long to positively identify persons. From fingerprints to photographs, information is scattered across different databases and filing systems.
- A single, comprehensive source for a person's criminal history is not available in North Carolina. Bits and pieces must be assembled on each individual, causing valuable time to be wasted on information collection.
- There is no single source of outstanding warrants. A person wanted in one county could be stopped in another while the officer has no knowledge of an outstanding warrant. This situation compromises public and officer safety.
- Data is entered excessively and redundantly. There is no single, centralized location for all information and records so data is entered and reentered over and over again into separate databases using different coding systems.
- There is no statewide, interagency mobile voice and data communications system. Officers cannot talk to their counterparts across their own county, much less to those across the state.

Study Final Report Recommendations

The CJIN Study Committee outlined the following major recommendations for removing these barriers that currently hinder the establishment and implementation of a comprehensive criminal justice information network. These recommendations also took into account the major building blocks for a statewide CJIN that were already in place in 1995.

- Establish a CJIN Governing Board to create, promote, and enforce policies and standards.
- Adopt system architecture standards, end-user upgrades, and system security standards to facilitate movement of data between systems.
- Establish data standards for sharing information, including common definitions, code structures, and formats.
- Implement Live Scan digitized fingerprint systems and Statewide Automated Fingerprint Identification System (SAFIS) technology to accomplish positive fingerprint identification within two hours of arrest.
- Implement a statewide magistrate system to streamline the process of warrant and case creation.
- Build a statewide warrant repository that contains all new and served warrant information.
- Implement a statewide fingerprint-based criminal history that includes all arrests and dispositions.
- Build a statewide identification index that includes information from all state and local agencies, as well as necessary linkages to federal justice agencies.
- Establish standards for, and implement a mobile voice and data communication network that

allows state and local law enforcement and public safety agencies to communicate with each other, regardless of location in the state.

Participants

CJIN comprises both state and local and public and private representatives. The Department of Justice, the Department of Correction, the Department of Crime Control and Public Safety, the Administrative Office of the Courts, the Department of Juvenile Justice and Delinquency Prevention, the Division of Motor Vehicles, and the State Chief Information Officer are participating CJIN state agencies. Local representation includes Police Chiefs, Sheriffs, County Commissioners, County Information System Directors, North Carolina Chapter of Public Communications Officials International, Court Clerks of Superior Court, Judges, District Attorneys, general public appointments by the Speaker of the House of Representatives and President Pro Tempore of the Senate, and the North Carolina Local Government Information System Association (NCLGISA).

Initiatives

The following CJIN initiatives evolved from the CJIN Study Final Report Recommendations:

- Voice Interoperability Plan for Emergency Responders (VIPER)
- Statewide Automated Fingerprint Identification System (SAFIS)
- CJIN-Mobile Data Network (CJIN-MDN)
- North Carolina Juvenile Online Information Network (NC-JOIN)
- Statewide Magistrate System
- End-User Technology
- CJIN Network Security
- CJIN Data Sharing Standards

Project Overviews

The following projects were an original initiative that have been completed and are now in the maintenance mode:

Ecitation®

Ecitation® automates the issuing of traffic citations in North Carolina (NC). Six hundred law enforcement agencies (LEAs) issue more than one million traffic and infraction citations annually. Prior to the implementation of the Ecitation® system, NC law enforcement officers (LEO) wrote all citations by hand. Copies of the handwritten citation were given to the recipient, delivered to the local clerk of superior court (CSC) office, and kept on file by both the LEA and CSC involved. This process could be rather cumbersome and lengthy, as it involved entering the same information multiple times in different systems. Additionally, there was a high probability of mistakes being introduced due to illegible handwriting.

North Caroline Juvenile Online Information Network (NC-JOIN)

NC-JOIN established an automated statewide system to manage the business of tracking the flow of juveniles through the juvenile justice system. Current users are juvenile court counselors and administrative staff statewide. Youth Development Centers, assessment center, and detention center staff began using NC-JOIN in May 2004. Future phases will expand functionality and improve data sharing with other criminal justice agencies.

Statewide Magistrate System

The system is operational in ninety-eight counties. Both Buncombe and Wake Counties will come onto the NCAWARE system when it is implemented.

CJIN-Mobile Data Network (CJIN-MDN)

CJIN-MDN was a five-phase project that began in 1996 and concluded in 2002. Phase V completed coverage for the State's approximate 48,000 square miles. The current focus of CJIN-MDN is on optimizing coverage, replacing aging base stations, exploring and evaluating new applications, and supporting and maintaining CJIN-MDN deployed infrastructure. Additionally, we will be exploring viable options for the next generation of Public Safety grade wireless data services. Motorola, the MDN system equipment provider, has announced "end-of-life" for all the CJIN-MDN infrastructure and subscriber equipment. A funding source for the maintenance of aging equipment and/or next generation equipment has not been identified.

End-User Technology

End User Technology has allowed the Administrative Office of the Courts to implement and upgrade the Local Architecture Network infrastructure, replace equipment, and provide an infrastructure that readies courthouses for web based applications. End User Technology has supplemented the Department of Justice's migration to a distributed environment that is compliant with Statewide Technical Architecture and Senate Bill 222.

CJIN Network Security

CJIN Network Security developed 'best of industry' strategies for firewalls, data encryption, and authentication/authorization and then deployed equipment to fulfill some of the outstanding network security needs in the State agencies.

CJIN Data Sharing Standards

CJIN Data Sharing Standards had three successful pilots using the Global Justice Extensible Markup Language (XML) Data Model. XML is a multi-agency data transport tool that allows disparate systems to more easily “talk” to one another. XML appears to be emerging as a universal standard for sharing data across criminal justice information systems.

The following projects remain under development or are in the process of being implemented:

Statewide Automated Fingerprint Identification System (SAFIS)

North Carolina is making a significant financial investment to replace a critical crime-fighting tool that supports law enforcement and protects our communities. North Carolina’s Statewide Automated Fingerprint Identification System (SAFIS) is a vital law enforcement and public safety resource that serves over 500 law enforcement agencies. The equipment that backs the state’s fingerprint identification infrastructure is nearly obsolete and is being replaced. Law enforcement uses this system to pinpoint a suspect in a matter of minutes using the unique identifiers found on fingerprints left at a crime scene. During the 2007 calendar year, an average of 207 fingerprint matches per day were made based on fingerprint cards submitted due to either arrests or pre-employment screenings. In addition, over 1,500 fingerprints from crime scenes were identified through remote latent search stations that same year. Rapid turnaround time is one of SAFIS’ most important benefits. Prior to SAFIS criminal fingerprint searches could take up to 100 days, and a full year of processing time for non-law enforcement fingerprint cards was not uncommon. With SAFIS, criminal fingerprint searches can be done in two hours, and the processing of non-law enforcement fingerprint cards is now routinely completed in one week.

Voice Interoperability Plan for Emergency Responders (VIPER)

The VIPER project plan includes a two-pronged approach: a short-term tactical phase and a strategic long-term statewide 800 MHz solution. The tactical approach, a short-term solution for emergency communications with portable/mobile assets, was completed in July 2005. A detailed project plan for the strategic phase, a statewide 800 MHz trunked radio system for all emergency responders and setting up mutual aid talk groups, was completed in August 2004. The first phase of the project is complete. Two phases are funded and under development. Funding for the deployment of VIPER to date totals approximately \$102m. This does not reflect funds sought by VIPER prior to 2004-05 and used to provide a foundation for VIPER development. A VIPER Legislative report was submitted on December 1, 2004 per the 2004 Legislative Session House Bill 1414 Part XVII, Section 18.4.

North Carolina Automated Warrant Repository (NCAWARE)

NCAWARE will provide an automated statewide warrant repository to maintain and track criminal processes and offender information. All NC court officials and law enforcement agencies will have access to NCAWARE. NCAWARE will be initially populated by data from both the existing Administrative Office of the Courts (AOC) Magistrate System and the Automated Criminal Information System (ACIS).

XML based Facial Images for Law Enforcement and Emergency Responders (X-FILES)

X-FILES is a computerized process for first responders to request and receive viewable digital facial images (i.e., NC drivers license images, escapee images, ‘wanted’ images, etc.) in police and emergency responder vehicles. The X-FILES initial prototype development phase has been completed and the implementation phase has started.

CJIN Governing Board

Section 23.3 of Chapter 18 of the Session Laws of the 1996 Second Extra Session established the Criminal Justice Information Network Governing Board within the Department of Justice (DOJ) for administrative and budgetary purposes. Section 17.1.(a) of the Session Law 2003-284 House Bill 397 transferred CJIN to the Department of Crime Control and Public Safety (DCC&PS). The CJIN Governing Board is established within the DCC&PS for organizational and budgetary purposes only and the Board exercises all of its statutory power independent of control by the DCC&PS.

CJIN Governing Board Membership

There are twenty-one legislatively defined members on the Board. The CJIN Executive Director serves as an advisory member to the Board. There is also an ex-officio advisory member that represents the local city and county Information System (IS) directors.

At the October 13, 2005 Board meeting, Mr. Robert Brinson, Department of Correction Chief Information Officer, was re-elected as the CJIN Chair. Mr. Robert Brinson continues to serve as the CJIN Chair and at the March 12, 2008 meeting the Board elected Bill Stice, Technology Services Director, Town of Cary as the Vice-Chair.

CJIN has two full-time positions, an Executive Director and an Administrative Assistant. The position of Executive Director was filled in March, 2007 and the position of Administrative Assistant has been posted. All CJIN agencies contribute their resources in an in-kind, ad-hoc fashion.

The CJIN Web site has the basics – meeting minutes, reports to the General Assembly, Board membership, and other relevant CJIN project materials. A CJIN email address is available for questions on CJIN operations.

CJIN Governing Board Financials

Since its inception, the CJIN Board has operated on two, non-recurring appropriations of \$100,000 each. The first funded Board operations from 1996 until 2004. The second \$100,000 SFY 2003-2004 appropriation has funded the grant match money, training, and initial office equipment for the Administrative Assistant position.

The \$100,000 appropriation for the administration of the CJIN Board has a balance of \$75,571 and the Personal Services Budget has a balance of \$79,610 – both balances are based on period ending January 31, 2008, Authorized Monthly Budget Report, run date February 19, 2008.

CJIN Governing Board

Appointed By	Description	Current Member
Governor	Employee of Department of Crime Control & Public Safety	Woody Sandy, Major, North Carolina Highway Patrol
Governor	Director or employee of State Correction Agency	Robert Brinson, Chief Information Officer, Dept. of Correction
Governor	Representative recommended by the Association of Chiefs of Police	Glen Allen, Chief, Clayton P.D.
Governor	Employee of Department of Juvenile Justice and Delinquency Prevention	Joanne McDaniel, Chief of Staff
Governor	Employee of Division of Motor Vehicles	Commissioner William C. Gore, Jr.
General Assembly	Representative of general public, recommended by the President Pro Tempore of the Senate	Robert Lee
General Assembly	Representative of general public, recommended by the President Pro Tempore of the Senate	Doug Logan, Emergency Management Coordinator, Granville County
General Assembly	Individual who is member of or working directly for the governing board of a NC municipality and recommended by President Pro Tempore of the Senate	Bill Stice, Technology Services Director, Town of Cary
General Assembly	Representative of the general public, recommended by the Speaker of the House of Representatives	Barker French, Durham County
General Assembly	Representative of the general public, recommended by the Speaker of the House of Representatives	Donnie Holt, Forsyth County
General Assembly	Individual who is a working member of or working directly for the governing board of a NC county, recommended by the Speaker of the House of Representatives	Leslie Stanfield, New Hanover County, Information Technology Director
Attorney General	Employee of the Attorney General	Jerry Ratley, Assistant Director, State Bureau of Investigation
Attorney General	Representative recommended by the Sheriffs' Association	Tommy W. Allen, Sheriff, Anson County
Chief Justice, Supreme Court	Director or employee of the Administrative Office of the Courts	Cliff Layman, Chief Information Officer, AOC Technology Division
Chief Justice, Supreme Court	Clerk of the Superior Court	Mike McArthur, Clerk of the Superior Court, Chowan County
Chief Justice, Supreme Court	Judge, trial court of the General Court of Justice	Henry "Chip" Hight, Jr., District 9
Chief Justice, Supreme Court	Judge, trial court of the General Court of Justice	H. Thomas Jarrell, Jr., District Court Judge, Judicial District 18
Chief Justice, Supreme Court	District Attorney	Al Williams, Assistant District Attorney, Judicial District 28
Chief Justice, Supreme Court	Magistrate	Larry Ware, Cleveland County
State Chief Information Officer	Appointment by the State Chief Information Officer	Bill Willis, Deputy State Chief Information Officer
NC Chapter of Public Communications Officials International, President	Active member of the NC Chapter of Public Communications Officials International	Steve Lingerfelt, City of High Point

Governing Board Counsel – Lars Nance, Technical Advisor – Michael Crowell, Executive Director – Eugene Vardaman

CJIN Funding Summary

This section is intended to provide a summary of CJIN funding by project – a detailed breakdown of financial information is contained in the Project Section of this report.

CJIN FUNDING SOURCES – DEVELOPMENT	STATE	FEDERAL	ESTIMATE TO COMPLETE
CJIN Feasibility Study (1995). Please note that this figure does not include the overhead costs and salaries for project staff.	\$ 769,000	\$ 0	N/A
CJIN Governing Board	\$ 200,000	\$ 15,000	N/A
CJIN – Mobile Data Network (CJIN-MDN)	\$ 8,074,188	\$ 6,757,805	N/A
Voice Interoperability Plan for Emergency Responders – VIPER	\$ 18,500,000	\$ 93,727,420	\$ 85,000,000
Automated Warrant Repository System (NCAWARE)	\$ 9,805,131	\$ 3,460,992	\$ 0
CJIN Planning Study (2002)	\$ 80,100	\$ 1,043,802	N/A
Statewide Automated Fingerprint Identification System (SAFIS)	\$ 6,394,321	\$ 0	\$ 0
TOTAL	\$ 43,822,740	\$ 105,005,019	\$ 85,000,000

CJIN FUNDING SOURCES – OPERATIONS (RECURRING COSTS)	SFY 05-06 Budget	SFY 06-07 Budget	SFY 07-08 Budget	Unfunded (Projected) SFY 08-09
CJIN – Mobile Data Network (CJIN-MDN)	\$ 142,559	\$ 104,701	\$ 104,701	\$ 111,681
Voice Interoperability Plan for Emergency Responders – VIPER	\$ 51,087	\$ 208,892	\$ 2,261,199	\$ 2,359,426
Statewide Automated Fingerprint Identification System (SAFIS)	\$ 120,000	\$ 94,907	\$ 85,826	\$ 0
Total	\$ 313,646	\$ 408,500	\$ 2,451,726	\$ 2,471,107

CJIN Funding Summary

Other CJIN Funding Notes

Since CJIN's inception, the Governor's Crime Commission (GCC) has been instrumental in aligning its objectives, particularly in the area of technology, to CJIN initiatives. This alignment resulted in grant funds providing significant help in meeting CJIN initiatives. CJIN projects receiving funds included Mobile Data Computers, Live Scan Devices, Incident Based Crime Reporting Systems, Geographical Information Systems, 800 MHz radios, and Cybercrime projects. In recent years, overall funding available to the GCC has decreased significantly, limiting the GCC's ability to provide continuing support or help initiate large new CJIN efforts.

Federal earmarks and direct grants also provided significant funding for some of the early CJIN successes. That approach has also become increasingly more difficult recently. It is particularly difficult with projects that involve refreshing technology, where part of the original justification was that federal funding would provide "seed money" to establish the capability, but the business improvements allowed by the technology would be so compelling that second round, or refresh, funding would be available from State and local resources.

The Governor's Highway Safety Program (GHSP) has provided funding for the administration of a highway safety program designed to reduce traffic crashes and the resulting deaths, injuries and property damage. GHSP funding has gone to the **Ecitation**® pilot program, the eCrash project, and mobile data terminals in law enforcement vehicles.

The Department of Homeland Security Grant Program has provided important funding for VIPER. Cooperative agreements between local and state government has been a critical success factor in making this funding source work.

Although we focus on projects, continuing appropriations state agencies for their infrastructure and maintenance of key applications, as well as local funding of their infrastructure and operations, provides the foundation that many of the CJIN projects require for success. That continuing funding, whether state or local is not fully captured in the CJIN funding charts presented in this report.

Recommendations

CJIN Activity and Future Direction

The Board met four times in 2007 and two times in 2008 for the purpose of discussing criminal justice information sharing projects and acquaint new members with the existing initiatives. In the last year, new appointments have resulted in one third of the Board being new members. These new members along with the existing members were provided at the September, 2007 meeting with a comprehensive CJIN Handbook (History, General Statues, 2007 General Assembly Report, Ethics, etc.). Since the last report, the Board has participated in the following activities:

- Governor's Crime Commission – Grants & Chair Linda Hayes as a Guest Speaker
- Received multiple updates on major CJIN Initiatives from the NC Highway Patrol, the Administrative Office of the Courts, the State Bureau of Investigation, and the Juvenile Justice and Delinquency Prevention
- Presentation on the NC Information Sharing and Analysis Center
- Pilot Project on the DMV photos using the CJIN Mobile Data Network
- Several GangNet Presentations from the Durham Police Department
- E911 Challenges, a comprehensive presentation from the E911 Wireless Board
- On-line presentation of the capabilities of the Offender Population Unified System by the NC Correction Department
- Technical overview on the State's Second Major Data Center by the Office of Information Technology Services
- Updates and activities associated with the NC Local Government Information Systems Association from the City of Salisbury
- Technical Overviews on information sharing from the Town of Cary and the Cities of High Point, Wilson, Jacksonville, Durham, and Raleigh
- Technical Presentations from the Counties of Durham and Buncombe
- Meetings with the US Department of Justice on National Information Sharing

All the aforementioned activities have placed the CJIN Board in an excellent position to take the lead responsibility for:

- Refreshing our list of objectives - technology and standards have changed since the 1995 report. Some things have been done. Some things no longer need doing. Some new opportunities present themselves...many because of the integrated, standards-based infrastructure we have been a party to building.
- Dealing more effectively with recurring funding issues - VIPER and SAFIS both represent important infrastructure components that we knew were coming to the place where they needed significant money to refresh and upgrade. We said as much. Other systems, both infrastructure and applications, will soon join the list. We need to work on better ways to tell this story, to provide firm cost projections, to identify options to fund, and to eliminate any level of surprise when it's time to replace or upgrade.

During 2007 the grant funding opportunities, which provided the seed money for most of the major CJIN efforts continued to diminish. A number of State-level stakeholders are involved in infrastructure and major application work for their individual agencies; while this will have a long-term benefit of making data sharing easier and more reliable, in the short term, it limits the resources available for integration projects. Now that we have an experienced Executive Director in place, we expect to tackle these issues

more effectively in 2008. We do maintain contact with integrated justice organizations in other states, and we will use those contacts to compare efforts and identify opportunities for North Carolina.

CJIN Priorities

The CJIN Governing Board identifies the following especially critical initiatives and segments them into three categories - Nearing Completion, Implementation, and Future Opportunities:

Nearing Completion:

- **Statewide Automated Fingerprinting Identification System (SAFIS)** project is making good progress in replacing the existing obsolete system. The central infrastructure has been completed and the end user live scan units are being deployed.

Implementation:

- The **Voice Interoperability Plan for Emergency Responders (VIPER)** project continues to make good progress, and increase coverage across the State. Technically, we know how to construct and operate this network. Funding, both to build and to operate it, really is the current concern. The CJIN Board just completed an analysis that dealt with cost allocation options. Policy issues around funding need to be addressed and resolved.
- The **Statewide Warrant Repository System (NCAWARE)** is approaching the pilot phase. Having access to current information on warrants, statewide, is one of the original CJIN needs. Further, this information can be leveraged by other CJIN projects such as the Mobile Data Network, to put a powerful tool in the hands of law enforcement.

Future Opportunities:

- **Criminal Justice Data Integration:** The 2007 Session of the General Assembly directed the State Controller to develop a strategic plan for Data Integration among state agencies. One of CJIN's core missions is to identify and develop just such data sharing opportunities among criminal justice agencies. The provision requires the State Controller to develop priorities; we expect improved criminal justice data sharing to emerge as one of those priorities. The General Assembly also asked for the State Controller to identify opportunities where the State could recognize early benefits. CJIN will work with the Steering Committee for this effort to offer potential projects that demonstrate how valuable data integration can be in criminal justice.
- **Public Safety Wireless Infrastructure:** The success of the criminal justice information sharing initiatives under development along with the projects being implemented is dependent upon the public safety community having an adequate wireless infrastructure. The CJIN Board will be addressing this critical issue over the next year.

A STATUS REPORT ON
REPLACING
THE NORTH CAROLINA STATEWIDE AUTOMATED
FINGERPRINT IDENTIFICATION SYSTEM
(SAFIS)

North Carolina Department of Justice

February 1, 2008

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EXECUTIVE SUMMARY

North Carolina is making a significant financial investment to replace a critical crime-fighting tool that supports law enforcement and protects our communities. North Carolina's Statewide Automated Fingerprint Identification System (SAFIS) is a vital law enforcement and public safety resource that serves over 500 law enforcement agencies. The equipment that backs the state's fingerprint identification infrastructure is nearly obsolete and is being replaced. Law enforcement uses this system to pinpoint a suspect in a matter of minutes using the unique identifiers found on fingerprints left at a crime scene. That means arresting rapists and murderers who could otherwise strike again. With it we have stopped criminals from working at the bedsides of our most vulnerable senior citizens and in the classrooms right next to our children. Hundreds of law enforcers, schools, nursing homes, and childcare facilities depend on the automated fingerprint system to disqualify job applicants with criminal records.

This computerized fingerprint system protects all North Carolinians by solving crimes and helping to put criminals in jail. It also keeps felons and other dangerous individuals out of positions where they could prey on our state's most vulnerable residents.

During the 2007 calendar year, an average of 207 fingerprint matches per day were made based on fingerprint cards submitted due to either arrests or pre-employment screenings. In addition, over 1,500 fingerprints from crime scenes were identified through remote latent search stations that same year. Rapid turnaround time is one of SAFIS' most important benefits. Prior to SAFIS criminal fingerprint searches could take up to 100 days, and a full year of processing time for non-law enforcement fingerprint cards was not uncommon. With SAFIS, criminal fingerprint searches can be done in two hours, and the processing of non-law enforcement fingerprint cards is now routinely completed in one week.

SAFIS consists of central processing computer systems and more than 180 remote fingerprint facilities located within law enforcement agencies across the state. The North Carolina State Bureau of Investigation (SBI) serves as the criminal fingerprint repository for the state and has the responsibility of operating and managing SAFIS.

A timeline on SAFIS system replacement is included in **Appendix A**.

I. SYSTEM DESCRIPTION

Prior to SAFIS, processing a positive fingerprint identification of a suspect could take months. Prior to SAFIS, it was not unheard of for a criminal suspect to be placed in jail, released on bond by a magistrate, charged by a district attorney, meet with their defense attorney, and attend the first court appearance before being identified as a person with a criminal record. Since its initial implementation in 1986, SAFIS has resolved this problem by greatly reducing the time it takes to find a positive fingerprint match. The suspect can now be identified within two hours, instead of several weeks or months.

SAFIS receives and processes electronic and manually rolled fingerprint card submissions for criminal identifications, job applications, background checks, and requests for permits to carry a concealed weapon. SAFIS accepts, stores, and retrieves scanned fingerprint data, and performs automated

searches and comparisons. In addition, SAFIS maintains a direct secure network link to the Federal Bureau of Investigation (FBI) and the National Crime Information Center (NCIC).

The SAFIS infrastructure is currently comprised of the following main components:

- 3 central processing systems
- 162 remote Live Scan devices
- 23 remote latent search stations

Table 1 reflects the number of fingerprint card submissions for Fiscal Year 2006-07.

Table 1: Total Fingerprint Card Submissions for FY0607

Table 1: Total Fingerprint Card Submissions for FY0607

FY 0607	Electronic Submissions	Manually Rolled Card Submissions	Total Submissions
Criminal Fingerprint Cards	88 %	12 %	197,260
Non-Criminal Fingerprint Cards*	17 %	83 %	131,059

* Fingerprint cards submitted for job applications, background checks and permits.

TOTAL: 328,319

SAFIS is currently linked to North Carolina’s computerized criminal history files (CCH). Once the fingerprint card has been processed by the SBI, personal information and charge-related data are automatically forwarded to CCH. Existing criminal history records are automatically updated or a new criminal history record is established. Maintaining the link between SAFIS and CCH is essential to the law enforcement community. SAFIS is also linked to the SBI’s fingerprint database, which electronically archives criminal fingerprint cards.

Central Processing Systems

The three central processing systems are responsible for searching, verifying, adding, and updating fingerprint records in the SAFIS database and adding charge-related information to CCH. These systems are comprised of input/verification stations, data entry computers, and servers that control and process the activity and transactions that flow through SAFIS. The central processing systems are located at the SBI, the Mecklenburg County Sheriff’s Office (MCSO), and the North Carolina Department of Correction (DOC). Additional database servers, storage devices and search processors are located at the SBI.

The SAFIS fingerprint database currently contains approximately 1,500,000 fingerprints. Records for those who have either been arrested in North Carolina or have been licensed to carry concealed handguns are stored in the database.

The illustration in **Appendix B** reflects a high level overview of SAFIS processing and its components. The infrastructure is configured in such a manner that the simultaneous upgrade to all central processing systems is essential in order to maintain system integrity and the current level of service provided by SAFIS.

Live Scan Devices

There are currently 162 Live Scan devices connected to SAFIS throughout the state. Live Scan devices capture fingerprints electronically without the use of ink and fingerprint card stock. These devices utilize computers and optical lenses to record the fingerprints in a digital format. Identifying information of the person being fingerprinted is also entered into the Live Scan device. The fingerprint images and the descriptive information are then electronically submitted to the SBI. The information is received by the SBI in a format that meets standards set by FBI for processing at the national level. A Live Scan device is required in order to electronically submit fingerprints to the SBI.

Live Scan devices provide additional benefits to the contributing law enforcement agency and the entire law enforcement community:

- Consistently provide high quality fingerprint images
- Facilitate individuals' criminal history records being updated in an efficient and timely manner
- Reduces the risk of the fingerprint card being rejected due to the poor quality of the captured fingerprints
- Reduces the time required to fingerprint an individual, which saves money and lessens close-quarters contact with a suspect
- Submissions are received by the SBI more quickly than inked fingerprint cards which require mailing through the postal service
- Provide a standard format for descriptive information and associated charges which reduces the risk of a fingerprint card being rejected

In 1997, North Carolina became the first state to allow submissions of electronic fingerprint cards from Live Scan devices of different vendors. This has provided a competitive environment for vendors to do business in North Carolina.

Currently, seventeen counties do not have a Live Scan device from which fingerprints can be electronically submitted to the SBI. The initial purchase price of the device and the associated maintenance cost made it prohibitive for smaller law enforcement agencies. Law enforcement officers in those counties must collect fingerprints using the manually rolled ink method. The inked fingerprint cards must then be mailed to the SBI for processing. Once these cards are received at the SBI, they must be scanned in and converted into the appropriate digital format for submission to the FBI. The Electronic Fingerprint Transmission Specification (EFTS) defines the link between the FBI and other agencies' systems and establishes a national standard for fingerprint transmissions. This conversion process is labor-intensive, time-consuming, and places considerable stress on the SAFIS workflow due to the age of the SAFIS central processing systems.

Latent Search Stations

There are currently 23 latent search stations throughout the state. The term "latent" means hidden or unseen. A latent fingerprint is one that is inadvertently left at a crime scene by a suspect and then searched for and found by law enforcement personnel. Latent fingerprints require forensic processing in order to be seen with the naked eye. Once a latent fingerprint is visible, it can be searched against the SAFIS database of fingerprints by using a latent search station in an effort to find a match.

A latent search station establishes a remote two-way connection with the SAFIS database. It allows a fingerprint examiner to search a latent fingerprint against fingerprints currently stored in SAFIS. Once the latent fingerprint has been submitted for searching, SAFIS will transmit back to the fingerprint examiner a list of possible identifications. The fingerprint examiner will then conduct a side-by-side comparison to determine if a match exists.

The ability to search latent fingerprints from crime scenes makes SAFIS a remarkable crime-fighting tool. It can pinpoint or eliminate suspects, and enhances the important detective work of law enforcement officers. During the 2007 calendar year, over 1,500 latent fingerprints from crime scenes were identified through remote latent search stations.

II. SUMMARY OF WORK DONE WITH PRIOR YEAR APPROPRIATIONS

As initially anticipated, the SAFIS Replacement Project is planned to span approximately three years. It is essential that the transition and migration to the upgraded SAFIS environment be seamless, so critical fingerprint services provided to SAFIS stakeholders are not negatively impacted. An incremental approach is being utilized to facilitate managing the complexity of this project.

A proof of concept phase was incorporated into the SAFIS Replacement Project to test various components of the new biometric identification system and to validate Motorola's conversion procedures. The proof of concept phase, which has been successfully completed, included the following elements:

- *Conversion Validation* – A sample of approximately 40,000 images of various types of media (electronic fingerprint images & fingerprint cards) were submitted to Motorola in June 2006 in order to validate their ability to successfully convert NC SAFIS data. An 'acceptance test' was conducted on the converted data by NC DOJ staff in September 2006. The result of the 'acceptance test' was such that Motorola successfully demonstrated their ability to convert NC SAFIS data.
- *SAFIS Prototype*- A prototype of the new SAFIS was designed and built by Motorola in accordance with contractual specifications. The converted data was loaded on the prototype and was subsequently installed at the SBI in Raleigh. DOJ representatives tested the screens and workflows of the prototype with positive results.
- *Live-scan Device Communication Validation* – As required in the contract, all legacy live-scan devices must be able to communicate to the new SAFIS. A validation test was successfully conducted on the prototype while installed at the SBI. All variations of legacy live-scan devices (both Motorola and non-Motorola) will be able to communicate to the new SAFIS.
- *Fingerprint Card Conversion* - The SBI sent 1,750,000 fingerprint cards to Motorola for conversion to an electronic format. An 'acceptance test' was successfully conducted on the converted fingerprint cards prior to these images being added to the SAFIS fingerprint database.
- *Joint-Agency meetings with Mecklenburg County Sheriffs Office and N. C. Department of Correction* – Due to the complexity of the SAFIS replacement project, NC DOJ staff has conducted multiple meetings and on-site walkthroughs with the other satellite sites (MCSO and DOC) to outline project schedule and validate required resources.
- *System Documentation Review* – NC DOJ staff has completed the review and validation of system requirements and workflows. This activity included reviewing and updating of multiple deliverables such as system requirements, data dictionary and the interface control document.
- *Factory Acceptance Testing* - Representatives from DOJ, Department of Corrections (DOC), and Mecklenburg County Sheriff's Office (MCSO) successfully completed the factory acceptance test of the new SAFIS. The factory acceptance test procedures included verification and validation of all the necessary workflows and interfaces.

- *Central Processing Equipment Installation* – All of the SAFIS-related central processing equipment has been shipped and installed, including the equipment for the disaster recovery site.
- *Remote Latent Search Stations Installation* – New latent search stations have been deployed to replace all existing latent search stations currently in use at the SBI and all local agencies.
- *On-site Integration Testing* – DOJ completed integration testing of system interfaces with Computerized Criminal History (CCH), Mecklenburg County Criminal Justice Information System (MC CJIS), DOC Offender Population Unified System (OPUS), and FBI Integrated Automated Fingerprint Identification System (IAFIS) and initiated integration testing of SAFIS system interface with SBI North Carolina Applicant Tracking Systems
- *Site Acceptance Testing* - DOJ successfully completed site acceptance testing for all necessary workflows and interfaces associated with the central processing equipment and the remote latent search stations.

III. SITES THAT HAVE ALREADY RECEIVED NEW EQUIPMENT

The equipment for the three central processing sites, the SBI, DOC, and MCSO, has been shipped and installed at the respective locations. The equipment for the SAFIS disaster recovery site has also been shipped and installed at the DOJ Disaster Recovery Site located in Research Triangle Park.

The new remote latent search stations have been deployed and installed at the qualifying agencies. Table 2 indicates which law enforcement agencies have received the new remote latent search station.

Table 2

Beaufort County Sheriff's Office
Charlotte/Meck Police Department
Cumberland County Sheriff's Office
Durham Police Department
Fayetteville Police Department
Gaston County Police Department
Gastonia Police Department
Greenville Police Department
Guilford County Sheriff's Office
Pitt County Sheriff's Office
Randolph County Sheriff's Office
Rocky Mount Police Department
State Bureau of Investigation
Wake County City/County Bureau of Identification
Wilmington Police Department
Winston-Salem Police Department

IV. SITES SCHEDULED TO RECEIVE NEW EQUIPMENT

Live Scan devices capture fingerprints electronically without the use of ink and fingerprint card stock. These devices utilize computers and optical lenses to record the fingerprints in a digital format. Identifying information of the person being fingerprinted is also entered into the Live Scan device. The fingerprint images and the descriptive information are then electronically submitted to the SBI. The information is received by the SBI in a format that meets standards set by FBI for processing at the national level. A Live Scan device is required in order to electronically submit fingerprints to the SBI. The following law enforcement agencies are scheduled to receive a live-scan device pursuant to the SAFIS Replacement Project.

- A. There are seventeen counties that do not currently have live-scan technology. Table 3 reflects the North Carolina sheriffs' offices that will receive a live-scan device pursuant to the SAFIS Replacement Project:

Table 3

Alleghany County Sheriff's Office
Anson County Sheriff's Office
Bertie County Sheriff's Office
Clay County Sheriff's Office
Greene County Sheriff's Office
Hoke County Sheriff's Office
Hyde County Sheriff's Office
Jones County Sheriff's Office
Madison County Sheriff's Office
Mitchell County Sheriff's Office
Montgomery County Sheriff's Office
Northampton County Sheriff's Office
Pamlico County Sheriff's Office
Perquimans County Sheriff's Office
Scotland County Sheriff's Office
Tyrrell County Sheriff's Office
Warren County Sheriff's Office

- B. A large portion of the live-scan devices currently deployed are beyond the life expectancy. Table 4 depicts the law enforcement agencies that will receive a replacement live-scan device due to the age of their existing device:

Table 4

Alexander County Sheriff's Office
Ashe County Sheriff's Office
Beaufort County Sheriff's Office
Bladen County Sheriff's Office
Brunswick County Sheriff's Office
Burke County Sheriff's Office

Cabarrus County Sheriff's Office
Caldwell County Sheriff's Office
Carteret County Sheriff's Office
Caswell County Sheriff's Office
Chatham County Sheriff's Office
Cherokee County Sheriff's Office
Chowan County Sheriff's Office
Cleveland County Sheriff's Office
Craven County Sheriff's Office
Cumberland County Sheriff's Office
Dare County Sheriff's Office
Durham County Sheriff's Office
Durham Police Department
Edgecombe County Sheriff's Office
Forsyth County Sheriff's Office
Gaston County Sheriff's Office
Gates County Sheriff's Office
Granville County Sheriff's Office
Greenville Police Department
Harnett County Sheriff's Office
Hertford County Sheriff's Office
Hickory Police Department
Jackson County Sheriff's Office
Jacksonville Police Department
Johnston County Sheriff's Office
Kinston Police Department
Lee County Sheriff's Office
Lenoir County Sheriff's Office
Lincoln County Sheriff's Office
Macon County Sheriff's Office
Martin County Sheriff's Office
McDowell County Sheriff's Office
Mecklenburg County Sheriff's Office
Moore County Sheriff's Office
Nash County Sheriff's Office
New Bern Police Department
New Hanover County Sheriff's Office
Pasquotank County Sheriff's Office
Pender County Sheriff's Office
Person County Sheriff's Office
Pitt County Sheriff's Office
Polk County Sheriff's Office
Randolph County Sheriff's Office
Robeson County Sheriff's Office
Rocky Mount Police Department
Rowan County Sheriff's Office

Rutherford County Sheriff's Office
Surry County Sheriff's Office
Swain County Sheriff's Office
Vance County Sheriff's Office
Washington County Sheriff's Office
Watauga County Sheriff's Office
Wilkes County Sheriff's Office
Yadkin County Sheriff's Office
Yancey County Sheriff's Office
NC Dept. of Correction

- C. The new biometric identification system incorporates the ability to store and search palm prints. Table 5 indicates the law enforcement agencies that will receive a replacement live-scan device due to the inability of their existing device to capture palm prints:

Table 5

Buncombe County Sheriff's Office
Burlington Police Department
Camden County Sheriff's Office
Carrboro Police Department
Chapel Hill Police Department
Currituck County Sheriff's Office
Davie County Sheriff's Office
Duplin County Sheriff's Office
Emerald Isle Police Department
Forsyth County Sheriff's Office
Graham County Sheriff's Office
Greensboro Police Department
Guilford County Sheriff's Office
High Point Police Department
Kannapolis Police Department
Lumberton Police Department
Mooreville Police Department
Morehead City Police Department
Morganton Police Department
Richmond County Sheriff's Office
Rockingham Police Department
Sampson County Sheriff's Office
Stokes County Sheriff's Office
Transylvania County Sheriff's Office
Wayne County Sheriff's Office
Wilson Police Department

V. PROJECT COMPLETION TIMELINE

The SAFIS infrastructure is scheduled to 'go-live' in February 2008. This includes the new SAFIS-related equipment installed at the three central processing sites, the disaster recovery site and all of the remote latent search stations. At the time the new SAFIS network goes into production, the SBI will be able to store palm prints which provides the law enforcement community the new capability to search latent palm prints which currently does not exist today. Legacy live-scan devices currently deployed throughout North Carolina will be compatible with the new SAFIS infrastructure thus providing a seamless migration for the law enforcement community.

The deployment of the live-scan devices to the seventeen counties without this technology is expected to be completed in the spring of 2008. Activities associated with this deployment are currently on-going including communications with the sheriffs' of the respective counties. Upon installation of these devices, the law enforcement agencies in these counties will be able to capture both fingerprints and palm prints then electronically transmit these images to the State Bureau of Investigation.

The replacement of all obsolete live-scan devices along with non-palm print capable devices is expected to be completed by August 2008. Activities associated with this replacement are on-going including communications with the qualifying law enforcement agencies. The completion of this replacement phase will provide palm print capture capability to all remaining counties in North Carolina.

VI. SAFIS EXPENDITURES TO DATE

The SBI SAFIS replacement project was initiated in 2005. Since its inception, \$1,824,486 has been expended through December 2007 on this project (which includes system development costs, technology design consultant charges and full time staffing and operating related expenses). The above noted amount includes \$608,400 that has been expended during the 2007-08 fiscal year through December 2007. The remaining unspent budget for FY0708 is \$4,655,661 which includes \$3,108,000 for local SAFIS live-scan equipment and \$1,461,835 in system development costs and \$85,826 in staff and operating related costs.

Appendix A

SAFIS Replacement Project Timeline

Past Activities and Dates

November / December 2005

- NC DOJ and CJIN jointly prepare a report on the current status of SAFIS for the North Carolina General Assembly.
- A Request for Proposal (RFP) was prepared to solicit responses from interested vendors for the replacement of SAFIS.

January 2006

- North Carolina advertises an RFP for the SAFIS Replacement Project and meets with prospective vendors.

March - May 2006

- NC DOJ reviewed the proposals submitted as a result of the RFP.
- As a result of the proposal evaluation process, Motorola was selected as the preferred vendor for the SAFIS Replacement Project.

July 2006

- The SAFIS Replacement Project officially kicks off with a joint meeting including: Motorola, NC DOJ and other stakeholders.
- SBI begins “digitizing” the legacy fingerprint cards currently on file in the Criminal Information and Identification Section. The SBI would eventually convert 1.7 million fingerprint cards into an electronic format which are to be included in the new biometric identification system database.

August / December 2006

- Prototype design and acceptance testing was conducted with the input from several key SAFIS stakeholders including the Department of Correction and the Mecklenburg County Sheriff’s Office.

January / April 2007

- Requirements and system design is conducted.
- Acceptance testing is conducted on the converted fingerprint cards.

September 2007

- Factory acceptance testing is conducted at Motorola’s biometrics facilities in Anaheim, CA.

September 2007

- SAFIS infrastructure and latent search stations are shipped from Anaheim, CA to Raleigh, NC.

October / November 2007

- SAFIS infrastructure is installed at the SBI, DOJ Datacenter, Department of Correction, Mecklenburg County Sheriff's Office and MCNC (disaster recovery site).
- Initiate technical and functional site acceptance testing of central processing equipment, remote latent searches and live-scan device submissions.
- Begin installation of local latent search stations at local law enforcement agencies.
- Training conducted for Department of Correction and Mecklenburg County Sheriff's Office users.

December 2007 / January 2008

- Continue technical and functional site acceptance testing of central processing equipment, remote latent searches and live-scan device submissions.

Upcoming Activities and Dates

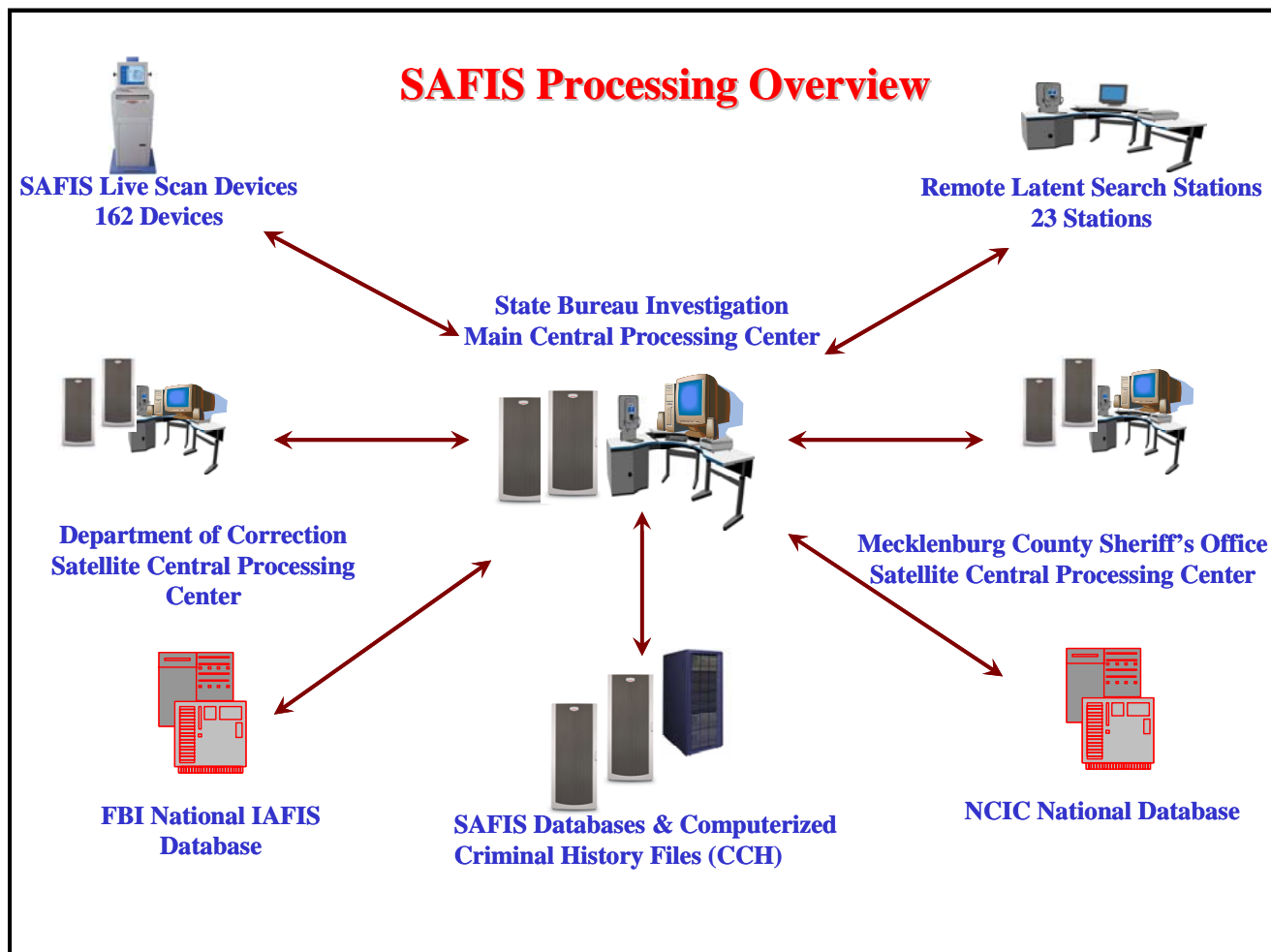
February 2008

- Training conducted for local users of remote latent search stations.
- Training conducted for SBI ten-print users and system administrators.
- Expected go-live date during the week of February 18th.

February – September 2008

- Deploy live-scan devices to counties that do not currently have this technology.
- Coordinate the replacement of existing live-scan devices that are currently beyond their life-expectancy.

Appendix B



Voice Interoperability Plan for Emergency Responders (VIPER)

Description

In the Criminal Justice Information Network (CJIN) Study Final Report, dated April 7, 1995, Price Waterhouse LLP recommended that CJIN establish standards for and implement a mobile voice and data communications network that would allow all North Carolina law enforcement and public safety agencies to communicate with each other, regardless of location. While our CJIN Mobile Data Network (CJIN-MDN) solution is fully deployed across the State, VIPER, formerly known as the CJIN Voice Trunked Network (CJIN-VTN) initiative, has struggled over the years. Although it is a high priority for CJIN, VIPER has the greatest projected cost and is the biggest project under development.

A revalidation study completed by Gartner Group in November, 2002 reconfirmed our strategy to deploy an 800 MHz solution. This strategy supports the existing local 800 MHz investments. Both the 1995 CJIN Governing Board study and the re-validation study in 2002 recognized that a statewide voice radio communications system should be constructed using the 800 MHz frequency spectrum. This is due to the availability of 800 MHz frequencies for public safety, the widespread use of 800 MHz by most of North Carolina's major metropolitan areas, and the commencement of 800 MHz system development by the State Highway Patrol in 1999. VIPER currently operates a Motorola SmartZone 800 MHz system with ninety-two remote voice radio transmitter sites. The planned VIPER strategic solution will include two-hundred thirty-eight sites.

Benefits

Prior to the organization of CJIN, there was no unified comprehensive communications plan that afforded users access to interagency communications. VIPER will provide the ability to communicate interagency, thus enhancing officer safety and allowing our public safety community to better serve the citizens of North Carolina.

Project Status

The VIPER project plan includes a two-pronged approach: a short-term tactical phase and a strategic long-term statewide 800 MHz solution. The tactical approach, a short-term solution for emergency communications with portable/mobile assets, was completed in July 2005. A detailed project plan for the strategic phase, a statewide 800 MHz trunked radio system for all emergency responders and setting up mutual aid talk groups, was completed in August 2004. The first phase of the project is complete. Two phases are funded and under development. Funding for the deployment of VIPER to date totals approximately \$102m. This does not reflect funds sought by VIPER prior to 2004-05 and used to provide a foundation for VIPER development. A VIPER Legislative report was submitted on December 1, 2004 per the 2004 Legislative Session House Bill 1414 Part XVII, Section 18.4.

Lead State Agency Responsible for Project

Department of Crime Control and Public Safety/State Highway Patrol (DCC&PS/SHP)

Voice Interoperability Plan for Emergency Responders (VIPER)

FUNDING SOURCES - DEVELOPMENT (INFRASTRUCTURE) (CJIN-VTN SFY 99-00 THROUGH SFY 03-04, VIPER COMMENCING SFY 04-05)

	SFY 99-00*	SFY 00-01*	SFY 01-02*	SFY 02-03*	SFY 03-04*	SFY 04-05	SFY 05-06	SFY 06-07	SFY 07-08	
State Appropriations to CJIN (SHP - VIPER)	\$0	\$0	\$0	\$0	\$0	\$500,000	\$8,000,000	\$10,000,000	\$0	
Federal Grants to CJIN	\$0	\$0	\$0	\$1,000,000	\$0	\$0	\$0	\$0	\$0	
Federal Grants to DCC&PS / SHP	\$164,000	\$0	\$698,460	\$0	\$1,500,000	\$0	\$0	\$0	\$15,000,000 (PSIC)	
DCC&PS / SHP Federal Asset Forfeiture Funds	\$1,140,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
DCC&PS / SHP Federal Hazard Mitigation Funds	\$0	\$0	\$0	\$690,000	\$0	\$0	\$0	\$0	\$0	
NC Homeland Security Appropriations	\$0	\$0	\$0	\$0	\$3,200,000	\$32,922,460	\$26,179,500	\$8,683,000	\$2,550,000	
Subtotal	\$1,304,000	\$0	\$698,460	\$1,690,000	\$4,700,000	\$33,422,460	\$34,179,500	\$18,683,000	\$17,550,000	
Total	\$8,392,460					\$103,834,960				

Note: VIPER FUNDING OF \$189,512,131 IN THE 2004 VIPER GENERAL ASSEMBLY REPORT (12/04) REFLECTS THE AMOUNT REQUIRED TO COMPLETE THE INFRASTRUCTURE DEPLOYMENT COMMENCING WITH SFY 04-05

UNFUNDED - DEVELOPMENT (INFRASTRUCTURE)				
	SFY 08-09	SFY 09-10	SFY 10-11	SFY 11-12
Unfunded	\$25,000,000	\$25,000,000	\$25,000,000	\$10,000,000
Total	\$85,000,000			

Voice Interoperability Plan for Emergency Responders (VIPER)

FUNDING SOURCES - OPERATIONS RECURRING COSTS			
	SFY 05-06	SFY 06-07	SFY 07-08
State Appropriations to VIPER	\$51,087	\$208,892	\$2,261,199
Total	\$ 2,521,178		

OPERATIONAL RECURRING COSTS REQUIRED/NEEDED			
	SFY 08-09	SFY 09-10	SFY 10-11
Unfunded	\$2,359,426	\$678,307	\$3,665,789
Subtotal	\$2,359,426	\$678,307	\$3,665,789

Note: SERVICE AND MAINTENANCE OPERATIONS RECURRING COSTS HAVE BEEN AMENDED TO SHOW ACTUAL EXPENDITURES.

Voice Interoperability Plan for Emergency Responders (VIPER)

Agencies Currently Accessing VIPER

U.S. Drug Enforcement Administration
 U.S. Marshal's Service
 Wake County/City of Raleigh Fire Department
 Wake County Dept. of Public Safety
 Wake County Sheriff's Office Judicial Division
 Pitt County Sheriff's Office
 County of Granville
 County of Orange

State Agency Partners:

Alcohol Law Enforcement
 Butner Public Safety
 Dept. of Correction's Division of Adult Probation & Parole
 Dept. of Environmental Health & Natural Resources
 Division of Motor Vehicle Enforcement
 Regional Transit System (Operated by Triangle Transit Authority)
 State Capitol Police
 State Highway Patrol
 Office of State Fire Marshal (OSFM)
 State Office of Emergency Medical Services (OEMS)
 North Carolina Division of Public Health
 North Carolina Emergency Management
 North Carolina Department of Justice (SBI)
 North Carolina State University
 State of North Carolina – Johnston County Site
 State of North Carolina - Wilson County Site
 University of North Carolina Public TV

Local Agencies Partnering with VIPER:

ALAMANCE	DUPLIN	NASH
BEAUFORT	DURHAM	NEW HANOVER
BERTIE	EDGEcombe	ORANGE
BLADEN	GASTON	PASQUOTANK
BRUNSWICK	GATES	PENDER
BUNCOMBE	GRAHAM	PERQUIMANS
BURKE	GRANVILLE	PITT
CABARRUS	HALIFAX	ROCKINGHAM
CALDWELL	HARNETT	SAMPSON
CARTERET	HERTFORD	STANLY
CATAWBA	HOKE	STOKES
CHEROKEE	HYDE	SURRY
CHOWAN	IREDELL	SWAIN
CLAY	LEE	TYRRELL
CLEVELAND	LENOIR	VANCE
COLUMBUS	LINCOLN	WAKE

CRAVEN	MACON	WASHINGTON
CUMBERLAND	MARTIN	WILKES
DARE	MITCHELL	YANCEY

Voice Interoperability Plan for Emergency Responders (VIPER)

VIPER Frequently Asked Questions

There have been several questions asked and concerns expressed about using 800 MHz as our radio frequencies for the VIPER network, and about the VIPER Network in general. Listed below are some of the most common.

Will 800 MHz work in the mountains?

800 MHz radios have been proven to work in mountainous areas across the United States, and in fact the current CJIN mobile data network is operating on 800 MHz frequencies. The states of Utah, Colorado, West Virginia and Pennsylvania are using 800 MHz radios for their radio systems.

Is this radio network simply a new radio system for the State Highway Patrol?

The State Highway Patrol was identified by the Legislative CJIN Report to be the managing agency of the 800 MHz statewide voice and the statewide data system. The Secretary of Crime Control and Public Safety through the Division of the State Highway Patrol is statutorily required to maintain a statewide radio system. The State Highway Patrol, as with the Mobile Data Network, will be a small user in comparison to the number of local users on the network.

Will the cost of construction be expensive?

As with all new technologies, there is an expense to implement and maintain this new statewide network. However, when compared to modern radio systems installed in the states of Michigan, Pennsylvania and Ohio our estimates for North Carolina are not unreasonable. It should be noted that the state of New York has recently received a bid for a statewide radio system that is estimated to cost one billion dollars.

Will there be voice and text pager capabilities with VIPER?

No. Unfortunately, the technology used for 800 MHz trunked radio systems does not allow for a paging solution. Agencies requiring paging will have to continue to support their existing paging system. However, where available, tower space will be offered to VIPER participants on State Highway Patrol owned towers for local agency paging antennas.

What about satellite communications?

Satellite technology does have one advantage over typical trunked radio systems in that it is not terrestrial based. This essentially means that a satellite based communications system would be relatively free from harm as related to most natural or manmade disasters. However, the primary drawback to satellite based systems is that in order to

function, the subscriber handset or radio unit must be in constant view of the sky. This would eliminate operation inside buildings or in areas of dense foliage or during heavy rainfall or intense cloud cover. Satellite communications often don't work well in "urban canyons" (in streets and alleyways between tall buildings) because there is no line of sight to the satellites on the horizon. All of these detractions far outweigh the benefit of the system being somewhat impervious to being dependant on easily damaged infrastructure on earth. Satellite systems also suffer from lengthy delays as the conversation is routed up into the sky many hundreds of miles and back down again to the receiving radio or handset. Furthermore, satellite based technology will have to be refreshed as the orbit of the satellite can only be sustained for a finite number of years. However, satellite communications would be a viable option in areas where terrestrial infrastructure would be too costly to serve the population; such as the desert southwest of the US or the Middle East.

Do I have to buy a certain brand of radio to operate on the VIPER network?

No. VIPER is the expansion of an existing Motorola radio system owned by the State, so obviously Motorola radios will work on the network. We have demonstrated the successful operation of EF Johnson radios on the VIPER network. So if a user prefers to use radios other than Motorola, they have the option of using EF Johnson radios.

Will there be a cost to use the VIPER network?

The success of VIPER depends on our partnerships with state and local agencies, and the sharing of existing resources which may range from property to build the towers on to re-use of existing towers. These in-kind contributions will help keep the overall cost of construction lower than if we had to buy property and build new towers where state owned towers are not available. It was those partnerships that allowed the state to build the statewide mobile data network for less that \$20m as compared to the estimate in 1993 of more than \$100m for the state to build the infrastructure. Our goal is not to ask the locals for free use of their land and/or towers and then require them to pay to use the system. We don't want to find ourselves in a situation where all our partners demand that we pay them for their resources so they can pay a users' fee. Additionally, there are many rural area departments that would not be able to pay a user fee and therefore would not be able to participate in VIPER at all.

Will local agencies continue to dispatch their own personnel or will that be taken over by the Highway Patrol?

Local agencies will continue to dispatch and control their personnel as they do today. However, they will need to incorporate 800 MHz radios into their dispatch center consoles so they can communicate with their personnel.

Is this project being awarded to a single vendor?

This is an expensive project and there will be large amounts of funds spent. However, with the Patrol acting as prime contractor, there is not a single vendor profiting from the total project funds. There are many products that will be purchased from different vendors who will be required to compete in the competitive bid process and many pieces

purchased of the State's standing convenience contracts. However, there may be circumstances such as product integration with existing infrastructure and compatibility where a single or fewer vendors may be selected, but those vendors will not profit from other infrastructure equipment. These products include, but are not limited to, equipment buildings, towers and tower work, generators, microwave equipment, intellirepeaters and network routers.

Can VIPER use cell towers?

Most cell towers are not high enough to get the desired coverage for the each site. However, in cases where cellular companies have erected tall towers we will take them into consideration if offered access. In an effort to keep the annual recurring operating cost at a minimum, we seek tower space that does not require us to pay monthly lease fees.

Wouldn't the Tactical Solution be sufficient?

No. Unfortunately the Tactical solution is a temporary measure that should only be used during emergencies. The Tactical Solution will connect existing radio systems together to allow agencies to talk with one another. It does not increase radio capacity, but rather increases radio traffic on existing channels. A comparison is much like the old party-line phone system where there were many users trying to use a single phone line or channel. The Tactical solution is a measure to provide basic interoperable communications until the Strategic Solution is constructed.

Will local agencies be mandated to use VIPER?

No, there are no mandates to participate in VIPER. The VIPER project is an effort to assist in the efficiency and effectiveness of state and local public safety agencies by using a common interoperable communications system. Optimally it would be more effective if all agencies were on VIPER, however we realize that some agencies have recently invested in their own systems and have not realized a return on that investment. We also understand that there are agencies that have no desire to be a part of VIPER at all.

Will VIPER radios cost \$5000 each?

Like almost all technology products, radio prices vary depending upon the number and cost of options purchased regardless of the radio system they will be used on. Radios used to access VIPER can vary in price from \$1500 to \$4000.

Criminal Justice Information Network Mobile Data Network (CJIN-MDN)

Description

Public safety agencies across North Carolina depend on their communication systems as a “life line” for support and individual officer safety. Incompatible radio and data communications equipment inhibits interagency communications in routine and emergency situations. The CJIN - Mobile Data Network (CJIN-MDN) is focused on maintaining the “backbone” of a statewide, shared, public safety mobile data network consistent with the goals and objectives of the North Carolina Criminal Justice Information Network.

Benefits

The CJIN-MDN makes available mobile data service to all public safety agencies in North Carolina including federal, state and local agencies. This service allows smaller departments with limited financial resources to have the same assets to fight crime and provide officer safety as the larger departments have.

Project Status

CJIN-MDN was a five-phase project that began in 1996 and concluded in 2002. Phase V completed coverage for the State’s approximate 48,000 square miles. The current focus of CJIN-MDN is on optimizing coverage, replacing aging base stations, exploring and evaluating new applications, and supporting and maintaining CJIN-MDN deployed infrastructure. Additionally, we will be exploring viable options for the next generation of Public Safety grade wireless data services. Motorola, the MDN system equipment provider, has announced “end-of-life” for all the CJIN-MDN infrastructure and subscriber equipment. A funding source for the maintenance of aging equipment and/or next generation equipment has not been identified.

Description of Data

Vehicle registration (car and boat), driver’s license, state & national wanted persons, securities (could be stolen traveler checks), stolen articles (TV, VCR, etc.), stolen guns, concealed carry permits, missing persons, domestic violence orders, sexual offender registration violations, and messaging. Agencies with Computer Aided Dispatch (CAD) and Records Management Systems (RMS) have the ability to send reports and dispatch cars via the network. Authorized members have the ability to transmit citations directly to the Administrative Office of the Courts and a few CJIN partners are testing in-vehicle facial image recognition software. Users performing general inquiries on drivers and registration enjoy a twelve second response time.

Lead State Agency Responsible for Project

Department of Crime Control and Public Safety (DCC&PS), State Highway Patrol (SHP)

Criminal Justice Information Network Mobile Data Network (CJIN-MDN)

FUNDING SOURCES – DEVELOPMENT *								
	SFY 96-97	SFY 97-98	SFY 98-99	SFY 99-00	SFY 00-01	SFY 01-02	SFY 02-03	SFY 06-07
State Appropriations	\$2,000,000	\$2,406,000	\$2,406,000	\$0	\$0	\$547,800	\$573,000	\$142,188
Federal Grants	\$500,000	\$500,000	\$3,000,000	\$240,000	\$106,370	\$1,911,435	\$0	\$500,000**
Subtotal	\$2,500,000	\$2,906,000	\$5,406,000	\$240,000	\$106,370	\$2,459,235	\$573,000	\$642,187
Total								\$14,832,792

* Cost is for CJIN infrastructure only and is not representative of Mobile Data Computers

** Received Grant funds from the Governors Crime Commission to allow CJIN-MDN to meet the Federal mandated mobile data encryption requirements.

FUNDING SOURCES – RECURRING COSTS (Three Mobile Data Technicians Only)								
	SFY 00-01	SFY 01-02	SFY 02-03	SFY 03-04	SFY 04-05	SFY 05-06	SFY 06-07	SFY 07-08
State Appropriations	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Federal Grants	\$132,961	\$139,294	\$80,143	\$158,513	\$157,320	\$114,047	\$83,761	\$83,761
DCC&PS/SH P Internal Budget for Grant Match	\$33,240	\$34,824	\$20,036	\$39,628	\$39,330	\$28,512	\$20,940	\$20,940
Unfunded Future Needs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal	\$166,201	\$174,118	\$100,179	\$198,141	\$196,650	\$142,559	\$104,701	\$104,701

Criminal Justice Information Network Mobile Data Network (CJIN-MDN)

Note: EC = Emergency Communications, EMC = Electric Membership Corporation, EMS = Emergency Medical Services, FD = Fire Department, NCFS = NC Forestry Services, PD = Police Department, SO = Sheriff's Office

State Agency Partners:

NC Department of Justice
University of North Carolina Public TV

Local/Federal Partners:

Alexander County SO
Alleghany County
Hyde County
City of Kernersville
City of Mount Holly
Alltel Communications
Ashe County SO
Aulander Tank Bertie County
Avery County-NCFS
Balsam, Willets, Ochre Hill FD
Beaufort County
Beaufort County Water Department Phase V
Bertie County
Brunswick County Emergency Services
Burke County
Caldwell County SO
Cherokee County
Cherokee Indian Agencies
Chowan County SO
City of Asheville
City of Burlington PD
City of Concord
City of Eden
City of Goldsboro & Goldsboro PD
City of Greensboro
City of High Point
City of Kernersville
City of Mount Holly
City of Kernersville
City of Mount Holly
City of New Bern
City of Oxford
City of Reidsville PD

City of Roxboro
City of Sanford PD
City of Shelby PD
City of Shelby PD
City of Statesville
City of Tarboro
City of Thomasville
City of Yanceyville
Clay County
Clinton PD
Columbus County NCFS
County of Guilford
County of Mecklenburg
Currituck County
Dare County
Franklin County SO
Gaston County
Gates County
Davidson County SO
Durham City County EMS
Graham County SO
Haywood County
Henderson County
Hertford County SO
Hoke County
Johnston County
Jones County
Jones Onslow EMC
Kerr Lake Regional Water Treatment Plant
Lenoir County
Macon County
Madison County Site One and Two
McDowell County

Mitchell County
Moore County
NC Forest Resources
Northampton County SO
Oak Island PD
Pamlico County
Pasquotank County
Randolph County-NCFS
Robbins PD
Rutherford County
Scotland County
Stanly County
Stovall & Granville Co. EC
Surry County
Surry Telephone Membership
Swain County
Town of Beech Mountain
Town of Blowing Rock
Town of Tabor City
Town of Fair Bluff
Town of Hamlet
Town of Lilesville
Town of Raeford
Town of Southern Shores
Town of Topsail Beach
Transylvania County
Union County
Wake County
Wake Forest Univ.
Warren County SO
Watauga County
Wilkes County - Wilkesboro
Yadkin County
Yancey County

Criminal Justice Information Network Mobile Data Network (CJIN-MDN)

Description of Users

Note: ABC = Alcohol Beverage Commission, ALE = Alcohol Law Enforcement, DMV = Division of Motor Vehicles, PD = Police Department, SO = Sheriff's Office

Aberdeen PD	Camden SO	Currituck SO
Ahoskie PD	Cameron PD	Dare SO
Albemarle PD	Camp LeJeune	Davidson PD
ALE	Campus-Dix Hospital	Davidson SO
Alamance County SO	Campus-ECU	Davie SO
Alexander SO	Campus-Guilford Tech	Denton PD
Angier PD	Campus-UNCC	Dobson PD
Anson County	Campus-UNCG	DOT - Fuel Tax
Apex PD	Campus-UNCW	Drexel PD
Archdale PD	Candor PD	Duck PD
Asheboro PD	Carolina Beach PD	Duke Univ. PD
Asheville Metro PD	Carrboro PD	Dunn PD
Asheville PD	Carthage PD	Duplin
Asheville Regional Airport Authority	Cary PD	Durham Co ABC
Atlantic Beach PD	Caswell SO	Durham PD
Aulander PD	Catawba Hospital	Durham SO
Ayden PD	Catawba SO	East Spencer PD
Badin PD	Chadbourn PD	Edenton PD
Bailey PD	Chapel Hill PD	Edgecombe PD
Beaufort PD	Cherokee SO	Elizabeth City PD
Beaufort SO	Cherryville PD	Elizabethtown PD
Benson PD	China Grove PD	Elkin PD
Bethel PD	Chocowinity PD	Elon PD
Beulaville PD	Chowan SO	Erwin PD
Biltmore Forest PD	Claremont PD	Eureka PD
Biscoe PD	Clayton PD	Fairmont PD
Black Mountain PD	Cleveland PD	Faison PD
Bladen SO	Cleveland SO	Falls Lake
Bladenboro PD	Clinton PD	Fayetteville FD
Brevard PD	Columbus PD	Fayetteville PD
Boone PD	Columbus SO	FBI Charlotte
Boonville PD	Concord PD	Fletcher PD
Buncombe County	Conover PD	Forest City PD
Burgaw PD	Conway PD	Forestry
Burke SO	Cooleemee PD	Forsyth ABC
Burlington PD	Cornelius PD	Forsyth SO
Burnsville PD	Craven SO	Fort Bragg Prov. Marshal's Office
Butner Public Safety	Creedmoor PD	Foxfire PD
Cabarrus SO	Cumberland ABC	Franklin PD
Caldwell SO	Cumberland SO	Franklin County SO

Criminal Justice Information Network Mobile Data Network (CJIN-MDN)

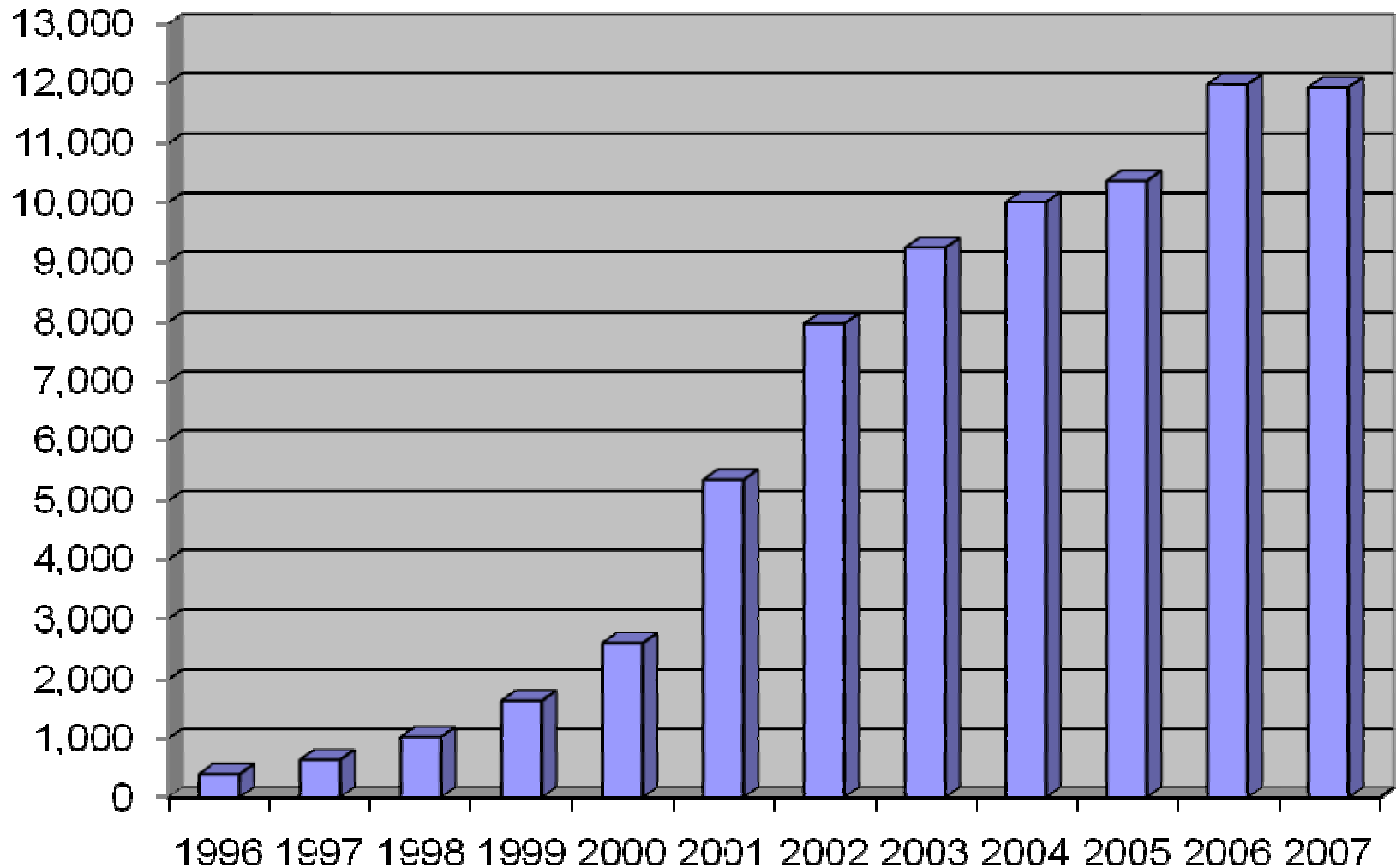
G Franklinton PD	Jefferson PD	Maysville PD
Fuquay-Varina PD	Jefferson PD	McDowell SO
Garysburg PD	Johnston SO	Mecklenburg ABC
Gaston PD	Kannapolis PD	Mecklenburg SO
Gibsonville PD	Kenansville PD	Middlesex PD
Goldsboro PD	Kenly PD	Mint Hill PD
Graham PD	Kernersville PD	Mitchell SO
Graham SO	Kill Devil Hills PD	Mocksville PD
Granite Falls PD	King PD	Monroe PD
Granite Quarry	Kings Mountain PD	Montgomery SO
Granville	Kinston PD	Montreat PD
Greene SO	Kitty Hawk PD	Moore SO
Greensboro PD	Kure Beach PD	Mooresville PD
Greenville PD	Lake Lure PD	Morehead PD
Grifton PD	Lake Royale PD	Morganton PD
Guilford EMS	Landis PD	Morrisville PD
Guilford SO	Laurinburg PD	Mt. Airy PD
Hamlet PD	Lee SO	Mt. Holly PD
Harnett	Leland PD	Murfreesboro PD
Havelock PD	Lenoir SO	N/Campus-Sch-Arts
Haw River PD	Lexington PD	Nags Head PD
Henderson	Liberty PD	Nash ABC
Henderson PD	Lillington PD	Nash SO
Hendersonville PD	Lincoln SO	NC A&T PS
Hertsford SO	Lincolnton PD	NC Marine Patrol
Hickory PD	Locust PD	NC DMV Enforcement
High Point PD	Louisburg PD	NCSHP
Highlands PD	Lumberton PD	NCSHP Motor Carrier's Enforcement
Hillsborough PD	Macon SO	New Bern PD
Hoke SO	Madison PD	New Hanover SO
Hope Mills PD	Maiden PD	Newton PD
Hudson PD	Manteo PD	North Topsail PD
Huntersville PD	Marion PD	Northampton SO
Hyde County	Mars Hill PD	Northwest PD
Indian Beach	Marshal's Service, US	Oakboro PD
Iredell County	Marshville PD	Oak Island PD
Jackson SO	Mathews PD	Ocean Isle PD
Jacksonville PD	Maxton PD	OldFortPD

Criminal Justice Information Network Mobile Data Network (CJIN-MDN)

Onslow SO	Rutherfordton PD	Troy PD
Orange County SO	Salisbury PD	Tryon PD
Oxford PD	Saluda PD	Tyrell SO
Parkton PD	Sampson SO	UNC-CH Public Safety
Pembroke PD	Sanford PD	UNC-Pembroke PS
Pender SO	SBI	Union SO
Person Co SO	Scotland	US Forest
Pikeville PD	Seagrove PD	VA Hospital
Pine Bluff PD	Selma PD	Valdese PD
Pine Knoll Shores PD	Seymour Johnson	Vance SO
Pine Level PD	Shelby PD	Vanceboro PD
Pinebluff PD	Siler City PD	Vass PD
Pinehurst PD	Smithfield PD	Wagram PD
Pinetops PD	Southern Pines PD	Wake Forest
Pitt Comm. College	Southern Shores PD	Warren County SO
Pitt SO	Spencer PD	Warsaw PD
Pittsboro PD	Smithfield PD	Washington County SO
Plymouth PD	Southern Pines PD	Washington PD
Polk SO	Southern Shores PD	Watauga SO
Princeton PD	Spencer PD	Waxhaw PD
Princeville PD	Spindale	Wayne
Raeford PD	Spring Hope PD	Waynesville PD
Randleman PD	Spring Lake PD	Weaverville PD
Randolph SO	Stallings PD	West Jefferson PD
Reidsville PD	Stanfield PD	Western Carolina PD
Rhodhiss PD	Stanly SO	Whispering Pines PD
Rich Square PD	State Capitol PD	White Lake PD
Richland PD	State Park	Williamston PD
Richmond SO	Statesville PD	Wilmington PD
Riverbend PD	Stem PD	Wilson PD
Roanoke Rapid PD	Stovall PD	Wilson SO
Robbins PD	Sunset Beach PD	Winfall PD
Robeson SO	Surf City PD	Wingate PD
Rockingham PD	Surry SO	Winterville PD
Rockingham SO	Swansboro PD	Winton PD
Rockwell PD	Sylva PD	Woodfin PD
Rocky Mount PD	Tabor City PD	Woodland PD
Roseboro PD	Tarboro PD	Wrightsville Beach PD
Rosehill PD	Taylorsville PD	Yadkin SO
Rowan ABC	Taylortown PD	Yadkinville PD
Rowan Comm. College	Thomasville PD	Yancey SO
Rowan SO	Topsail Beach PD	
Rowland PD	Transylvania SO	
Roxboro PD	Trent Woods PD	
Rutherford SO	Troutman PD	

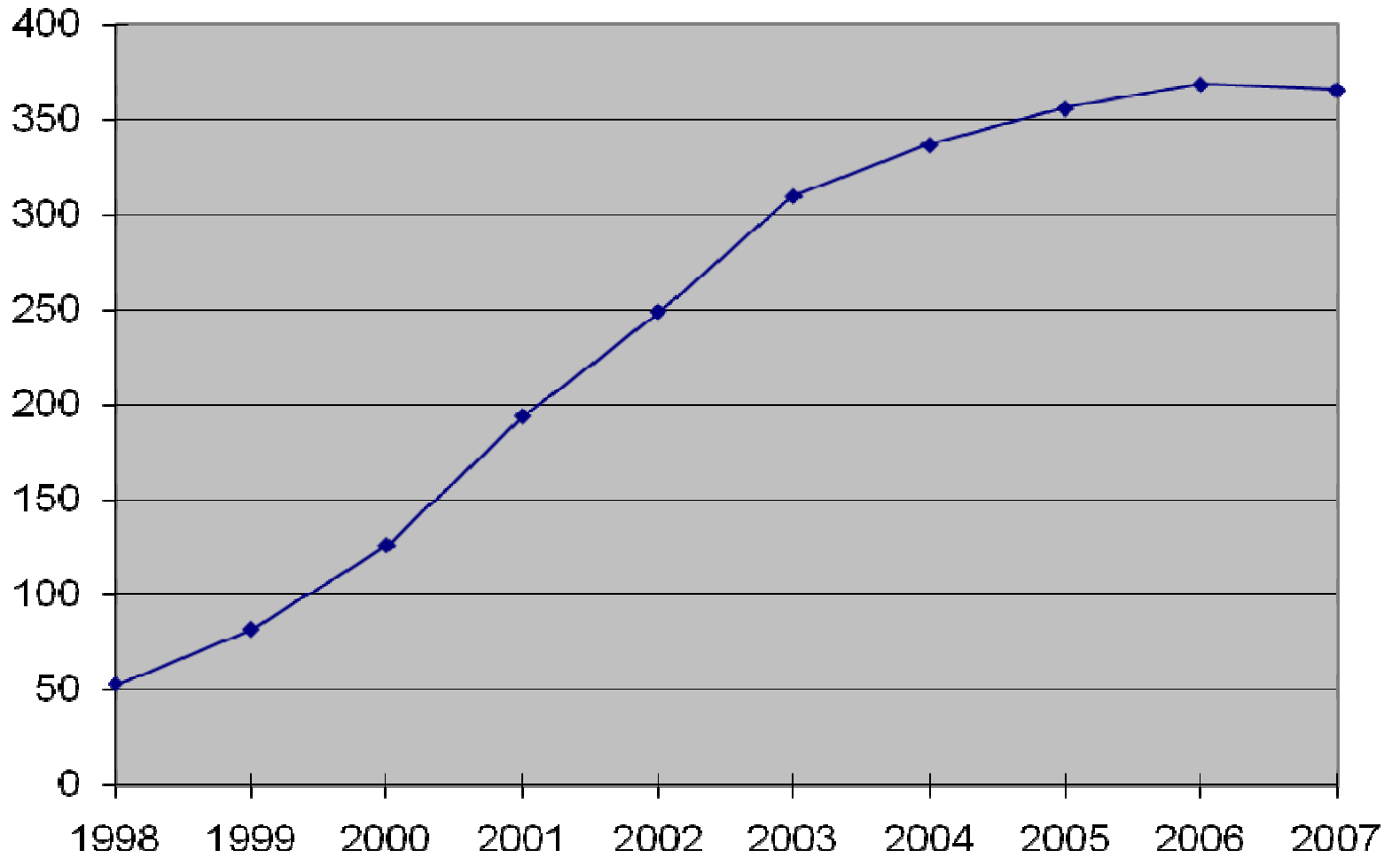
Criminal Justice Information Network Mobile Data Network (CJIN-MDN)

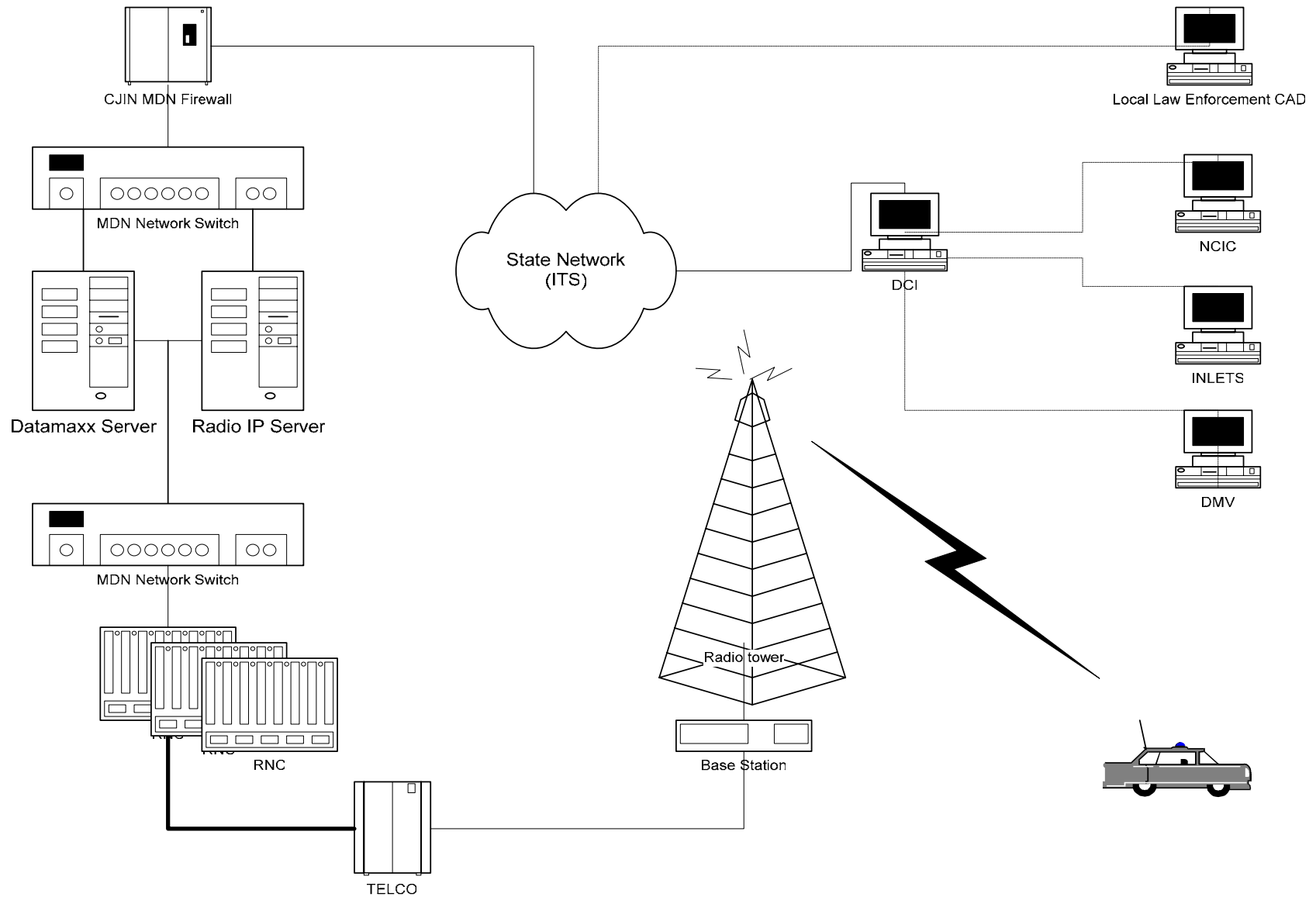
Number of CJIN-MDN Users



Criminal Justice Information Network Mobile Data Network (CJIN-MDN)

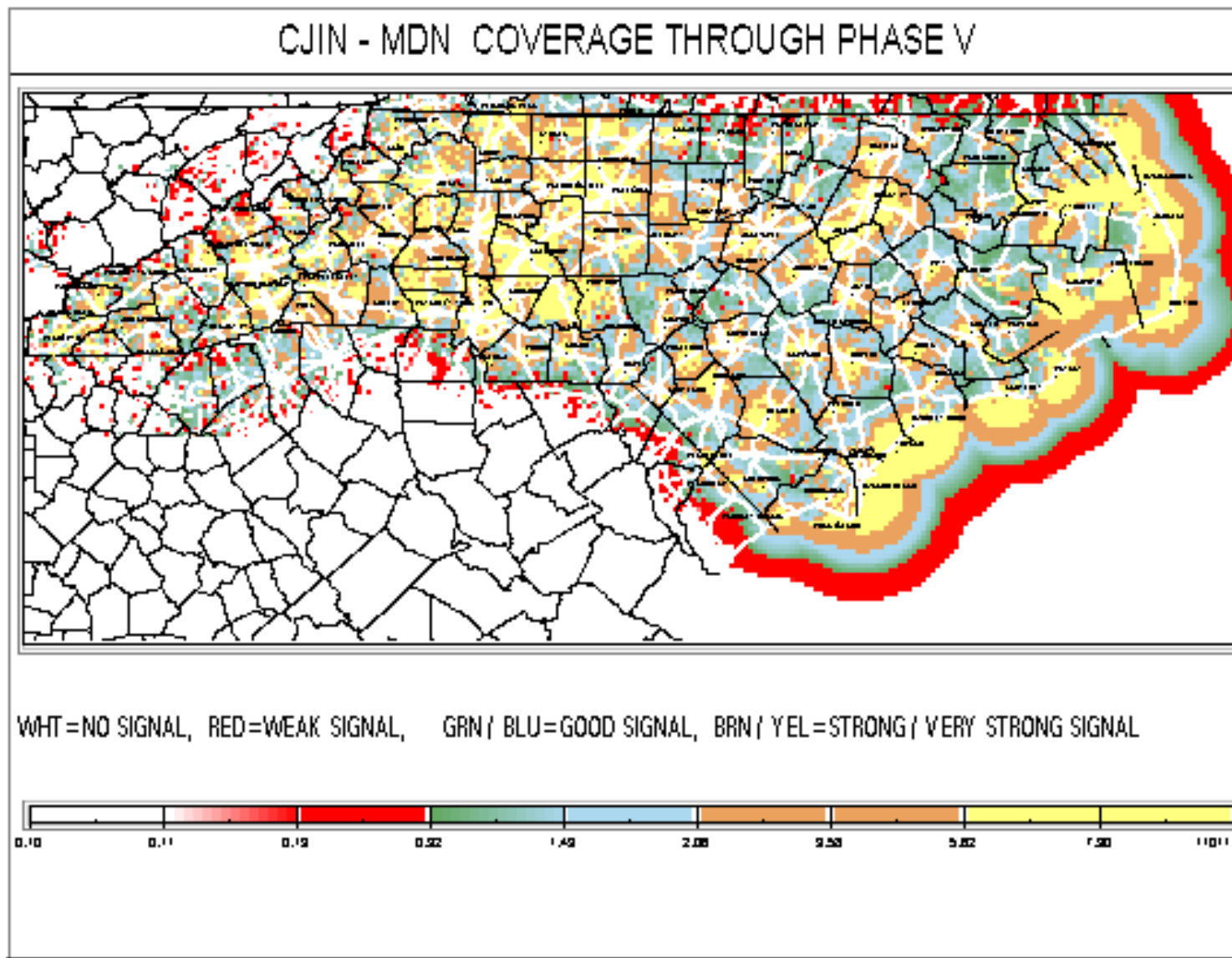
Number of CJIN-MDN Agencies





CJIN Mobile Data Network

Criminal Justice Information Network Mobile Data Network (CJIN-MDN)



NC Automated Warrant Repository (NCAWARE)

Description

The state of North Carolina lacks a complete and effective statewide repository of criminal processes, including warrants and orders for arrest. Several counties maintain their own local repository. Some use a manual process, such as a collection of the paper warrants in a central location. Others are automated. The NCAWARE system will provide an automated, web-based statewide warrant repository to maintain and track criminal processes and offender information. A primary goal of this project has been the migration of the existing Magistrate System from a client-server platform to a web browser-based environment, providing secure, broad access to all of the criminal justice and law enforcement communities. Initially the system will be populated by data from both the existing Administrative Office of the Courts (AOC) Magistrate System and the Automated Criminal Infraction System (ACIS). The completion of the NCAWARE project will result in increased compliance with AOC's new technical architecture and will complete a significant part of the many modules that together will make up the AOC's modernized Court Information System (CIS). The goals of the NCAWARE system are to

- provide an automated statewide warrant repository to maintain and track criminal processes and offender information
- provide system access to all North Carolina court officials and law enforcement agencies
- move the AOC Magistrate System from client-server platform to a web browser-based environment
- convert existing Magistrate System data and outstanding processes in ACIS to NCAWARE

Benefits

The benefits of the new NCAWARE system are to

- provide real-time statewide access to all law enforcement and court officials from any location with web access
- reduce risk to personal safety of the public, law enforcement officers, and court officials by equipping them with information about offenders in a timely manner
- provide the ability to print and serve outstanding processes from any county in the state
- perform automatic searches for outstanding processes on any defendant, complainant, or witness entered on a process

NCAWARE User Advisory Committee and Subcommittees

The NCAWARE User Advisory Committee is made up of a representative group of magistrates, clerks, law enforcement officers, district attorneys, and one judge. The purpose of the advisory committee initially was to help define and confirm the scope of the project and later to approve system business flows and screen prototypes. During the early stages of the project, the committee was broken down into three subcommittees: the magistrate subcommittee, the clerk subcommittee, and the law enforcement subcommittee. The purpose of each of these subcommittees was to assist the NCAWARE analysts in making decisions regarding business logic and process flows in their respective areas of expertise. The NCAWARE analysts held working sessions with each of these committees to define and confirm functionality that would be included in the system.

NC Automated Warrant Repository (NCAWARE)

System Architecture

Distributed Architecture – With the help of the Gartner Group, AOC's Technology Services Division has embarked on a strategic initiative to move all supported applications to a distributed architecture built around a central enterprise server. NCAWARE is the first major AOC project in this initiative and will set the groundwork for future projects, such as the ultimate rewrite of the current criminal system, ACIS. Both applications will eventually share a common enterprise database.

Development – NCAWARE has been developed as a multi-tiered J2EE web application. The design separates the logical layers of User Interface, Business Logic, and Data Access that are characteristic of n-tier systems. The advantages of using the N-tier approach for NCAWARE are as follows:

- shared code with common functions promoting code re-usability, and
- easier maintenance as common functions are developed to be independent and re-usable, meaning there is less room for error and fewer places to change code.

NCAWARE interfaces to external applications will be compliant with the National Information Exchange Model (NIEM) XML standard. NCAWARE was developed using JAVA programming language, JAVA Server Pages (JSPs), and STRUTS development framework. Additionally, the team used WebSphere Application Developer (WSAD) and Rational requirements management and defect management tools.

Deployment – The NCAWARE system will be deployed on the AOC Enterprise Server (IBM Mainframe) and will run on IBM's WebSphere Application Server. The database will be DB2, and the messaging component will be WebSphere MQ Series, also running on the Enterprise Server.

Security – Login security will be handled by AOC's single sign-on process, using LDAP managed by RACF on the mainframe for user authentication. Once authenticated, user permissions will be granted using DB2 table-based rules.

Information Maintained and Tracked in NCAWARE

Master Name: (defendant, complainant, witness)	Process Types	Process Functions
<ul style="list-style-type: none"> - Demographic Information - Images - Alias Names - Address History - Identification Numbers - Vehicle Information - Prior Processes (criminal history) - Contact Numbers - Employer Information - Identifying Marks and Tattoos - Known Associates and Gangs - Investigative Notes 	<ul style="list-style-type: none"> - Warrants for Arrest (WFA) - Magistrate Orders - Orders for Arrest (OFA) - Criminal Summons - Citations (when defendant is arrested) - Fugitive Warrants & Orders - Worthless Check Warrants and Summons - Release Orders - Appearance Bonds - Subpoenas 	<ul style="list-style-type: none"> - Duplicate process for multiple warrants on same defendant or multiple warrants of same offense type but different defendants - Utilize previously entered data for repeat offender, complainant, or witness - Search for offenses by general statute number, offense code, keywords - Standardized offense charging language - Default standard user and court information to process - Process tracking of servable processes (WFA, OFA, Summons)

Description of Users

The following users will all have Internet-based access to the NCAWARE system: magistrates, county clerks, law enforcement officers (local, state, and federal), and district attorneys.

FUNDING SOURCES – DEVELOPMENT									
	FY 00-01	FY 01-02	FY 02-03	FY 03-04	FY 04-05	FY 05-06	FY 06-07	Est. FY 07-08	Totals
State Funding	\$ 0	\$ 0	\$ 0	\$ 0	\$ 500,000	\$ 0	\$ 0	\$ 0	\$ 500,000
Federal Grants	\$ 487,620	\$ 240,000	\$ 801,924	\$1,185,793	\$ 424,996	\$ 320,659	\$ 0	\$ 0	\$ 3,460,992
AOC Internal Funds (Grant Match Money)	\$ 54,180	\$ 26,667	\$ 133,308	\$ 247,932	\$ 47,222	\$ 0	\$ 0	\$ 0	\$ 509,309
Funding Subtotal	\$ 541,800	\$ 266,667	\$ 935,232	\$ 1,433,725	\$ 972,218	\$ 320,659	\$ 0	\$ 0	\$ 4,470,301
AOC funded						\$1,343,986	\$ 3,089,741	\$ 4,362,095	\$ 8,795,822
Cumulative System Cost	\$ 541,800	\$ 808,467	\$ 1,743,699	\$ 3,177,424	\$ 4,149,642	\$ 5,814,287	\$ 8,904,028	\$ 13,266,123	\$ 13,266,123

NCAWARE Project Update

Project Status

The following phases are complete: planning, analysis, conceptual design, external design, detailed design, construction of core code, construction of interface code, construction of data conversion code, and the initial testing. The “debug and retest” process is more than 76% complete. Pilot implementation of the system is targeted to begin in mid- to late- April 2008 in Johnston County. The pilot will continue with implementations of the system in Harnett and Lee Counties in the summer of 2008. Following a successful pilot the system will be rolled out to the remaining 97 counties over a period of 18 months.

Pilot and Statewide Rollout Schedules

Action	Purpose	Timeline
Pilot Phase 1	Deploy NCAWARE in Johnston County	Mid- to late- April 2008
Pilot Phases 2 - 4	2- Roll out Statewide Search functionality to magistrates in the remaining 99 counties. 3- Add Order for Arrest (OFA) functionality in Johnston County 4- Roll out NCAWARE with OFA addition to Harnett and Lee Counties	Begin four to six weeks after successful completion of Phase 1 in Johnston County
Statewide Rollout	Deploy system in remaining counties statewide	- Begin immediately following successful completion of Pilot Phases 1-4 - 100% completion within 18 months of successful pilot completion

The Future

After successful statewide implementation of NCAWARE, the AOC will develop additional system features and interfaces. Some enhancements currently under investigation include developing the ability for NCAWARE to interface with NIEM-compliant local law enforcement systems. Developing this type of interface would allow for the exchanging of demographic, criminal process, and status information between local arrest processing systems and NCAWARE. Additional potential enhancements include the development of interfaces to eCitation® for arrestable offenses, the Worthless Check Program for high-volume warrants, and the Department of Correction’s Offender Population Unified System (OPUS).

Our Vision for Sharing NCAWARE Information



All data coming into or leaving NCAWARE is encrypted

ADMINISTRATIVE OFFICE OF THE COURTS