## 1997-1998

## HOUSE TECHNOLOGY

**MINUTES** 

## North Carolina House of Representatives **Committee on Technology**



Rep. Dennis Reynolds



#### North Carolina General Assembly Technology Committee Members

Representative Dennis Reynolds, Chairman Room 533 Legislative Office Building Raleigh, NC 27601-1096

Representative Beverly Earle Room 602 Legislative Office Building Raleigh, NC 27601-1096

Representative Lanier Cansler Room 419A Legislative Office Building Raleigh, NC 27601-1096

Representative Debbie Clary Room 418B Legislative Office Building Raleigh, NC 27601-1096

Representative W.W. Dickson Room 530 Legislative Office Building Raleigh, NC 27601-1096

Representative Rick Eddins Room 1219 Legislative Building Raleigh, NC 27601-1096

Representative Lyons Gray Room 532 Legislative Office Building Raleigh, NC 27601-1096

Representative Jim Gulley Room 1307 Legislative Building Raleigh, NC 27601-1096

Representative Joe Hackney Room 1321 Legislative Building Raleigh, NC 27601-1096

Representative Bob Hensley Room 509 Legislative Office Building Raleigh, NC 27601-1096 Representative George Holmes Room 631 Legislative Office Building Raleigh, NC 27601-1096

Representative George Miller Room 502Legislative Office Building Raleigh, NC 27601-1096

Representative Fern Shubert Room 2119 Legislative Building Raleigh, NC 27601-1096

Representative Norris Tolson Room 609 Legislative Office Building Raleigh, NC 27601-1096

Representative William Wainwright Room 614 Legislative Office Building Raleigh, NC 27601-1096

Representative Michael Wilkins Room 1204 Legislative Building Raleigh, NC 27601-1096

## **ATTENDANCE**

## **TECHNOLOGY Committee**

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## NORTH CAROLINA GENERAL ASSEMBLY COMMITTEE SUMMARY REPORT

1997-98 Regular Session HOUSE: TECHNOLOGY Valid Through 8-SEP-1997  ${ t BILL}$ INTRODUCER SHORT TITLE LATEST ACTION ON BILL IN DATE OUT DATE H 925= REYNOLDS HEALTH CARE INFORMATION PRIVACY 04-10-97 04-17-97 H -RE-REF COM ON RULES H 970 REYNOLDS MORATORIUM ON INTERNET TAX H -RE-REF COM ON FINANCE 04-16-97 05-15-97 H 973 REYNOLDS ON-LINE VEHICLE REGISTRATION PILOT \*H -RE-REF COM ON APPROP 04-16-97 05-12-97 H1212 REYNOLDS TECHNOLOGY & TRAINING FUNDS H -ASSIGNED TO APP-EDUC 05-05-97 05-08-97 S 361 COOPER EXPAND INFORMATION HIGHWAY USES \*H -REF TO COM ON TECHNOL 05-01-97 S 869 RAND 05-01-97 05-22-97 TRANSFER TECHNOLOGY FUNCTIONS \*R -CH. SL 97-0148

NOTES - = AFTER BILL NUMBER SHOWS THAT BILL IS IDENTICAL, AS INTRODUCED, TO ANOTHER BILL.

Page: 1

<sup>\*</sup> AFTER NUMBERS INDICATES THAT TEXT OF BILL WAS ALTERED BY ACTION ON THE BILL. BOLDED LINE INDICATES BILL INDEXED AS AFFECTING APPROPRIATIONS.

#### **MINUTES** HOUSE COMMITTEE ON TECHNOLOGY

#### February 20, 1997

The House Committee on Technology met in Room 415 of the Legislative Office Building on Thursday, February 20, 1997 at 12:00 noon. Representative Dennis Reynolds, Chairman, presided at the meeting and the following members were present: Representatives Cansler, Clary, Dickson, Earle, Eddins, Gray, Gulley, Hackney, Hensley, Holmes, Shubert, Tolson and Wainwright. Staff Counsels Linda Attarian and Brenda Carter were present to assist the Committee. The Visitor Registration Sheet is attached and made part of the minutes.

Chairman Reynolds welcomed guests and introduced Staff and Pages serving the Committee. He briefly reviewed objectives of the Committee and the planned presentations for the next few meetings.

Mr. Chuck Cooper from the North Carolina State Controller's Office was introduced to make a presentation about the Year 2000 conversion problem and the statewide strategy that will be implemented to deal with this concern. (A copy of Mr. Cooper's presentation is attached.)

Mr. Keith Clark, Speaker Brubaker's appointee to the Information Resource Management Commission (IRMC), made a brief presentation on the Year 2000 crisis, made some recommendations and suggested an approach to handle this problem.

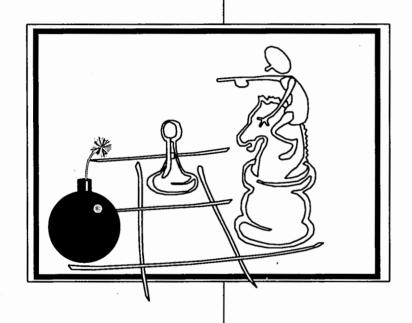
The meeting adjourned at 1:00pm.

Representative Dennis Reynolds

(Chairman)

(Committee Clerk)

# State of North Carolina Office of the State Controller



Year 2000 A Statewide Strategy for North Carolina

February 1997

## The Year 2000 Problem

# "[The Year 2000 problem is] arguably the largest and most complex global information management challenge society has ever faced."

- Harris Miller, President, Information Technology Association of America (ITAA), testifying at a 9 September 1996 US Congressional hearing

- Traditionally, computer systems represent dates using only two digits, that is Year 1997 is represented as "97". The century is assumed to be 1900.
- These systems work fine until they reference dates into the next century. They understand "00" to be 1900, not 2000.
- Calculations and processing selections will be in error. Other failures could occur as well due to date sorting and unique identifiers.
- These problems will occur before January 1, 2000.

The Problem

- 75% of systems may be noncompliant
- 2% to 6% of the lines of code are noncompliant
- Estimated costs for other states: Florida -- \$150M Indiana -- \$70M Maryland -- \$90M Missouri -- \$54M
- Attention and funding for this issue is required for ongoing business viability:

"The alternative to addressing the year 2000 issue is going out of business."

-Kevin Schick, The Gartner Group

## The N.C. Business Issue

The Problem

- Current N.C. Estimate for Conversion Effort \$50 Million
  - --Estimate Derived Agency By Agency
  - --Great Need To Refine Estimates And Prioritize Mission Critical Conversions
  - --Other State estimates suggest we are estimating low
- Scope: All Executive Branch Agencies
- Budget Status:
  - --\$7.7 Million Allocated FY 96-97 by Special Provision House Bill 53, Section 14.1, responding to OSC funding request (not included in Governor's Budget request)
  - --OSC Requested \$28.9 Million Next Biennium
  - --Governor's recommended budget included \$5.0 Million
- Statewide Year 2000 Project Will Drive To A More Accurate Statewide Estimate

- DHR supports over 100 automated systems and approximately 50% are not currently Year 2000 compliant. Following are just two examples:
  - --Food Stamps System, beginning January 1998, county workers will be unable to schedule recipients' recertification dates at a 24-month period, benefits may be denied
  - --Eligibility System, beginning Nov. 1998, county workers will be unable to establish eligibility, tracking and recertification periods for 12-month cases (30,000 TANF and Medicaid cases/month)

## What It Could Mean (cont.)

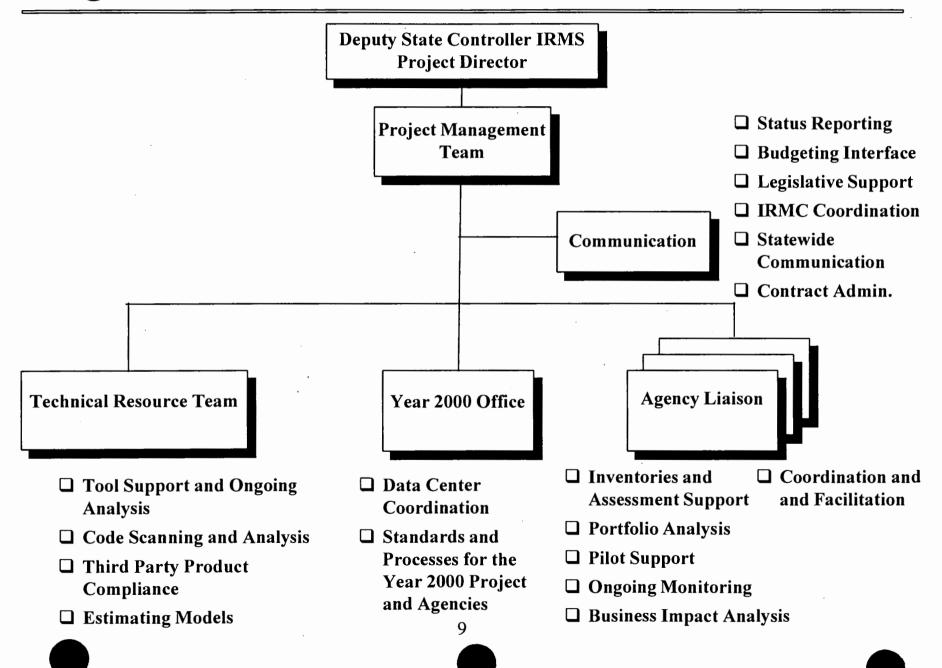
The Problem

- DCI, Wanted Person file, provides law enforcement with fast access to individuals with active warrants, failure of validation of birth date and warrant date beginning January 1, 2000.
- DMV, continuous insurance coverage verification, unable to perform verifications on motorists beginning January 1, 2000.
- DOT, Personnel and Payroll system, history and status checks will cause 18,000 DOT employees to not get paid beginning January 1, 2000.

## **Key Questions**

- Which applications? Where?
- What is their value to the citizens and the organization?
- When will they fail?
- What is the exposure?
- What is the contingency plan?
- What are our options?

## Organize for Success



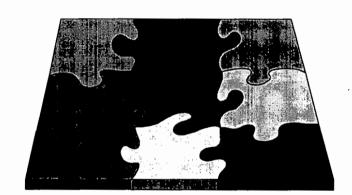
- Assessment Phase systems are analyzed for Year 2000 date impact, costs refined, system options chosen, and conversions prioritized from the statewide and agency perspective.
- Planning, Preparation and Pilot Phase standard workplans are developed to implement the Year 2000 conversion, resources are assigned and estimates confirmed, and the statewide technical infrastructure for supporting Year 2000 implementation efforts is implemented.

- Implementation Phase complete application changes are designed, implemented and tested utilizing the standard statewide procedures.
- Project Management project planning, management and statewide coordination.

## Statewide Project Management

- Assessment
- Strategic Planning
- Standards and Best Practices
- Project Management
- Communication and Reporting
- Outside Services Contract Management
- Automated Tool Support
- Safety Net For Agencies That Cannot Meet The Timeframe

- Resources and System Capacity
- Anticipated Failure Dates
- Shared System Software
- External Interfaces



- Common Modules and Shared Files
- Outside Services Availability
- Software Vendor Relationships

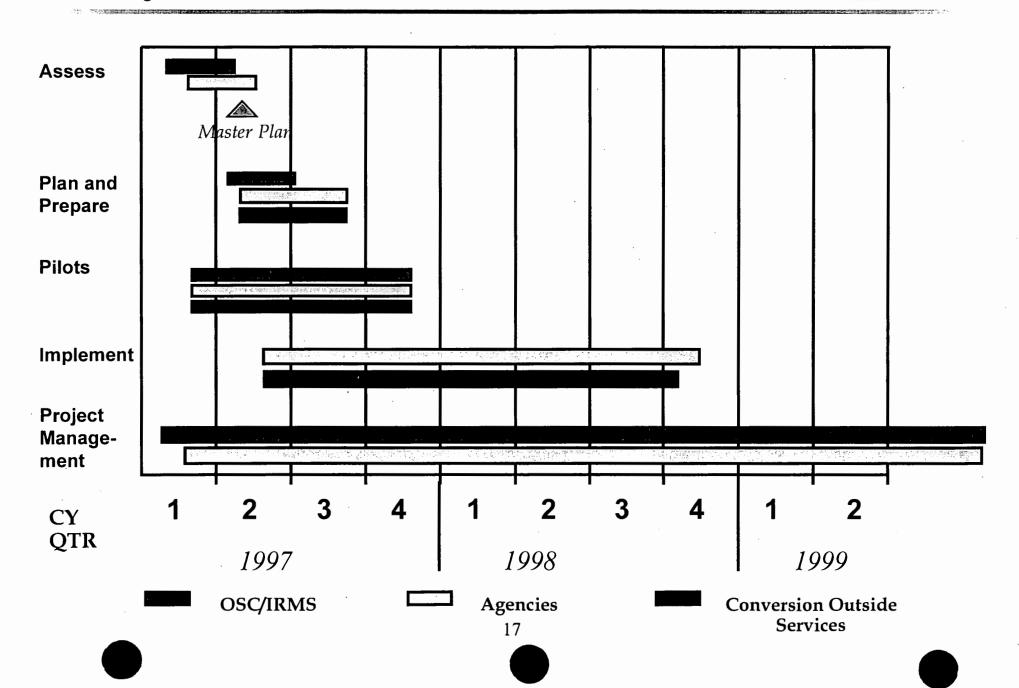
- Statewide, enterprise project planning and analysis
- Statewide project management and status reporting
- Enterprise-wide recognition of business impacts and risks
- Cross-agency system assessments
- Prioritization of projects statewide
- Conversion tools and test environment support
- Conversion planning and outside resource administration

- Work with OSC/IRMS to evaluate plans and assessments
- Detail assessment of agency systems
- Implement standard change management plans and training plans for users
- Provide state staffing plans to complement outside resources
- Present planning and status reports to agency management
- Manage system analysis and design activities
- Manage outside resources in implementation of programming, database, interface, and datafile changes
- Maintain agency project workplans

## **Strategic Options**

- *Already Compliant*
- Retire
- Replace
- Re-host, use another system or outsource
- $\blacksquare Fix$

## Project Timeline (Preliminary)



## **Year 2000 Success Factors**

Lessons

- Program Management
- Strategic Planning
- Agency Executive Commitment and Accountability
- Comprehensive Year 2000 Methodology & Approach
- Effective Automated Tools
- Business Perspective
- Technical Skills
- Test, Test, Test

## Summary

- Year 2000 is real and is here today
- It's not "advanced technology"
- It is expensive (time and money)
- It does not necessarily enhance your business processes
- There are no silver bullets
- Project management and testing are the key tasks.



## State of North Carolina Information Resource Management Commission Office of the State Controller

Dennis A. Wicker, Chair Lieutenant Governor

> Janet Smith, Vice-Chair Wachovia Bank & Trust Co.

February 10, 1997

Edward Renfrow State Controller

Chuck Cooper
Deputy State Controller

Commission Members

Raiph Campbell, Jr. State Auditor

L. Keith Clark Strategic Links

Charles W. Colman Chair, SIPS Advisory Board

Marvin Dorman State Budget Officer

Katie G. Dorsett ecretary of Administration

James E. Long
Commissioner of Insurance

Betty Ray McCain Secretary of Cultural Resources

Michael E. Ward Superintendent of Public Instruction

William Willis North Carolina State University

Advisory Members

John Harrison UNC-General Administration

Lee Mandell
N.C. League of Municipalities

Jane Smith Patterson
Office of the Governor

Rebecca Troutman
N.C. Association of County Commissioners .

The Honorable Harold J. Brubaker Speaker of the House N.C. House of Representatives Legislative Building, Room 2304

The Honorable Marc Basnight President Pro Tempore N.C. Senate Legislative Building, Room 2007

Gentlemen:

For your information a copy of the attached letter has been sent to all department heads, information technology officers and chief fiscal officers for the executive branch, as well as the university system chancellors.

The Year 2000 Project represents a special challenge for the State of North Carolina, and we will be looking for your leadership and support as we move forward to solve this problem.

Sincerely,

With warmest regards, I am,

Enclosure

Hon. Dennis Reynolds, Chair House Technology Committee



## State of North Carolina Office of the State Controller

James B. Hunt, Jr. Governor Edward Renfrow State Controller

February 10, 1997

#### **MEMORANDUM**

To:

Members of the Executive Cabinet

University of North Carolina General Administration and Chancellors

Members of the SIPS Advisory Board

Chief Fiscal Officers and Vice Chancellors for Finance

From:

Chuck Cooper, Deputy Controller for

Information Resource Management Services

Subject:

Critical Year 2000 Conversion Information

The State of North Carolina has many critical automated business systems that are impacted by their inability to handle the coming of the Year 2000. These systems may include millions of lines of code with dates that are currently represented by a two-digit date format. Each of these systems will require analysis to determine the best way to resolve this Year 2000 issue. This will be one of the largest information technology efforts undertaken by the state. Given the importance of meeting this challenge, a strategic redirection to focus on critical business needs and provide a framework for intra-agency and inter-agency coordination is imperative.

The enclosed documents, Strategic Redirection for the State of North Carolina's Year 2000 Effort and Year 2000 A Statewide Strategy for North Carolina, will help you understand what the OSC/IRMS is currently doing to address the Year 2000 problem at the state level, and what you should **NOW** begin doing within your department. Specifically, this document answers the following questions:

- What is the Year 2000 conversion process?
- Why must we redirect this project?
- Who is responsible for fixing Year 2000 problems?

Memo to Executive Cabinet, et al February 10, 1997 Page 2

- What is the OSC/IRMS role in Year 2000 efforts?
- What is an agency's role?
- What has been done to date?
- How does the redirection relate to the RFP for Year 2000 conversion services?
- When will coding and implementation begin?
- What can agencies do to get ready and keep moving forward?

As the next step in the redirected project, the OSC/IRMS will immediately send out an Agency System Information Inventory. This inventory of key system information will assist the state in developing a more accurate high-level cost estimate for the Year 2000 conversion. This is critical for legislative funding for this effort. Your understanding of the Year 2000 issue and the state's project direction, and your immediate attention to the system inventory upon its distribution, is vital to our effort.

The OSC/IRMS Year 2000 team will keep you informed about the progress of the project and ways that this team and your agency can work together to ensure the state's success in meeting this challenge.

**Enclosures** 



# State of North Carolina Office of the State Controller

## Strategic Redirection for the State of North Carolina's Year 2000 Efforts

February 1997

## Why must we redirect this project?

The Year 2000 Conversion Project is being redirected to approach Year 2000 activities from a Statewide, enterprise perspective. Given the criticality of the Year 2000 problem to the state as a whole and the cross-agency system interdependencies, a statewide approach is the only logical methodology to follow during this project. The specific authority given to the OSC for the Year 2000 project is contained in House Bill 53, Section 14.1, "The Office of the State Controller shall include in its charges for data processing services costs of converting computer applications to operate properly at the turn of the century. The Office of the State Controller shall develop procedures for managing the year 2000 conversion."

The approach outlined in this document will sharpen the state's focus on critical business needs and offer a stronger framework for intra-agency and inter-agency coordination. To achieve collective success requires significant up-front planning in addition to careful execution. A statewide Year 2000 assessment and management effort is the only way to effectively prioritize business goals, focus scarce resources, leverage knowledge and tools, and boost productivity. In short, the efforts must be well planned and controlled because costs to fix the problem are going up, the resources available are scarce, and time is running out.

## Who is responsible for fixing Year 2000 problems?

The state as a whole! This is a business problem that requires executive level leadership and support throughout each organization to mobilize a collective and effective effort. The OSC/IRMS will provide leadership and a focal point for the management of this critical activity.

## What is the OSC/IRMS role in Year 2000 efforts?

The goal of the dedicated OSC/IRMS is to ensure that each agency will have the comprehensive resources needed to complete successful Year 2000 conversion projects. Assessment and project management activities will be critical to properly identify and resolve the implementation issues. The OSC/IRMS must offer proactive, up-front leadership, support and guidance rather than after-the-fact quality assurance.

The OSC/IRMS staff is adding resources to a statewide project team to perform/lead the following activities:

- Statewide, enterprise project planning and analysis
- Statewide project management and status reporting
- Enterprise-wide recognition of business impacts and risks to the state as a whole
- Cross-agency system assessments in preparation for detail conversion efforts
- Prioritization of projects with conversion, retirement, replacement, re-hosting, or outsourcing strategies
- Conversion tools and test environment development and maintenance, and
- Conversion planning and outside resource assignment/administration

OSC/IRMS will work to define and understand the system conversion problems and risks, prioritize the enterprise mission critical applications, and quantify the consequences of non-compliance at a Statewide level. The OSC/IRMS will lead assessment activities, provide technical support to agency teams, coordinate resource and funding requirements, and facilitate cross-agency system interdependency understanding. The OSC/IRMS will also develop estimating models to make sure the state is accurately anticipating and communicating the cost of becoming Year 2000 compliant.

#### What is an agency's role?

Agencies will be involved in the entire process. The OSC/IRMS will work with agencies to determine needed outside services from the Year 2000 convenience contract in order to complete the work efforts outlined in the Master Plan assessment. With the assistance of the OSC/IRMS, the agency team will need to perform the following tasks:

- Work with OSC/IRMS to evaluate Year 2000 project plans and overall assessments
- Detail assessment of current systems from a business perspective and a technical perspective
- · Implement standard change management plans and training plans for users
- Provide state staffing plans to complement outside resources
- In conjunction with the OSC/IRMS, present planning and status reports to agency executive management
- Manage system analysis and design activities
- Manage conversions and with sufficient outside resources implement programming, database, interface, and datafile changes
- · Maintain agency project workplans

#### What is the Year 2000 Conversion Process?

The year 2000 project is divided into the following project methodology phases:

- Assessment Phase systems are analyzed for Year 2000 date impact, costs refined, system options chosen, and conversions prioritized from the statewide and agency perspective.
- Planning and Preparation Phase standard workplans are developed to implement the Year 2000 conversion, resources are assigned and estimates confirmed, and the statewide technical infrastructure for supporting Year 2000 implementation efforts is implemented.
- Implementation Phase complete application changes are designed, implemented and tested utilizing the standard statewide procedures.
- Project Management project planning, management and statewide coordination.

The Assessment phase is divided into two segments: a Master Plan segment and a Project segment. In the Master Plan segment, the OSC/IRMS will work with agency functional and technical personnel to further define the scope of the Year 2000 compliance conversion and testing effort from a Statewide perspective. This is an important activity, as it will help the state set strategic business and technology priorities from an overall state perspective. Understanding the failure dates and the impact of system failures on critical State programs and operations is a very important part of recognizing and planning for the Year 2000. With this information in hand, the OSC/IRMS can prioritize the allocation of resources to those systems that will have the greatest impact on the State's ability to conduct the

citizen's business. The OSC/IRMS will establish an estimating model that will allow an understanding of the total cost that may be incurred to bring the State to Year 2000 compliance.

During the planning and preparation phase the team will establish a common definition of the tasks, standard conversion processes, identify available automated tools, and milestones required in the Year 2000 effort by each agency and the related outside resources. This will allow more effective conversion efforts and foster communication within agencies and when systems have cross-agency impacts.

In some cases, upgrading a system to be Year 2000 compliant may not be the most effective way to address the Year 2000 issue. System replacement, functionality transfer to other systems, re-hosting applications or outsourcing certain functions are alternatives that might be considered given the time constraints being faced. The team must be flexible in how this issue is approached, with the ultimate goal being no interruption in program services, and a secondary goal of providing additional functionality or benefit to the State from the significant amount of funds that will be required to address Year 2000 issues.

In the Implementation phase, the OSC/IRMS will work with agency staff and/or outside services to confirm the Master Plan estimates, to complete the specific application planning activities, and to assist in the implementation conversion efforts as needed.

Project Management for the Year 2000 effort will be performed by the OSC/IRMS from a statewide perspective and will be supplemented at each agency by the conversion teams implementing specific application changes.

A view of the roles and responsibilities for specific project task is highlighted in the table below as indicated by High, Moderate, or Low Involvement:

Task Area	OSC/IRMS Project Team	Agency Project Team	Conversion Outside Resources
Strategic Assessment and Project Scoping	High	Moderate	Low
Awareness/Education	High	Moderate	Low
Project Management	High	High	Low
Inventory of Applications/ Impact On Programs	High	High	Moderate
Examination, Analysis and Solution Design	Moderate	High	High
Modification	Low	High	High
Unit Test	Low	High	High
System Test	Low	High	High
Integration/User Acceptance Test	Low	High	High
Quality Assurance Reviews	High	Low	Low

Coordination and knowledge sharing within and across agencies will be critical for project success. Each agency must have an executive sponsor and a Year 2000 Project Manager/Contact to work with the OSC/IRMS.

#### What has been done to date?

The OSC/IRMS has developed procedures for agencies to request funding to assist them in their Year 2000 implementations. The components of a test environment are being identified, and tools are being analyzed and selected. An RFP has been issued to qualify vendors to assist in Year 2000 implementation activities, and the responses are currently being evaluated. At the agency level, information systems personnel are working to understand the impact of Year 2000 on their systems. Most agencies are affected, and many have started assessment and planning work. The next steps involve implementing plans for coordination at a statewide level to ensure that the state is well positioned to provide program services into the 21st century.

## How does this approach relate to the recent RFP for outside services assistance on Year 2000 problems?

The Statewide project team will perform assessment work and deliver documents to help each agency assess their critical needs, create a coherent strategy, prioritize their efforts, and obtain appropriate funding. The RFP seeking application conversion assistance will be used, as originally planned, to acquire resources to perform specific agency application conversions. The efforts of the OSC/IRMS will be leveraged to move this process forward more efficiently. All Year 2000 activities will be planned, monitored, and confirmed by the Statewide project team.

#### When will the coding and implementation begin?

Fixing year-2000 problems as part of a standard technology project or an ongoing maintenance effort may, at first, seem like an effective option. However, such an ad hoc approach lacks strategic vision and is unlikely to account for critical business priorities. Ad hoc approaches are also unlikely to cover all relevant source code and interfaces before applications begin to fail.

All Year 2000 activities will be planned, monitored, and confirmed by the Statewide project team. To foster cooperation and communication, the OSC/IRMS will offer assessment, management, and technical support. Reviews of efforts that are presently underway will be quickly performed, work with each organization to add statewide support and outside resources to specific agency conversions, and strategically monitor agency system dependencies.

## What can my agency do to get ready? How can we keep moving forward?

The task with the highest priority from a statewide perspective is to more accurately define the extent of the problem the state is facing and begin the process of converting systems to Year 2000 compliance. The OSC/IRMS will immediately begin to solicit additional information from each agency to supplement data that has already been gathered so that a statewide strategic assessment can be prepared. Agencies must continue to develop the information necessary to insure an effective assessment. The assessment will begin by compiling a complete application inventory for the state. For each application, it will need to be determined if the application is at risk for Year 2000 failure.

A cross referencing of each application against agency program functions is required to understand the impact of potential system failure on the agency organization and the public it serves. Concrete examples of system failures (e.g., assistance checks that cannot be created, etc.) will also be included. Agency support and participation for this process is critical. Gathering this information will require input from both agency technical and program personnel.

#### Examples of typical questions that will need to be answered include:

- What are the mission-critical business functions for your agency? Which systems support the business processes for these functions? Are there manual or other automated workarounds for your each business function?
- Have you currently encountered any Year 2000 problems? If so, have they been corrected?
- Do your systems do any future date processing? If so, on what date do you expect the system to begin processing date information incorrectly?
- Do you have a Year 2000 task force (a group of people organized to analyze and solve any Year 2000 problems) at your organization? Do you know who your primary contact for Year 2000 questions and issues?
- Do you have complex, aging systems that no longer meet your business needs with Year 2000 problems?

#### For each of your systems,

- What are the current DASD requirements for each system?
- Do you have a systems flow and/or maintenance documentation?
- Is the source code readily available for these systems? Compile JCL?
- What are the date horizons (largest date the system can handle) on these systems?
- Does the system handle the Year 2000 and beyond? Do you have a plan established to identify and correct the problems?
- Does testing data/documentation exist for the system?
- Is a testing region established for this system?
- What is the primary programming language (Examples: Powerbuilder 4.0, COBOL II 4.0)?
- What is the secondary programming language (Examples: Any procedure calls in language other than primary)?
- What is the operating system environment: (Examples: MVS/ESA 4.3, DOS 6.0. Include release number)?
- What is your best estimate of the number of modules in the system? Lines of code? Number of users?

The OSC/IRMS is committed to moving quickly and effectively into the Year 2000 conversions. This team is as committed to a statewide, enterprise strategy to solve the Year 2000 problem. With the agencies cooperation this can be achieved. Please call the OSC/IRMS if you have any questions.



James B. Hunt, Jr. Governor

Edward Renfrow State Controller

## North Carolina's Response to the Year 2000 Challenge

#### What is the Year 2000 Issue?

Dates are critical to computer systems. Whether calculating benefits, issuing licenses, or generating critical management reports, computer systems have been designed to recognize only the year portion of a date and not the century. As a result, when we get to the year 2000, many computer systems will recognize the date as 00 and assume 1900. In the year 2000, the systems may not work at all or even give incorrect results. With so many of our programs and services dependent on computer systems today, we must begin to assess and correct computer systems to assure that they will function properly at the turn of the century.

#### Is this problem unique to government?

No. All businesses and organizations in North Carolina and the rest of the world that use computers of any size must address this very problem. It has been common practice for over thirty years to store and use only the last two digits of the year, assuming that the first two digits are 19 and that the systems would be updated by the year 2000. Thirty years ago the cost of data storage and computer memory was very expensive so developers used every possible method to save storage space and cost. The decisions made then present us with a significant challenge today.

#### Do all our computer systems have this problem?

No. Systems that have been developed over the last few years have been designed to address the year 2000 issue. These systems include, for example, the Tax Administration System, the Driver's Licenses System, the Offender Population System and the North Carolina Accounting System. Some of our systems are not date sensitive so they will not be impacted. In addition, new software releases for some of our existing systems will incorporate the year 2000.

### What is the plan for the State of North Carolina?

The solution to the problem requires review, correction and testing of every system that use dates. This sounds simple but it is labor and computer resource intensive. The individual state departments will need to plan and organize their Year 2000 conversion effort and at the same time insure that their current programs and services are not affected. Organizations such as the Department of Human Resources depend heavily on computer operations and the performance of their daily service delivery is dependent on the proper operation of their computer systems. Some of the agencies have started the review process and will begin the conversion process within the next few months to assure we have adequate time to fix the systems.

North Carolina is in front of most organizations in recognizing and planning for this effort. The Office of State Controller has worked with state agencies to develop an assessment of our current computer operations and develop a strategy for addressing the challenge. Our current estimate is that our conversion cost will exceed \$50 million for the executive branch agencies and the university system. As better estimates are completed and departments continue their detailed analysis of the computer systems, these estimates may increase. The 1996 General Assembly authorized the State Controller to establish a year 2000 reserve fund. Under the current business plan the fund will be established at approximately \$7.7 million. Significant additional funding will be required to assure that the conversion activities and testing occur prior to January, 1999.

The Office of State Controller, in conjunction with the Information Resource Management Commission, will work closely with the agencies as they evaluate, prioritize their conversion needs, develop their management plan, and begin the conversion effort. The Office of State Controller has set up a Year 2000 Project Office to provide the needed guidance and coordination. The Office of State Controller will coordinate our efforts with the State Budget Office to assure that the mission-critical systems are being appropriately addressed.

### What are the expectations from the North Carolina effort?

We anticipate that by 1999, the state departments have all required systems converted and certified as up-to-date, Year 2000 processing compliant, and actually operating in the production mode. We can then use 1999 as a year for final testing and operation. To accomplish this consider that "Today we have only twenty-six months left until 1999." We must continue to address this issue as a top priority and keep it in focus.

By continuing these steps we can assure that when the year 2000 arrives we will be prepared to operate our programs and provide services to our citizens with the excellence expected of our state operations.

Careful and accurate planning today will enable us to master this Year 2000 problem on time and in an excellent manner.

### Year 2000 Impact Assessment Report Revised

	Recommendation	Revised
Department/Agency:	as of May 17,1996	as of Nov 4, 1996
Department of Administration	\$1,379,141	\$1,379,141
Department of Agriculture	3,467	229,867
Department of Commerce	1,814,194	1,814,194
Department of Community Colleges (Note 1)	0	0
Department of Correction (Note 1)	0	0
Department of Crime Control & Public Safety	2,977,409	2,977,409
Department of Cultural Resources	1,000	1,000
Department of Environment, Health & Natural Res (Note	2) 2,590,000	4,590,000
Department of Human Resources	13,063,501	13,063,501
Department of Insurance	349,017	349,017
Department of Justice	929,000	929,000
Department of Labor	559,636	559,636
Department of Public Instruction (Note 3)	0	0
Department of Revenue (Note 5)	125,200	125,200
Department of Secretary of State	698,310	698,310
Department of State Treasurer	188,200	188,200
Department of the State Auditor	120,000	120,000
epartment of Transportation (Note 4)	148,065	15,148,065
ESC/Department of Commerce	1,497,540	1,497,540
Office of the Governor	2,300	2,300
Office of State Budget and Management (Note 1)	0	0
Office of State Personnel	33,542	33,542
Office of State Planning	80,000	80,000
Office of the State Controller	2,333,919	2,333,919
North Carolina Boards	6,900	6,900
Sub Tot	al \$28,900,341	46,126,741
University of North Carolina System	4,032,574	4,032,574
Tot	al \$32,932,915	\$50,159,315

Source: Office of State Controller, OSC/IRM. This report is compiled from data submitted by State Departments and OSC SIPS Centralized Services. It covers only the executive branch of state government under the auspices of the IRMC. It excludes the Administrative Office of the Courts, and the General Assembly.

#### Notes:

- 1 Systems are reported as compliant for proper operation in Year 2000
- 2 DEHNR includes Wildlife Commission
- 3 DPI is currently planning its Year 2000 Impact Assessment
- 4 DOT plans an in-depth Year 2000 Impact Assessment review in fiscal 96-97
  - DOT May 1996 estimate included two applications supported by OSC SIPS
  - DOT November 1996 estimate includes the Department's current projections based on their assessment
- 5 DOR is re-evaluating impact estimates for major change in requirement

# N.C. State Budget, 1997-99: Summary of Recommendations General and Highway Funds Expansion Dollars for Technology Related Efforts (Note 1) February 17, 1997

Ägency Plan	1997-98	1998-99	Included in Departmental Technology Plan
Department of Public Education	\$ 5,000,000	\$	YES
State School Technology Fund			
Department of State Auditor	175,000	175,000	NOTE 2
Scheduled Replacement of Personal Computers			
Office of the State Controller	5,000,000		YES
Year 2000 Computer Conversion			
Office of State Personnel	152,934	137,934	YES
Support Staff for PMIS			
Department of Cultural Resources	200,000	200,000	YES
"NC-LIVE" - Statewide Electronic Library			
Department of Secretary of State	125,000		NOTE 2
Comprehensive Business Plan			
Elections - Board of Registration	1,900,000	1,900,000	NOTE 3
Computerized Statewide Voter Registration			
Department of State Treasurer	240,968	230,264	NO PLAN
Strengthen Maintenance of Automated Programs			
rime Control & Public Safety	2,406,600	156,600	YES
riminal Justice Information Network			
Crime Control & Public Safety	1,700,000		YES
Mobile Data Computers			
Justice Department	2,000,000		NOTE 4
Criminal Justice Information Network			
Department of Commerce	500,000	500,000	NO PLAN
NC Alliance for Competitive Technology - Transfer			
Operating Support to Appropriations			
Industrial Commission	656,271	711,062	NO PLAN
Case Management System			
Department of Human Resources	(500,000)	(500,000)	NO
Central Administration - Reduction in SIPS'			
Payments			
Department of Transportation	4,835,000	5,575,000	NO PLAN
Support for Year 2000 Conversion			
Department of Transportation	1,200,904	600,457	NO PLAN
Support for Vehicle Registration System (STARS)			
Department of Transportation	562,470	421,852	NO PLAN
Support for Driver License System			

# N.C. State Budget, 1997-99: Summary of Recommendations General and Highway Funds Expansion Dollars for Technology Related Efforts (Note 1) February 17, 1997

Department of Transportation	1	270,000	260,000	NO PLAN
Implement a Driver License Automated Testing		270,000	200,000	NOTEAN
System				
Department of Transportation		369,500	39,500	NO PLAN
Implement Automated Customer Queuing System		000,000	33,300	I INOTEAN
Department of Transportation	<del> </del>	814,630	· · · · · · · · · · · · · · · · · · ·	NO PLAN
Equipment including 800 MHz radios for DMV		014,000		I NOTEAN
enforcement	1			
Department of Transportation	-	1,000,000	1,000,000	NO PLAN
Computer Replacement Reserve		1,000,000	1,000,000	1 NOTEAN
Computer Replacement Reserve				
Total	\$	29,109,277	\$ 11,907,669	
Note 1: Does not include the Universities, Courts, or	General /	Assembly		
Note 2: The cost amount is below the threshold for re	eporting in	the departmen	ntal technology plan.	
		o copartition	lander of the second of the se	
Note 3: A technology plan was not submitted, but the	e fundina i	request is supp	orted by a study report.	
Tions of Principal Plant and Not out Principal Plant		о 4		
Note 4: Initiative briefly described on page 12 of dep	artmental	strategy docur	nent submitted March 1	995. A specific
strategy will be submitted in the near future.	1	on aregy accur.		
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## State of North Carolina Office of the State Controller

James B. Hunt Jr.
Governor

Edward Renfrow State Controller

January 9, 1996

### **MEMORANDUM**

TO:

Marvin Dorman

State Budget Officer

FROM:

Edward Renfrow

State Controller

SUBJECT:

IRMC Recommendations on Technical Projects for Inclusion in

the Governor's 1997-99 Proposed Budget

As prescribed in G.S. 143B-426.21 (b) (3) and (4), the powers and duties of the Information Resource Management Commission (IRMC) include the responsibilities to review and approve biennially the information technology plans of the executive agencies and to recommend to the Governor and the Office of State Budget and Management the relative priorities across plans. On January 7, 1997, the Commission made its recommendations for funding of technology projects and requested that I forward them to your office for consideration.

To assist the IRMC in fulfilling the responsibilities, the OSC/IRM staff reviewed the plans submitted by the agencies and evaluated the projects proposed in them for funding. The plans were reviewed with respect to compliance with directions for preparation, coherence of departmental actions, and compatibility with IRMC strategies and principles. Each project was evaluated from a technical perspective, including proposed approaches for development, architecture, and quality management and staffing.

The enclosed table reflects the information provided by the OSC/IRM staff to\_the IRMC at its January meeting. The action taken by the IRMC is summarized as follows:

- Approved all proposed projects classified as "Yes" or "Conditional" under the funding approval recommendation column.
- Stated the following priorities for funding:
  - -- Year 2000
  - -- Education-related projects
  - -- All remaining projects

The Commission recognizes that the attached list is an extensive one and that the dollars represented by the projects may exceed the amount which is likely to be earmarked for technology by the Governor or the General Assembly. It was also recognized that if all of the projects were funded at once that implementation of them in a short period of time might overwhelm the ability of the state to manage those projects. However, it was agreed that the vote of endorsement by the IRMC was necessary for the projects to move into the next level of priority setting by your office. If you or your staff have any questions about the attached table, the process or the priorities, please call me and we will be happy to work with you.

#### Enclosure

cc: Department Heads Chief Financial Officers MIS Directors

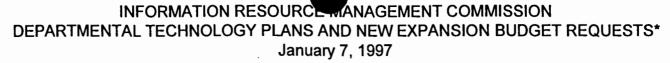
Tei	chnology Plans					unding Approvection		
Substantially Compliant with IRMC Directives	Appropriate for Level of Agency Projects	Not Submitted	Department/Projects	1997-99 Funding Request*	Yes	Conditional	No	Comments
	x		Administration  1. MIS Technology Infrastructure - to replace ¼ of existing workstations on an annual basis.  2. Update Capital Proj. Mgt. Sys	\$ 1,040,000 518,000	×			· · · · · · · · · · · · · · · · · · ·
	X		to track capital improvement construction projects.  Agriculture  1. Administrative Services - to expand MIS staff.	863,434		x		Department must complete IT plan by February 15.
	Х		Budget and Management No projects					
		X	Commerce - Industrial Comm.  1. Electronic Case Mgt.	550,000		X		Department must complete IT plan by February 15. Both projects are continuations of the imaging and electronic document mgt. System previously approved by the IRMC. They are only given conditional approval due to the failure of the parent department, Commerce, to complete a technology plan.
			Electronic Case Mgt. Operations and maintenance - to provide staff/to support the existing systems.	1,367,333		X		2. Same as above.
		Х	Community Colleges  1. Networking – to install basic	14,500,000	х			Approval is recommended

<sup>\*</sup>This material covers the executive branch of government; however, it excludes some boards and commissions (e.g., the State Board of Elections), the University System, individual campuses of the Community College System, the Administrative Office of the Courts, and the General Assembly. The table excludes projects less than \$500,000, unless the projects involve significant risk, new business practices or new technology. Requested amounts include federal and state sources of funds.

Tee	chnology Plans					unding Approvection		
Substantially Compliant with IRMC Directives	Appropriate for Level of Agency Projects	Not Submitted	Department/Projects	1997-99 Funding Request*	Yes	Conditional	No	Comments
			communications infrastructure at all 58 community colleges.  2. Distance Education - to enable all	10,712,928	×			based on the IRMC's previous approval of the State Connectivity Strategy. See Note 1.  2. Same as above. See Note 2.
	·		58 schools to participate in the NCIH. Funds will be used for staffing, equipment and line charges.  3. Library Enhancement - to provide funds for DCC's portion of the NC	2,000,000	x			Approval recommended     because it is included in the IT
		·	LIVE - an electronic library project with Cultural Resources and the University System. 4. Student Monitoring - a new software application designed to	1,455,100			×	plan prepared by Cultural Resources.  4. Not recommended for funding
			measure student progress towards educational goals.					due to DCC's failure to complete a departmental plan.
Х			Correction No projects					
	X		CC & PS  1. CJIN - Mobile Data Network, Phase 2 - to continue implementing the statewide shared public safety mobile data network (800MHz).	2,563,200		×		By February 15, 1997, CCPS must submit a detailed project plan to the IRMC, including a migration strategy to the NCIIN. This project must comply with the requirements of the IRMC's Quality
			Mobile Data Computers for the Highway Patrol.     Community Service Work	1,700,000 1,768,504	x x			Assurance framework and begin monthly reporting to the IRMC.

Plans				unding Approv ecommendation		
riate el of Not cy Submitted ots	Department/Projects	1997-99 Funding Request*	Yes	Conditional	No	Comments
	Program - to purchase HW/SW for offices.					
	Cultural Resources     Network Integration, Office     Automation and Public Access - to provide IT equipment and communications for 68 offices in	2,838,727	х			
	48 locations.  2. NC LIVE - Electronic Library - This is a statewide effort of DCR, DCC, and the University System to develop an electronic library using the Internet.	4,135,000	×			
Х	DEHNR No projects					
	ESC  1. One-Stop Career Center - to expand one-stop career centers to 75 additional counties.	6,427,500		x		ESC is developing this project for the Governor's Office and Commerce. ESC must provide additional information in the project's technical architecture to the IRM and begin reporting monthly.
	Child Welfare information System     to develop a new, integrated     child welfare information system.	26,282,273		X		Conditional approval is recommended pending DHR's completion of the SEI-CMM review of the its software development capability and its expeditious implementation of the recommendations of the review.      See above.
		- to develop a new, integrated	Child Welfare information System     to develop a new, integrated     child welfare information system.  2. Information Technology  4,800,000	Child Welfare information System     to develop a new, integrated     child welfare information system.  2. Information Technology  4,800,000	1. Child Welfare information System - to develop a new, integrated child welfare information system.  26,282,273  X  26,282,273  X	Child Welfare information System     to develop a new, integrated child welfare information system.  26,282,273  X  4,800,000  X

Tee	chnology Plans					anding Approvection		
Substantially Compliant with IRMC Directives	Appropriate for Level of Agency Projects	Not Submitted	Department/Projects	1997-99 Funding Request*	Yes	Conditional	No	Comments
			approaches for re-engineering business and IT processes.  3. Local DSS Automation Initiatives - to provide IT infrastructure for local offices and implement common data collection capabilities.	10,000,000		x		3. See above.
			Enhance Divisional LAN and develop MMIS Interface for the Medicaid Division.	1,125,000		×		4. See above.
		i i	Area Program Connectivity - to provide IT infrastructure capabilities with community mental health facilities.	12,000,000		x		5. See above.
			6. Government Information Location Services - to facilitate public access to information.	1,520,000		X		6. See above.
			7. Fiber Optic Cable and File Servers - to provide an IT infrastructure for 11 mental health/DD/SAS facilities.	980,618		X		7. See above.
		Х	Insurance 1. Upgrade 1/4 of the PC's and IT infrastructure on an annual basis.	567,600			X	Not recommended because IT plan was not submitted.
X			Justice - SBI  1. Infrastructure for NC Justice Academy Western Campus - to establish hardware/software and LAN infrastructure at the new campus.	2,206,213	х			
Х			Labor 1. Imaging, workflow and document management, with business process study.	500,000	х			



Technology Plans						inding Approvecommendation		
Substantially Compliant with IRMC Directives	Appropriate for Level of Agency Projects	Not Submitted	Department/Projects	1997-99 Funding Request*	Yes	Conditional	No	Comments
			Department office automation project to replace outmoded equipment with a LAN.	750,000	Х			
	X		Continuation of School     Technology funding.      Laptop computers and training for the approximately 30,000 teachers in grades 4-8, as	143,000,000 72,000,000	x			1. This funding covers activities proposed in the School Technology Commission's Instructional Technology Pla and the individual district technology plans. The statewide plan and the 118 district plans were approved by the IRMC. See Note 3.  2. The Instructional Technology Plan was approved by the IRMC.
			recommended in the NC Instructional Technology Plan. 3. Beginning ot the implementation of the Uniform Education Reporting System to support the School Accountability initiative.	20,000,000		X		3. By February 15, DPI must provide detailed information the expected costs and benefits of the system. In addition, DPI must agree to implement the recommendations of its IT strategy, which was prepare with the assistance of an outside consultant.
X			Revenue  1. Information Technology Needs to provide resources and capabilities for building upon the recently installed ITAS and containing the	4,226,186	x			

support of the tax collection

Technology Plans		Technology Plans				unding Approvection		
Substantially Compliant with IRMC Directives	Appropriate for Level of Agency Projects	Not Submitted	Department/Projects	1997-99 Funding Request*	Yes	Conditional	No	Comments
	•		process.					
		<b>X</b>	Secretary of State  1. Implement Phase II of the Business License System and develop a new system for securities monitoring.	1,830,000			×	The OSC/IRM staff can not recommend funding because an IT plan has not been submitted. The department has experienced leadership
			Uniform Commericial Code imaging project to allow electronic filing and retrieval of UCC information.	1,600,000			x	changes this year. 2. Same as above.
х			Implementation of the Automated     Data Retrieval project to improve productivity, facilitate audits and perform fiscal analyses.	510,000	×			
Х			State Controller 1. Year 2000 2. Technology Development Fund 3. State Connectivity Strategy	28,900,000 30,000,000 74,613,351	X X			This funding was previously approved by the IRMC.     Same as above.     Same as above. See Notes 1
			NCAS Expansion - to provide funds for increased processing cycles and support for the NCAS.	1,807,125	×			and 2. 4. Recommend approval.
	X		State Personnel No projects					
	X		State Planning No projects					
		X	State Treasurer No projects					
		X	Transportation 1. International Vehicle Registration	2,297,400			х	The OSC/IRM staff can not

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Teo	chnology Plans					anding Approve		
Substantially Compliant with IRMC Directives	Appropriate for Level of Agency Projects	Not Submitted	Department/Projects	1997-99 Funding Request*	Yes	Conditional	No	Comments
			2. Traffic Records system to automate the collision reporting process.	3,913,460			x	recommend approval of this project because the department has not submitted an IT plan.  2. Same as above.

#### Notes:

- 1. The \$14,500,000 of Community Colleges is **NOT** included in the \$74,613,351 of the State Connectivity Strategy under the Office of the State Controller. The Community College funding request is necessary for Community Colleges to implement the State Connectivity Strategy.
- 2. The \$10,712,928 of Community Colleges contains some overlap of funding in the \$74,613,351 of the State Connectivity Strategy of the Office of the State Controller. The **Nonduplicated** funding in the Community College funding request is \$6,116,166. The Community College funding request is necessary for the Community Colleges to implement the State Connectivity Strategy.
- 3. There is **NO** overlap in the \$143,000,000 in the continuation of School Technology Funds of DPI and the \$74,613,351 in the State Connectivity Strategy of the Office of the State Controller. The State Board of Education needs to consider the priority of connectivity in conjunction with the purchase of hardware and software for the state public schools.

### **VISITOR REGISTRATION SHEET**

### House Technology

February 20, 1997

Name of Committee

Date

### VISITORS: PLEASE SIGN BELOW AND RETURN TO COMMITTEE CLERK

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OSC-IRM
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05C - 51PS
P+C-DOA
State Controller
Anderson Consulting
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NACC
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IRMC
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<u>ISD</u>
NCGA, ISD
NCACĆ
Speins
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### **VISITOR REGISTRATION SHEET**

House Technology	February 20, 1997
Name of Committee	Date
VISITORS: PLEASE SIGN BELOW	AND RETURN TO COMMITTEE CLERK
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### MINUTES HOUSE COMMITTEE ON TECHNOLOGY

### February 27, 1997

The House Committee on Technology met in Room 415 of the Legislative Office Building on Thursday, February 27, 1997 at 12:00 noon. Representative Dennis Reynolds, Chairman, presided at the meeting and the following members were present: Representatives Cansler, Dickson, Eddins, Gray, Gulley, Hackney, Hensley, Holmes, Miller, Shubert, Tolson and Wilkins. The Visitor Registration Sheet is attached and made part of the minutes.

Chairman Reynolds welcomed guests and introduced Pages. Mr. Lee Bryan, Managing Director of Southeast Interactive Technology Funds and CEO of One Room Systems was introduced.

Mr. Bryan made a presentation about the growth of interactive technology in North Carolina and the possibilities for technology in our state as a result. Mr. Bryan showed examples of the how interactive technology is being manipulated by North Carolina companies to be distributed over the internet for world-wide benefit.

The meeting adjourned at 1:00 pm.

Representative Dennis Reynolds

Chairman

Tina Covington

Committee Clerk

### **VISITOR REGISTRATION SHEET**

### **TECHNOLOGY**

**FEBRUARY 27, 1997** 

Name of Committee

Date

### VISITORS: PLEASE SIGN BELOW AND RETURN TO COMMITTEE CLERK

### **NAME**

### FIRM OR AGENCY AND ADDRESS

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Carolin Jackson	OHR-DIRM 1095 Palmer Dr. Raleigh
KING PRATHER	ALPHANUMERIC SYSTEMS
any Do Bain	Smith Anderson
ann Berlam	SBE
DON Fulford	NCGA / ISD
Rich Smith	IBD, Inc.
CATY NouriE	Board of Science & TEchnology
PETER (APRIOLIONE	NCGA I ISD
LYNN HOLMES	Bar Sovi H
EdLittle	DoA-P+C
Paray Van Ostrum	PENC
Salah Steward	AFT
Jan Crotts	NCASA
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FRANK HART	MCMC
CHUCK COOPER	05C
Branda Douglast	Spring
Laure Starten	Ohly, Covern
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### MINUTES HOUSE COMMITTEE ON TECHNOLOGY

### March 6, 1997

The House Committee on Technology met in Room 415 of the Legislative Office Building on Thursday, March 6, 1997 at 12:00 noon. Representative Dennis Reynolds, Chairman, presided at the meeting and the following members were present: Representatives Dickson, Earle, Gulley, Hackney, Hensley, Shubert, Tolson and Wilkins. The Visitor Registration Sheet is attached and made part of the minutes.

Chairman Reynolds welcomed guests and introduced Pages. A 10 minute video outlining digital signatures in Washington State, entitled "Signing on the Digital Line", was presented.

`Mr. Howard Jacobson, attorney from Moore & Van Allen, was introduced to make a presentation on digital signatures. Mr. Jacobson is a former computer programmer, now specializing in Information Technology law and trademarks. He discussed the logistics behind digital signatures and the reasons why they are beneficial. A copy of Mr. Jacobson's presentation is attached and made part of the minutes.

Mr. Jim Broadwell, the Director of the North Carolina State Telecommunications Service, was introduced. He briefly presented reasons why digital signatures would benefit his and many other departments in North Carolina.

The meeting adjourned at 12:45 pm.

Representative Dennis Reynolds

Chairman

Tina Covington (

Committee Clerk

### **VISITOR REGISTRATION SHEET**

### TECHNOLOGY

March 6, 1997

Name of Committee

Date

### VISITORS: PLEASE SIGN BELOW AND RETURN TO COMMITTEE CLERK

NAME	FIRM OR AGENCY AND ADDRESS		
HOWARD, A. JACOBSON	MOORE & VAN ALLEN, BALEIGH		
	SHEKE)		
Jan Harris	(1		
Don Hatcher	Agriculture		
Bob Murphy	NEDA		
Don Fulford	NCBA		
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Douglas Hale	NCGA		
Caroline Jacken	DHR-DIRM		
DENNY MODILIE	OSC/IRM		
Jane S. Patterson	Office of the Governor		
Ron Hawley	SBI		
CURTIS L. Ellis	S'B1		
ED LAHle	DOA-DIC		
JIM BROADWELL	05C/SIPS		
Crearge Hawe	MCNC		
Susan Harrison	Wake County Public Schools		
Bulada Doughete	Sprint		

### Digital Signatures

Questions and Answers about Authentication and Verification in the Internet Age

Howard A. Jacobson

Moore & Van Allen, PLLC

### Digital Signatures

Questions and Answers about Authentication and Verification in the Internet Age

Howard A. Jacobson\*

Moore & Van Allen, PLLC

Raleigh, North Carolina

<sup>\*</sup> Howard A. Jacobson is an attorney in the Raleigh office of Moore & Van Allen, PLLC, a law firm with offices also in Charlotte and Durham. Mr. Jacobson concentrates his practice in the law of information technology and trademarks. He can be reached over the Internet at jacobsonh@mvalaw.com, and he can respond to electronic mail with a digitally signed message.

### Introduction

Digital signatures. The term appropriately implies a technological twist on an age-old method of identification, but digital signatures are much more than the electronic equivalent of John Hancock's famous use of quill and ink. Digital signatures, if implemented correctly, offer a mechanism for adapting traditional commercial practices to a remarkably nontraditional means of communication—the Internet, other public data networks, and private networks, as well. Just as handwritten signatures required the endorsement of lawmakers in order to become legally significant and commercially accepted, digital signatures also require a regime of laws to become a recognized means of creating contracts and other legally binding transactions. Further, because digital signatures contemplate faceless transactions and involve a mathematical precision not enjoyed by handwritten signatures, the law that implements them can and should define in great detail how digital signatures may be used.

The remainder of this paper will pose and answer common questions about digital signatures. However, this paper is not a comprehensive treatment of all of the issues and details surrounding digital signatures. For more information, contact the author or look to the references that appear at the end of this paper.

One more caveat is appropriate before turning to the first question. The language of digital signature technology and legislation is strewn with unfamiliar and sometimes technical terms. Some of these terms are defined in this paper. A more thorough definition of digital signature terminology appears in the *Digital Signature Guides* published by the American Bar Association.

### 1. What is a digital signature?

Contrary to popular belief, held even by the most prominent promoters of the Information Superhighway, a digital signature is not a handwritten signature in any form. It is not a picture of a handwritten signature. Digital signing is purely electronic and mathematical, and it is designed to be used only with electronic messages. By all appearances, a digital signature is simply a jumble of letters, numbers, and other symbols. *See* Figure 1.

Figure 1. This digital signature was created from the Purchase Order message in Figure 2. Note that the depiction of the digital signature in this Figure is not completely accurate because some of the information in a digital signature cannot be read into and printed by word processing software. The digital signature was created using PGP, a software program available for free on the Internet. Point your Internet web browser to web.mit.edu/network/pgp-form.html.

```
Purchase Order

From: ABC Company
To: XYZ Widgets, Inc.

Units Item
----
10 Green Widgets

Delivery: 3/1/98

Terms: Net 30 days
```

Figure 2. This is the message from which the digital signature in Figure 1 was created

A message is digitally signed with the aid of computer software by applying a certain mathematical formula to the content of the message and by combining a "sender" password of sorts with the result of the formula. The outcome is the jumble that appears to the human eye as a digital signature, but this jumble is completely intelligible to the digital signature computer software. Just as the message is digitally signed by the software using mathematics and a password, the digital signature is "read" by the use of a mathematical formula and a "recipient" password.

### 2. What does a digital signature do?

A digital signature serves at least two important purposes. First, like a handwritten signature, a digital signature allows the recipient of an

electronic message to verify the identity of the sender. Second, unlike a handwritten signature, a digital signature assures the recipient that the electronic message was not altered after it was "signed." Once a message has been digitally signed, the recipient can detect *any* alteration in the content of the message. In legal terms, a digital signature authenticates the message and proves that the content of the message is original—that it is what it purports to be.

### 3. HOW DOES DIGITAL SIGNING WORK?

### 3.1. Sending a Digitally Signed Message.

To create a digital signature for an electronic message, the sender of the message uses a computer program and a password, which is called a "private key." The computer program first creates a summary of the message also known as a "digest." The program then encrypts the digest with the sender's private key. *See* Figure 3. The result is a digital signature. Once created, the digital signature is attached to the original electronic message. The digital signature and the message are sent as a package.

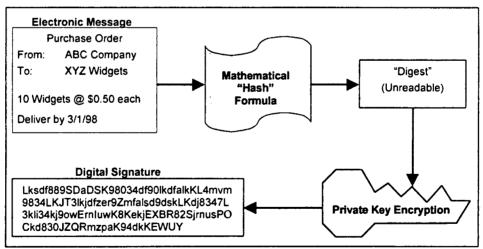


Figure 3. The creation of a digital signature. The electronic message is first digested, then encrypted to create the digital signature.

Because a digital signature is the result of the mathematical manipulation of the content of an electronic message, the digital signature for one message will be different from the digital signature for every other different message. In other words, the digital signature for a message ordering one widget will be different from the digital signature for a message ordering two widgets. In this respect, digital signatures are

wholly different from handwritten signatures, which function as a means of identification because a person's handwritten signature always is the same or sufficiently similar to be identifiable as the same.

### 3.2. Receiving a Digitally Signed Message.

Receiving a digitally signed message reverses the sending process with one important difference. The recipient of a digitally signed message must know the sender's "public key" in order to decipher the digital signature. The private key that encrypted the message cannot be used to decrypt the message. Typically, a sender will publish his or her public key to everyone with whom he or she might correspond electronically.

The digital signature software first uses the public key to decrypt the digital signature. If the decryption is successful, then the recipient knows that the digital signature and the message to which it was attached originated with someone who had the corresponding private key. This is true because the sender's public key will decrypt only a message encrypted with the sender's private key. The result of the decryption is the message digest. *See* Figure 4.

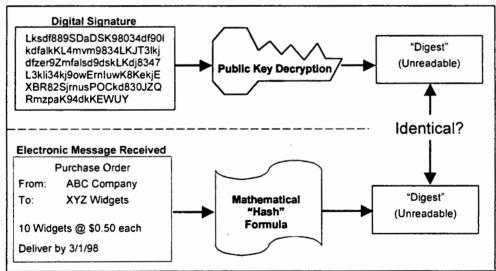


Figure 4. A digitally signed message is read by decrypting the digital signature to yield the digest, by creating a digest with the actual, unencrypted electronic message, and then by comparing the two digests.

Next, the software applies the mathematical hashing formula to the electronic message to which the digital signature was attached. This digest is compared with the decrypted digest. *See* Figure 4. If the two digests are identical, then the recipient knows that the electronic message was not altered after it was digitally signed.

Remember that the digital signature is attached to the actual message being signed. Whether or not the recipient has the sender's public key, the recipient can read the message. The public key is needed only to "read" the digital signature.

### 4. WHAT IS THE ROLE OF THE CERTIFICATION AUTHORITY?

Because a digital signature is based on the content of the signed message and is not based on any physical movement of a hand or any other part of a person, there is no inherent, inseparable connection between a digital signature and a person. In fact, there is no inherent relationship at all between a digital signature and a person. The inseparable relationship exists solely between the message and the private key that was used to digitally sign the message. How then can the recipient of a message be certain that the person who sent the message actually is the person who he or she claims to be?

### 4.1. The Role of a Certification Authority.

Connecting a private key/public key pair to a person is the function of a "certification authority." The first task of the certification authority is to verify the identity of a person through traditional means such as photographic identification or the attestation of a notary public. The certification authority next accepts from the person a public key that will be published by the person for use by recipients of messages from him or her. As part of this second task, the certification authority will require the person to demonstrate that the delivered public key can decrypt messages encrypted with the private key held by that person.

Once the certification authority is satisfied that the public key belongs to the identified person, the authority issues an electronic certificate. The certificate contains the public key and identifies the authority and the person to whom the public key belongs. The certificate then is the means by which the identified person's public key is published. Usually, the certificate will be available in an on-line database maintained by the authority so that anyone receiving a message from the identified person can retrieve the certificate and then authenticate the message and verify that it has not been altered. Conveniently, the certificate also can be attached to a message so that the electronic message, the digital signature, and the certificate all arrive as a self-contained package that the recipient can use to determine with confidence the identity of the sender and the integrity of the message.

### 4.2. Who May Be a Certification Authority?

A number of organizations already serve as or have announced plans to serve as certification authorities. The United States Postal Service has stated that it will be a nationwide certification authority. Private companies, such as Verisign, Inc. (www.verisign.com), already operate as certification authorities.

Nearly any person or entity may be a certification authority. Because of the tasks of a certification authority, substantial resources are needed to operate the computer systems that store the certificates and to maintain publicly accessible offices where the in-person portion of the certification process can occur. Perhaps most importantly, the certification authority must establish credibility with electronic consumers.

In the absence of widespread legislative guidance, currently operating certification authorities have established a custom to create confidence in the certificates they issue. Authorities publish "certification practice statements," which describe their certification practices. The statements explain how the authority verifies the identity of a person and maintains the security of its certificate database, among other things. Because of the importance of certification authorities and the need to establish confidence in these authorities, the licensure and regulation of certification authorities is an important function of digital signature legislation.

### 5. What legal functions can be served by a digital signature?

Digital signatures can serve all of the functions traditionally served by handwritten signatures. Among other things, digital signatures can be used to establish authorship of a message, acknowledgment of a message received, or assent to an electronic proposal. At least one state court in California now uses digital signatures to facilitate electronic filing of court documents and issuance of electronic court orders.

Because digital signatures properly created cannot be forged, these signatures can serve additional functions to which handwritten signatures are not suited. For example, the law could establish that digitally signed messages cannot be repudiated. Through the use of a sender's public key, the authenticity and integrity of an electronic message always can be determined without question. As another example, the law that now generally precludes a person's liability for forgeries of his or her

handwritten signature can be eliminated since the person has complete control over the only feasible means of forgery — the person's private key.

### 6. What are some advantages of digital signatures?

### 6.1. Forgery Is Easier to Prevent.

Over the hundreds of years that handwritten signatures have been a trusted means of identifying individuals, forgers have refined their criminal art to the point that even handwriting experts can be fooled. Successful forging of a handwritten signature requires a fair bit of skill and a little bit of patience and practice.

The nature of the mathematical formula used to create message digests and encrypt those digests makes forgery of a digital signature practically impossible. Having a digitally signed message is of no assistance to the aspiring forger because the formula that digests and encrypts cannot be reversed to yield the private key that was used to perform the digesting and encryption. Moreover, the numbers used with the digesting and encryption formula are so large that guessing the correct public key to decrypt a digital signature is nearly impossible. Within the United States, digesting and encryption easily can be done with numbers that are 128 digits long (e.g., using the Pretty Good Privacy (PGP) software used to create Figure 1). Depending on the length of the number used, a would-be forger might need dozens of the world's most powerful computers operating non-stop on the cracking effort for millions upon millions of years.

### **6.2.** Forgery Is Easier to Stop.

Forgery is a criminal practice probably as old as handwritten signatures. Digital signatures do not eliminate the possibility of digital forgery. Conceivably, a person's private key could fall into the wrong hands and be used to forge a digital signature. The involvement of certificates and certification authorities, however, makes stopping digital forgery a good deal easier than stopping handwritten forgery.

To stop handwritten forgery, law enforcement authorities must catch the forger or the owner of the handwritten signature must advise all the people with whom he or she corresponds that a forger is on the loose. Stopping digital forgery is much easier. Once the owner of a private key learns that the key has been misappropriated, he or she can absolutely prevent forgery by notifying the certification authority. The authority will

immediately revoke its certificate for the victim's public key. Anyone who then attempts to verify the victim's digital signature by use of the certificate will learn without doubt that the digital signature should be questioned. It may have come from the owner of the private key, but then again, it may not have.

### 7. HOW DOES A DIGITAL SIGNATURE ASSURE CONFIDENTIALITY?

It does not. Remember that a digital signature is attached to the electronic message being signed. The completely readable text of the message is sent without encryption. The encryption formula is used only to create the digital signature. Thus, a digital signature is not a means of making secret the content of an electronic message.

Although a digital signature does not assure confidentiality of the signed message, it is no obstacle to confidentiality. The same encryption technology that creates the digital signature can be applied to the digitally signed message. The result would be an encrypted message containing a digital signature that by definition was created through encryption.

### Conclusion

Digital signatures offer the world of electronic commerce a means of assuring the authenticity and integrity of digital messages. In many ways, digital signatures improve on handwritten signatures by making forgery more difficult and, therefore, increasing confidence in a faceless electronic transaction that the promises made as part of the transaction are authorized and cannot be repudiated.

There is much more to the technological and legal implementation of digital signatures than this paper describes. Many printed and electronic resources are available on the details of encryption technology and on the efforts by lawmakers in some states to establish digital signature statutory regimes.

#### References

- 1. AMERICAN BAR ASSOCIATION, <u>DIGITAL SIGNATURE GUIDELINES: LEGAL INFRASTRUCTURES FOR CERTIFICATION AUTHORITIES AND SECURE ELECTRONIC COMMERCE</u> (1996) (contact the ABA at www.abanet.org or 1.312.988.5000).
- 2. Online Law: The SPA's Legal Guide to Doing Business on the Internet (Thomas J. Smedinghoff, ed.) (1996) (available from the Software Publishers Association and Addison-Wesley Books).
- 3. A. Michael Froomkin, <u>The Essential Role of Trusted Third Parties in Electronic Commerce</u>, 75 Oregon L. Rev. 49 (1996) (also available at www.law.miami.edu/~froomkin/articles/trustedno.htm).
- 4. Noah Scott Bender, <u>Digital Commerce And The Utah Digital Signature Act</u> (available at www.library.law.miami.edu/~bender/internt.html).

### State of North Carolina Information Resource Management Services Year 2000 Compliance Conversion Update March 4, 1997

### Year 2000 Agency System Inventory

- Background
  - March 1996 Impact Assessment, revised November 4, 1996
  - December 1996 Project Funding Request
- What did we do
  - Sent out 40 "Year 2000 Agency System Inventory" turnaround documents on February 13th due back on February 21st (24 Departments and 16 Universities)
  - As of March 3, received 55 of turnaround documents from all 24 Departments and 13
     Universities , 3 Universities are still outstanding

### Summary Findings

Metric	November 1996	March 1997
Number of Systems	Approx. 230	Approx. 700
Total Year 2000 Cost*	\$50M	\$112M

\* Note: March 1997 estimate includes 25% Statewide contingency and excludes Universities' estimate of \$200 M (module based estimate will require substantial additional analysis)

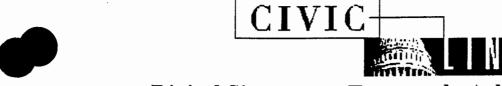
- Logical Next Steps
  - Obtain remaining turnaround documents
  - Resolve open points to further clarify Departments responses and ensure consistency
  - Refine the funding sources and budgeting approach
  - Begin working with the Departments and Agencies to complete detailed assessments and create a Statewide Conversion Master Plan

# State of North Carolina Information Resource Management Services Year 2000 Compliance Conversion Update March 4, 1997

	Recommendation as of May 17, 1996	Recommendation as of Nov 4, 1996	Recommendation as of March 4, 1997	Nov/March Difference over (under)
Department of Justice	\$929.000	\$929.000	\$2,180,665	\$1.251,665
Department of Administration	\$1,379,141	\$1,379,141	\$1,379,141	\$0
Department of Agriculture	\$3.467	\$229.867	\$255.176	\$25.309
Department of Commerce	\$1,814,194	\$1.814.194	\$1.814.194	\$0
Department of Community Colleges	\$0	\$0	\$616,000	\$616,000
Department of Correction	\$0	\$0	\$0	\$0
Department of Crime Control & Public Safety	\$2,977,409	\$2,977,409	\$4,636.001	\$1,658,592
Department of Cultural Resources	\$1,000	\$1,000	\$9,457	\$8.457
Department of Env., Health, and Natural Res.	\$2,590,000	\$4,590,000	\$16.251,000	\$11,661,000
Department of Human Resources	\$13,063,501	\$13,063,501	\$10.949,862	(\$2.113,639)
Department of Insurance	\$349,017	\$349,017	\$1.043,141	\$694,124
Department of Labor	\$559,636	\$559,636	\$132.044	(\$427,592)
Department of Public Instruction	\$0		\$15.396.012	\$15.396,012
Department of Revenue	\$125,200	\$125,200	\$1,956.500	\$1.831,300
Department of Secretary of State	\$698,310	\$698.310	\$1,337,000	\$638.690
Department of State Treasurer	\$188,200	\$188,200	\$4,935,000	\$4,746.800
Department of State Auditor	\$120,000	\$120,000	\$2,039,453	\$1.919,453
Department of Transportation	\$148,065	\$15.148.065	\$35,266,000	\$20.117,935
Employment Security Commission	\$1,497,540	\$1,497,540	\$5,740,409	\$4,242,869
Office of the Governor	\$2,300	\$2,300	\$0	(\$2.300)
Office of State Budget and Management	\$0	\$0	\$0	\$0
Office of State Personnel	\$33,542	\$33.542	\$220,500	\$186.958
Office of State Planning	\$80,000	\$80.000	\$85.000	\$5,000
Office of the State Controller	\$2,333.919	\$2,333,919	\$586.248	(\$1.747,671)
North Carolina Boards	\$6,900	\$6,900	\$10.500	\$3.600
Subtotal	\$28,900,341	\$46,126,741	\$106.839,304	\$60.712.563
Contingency (25%)	\$0	\$0	\$26.709,826	\$26.709.826
Total excluding Universities	\$28.900.341	\$46,126,741	\$133.549.130	\$87,422.389
University of North Carolina System	\$4,032,574	\$4,032.574	See Note 1	
Total	\$32,932,915	\$50,159.315	TBD	
Total with all external labor			\$133,549,130	
Total with 30% internal labor, 70% external la	bor		\$111,799,700	•

#### Notes:

- 1. Module based estimate of \$200M requires substantial additional analysis.
- 2. Further analysis is required for Univ. of N.C. Hospitals; no estimate included in either the Nov. 1996 or March 1997 estimate
- 3. DHR and DEHNR estimate may increase, based upon further analysis of Divisions.
- 4. DEHNR estimate includes Wildlife Commission.
- 5. Departments with \$0 in the March 1997 estimate indicatated systems fully Year 2000 compliant.



### **Digital Signature - Frequently Asked Questions**

### What is a digital signature?

Digital signature is a convenient, time-saving, and secure way of signing electronic documents.

What is an "electronic document?"

An electronic document is any document that is generated or stored on a computer, such as a letter, a contract or a will. In addition, an electronic document can be an image, such as a blueprint, a survey plat, a drawing or even a photograph. Digital signature can be used to sign these documents.

Does that mean that the authenticity of any electronic document can be verified by a digital signature?

Yes, but only if the document was "signed" using a digital signature program originally.

This sounds complicated. What is it like to actually sign an electronic document?

It's a simple three step process-the CivicLink program does all the work. In CivicLink, you select the signature option, then select the document, and finally, enter your secret Authorization Code.

What does the digital signature look like? Can you actually see the signer's handwritten signature?

No, there is no relationship to the signer's handwritten signature. While there's more to it behind the scenes, the visible portion of the digital signature is the signer's name, title and firm name along with the certificate serial number and the Certification Authority name.

How do I get a digital signature certificate?

Your CivicLink software package comes with everything you need to get a digital signature certificate and sign documents. First, complete the application for the certificate. The application requests information used to verify your identity-and protect you against unauthorized use of your signature.

The CivicLink Customer Service Center will send you the specific details you will need to publish your certificate via certified mail.

What is a Certificate? What does it mean to "publish" a certificate?

A certificate is actually a computer based record that identifies the subscriber, contains the public key,

and is digitally signed by the Certification Authority.



The digital signature certificate must be associated with both a private key and a public key. When you publish the certificate, you identify yourself to the Certification Authority by providing it with your public key.

### How am I identified as a signer?

When you use CivicLink to publish your certificate, you create a matched pair of keys. One is the "private" key, which is typically installed on your computer. The private key is used only by you and is required during the signing process.

The second key is the "public" key. The public key is available for use by anyone wishing to authenticate documents you sign. The public key will "read" the digital signature created by the private key, and verify the authenticity of documents created with it.

Does this mean I have to be concerned about keeping track of lots of public and private keys?

Not at all. The only private key you deal with is yours. It resides on your computer.

If my private key is stored on my computer, can't someone sign the documents without my permission by getting access to the computer?



No. Your private key is encrypted when it is stored in your computer. When you sign an electronic document, you enter a Digital Signature Authorization Code. CivicLink uses your Authorization Code to decrypt the private key for as long as it takes to sign the document.

If, however, someone learns your Authorization Code and also has access to the computer holding your private key, the integrity of your private key is compromised. Should it happen, you should *revoke* your digital signature certificate. Simply contact our CivicLink Customer Service Center at 1-800-307-1100 to revoke your certificate and obtain another.

### Can digital signature be forged?

No. It is protected by several layers of encryption. A little explanation is in order.

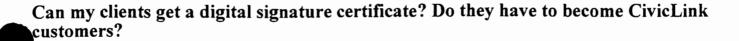
We like to think that a handwritten signature is unique to the signer and to the pieces of paper which holds it. But what if someone does produce a good likeness of your handwritten signature?

Or, what if, on a long contract, someone changes the text of the pages previous to the signature page? Here, the signature is valid, but the document has been altered. Both of these are possibilities with handwritten signatures.



With digital signatures, forgery is impossible. Part of the reason for this is that the digital signature is based on the actual content of the document being "signed." Roughly put, a calculation is performed on the document, and the result of this calculation is actually included as part of the digital signature. When a recipient of the document wishes to authenticate it, a similar process is carried out on the recipient's end and the result of that calculation is compared to the original calculation. If the results are the same, the signature is valid; if they are different, the signature is not valid. This would indicate that someone has tampered with the document. It is important to know that this will occur for *any* change in the document, even adding a comma or capitalizing a word.

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Your clients do not have to become CivicLink customers to use digital signature. You simply prepare an application form and send it to the Certificate Authority representative using the CivicLink e-mail service. Your client's identity is verified and publication instructions are sent to them by courier mail.

Next, you will want to help publish your client's certificate and have them create the secret signature authorization code. The code is required to use the private key and sign documents. You may store the clients private key on your computer for convenience.

What are the responsibilities and the liability of a digital signature certificate subscriber?

The subscriber is responsible for safeguarding access to the private key.

Can I use my digital signature certificate for other electronic transactions?

Not at the present time. You will be notified when you can use digital signatures for non-CivicLink electronic documents

For additional information, please contact us: Email: info.civiclink@ameritech.com
Telephone: 1-800/307-1100
Fax 1-800/706-9444

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### MINUTES HOUSE COMMITTEE ON TECHNOLOGY

March 20, 1997

The House Committee on Technology met in Room 415 of the Legislative Office Building on Thursday, March 20, 1997 at 12:00 noon. Representative Dennis Reynolds, Chairman, presided at the meeting and the following members were present: Representatives Cansler, Dickson, Earle, Eddins, Gray, Gulley, Hackney, Holmes, Miller, Tolson and Wilkins. The Visitor Registration Sheet is attached and made part of the minutes.

Chairman Reynolds welcomed guests and introduced Pages.

Mr. Bill Cox, MIS Director for the North Carolina Department of Human Resources, presented the Year 2000 conversion outlook for his department. He reviewed the current status and compliance needs, as well as estimated funding requirements. A summary of Mr. Cox's presentation was presented in a handout to committee members. A copy of this summary is attached and made part of the minutes.

Mr. Paul Roberts, MIS Director for the North Carolina Department of Transportation, presented the Year 2000 conversion plans for his department. Preliminary inventory is underway and DOT plans to report to committee when the final inventory is compiled. Summary information from DOT was presented in a handout to committee members. A copy of this material is attached and made part of the minutes.

Ms. Lois Artis-Murray, Asst. Secretary for the North Carolina Department of Environment, Health and Natural Resources, presented the Year 2000 conversion plans for her department. Ms. Artis-Murray was assisted in her presentation by Mr. Ed Carter, the DEHNR Year 2000 project manager. Their presentation reviewed their department assessment and funding concerns. Summary information was presented to committee members and is attached as part of the minutes.

Ms. Martha Kincheloe from the Department of Public Instruction presented the Year 2000 conversion plans for her department. She reviewed current status, conversion needs and estimated funding requirements. Summary information was made available to committee members. This information is attached as part of the minutes.

The meeting adjourned at 12:50 pm.

Representative Dennis Reynolds

Chairman

Tina Covington

Committee Clerk

### **VISITOR REGISTRATION SHEET**

### TECHNOLOGY

March 20, 1997

Name of Committee

Date

### VISITORS: PLEASE SIGN BELOW AND RETURN TO COMMITTEE CLERK

NAME	FIRM OR AGENCY AND ADDRESS
DOROTHY WATSON	NCDOT-
mercipe Benton	NCPOT
BILL COX	DAR / DIRM
Jim Elanto	DHZ.
OED Jenfine	05C
Carolin Jackson	DHR-DIEM
JACK ENNIS	DHR/DIRM
Denny McLuie	OSC/IRM
My ant	Science : Sechnology - DAA
Edward Carter	EHNR
R. Lois Artis-Murray	DEHNR
Jane Narsham	State Bd. of Education
Jallon Habert	DAO COLPONATION
Bel Wade	OAO Corporation
DON Fulford	NCGA
Herb Cressband	Bell South
Marka Muchs Pal	NCOPI
Bill Sol	DOA .
Mike Huggins	10:
Eer LARSTEN	18m GOVERAMENT
PAUL ROBERTS	001
Januar Marko	1 27 43 17
Mrssy Wilden	Legislature Intern
DAVE BRUTDN	OSC
CHUCK COORE	
Ruth Subbie	NCDOT

### **VISITOR REGISTRATION SHEET**

TECHNOLOGY	March 20, 1997
Name of Committee	Date
VISITORS: PLEASE SIGN BELOW AN	ND RETURN TO COMMITTEE CLERK
NAME	FIRM OR AGENCY AND ADDRESS
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### **Systems Inventory**

- Forty-six (46) compliant systems
- Forty-five (45) non-compliant systems

### Approach:

Replace 3
Retire 5
Modify 37

- Excess of 5 million lines of code
- Approximately 5700 program modules (approximately 50% COBOL, remainder Easytrieve Plus, Information Expert, xBase, etc.)

### **Urgency**

- Food Stamps fails January 1998
- Eight (8) other systems fail by January 1999 (these nine systems are 20% of non-compliant systems)

### **Progress**

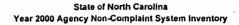
- Hired full time Year 2000 coordinator
- Created work plan template to be utilized by each application team
- Submitted appropriate funding requests and work plans to Office of State Controller for 37 non-compliant systems (total \$10.5 million, Federal portion \$3.7 million, State portion \$6.8 million)
- Attended training provided by vendor in use of tool (AdPac) selected by Office of State Controller
- Identified and assigned project leader for Food Stamp effort
- Utilizing change management software package (Endevor) selected by Office of State Controller

this page updated 3/21/97



#### (THIS INVENTORY DOES NOT CONTAIN AGENCY CUSTOMIZED INFORMATION)

Agency Name: Department of Human Resource			]				,			T												
<b>!</b>	Mission	Critical S	System li	ndicators	System	Size	l	Syst	em Failure Date	Year	2000 5	Strategy		oroach (c	Fix" Str	ategy:			If "Replace" S	trategy:		1
	(0	heck all	that appl	ly)	(provide one o	or the other	)	(provid	e one or the other)	1(	check	one)	l Ar	one)								
List Systems which may be Non-Year 2000 Compliant (please list in order of importance to your agency mission)SEE NOTE BELOW	Provides mandatory business or program functions to public: payments, services, aafety, security	Meets mandatory legal, statutory or regulatory requirements	Performs a revenue function	Performs an internal operating or strategic planning business function	Total Lines of Code	ø of Program Modules	Primary Programming Languages	System Processing Horizon (in months or years)	Expected Failure Date (xx/xx/xxxx)	Fix	Replace	Netwer Not known at this time	Expand dates to full 4-digit year format floric and database)	Window technique (changing code to interpret 2-digit format)		Has planning effort begun?	Has conversion coding begun?	Expected completion date xy/xx/xxxx (if known)	Expected Implementation Date xx/xx/xxxx	Estimated cost to replace	Total Cost	QA Review
1 Food Stamp Program (includes FSIS QA Progra	Yes	Yes			566,500	585	COBOL II		January 1, 1998	Yes	_   .		Yes			Yes	No	December/31/1998 (co	ompletion of final phase)		2,157,169	88,800
2 Work First and Medicaid (Eligibility Info Sys)	Yes	Yes	Yes	Yes	910,000	524	COBOL II		December 1, 1998	Yes			Yes			Yes	No	June 30, 1999			3,171,536	88,800
3 PQA - DSS Child Placement & Payment System	Yes	Yes			147,000	113	COBOL II		December 30, 1998	Yes			Yes			Yes	No	December 30, 1997			114,800	14,800
4 WWF - DSS Employment Program Information	Yes	Yes			140,000	90	COBOL II		December 30, 1998	Yes			Yes			Yes	No	December 30, 1997			154,800	14,800
5 DSS Serv Info Sys; Adult Protective: Daysheet	Yes	Yes			50,000	81	COBOL II		December 30, 1998	Yes			Yes			Yes	No	December 30, 1997			134,800	14,800
6 DSS Low Income Housing Energy Assistance Pg	Yes	Yes			113,300	65	COBOL II		December 30, 1998	Yes			Yes			Yes	No	December 30, 1997			94,800	14,800
7 CYA - DSS Child Abuse & Neglect; Fatalaties	Yes	Yes			128,350	36	COBOL II		December 30, 1998	Yes		1	Yes			Yes	No	December 30, 1997			74,800	14,800
8 FCF - DSS Foster Care Facility Licensing	Yes	Yes			98,150	30	COBOL II		December 30, 1998	Yes			Yes			Yes	No	December 30, 1997			34,800	14,800
9 DSS AFDC - Emergency Assistance Program	Yes	Yes			19,000	20	COBOL		December 30, 1998	Yes			Yes			Yes	No	December 30, 1997			54,800	14,800
10 NCAS - North Carolina Accounting System	Yes	Yes	Yes	Yes		140	Information Expert		July 1, 1999	Yes			Yes	Yes	Yes	Yes	No	June 30, 1999 **			514,800	14,800
11 HealthQuest (HBOC) 2.0 System (ARBS)	Yes	Yes	Yes	Yes	1,264,182	2,474	Batch Cobol Programs		October 1, 1999	Yes						Yes	No		September 30, 1999		2,166,944	14,800
12 WCA - DSS County Reimbursement System	Yes	Yes			95,000	65	COBOL II		December 30, 1999	Yes			Yes			Yes	No	December 30, 1997			104,800	14,800
13 OPQ - Operations Tracking System	Yes	Yes	Yes	Yes		261	UI2/XBASE		January 1, 2000	Yes					Yes	Yes	No	January 1, 1998			24,500	14,800
14 VRA/VFA (Client Financial and Reporting Syst		Yes	Yes	Yes	200,000	200	COBOL II		January 1, 2000	Yes				Yes		Yes	No	June 30, 1998			174,733	14,800
15 WIL (Willie M on-line and batch system)	Yes	Yes	Yes	Yes	180,000	154	Ezytrieve +, Cobol II, Visual Gen		January 1, 2000	Yes						Yes	No	April 30, 1997			52,924	14,800
16 WDA - Medicaid Accounting System		Yes	Yes	Yes	27,000	135	Ezytrieve +		January 1, 2000	Yes			Yes		1.	Yes	No	January 1, 2000			64,800	14,800
17 THS (Thomas S System)	Yes	Yes	Yes	Yes	78,000	113	Ezytrieve +, Cobol II, Visual Gen		January 1, 2000	Yes			Yes		•	Yes	No	July 31, 1997			43,128	14,800
18 MCI - Master Client Index		Yes	Yes			78	COBOL II		January 1, 2000		Yes		1			Yes	No		June 30, 1998	\$100,000.00	195,800	14,800
19 MGA (Pioneer Unit Cost Reimbursement Syste	Yes	Yes	Yes	Yes	58,000	76	Ezytrieve +, Cobol II, Visual Gen		January 1, 2000	Yes						Yes	No	May 31, 1998			43,128	14,800
20 Cost Accounting (MAA, MHA)	Yes	Yes	Yes		36,000	68	COBOL II		January 1, 2000	Yes			Yes		1	Yes	No	February 28, 1999			314,631	14,800
21 BBS (Electronic Service System)	Yes	Yes	Yes	Yes	107,450	65	COBOL II, Visual Gen		January 1, 2000	Yes			Yes			Yes	No	September 30, 1997	1		31,671	14,800
22 VWA (Community Rehabilitation System) Batch	Yes	Yes	Yes	Yes	50,000	38	COBOL II		January 1, 2000	Yes				Yes		Yes	No	March 31, 1998			55,521	14,800
23 VIA (Social Security Reimbursement)	Yes	Yes	Yes	Yes	38,000	32	COBOL II, Visual Gen		January 1, 2000	Yes						Yes	No	October 31, 1997			21,663	14,800
24 CEA (Client Information Services)	Yes	Yes		Yes	75,000	27	COBOL.		January 1, 2000	Yes			Yes			Yes	No	January 1, 1997			108,931	14,800
25 VRB (Community Rehabilitation System) On-Li	Yes	Yes	Yes	Yes	34,000	21	Visual Gen		January 1, 2000	Yes			1			Yes	No	August 31, 1998			20,702	14,800



#### (THIS INVENTORY DOES NOT CONTAIN AGENCY CUSTOMIZED INFORMATION)

Agency Name: Department of Human Resource																							
	Mission	Critical S	System I	ndicators	System	Size		Syste	em Failure Date	Year	2000 9	Strategy		Approac		Strates	gy:			If "Replace" S	trategy:		
	(	heck all	that appl	ly)	(provide one o	r the other)		(provid	e one or the other)		heck	one)	_	• •	ne)	•							
List Systems which may be Non-Year 2000 Compliant (please list in order of importance to your agency mission)SEE NOTE BELOW	Provides mandatory business or program functions to public: payments, services, safety, security	Meets mandatory legal, statutory or regulatory requirements	Performs a revenue function	Performs an internal operating or strategic planning business function	Total Lines of Code	∉ of Program Modules	Primary Programming Languages	System Processing Horizon (in months or years)	Expected Failure Date (xx/xx/xxxx)	Fix	Replace	Retire Not known at this time	dat	(logic and database)	Window technique (changing code to interpret 2-digit format)		Has planning effort begun?	Has conversion coding begun?	Expected completion date xy/xy/xxxx (if known)	Expected Implementation Date χεγχέχει	Estimated cost to replace	Total Cost	QA Review
26 MQC - Medicaid Quality Control Sampling		Yes	Yes	Yes		20	COBOL II		January 1, 2000	Yes				Yes			Yes	No	January 1, 1998			110,800	14,800
27 BGA (SAB Reporting)	Yes	Yes	Yes	Yes	10,000	20	COBOL II		January 1, 2000	Yes					Yes	,	Yes	No	June 30, 1998			21,834	14,800
28 YCA (Youth Services)	Yes	Yes	Yes	Yes	35,000	19	COBOL II, Visual Gen		January 1, 2000	Yes					Yes		Yes	No	January 1, 1997			51,862	14,800
29 HWA - Third Party Query (TPQ)		Yes	Yes		9,000	9	COBOL II		January 1, 2000	Yes			_ \	Yes			Yes	No	July 1, 1997			81,550	14,800
30 SUA (County Billing)	Yes	Yes	Yes	Yes	5,000	5	COBOL		January 1, 2000	Yes					Yes		Yes	No	June 30, 1998			20,519	14,800
31 VES - Employment Security Commission Wage I	ng	Yes	Yes			2	COBOL II	, ,	January 1, 2000	Yes				Yes			Yes	No	January 1, 1999			24,800	14,800
32 VBN-SSA Beneficiary Data Exchange (Bendex)		Yes	Yes		14,000	14	Cobol II (batch)		January 15, 2000	Yes			_  `	Yes			Yes	No	September 30, 1997			113,800	14,800
33 VBE - SSA BEER (Beneficiary Earning Exchange)		Yes	Yes			5	COBOL II		January 15, 2000	Yes						Yes Y	Yes	No	September 30, 1997			17,550	14,800
34 VSD - Supplemental Social Sec Data Exchange		Yes	Yes	ļ		13	COBOL II, Ezytrieve +		January 31, 2000	Yes				Yes			Yes	No	January 1, 1999			24,800	14,800
35 MCC - Medicaid Claims Processing Assessment	Sys	Yes	Yes	Yes		7	COBOL II		February 1, 2000	Yes			\	Yes			Yes	No	January 1, 2000			56,800	14,800
36 SXA - IRS Financial Resource		Yes	Yes	<u> </u>	12,000	12	COBOL		February 15, 2000	Yes				Yes			Yes	No	January 1, 1998			118,800	14,800
37 ACTS	Interface	s will bec	ome com	pliant via	maintenancei	nterfaces wil	th currently non-compliant system	ms		Yes													
38 Forms System	Will rew	rite under	normal	maintenar	nce						Yes												
39 Case Tracking	No Year	2000 fund	ling requ	ested							\	res .											
40 IV-D Letter	No Year	2000 fund	ling requ	ested								íes 💮											
41 CAMS	No Year	2000 fund	ling requ	ested								res											
42 Child Support Enforcement (Bradford)	No Year	2000 fund	ling requ	ested								res .	- 1										
43 Title-IV-D Support SPEC Trng	No Year	2000 fund	ling requ	ested								res	_										
44 Leave System	Will rew	rite unde	r normal	maintenar	nce					-	Yes		_										
45 DVA - Student Billing System	Will fix	nder nor	mal mair	ntenance						Yes			$\perp$										
DHR TOTAL					4,499,932	5,617																10,574,096	680,800

		FPI	%	Year 19	96-97	Year 19	97-98	Year 1	1998-99	Year	1990-00	Grand Tot	al - Year 2000 Pr	ojection
	Federal Fund-FRC	State	Fed	State	Federal	State	Federal	State	Federal	State	<u>Federal</u>	Total Cost	State	Federal
Division of Information Resources			į											
OPQ Operations Tracking System	State	100.0%	0.0%	\$0	\$0	\$24,500	\$0					\$24,500	\$24,500	\$0
			ļ		Ī				1			i i		
Division of Social Services	1		i											
CYA DSS Child Abuse & Neglect:Fatalities	Child Welfare IV-B	25.0%	75.0%	\$7,419	\$22,256	\$11,281	\$33,844		1			\$74,800	\$18,700	\$56,100
	. 1										. · •»,			
EAP DSS AFDC-Emergency Assistance Program	AFDC-Admin for Maint Asst.	50.0%	50.0%	\$12,380	\$12,379	\$15,021	\$15,020		j			\$54,800	\$27,400	\$27,400
	<u> </u>												**	***
EPA DSS Low Income Housing Energy Assist Prg	Low Income Energy Asst Admin	0.0%	100.0%	\$0	\$41,075	\$0	\$53,725				•	\$94,800	\$0	\$94,800
SYA DSS Serv Info Sys; Adult Protect: Daysheet	Sura	100.0%	0.0%	\$133	<b>s</b> o	\$218	\$0					\$134,800	\$350	\$0
517 D35 Serv IIII0 Sys, Addit Flotect. Daysheet	State Medical Assistance Admin	50.0%	50.0%	\$2,481	\$2,481	\$4,077	\$4,077					\$154,000	\$6,558	\$6,558
	AFDC-Admin for Maint Asst.	50.0%	50.0%	\$7,204	\$7,204	\$11,837	\$11,837						\$19,041	\$19,041
	IV-E Foster Care Admin	50.0%	50.0%	\$1,617	\$1,617	\$2,656	\$2,656						\$4,273	\$4,273
	Independent Living	0.0%	100.0%	\$0	\$235	\$2,030	\$385						\$0	\$620
	Low Income Energy Asst Admin	0.0%	100.0%	\$0	\$15	\$0	\$25			İ	,	1	\$0	<b>\$</b> 40
	Social Services Block Grant	25.0%	75.0%	\$2,704	\$8,113	\$4,443	\$13,330			Ī			\$7,148	\$21,443
	Food Stamps	50.0%	50.0%	\$8	\$8	\$13	\$13			ļ			\$20	\$20
	IV-F Jobs Spec.	10.0%	90.0%	\$1,166	\$10,496	\$1,917	\$17,249						\$3,083	\$27,746
	Child Welfare IV-B	25.0%	75.0%	\$1,369	\$4,108	\$2,250	\$6,750			1	•	1	\$3,620	\$10,858
	SSBG-Title XX Family Planning	10.0%	90.0%	\$4	\$37	\$7	\$60			ŀ		1	\$11	\$97
	, , ,		ŀ			_						İ		
FCF DSS Foster Care Facility Licensing	IV-E Foster Care Admin	50.0%	50.0%	\$4,787	\$4,787	\$5,583	\$5,583				•	\$34,800	\$10,370	\$10,370
	Child Welfare IV-B	25.0%	75.0%	\$1,623	\$4,868	\$1,892	\$5,677						\$3,516	\$10,544
														j
PQA DSS Child Placement & Payment System	IV-E Foster Care Admin	50.0%	50.0%	\$10,335	\$10,335	\$16,166	\$16,166					\$114,800	\$26,502	\$26,502
	Child Welfare IV-B	25.0%	75.0%	\$3,503	\$10,510	\$5,480	\$16,439				1.		\$8,983	\$26,949
	Adoption Assistance Admin	50.0%	50.0%	\$4,578	\$4,578	\$7,161	\$7,161					1	\$11,738	\$11,738
	AFDC-Admin for Maint Asst.	50.0%	50.0%	\$466	\$466	\$728	\$728	-					\$1,194	\$1,194
					i								1	
WCA DSS County Reimbursement System	State	100.0%		\$14,373	\$0	\$5,088	\$0					\$104,800	\$19,461	\$0
	Medical Assistance Admin	50.0%	50.0%	\$1,231	\$1,231	\$435	\$436						\$1,666	\$1,666
	Title IV-D CSE	34.0%	66.0%	\$6,821	\$13,241	\$2,415	\$4,687						\$9,236	\$17,928
	Child Welfare IV-B	25.0%	75.0%	\$1,223	\$3,669	\$433	\$1,299					1	\$1,656	\$4,968
•	CWS-Family Pres. Serv.	0.0%	100.0%	ł	\$1,602	\$0	\$567						\$0	\$2,169
	Refugee Cash & Medical Asst	0.0%	100.0%	1	\$1,471	\$0	\$521						\$0	\$1,991
	Independent Living	0.0%	100.0%	ı	\$1,231	\$0	\$436						\$0	\$1,666
	Low Income Energy Asst Admin	0.0%	100.0%	ı	\$1,246	\$0	\$441						\$0	\$1,687
	Social Services Block Grant	25.0%	75.0%	\$726	\$2,177	\$257	\$771						\$983	\$2,948
	Child Abuse & Svc. Program	0.0%	100.0%	\$0	\$828	· \$0	\$293			L			\$0	\$1,121

•		FPI	P%	Year 19	96-97	Year 19	97-98	Year 19	98-99	Year 1	990-00	Grand To	tal - Year 2000 Pi	rojection
	Federal Fund-FRC	State	Fed	State	Federal	State	<u>Federal</u>	State	Federal	State	Federal	Total Cost	State	Federal
WCA DSS County Reimbursement System (cont'd)	Job Corps Department of Labor	0.0%	100.0%	\$0	\$3,003	\$0	\$1,063						\$0	\$4,066
•	Food Stamps	50.0%	50.0%	\$2,562	\$2,562	\$907	\$907			ļ			\$3,470	\$3,470
	AFDC-Admin for Maint Asst.	50.0%	50.0%	\$2,790	\$2,790	\$987	\$988				i		\$3,778	\$3,778
	Title IV-D Interim Funding	34.0%	66.0%	\$1,632	\$3,167	\$578	\$1,121	· ·		1			\$2,209	\$4,288
	IV-E Foster Care Admin	50.0%	50.0%	\$1,026	\$1,025	\$363	\$363	l		i '			\$1,389	\$1,389
	IV-F Jobs Spec.	10.0%	90.0%	\$293	\$2,640	\$104	\$935	[	-				\$397	\$3,575
	AFDC-Title IV-A Training	50.0%	50.0%	\$383	\$383	\$136	\$136				· ·		\$519	\$519
	Adoption Assistance Admin	50.0%	50.0%	\$604	\$604	\$214	\$214		i				\$817	\$817
	SSBG-Title XX Family Planning	10.0%	90.0%	\$87	\$780	\$31	\$276						\$117	\$1,056
WWF DSS Employment Program Information System	Jobs-IV-F Jobs Reg Admin	50.0%	50.0%	\$28,800	\$28,800	\$48,600	\$48,600					\$154,800	\$77,400	\$77,400
DMH/DD/SAS			ŀ											
ARB HealthQuest (HBOC) 2.0 System	State	100.0%	0.0%	\$247,485	\$0	\$943,660	\$0	\$760,641	\$0	\$215,158	\$0	\$2,166,944	\$2,166,944	\$0
Division of Social Services			ĺ											
SLA Food Stamp Program(inc. FSIS QA Program) (includes SLC)	Food Stamps	50.0%	50.0%	\$366,713	\$366,713	\$711,872	\$711,872					\$2,157,169	\$1,078,585	\$1,078,584
Division of Blind Services		1												
SUA County Billing	State	100.0%	0.0%					<b>\$</b> 20,519	\$0			\$20,519	\$20,519	<b>\$</b> 0
								320,317	30			320,317	\$20,319	30
BBS Electronic Service System	State	100.0%	0.0%	\$15,883	\$0					1		\$31,671	\$15,883	so
(Includes BVA)	Rehab Service	21.3%	78.7%	\$3,363	\$12,425								\$3,363	\$12,425
DCA CARRONS														
BGA SAB Reporting	State	100.0%	0.0%		i	\$21,834	\$0					\$21,834	\$21,834	\$0
Division of Vocational Rehabilitation			l				1							1
VRA Client Financial and Reporting System	Basic Support Program	21.3%	78.7%	\$12,472	\$46,083	\$24,746	\$91,432		·		1	\$174,733	\$37,218	\$137,515
(Includes VFA, VEA, VCA)					1									1
VIA Social Security Reimbursement	Basic Support Program		78.7%		į	\$4,614	\$17,049			İ		\$21,663	<b>\$</b> 4,614	\$17,049
VRB Community Rehabilitation System On-Line	Basic Support Program	21.3%	78.7%					\$4,410	\$16,292		:	\$20,702	\$4,410	\$16,292
VWA Community Rehabilitation System Batch	Basic Support Program	21.3%	.78.7%			\$11,826	\$43,695					\$55,521	\$11,826	\$43,695
DMH/DD/SAS														
CEA Client Information Services	State	100.0%	0.0%	\$61,996	\$0	\$46,935	\$0					\$108,931	\$108,931	<b>\$</b> 0
MAA Cost Accounting (includes MHA)	State	100.0%	0.0%	\$76,361	\$0	\$137,922	\$0	\$100,348	\$0			\$314,631	\$314,631	\$0 \$0
MGA Pioneer Unit Cost Reimbursement System	State	100.0%	0.0%	4.0,501		\$43,128	\$0	\$100,540	<b>40</b>			\$43,128	\$43,128	\$0
THS Thomas S System (includes THQ)	State	100.0%	0.0%	\$26,380	\$0	\$16,748	\$0					\$43,128	\$43,128	\$0
WIL Willie M on line and batch system	State	100.0%	11	\$52,924	\$0	2.0,7.0	• •					\$52,924	\$52,924	\$0 \$0
•												352,527	,	
												·		

		FPI	%	Year 19	96-97	Year 19	97-98	Year 199	8-99	Year 1	990-00	Grand Tot	al - Year 2000 Pr	ojection
	Federal Fund-FRC	State	<u>Fed</u>	State	Federal	State	Federal	<u>State</u>	<u>Federal</u>	State	<u>Federal</u>	Total Cost	State	<u>Federal</u>
Division of Youth Services			1				į							- 1
YCA Youth Services	State	100.0%	0.0%			\$51,862	\$0		H			\$51,862	\$51,862	\$0
									1					
DSS & DMA			1						- 1					
HWA Third Party Query (includes TPQ)	Medical Assistance Admin	50.0%	50.0%	\$17,537	\$17,537		1		1			\$81,550	\$17,537	\$17,537
	AFDC-Admin for Maint Asst.	50.0%	50.0%	\$11,621	\$11,621		1		1			1	\$11,621	\$11,621
	Food Stamps	50.0%	50.0%	\$11,164	\$11,164				1				\$11,164	\$11,164
	State	100.0%	0.0%	\$530	\$0				li li				\$530	\$0
	Title IV-D CSE	34.0%	66.0%	\$128	\$248				i				\$128	\$248
MCC Medicaid Claims Processing Assessment System	Madical Assistance Admin	50.0%	50.0%			\$28,400	\$28,400		1			\$56,800	\$28,400	\$28,400
Meet Medicald Claims Processing Assessment System	Medical Assistance Admin	30.07	30.070			320,400	\$20,400		ı			\$50,000	\$20,.00	320,100
MCI Master Client Index	Title IV-D CSE	34.0%	66.0%			\$18,605	\$36,116		,			\$179,530	\$18,605	\$36,116
	Food Stamps	50.0%	50.0%		į	\$17,172	\$17,172				ŀ		\$17,172	\$17,172
	Medical Assistance Admin	50.0%	50.0%			\$24,712	\$24,712		.			. 1	\$24,712	\$24,712
	AFDC-Admin for Maint Asst.	50.0%	50.0%			\$19,147	\$19,147						\$19,147	\$19,147
	State	100.0%	0.0%			\$2,747	\$0		Ī				\$2,747	\$0
												[		Į.
MQC Medicaid Quality Control Sampling	Medical Assistance Admin	50.0%	50.0%			\$42,300	\$42,300	\$13,100	\$13,100			\$110,800	\$55,400	\$55,400
													612.072	612.072
SXA IRS Financial Resource	AFDC-Admin for Maint Asst.	50.0%	50.0%			\$12,872	\$12,872					\$118,800	\$12,872	\$12,872
	Medical Assistance Admin	50.0%	50.0%			\$16,609	\$16,609						\$16,609	\$16,609
	Food Stamps	50.0%	50.0%			\$11,535	\$11,535						\$11,535	\$11,535
	Title IV-D CSE	34.0%	66.0%			\$12,501	\$24,267						\$12,501	\$24,267
VBE SSA BEER(Beneficiary Earning Exchange)	AFDC-Admin for Maint Asst.	50.0%	50.0%			\$2,706	\$2,706					\$17,550	\$2,706	\$2,706
VDE SOADLER(beneficiary Earling Exertainge)	Food Stamps	50.0%	50.0%			\$2,390	\$2,390					1 ,,,,,,,,	\$2,390	\$2,390
	State	100.0%	0.0%			\$388	\$0						\$388	\$0
	Medical Assistance Admin	50.0%	50.0%			\$3,485	\$3,485						\$3,485	\$3,485
			ŀ				·							
VBN SSA Beneficiary Data Exchange (Bendex)	Medical Assistance Admin	50.0%	50.0%	\$19,339	\$19,339	\$3,256	\$3,256					\$113,800	\$22,595	\$22,595
	Food Stamps	50.0%	50.0%	\$13,266	\$13,266	\$2,234	\$2,234				•		\$15,500	\$15,500
	AFDC-Admin for Maint Asst.	50.0%	50.0%	\$15,019	\$15,019	\$2,529	\$2,529						\$17,548	\$17,548
	State	100.0%	0.0%	\$2,153	\$0	\$362	\$0						\$2,514	\$0
			i i											
VES Employment Security Commission Wage Inquiry	State .	100.0%	11			\$81	\$0	\$81	\$0			\$24,800	\$161	\$0
	Medical Assistance Admin	50.0%	50.0%			\$2,658	\$2,658	\$2,658	\$2,658				\$5,316	\$5,316
	Title IV-D Enhanced Funding	10.0%	90.0%			\$6	\$51	\$6	\$51				\$11	\$104
	AFDC-Admin for Maint Asst.	50.0%	50.0%			\$1,773	\$1,773	\$1,773	\$1,773				\$3,546	\$3,546
	Food Stamps	50.0%	50.0%			\$1,700	\$1,700	\$1,700	\$1,700				\$3,400	\$3,400
		<u> </u>								<u> </u>				

VSD	Supplemental Social Sec Data Exchange
WDA	Medicaid Accounting System
EIS	Work First and Medicaid (includes EJA, WFA, WDB)
OSC SAE	NCAS North Carolina Accounting System

Total Year 2000 Projection

	FPI	2%	Year 1	996-97	Year 1	997-98	Year 19	998-99	Year 1	990-00	Grand To	tal - Year 2000 P	rojection
Federal Fund-FRC	State	Fed	State	Federal	State	Federal	<u>State</u>	Federal	State	<u>Federal</u>	Total Cost	State	Federal
State	100.0%	0.0%			1		\$548	\$0			\$24,800	\$548	\$0
Medical Assistance Admin	50.0%	50.0%				-	\$4,930	\$4,930				\$4,930	\$4,930
Food Stamps	50.0%	50.0%					\$3,376	\$3,376				c \$3,376	\$3,376
AFDC-Admin for Maint Asst.	50.0%	50.0%					\$3,820	\$3,820				\$3,820	\$3,820
1								:					
Medical Assistance Admin	50.0%	50.0%	\$32,400	\$32,400						:	\$64,800	\$32,400	\$32,400
State	100.0%	0.0%			\$73,716	\$0	\$36,654	<b>\$</b> 0			\$3,171,536	\$110,369	\$0
Medical Assistance Admin	50.0%	50.0%			\$775,496	\$775,496	\$385,602	\$385,603				\$1,161,099	\$1,161,099
AFDC-Admin for Maint Asst.	50.0%	50.0%			\$245,931	\$245,931	\$122,285	\$122,285				\$368,215	\$368,216
SSBG-Title XX Family Planning	10.0%	90.0%			\$169	\$1,525	\$84	\$758			}	\$254	\$2,284
State	100.0%	0.0%			\$257,400	\$0	\$257,400	\$0			\$514,800	\$514,800	\$0
			\$1,111,062	\$763,833	\$3,773,805	\$2,417,691	\$1,719,935	\$556,346	\$215,158	\$0	\$10,557,826	\$6,819,956	\$3,737,870

# State of North Carolina Office of the State Controller Information Resource Management Services Year 2000 Compliance Conversion Update March 1997

### What are the Results of the March 1997 Year 2000 Agency System Inventory?

- Background
  - March 1996 Impact Assessment (\$32 M)
  - November 1996 Revised Assessment (\$50 M)
  - FY 96-97 Short Session Funding Request for \$32 M (\$7.7 M from SIPS receipts)
  - February 1997 Year 2000 Agency System Inventory requested from agencies
- Current Year 2000 Compliance Conversion Estimate
  - \$ 131M All Executive Branch Agencies (excluding Universities)
  - Includes 25% Statewide contingency mandatory for project with this level of complexity
  - Use of 30% agency staff on conversions could reduce estimate to \$ 109 M.

#### \$ 200 M Universities

 Number of system modules provided by campuses will require substantial additional analysis since this estimate appears to be high

#### What Do the Numbers Mean?

- High level system inventory based on agency provided Lines of Code or # of Modules
- Consistent estimating process applied by OSC Year 2000 Project Team
- Includes some replacement system funding if not already funded through other sources
- Numbers from March move us closer to the right answer

### What Are the Logical Next Steps?

- Quickly secure continued use of quality outside resources to assist OSC in statewide assessment and project management effort
- Obtain remaining turnaround documents from agencies
- Resolve open points to further clarify agencies responses and ensure consistency
- Refine the funding sources and budgeting approach
- Begin working with the agencies and universities to complete detailed assessments and create a Statewide Conversion Master Plan

### What will the Statewide Conversion Master Plan Tell the State?

- What it will cost the state to achieve Year 2000 compliance conversion
- Which systems are already compliant and which will be fixed, replaced or retired
- What the priority is for converting mission critical systems
- How this will be accomplished

Statewide Conversion Master Plan is Due May 31, 1997

# State of North Carolina Information Resource Management Services Year 2000 Compliance Conversion Update March 20, 1997

	Recommendation as of May 17, 1996	Recommendation as of Nov 4, 1996	Recommendation as of March 20, 1997	Nov/March Difference over (under)
Department of Justice	\$929,000	\$929,000	\$2,180,665	\$1,251,665
Department of Administration	\$1,379,141	\$1,379,141	\$1,379,141	. \$0
Department of Agriculture	\$3,467	\$229,867	\$255,176	\$25,309
Department of Commerce	\$1,814,194	\$1,814,194	\$1,814,194	\$0
Department of Community Colleges	\$0	\$0	\$616,000	\$616,000
Department of Correction	\$0	\$0	\$0	\$0
Department of Crime Control & Public Safety	\$2,977,409	\$2,977,409	\$4,636,001	\$1,658,592
Department of Cultural Resources	\$1,000	\$1,000	\$9,457	\$8,457
Department of Env., Health, and Natural Res.	\$2,590.000	\$4,590,000	\$14,000,000	\$9,410,000
Department of Human Resources	\$13,063,501	\$13,063,501	\$10,949,862	(\$2,113,639)
Department of Insurance	\$349,017	\$349,017	\$1,043,141	\$694,124
Department of Labor	\$559,636	\$559,636	\$132,044	(\$427,592)
Department of Public Instruction	\$0	\$0	\$15,396,012	\$15,396,012
Department of Revenue	\$125,200	\$125,200	\$1,956,500	\$1,831,300
Department of Secretary of State	\$698,310	\$698,310	\$1,337,000	\$638,690
Department of State Treasurer	\$188,200	\$188,200	\$4,935,000	\$4,746,800
Department of State Auditor	\$120,000	\$120,000	\$2,039,453	\$1,919,453
Department of Transportation	\$148,065	\$15,148,065	\$35,266,000	\$20,117,935
Employment Security Commission	\$1,497,540	\$1,497,540	\$5,740,409	\$4,242,869
Office of the Governor	\$2,300	\$2,300	\$0	(\$2,300)
Office of State Budget and Management	<b>\$</b> 0 .	\$0	\$0	\$0
Office of State Personnel	\$33,542	\$33,542	\$220,500	\$186,958
Office of State Planning	\$80,000	\$80,000	\$85,000	\$5,000
Office of the State Controller	\$2,333,919	\$2,333,919	\$586,248	(\$1,747,671)
North Carolina Boards	\$6,900	\$6,900	\$10,500	\$3,600
Subtotal	\$28,900,341	\$46,126,741	\$104,588,304	\$58,461,563
Contingency (25%)	\$0	\$0	\$26,147,076	\$26,147,076
Total excluding Universities	\$28,900,341	\$46,126,741	\$130,735,380	\$84,608,639
University of North Carolina System	\$4,032,574	\$4,032,574	See Note 1	
Total	\$32,932,915	\$50,159,315	TBD	
Total with all external labor			\$130,735,380	
Total with 30% internal labor, 70% external la	abor		\$109,444,189	

#### Notes:

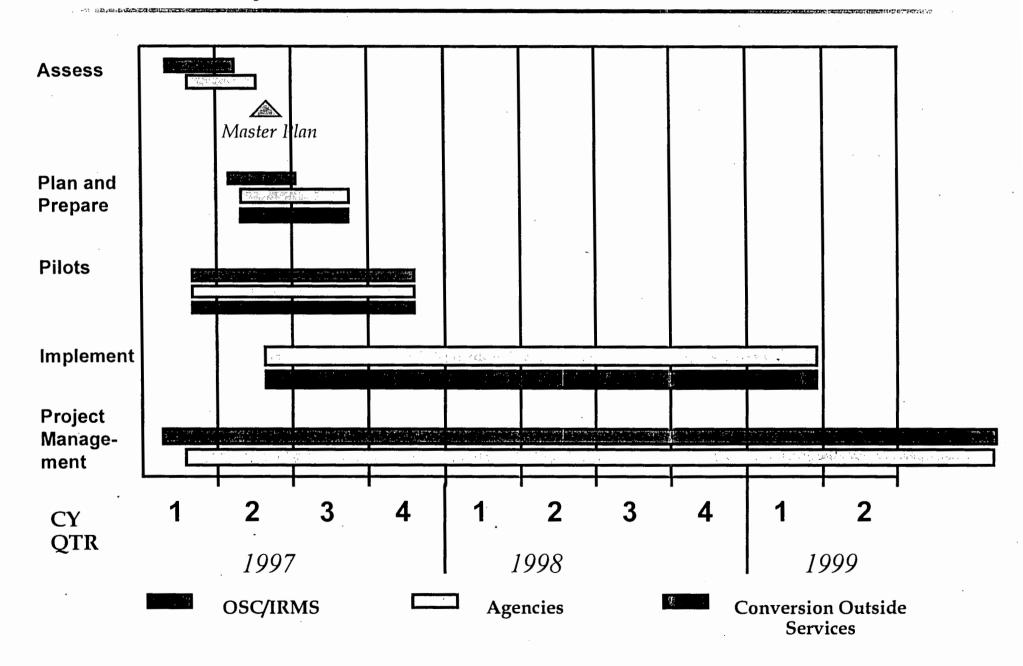
- 1. Module based estimate of \$200M requires substantial additional analysis.
- 2. Further analysis is required for Univ. of N.C. Hospitals; no estimate included in either the Nov. 1996 or March 1997 estimate
- 3. DHR and DEHNR estimate may increase, based upon further analysis of Divisions.
- 4. DEHNR estimate includes Wildlife Commission.
- 5. Departments with \$0 in the March 1997 estimate indicatated systems fully Year 2000 compliant.

# State of Nova Carolina Office of the State Controller Information Resource Management Services Year 2000 Compliance Conversion Update March 1997

### Year 2000 Cost Breakdown

			Business Applications			
	Y2K Driver					
Cost Category		Fix	Replace System	3 <sup>rd</sup> Party	Development & Operations Software	Hardware
Conversion:	Application Development (Labor).			1		
	Tech Support (Labor)					
	Hardware					
	Software					
	Facilities					
Production/Operations	Hardware					
	Software					

### Office of the State Controller Year 2000 Project Timeline - March 1997 View



Agency	LOC assessed at \$1.93	Cost at \$1,93/LOC	LOC assessed at \$2.89	Cost at \$2.89/LOC	# Program Atodules	Program Module Cost	Daulasswant Cast	LOC Cost Estimate	Total Coat Estimate
Agency	31.73	COST #1 31.757E.OC	34.07	32.0%200	- Mounts		Replacement Cost	LOC COST ESTIMATE	Total Cost Istimate
Central Office SIMS (COS) (SIMS01)		\$0.00		\$0.00	. 5	\$17,500.00		\$0.00	\$17,500.00
Candidate for Professional Licensure (CERT01)		\$0.00		\$0.00	45	\$157,500.00		\$0.00	<b>\$</b> 157,500.00
Cash Management (CASH)		\$0.00	28,000	\$56,644.00		\$0.00		\$56,644.00	\$56,644.00
Cash Management (CASH)		\$0.00	7,000	\$14,161.00		\$0.00		\$14,161.00	\$14,161.00
Dun & Bradstreet - Internal (DBSI)		\$0.00	70,000	\$141,610.00		\$0.00		\$141,610.00	\$141,610.00
Dun & Bradstreet - Internal (DBSI)		\$0.00	4,500	\$9,103,50		\$0.00		\$9,103.50	\$9,103.50
Dun & Bradstreet - External (DBSE)		\$0.00	130,000	\$262,990.00		\$0.00		\$262,990.00	\$262,990.00
Dun & Bradstreet - External (DBSE)		\$0.00	3,500	\$7,080.50		\$0.00		\$7,080.50	\$7,080.50
DPI Payroll		\$0.00	1,100	\$2,225.30		\$0.00		\$2,225.30	\$2,225.30
Uniform Education Reporting System (UERS)		\$0.00	11,900	\$24,073,70		\$0.00		\$24,073.70	\$24,073.70
Smartstream		\$0.00	1,500	\$3,034.50		\$0.00		\$3,034.50	\$3,034.50
Smartstream		\$0,00	1,100	\$2,225.30		\$0.00		\$2,225.30	\$2,225.30
Smartstream		\$0.00	1,100	\$2,225.30		\$0.00		\$2,225.30	\$2,225.30
Child Nutrition (FOOD)		\$0.00	75,000	\$151,725.00		\$0,00		\$151,725.00	\$151,725.00
Child Nutrition (FOOD)		\$0.00	7,000	\$14,161.00		\$0.00		\$14,161.00	. \$14,161.00
Child Nutrition (FOOD)		\$0.00	11,000	\$22,253.00		\$0.00	•	\$22,253.00	\$22,253.00
Budgetary Allotment System (BALT)		\$0.00		\$0.00	356	\$1,246,000.00		\$0.00	\$1,246,000.00
EC End of Year Report (EXCC06)		\$0.00		\$0.00	171	\$598,500.00		\$0.00	\$598,500.00
EC HeadCount Report (EXCC03)		\$0.00		\$0.00	260	\$910,000.00		\$0.00	\$910,000.00
EC WillieM Report (EXCC07)		\$0.00		\$0.00	80	\$280,000.00		\$0.00	\$280,000.00
Graduate Surveys (GRAD)		\$0.00		\$0.00	67	\$234,500.00		\$0.00	\$234,500.00
Property Insurance (INSU01,INSU02)		\$0.00		\$0.00	417	\$1,459,500.00		\$0.00	\$1,459,500.00
Media & Technology (MED01)		\$0.00		\$0,00	55	\$192,500.00		\$0.00	\$192,500.00
TV Survey (TVS)		\$0.00		. \$0.00	49	\$171,500.00		\$0.00	\$171,500.00
Vehicle Fleet Management		\$0.00		\$0.00	47	\$164,500.00		\$0.00	\$164,500.00
Chapter 1 (CHP102)		\$0.00		\$0.00	29	\$101,500.00		\$0.00	\$101,500.00
Professional Personnel Activity Reporting	2								
(SAROL)	1	\$0.00		\$0.00	194	\$679,000.00	)	\$0.00	\$679,000.00
PMR (PMR01)		\$0.00		\$0.00	60	\$210,000.00		\$0.00	\$210,000.00
Licensure		\$0.00		\$0,00	240	\$840,000.00		\$0.00	\$840,000.00
Salary Administration		\$0.00		\$0.00	160	\$560,000.00		\$0.00	\$560,000.00
Salary Verification	1	\$0.00		\$0.00	160	\$560,000.00		\$0.00	\$560,000.00
LEA Financial		\$0.00		\$0.00	100	\$350,000.00	0	\$0.00	\$350,000.00
BUD		\$0.00		\$0.00	200	\$700,000.00	0	\$0.00	\$700,000.00
HRMS		\$0.00		\$0.00	250	\$875,000.00	0	\$0.00	\$875,000.00
Agency Personnel		\$0.00		\$0.00	50	\$175,000.00	D	\$0.00	\$175,000.00
Scholarship Loans		\$0,00		\$0,00	50	\$175,000.0	0	\$0.00	
Transfer Control (TRCN)		\$0.00		\$0.00	20	\$70,000.0	D	\$0.00	
School Name & Address (NAME)		\$0,00		\$0.00	30	\$105,000.0	0	\$0.00	
Media Production Billing (BILL03)		\$0.00		\$0.00	50	\$175,000.0	0	\$0.00	
Duplication Billing (BILL01)		\$0.00		\$0.00	50	\$175,000.0	0	\$0.00	\$175,000.00
AS/400 Internal Systems		\$0,00		\$0.00	1000	\$3,500,000.0	0	\$0.00	\$3,500,000.00
TOTAL for Questionnair	e \$0.	00 \$0.0	\$352,700.00	\$713,512.1	0 4,19	5 \$14,682,500.0	0 \$0.0	0 \$713,512.1	515,396,012.10



High-Level Cost Estimate Calculatio	n								
			LOC assessed at	Cost at	# Program	Program Module			ì
Agency	LOC assessed at \$1.93	Cost at \$1.93/LOC	\$2.89	\$2.89/LOC	Modules	Cost	Replacement Cost	LOC Cost Estimate	Total Cost Estimate
ENHR	-	\$0.00		\$0.00	4000	\$14,000,000.00		\$0.00	\$14,000,000.00
TOTAL for Questionnaire	C	\$0.00	0	\$0.00	4,000	\$14,000,000.00	\$0.00	\$0.00	\$14,000,000.00
									Ji
							Cross Foot	\$14,000,000.00	



#### High-Level Cost Estimate Calculation

Agency	LOC assessed at \$1.93	Cost at \$1.93/LOC	LOC assessed at \$2.89	Cost at \$2.89/LOC	# Program Modules	Program Module Cost	Replacement Cost	LOC Cost Estimate	Total Cost Estimate
Food Stamp Program (includes FSIS QA Program)		\$0.00	566500	\$1,146,029.50		\$0.00		\$1,146,029.50	\$1,146,029.50
Work First and Medicaid (Eligibility Info Sys)		\$0.00	910000	\$1,840,930.00		\$0.00		\$1,840,930.00	\$1,840,930.00
PQA - DSS Child Placement & Payment System		\$0.00	147000	\$297,381.00		\$0.00		\$297,381.00	\$297,381.00
WWF - DSS Employment Program Information Sys		\$0.00	140000	\$283,220.00		\$0.00		\$283,220.00	\$283,220.00
DSS Serv Info Sys; Adult Protective: Daysheet		\$0.00	50000	\$101,150.00		\$0.00		\$101,150.00	\$101,150.00
DSS Low Income Housing Energy Assistance Pgm		\$0.00	113300	\$229,205.90		\$0.00		\$229,205.90	\$229,205.90
CYA - DSS Child Abuse & Neglect; Fatalaties		\$0.00	128350	\$259,652.05		\$0.00		\$259,652.05	\$259,652.05
FCF - DSS Foster Care Facility Licensing		\$0.00	98150	\$198,557.45		\$0.00		\$198,557.45	\$198,557.45
DSS AFDC - Emergency Assistance Program		\$0.00	19000	\$38,437.00		\$0.00		\$38,437.00	\$38,437.00
DVA - Student Billing System		\$0.00		\$0.00	51	\$178,500.00		\$0.00	\$178,500.00
NCAS - North Carolina Accounting System		\$0.00		\$0.00	140	\$490,000.00		. \$0.00	\$490,000.00
HealthQuest (HBOC) 2.0 System		\$0,00	1264182	\$2,557,440.19		\$0.00		\$2,557,440.19	\$2,557,440.19
WCA - DSS County Reimbursement System		\$0.00	95000	\$192,185.00		00.02		\$192,185.00	\$192,185.00
OPQ - Operations Tracking System		\$0.00		\$0.00	261	\$913,500.00		\$0.00	\$913,500.00
VRA/VFA (Client Financial and Reporting System)		\$0.00	200000	\$404,600.00		\$0.00		\$404,600.00	\$404,600.00
WIL (Willie M on-line and batch system)		\$0.00	180000	\$364,140.00		\$0.00		\$364,140.00	\$364,140.00
WDA - Medicaid Accounting System		\$0.00	27000	• \$54,621.00		\$0.00		\$54,621.00	\$54,621.00
THS (Thomas S System)		\$0.00	78000	\$157,794.00		\$0.00		\$157,794.00	\$157,794.00
MCI - Master Client Index	, , , , , , , , , , , , , , , , , , , ,	\$0.00		\$0.00		\$0.00	\$100,000.00	\$0.00	\$100,000.00
MGA (Pioneer Unit Cost Reimbursement System)		\$0.00	58000	\$117,334.00		\$0.00		\$117,334.00	\$117,334.00
Cost Accounting (MAA, MHA)		\$0.00	36000	\$72,828.00		\$0.00		\$72,828.00	\$72,828.00
BBS (Electronic Service System)		\$0.00	107450	\$217,371.35		\$0.00		\$217,371.35	\$217,371.35
VWA (Community Rehabilitation System) Batch		\$0.00	50000	\$101,150.00		\$0.00		\$101,150.00	\$101,150.00
VIA (Social Security Reimbursement)		\$0.00	38000	\$76,874.00		\$0,00		\$76,874.00	\$76,874.00
CEA (Client Information Services)		\$0.00	75000	\$151,725.00		\$0.00		\$151,725.00	\$151,725.00
VRB (Community Rehabilitation System) On-Line		\$0.00	34000	\$68,782.00		\$0.00		\$68,782.00	
NIQC - Medicaid Quality Control Sampling		\$0.00		\$0,00	20	\$70,000.00		\$0.00	
BGA (SAB Reporting)		\$0.00		\$20,230.00		\$0.00		\$20,230.00	
YCA (Youth Services)		\$0.00	35000	\$70,805.00		\$0.00		\$70,805.00	\$70,805.00
HWA - Third Party Query (TPQ)		\$0.00	9000	\$18,207.00		\$0.00		\$18,207.00	
SUA (County Billing)		\$0.00	5000	\$10,115.00		\$0.00		\$10,115.00	
VES - Employment Security Commission Wage Inq		\$0.00		\$0.00	2 .	\$7,000.00		\$0.00	
VBN-SSA Beneficiary Data Exchange (Bendex)		\$0.00	14000	\$28,322.00		\$0.00		\$28,322.00	
VBE - SSA BEER (Beneficiary Earning Exchange)		\$0.00		\$0.00	5	\$17,500.00	·	\$0.00	
VSD - Supplemental Social Sec Data Exchange		\$0.00		\$0.00	13	\$45,500.00		\$0.00	
MCC - Medicaid Claims Processing Assessment Sys		\$0.00		\$0.00	7	\$24,500.00		\$0.00	
SXA - IRS Financial Resource		\$0,00	12,000	\$24,276.00		\$0.00		\$24,276.00	
ACTS	1	\$0.00	]	\$0.00		\$0.00	<u></u>	\$0.00	\$0.00

DH.	

orms System	\$0.00		\$0.00		\$0.00		\$0.00	\$0.00
Case Tracking	\$0.00		\$0.00		\$0.00		\$0.00	\$0.00
V-D Letter	\$0.00		\$0.00		\$0.00		\$0.00	\$0.00
CANIS	\$0,00		\$0.00		\$0.00		\$0.00	\$0.00
Child Support Enforcement (Bradford)	\$0.00		\$0.00		\$0.00		\$0.00	\$0.00
Fitle-IV-D Support SPEC Trng	• \$0.00		00.02		\$0.00		\$0.00	\$0.00
Leave System	\$0,00		\$0.00		\$0.00		\$0.00	\$0.00
Division of Vocational Rehabilitation								
Travel Reimbursement System	\$0.00		\$0.00		\$0.00		\$0.00	\$0.00
Attendant Care System	\$0.00		\$0.00		\$0.00		\$0.00	\$0.00
Batman Data Entry System	\$0.00		\$0.00		\$0.00		. \$0.00	\$0.00
Black Mountain Center								
DBS	\$0.00		\$0.00		\$0.00		\$0.00	\$0.00
ARBS	\$0.00		\$0.00		\$0,00		\$0.00	\$0.00
Staff Training	\$0.00		\$0.00		\$0.00		\$0.00	\$0.00
Western Carolina Center								
MC Plus (Pharmacy)	\$0.00		\$0.00		\$0.00		\$0.00	\$0.00
Duiui-Bradstreet	\$0.00	,	\$0.00		\$0.00		\$0.00	\$0.00
ARBS	\$0.00		\$0.00		\$0.00		\$0.00	\$0.00
Computrition	\$0.00		\$0.00		\$0.00		\$0.00	\$0.00
	\$0.00		\$0.00		\$0.00		\$0.00	\$0.00
TOTAL for Questionnaire	0 \$0.00	4,487,932	\$9,103,362.44	499	\$1,746,500.00	\$100,000.00	\$9,103,362.44	\$10,949,862.44

	LOC assessed at		LOC assessed at	Cost at		Program Module			
Agency	\$1.93	Cost at \$1.93/LOC	\$2.89	\$2.89/LOC	# Program Modules	Cost	Replacement Cost	LOC Cost Estimate	Total Cost Estimate
			•						
Commercial Accounts - Fiscal		\$0.00		\$0.00	34	\$119,000.00		\$0.00	\$119,000.00
Train System		\$0.00		\$0.00	2	\$7,000.00		\$0.00	\$7,000.00
Inmate Labor		\$0.00		\$0.00	7	\$24,500.00		\$0.00	\$24,500.00
Purchasing Tracking System		\$0.00		\$0.00	7	\$24,500.00		\$0.00	\$24,500.00
Recycle Products and Solid Waste									
System		\$0.00		\$0.00	15	\$52,500.00		\$0.00	
Shared Leave System		\$0.00		\$0.00	3	\$10,500.00		\$0.00	\$10,500.00
Federal Grant System		\$0.00		\$0.00	24	\$84,000.00		\$0.00	\$84,000.00
DMV Legislative Tracking		\$0.00		\$0.00	6	\$21,000.00		\$0.00	\$21,000.00
Grievance Tracking System		\$0.00		\$0.00	5	\$17,500.00		\$0.00	\$17,500.00
Project Management		\$0.00		\$0.00	12	\$42,000.00		\$0.00	\$42,000.00
Logo System		\$0.00		\$0.00	16	\$56,000.00		\$0.00	\$56,000.00
Federal Aid Billing System		\$0.00		\$0.00	35	\$122,500.00		\$0.00	\$122,500.00
Law Allowance Income Payroll		\$0,00		\$0.00	16	\$56,000.00		\$0.00	\$56,000.00
DBA Activities		\$0.00		\$0.00	100	\$350,000.00		\$0.00	\$350,000.00
Fiscal System		\$0.00		\$0.00	848	\$2,968,000.00		\$0.00	\$2,968,000.00
Comprehensive Approved Products									
Listing		\$0.00		\$0.00	0 34	\$119,000.00		\$0.00	\$119,000.00
Contractor Directory System		\$0.00		\$0.00	0 12	\$42,000.00		\$0.00	\$42,000.00
Govenor's Correspondence System		\$0.00		\$0.0	0 14	\$49,000.00		\$0.00	\$49,000.00
Personnel : Personnel - Retirement		\$0.00		\$0.0	0 422	\$1,477,000.00		\$0.00	\$1,477,000.00
Payroll		\$0.00		\$0.0	0 1086	\$3,801,000.00		\$0.00	\$3,801,000.00
Personnel Training		\$0.00		\$0.0	0 10	\$35,000.00		\$0.00	\$35,000.00
NCDOT-Permits System		\$0.00		\$0.0	0 26	\$91,000.00		\$0.00	\$91,000.00
PD-118 Automated Logging System		\$0.00		\$0.0	0 18	\$63,000.00		\$0.00	\$63,000.00
Right of Way Area Data System		\$0.00		\$0.0	0 12	\$42,000.00		\$0.00	\$42,000.00
Secretary's Correspondence System		\$0.00		\$0.0	0 4	\$14,000.00		\$0.00	\$14,000.00
Adopt-A-Highway Data System : Traffic		\$0.00		\$0.0	0 51	\$178,500.00		\$0.00	\$178,500.00
Bridge Maintenance		\$0.00		\$0.0	0 105	\$367,500.00		\$0.00	\$367,500.00
Ombudsman System		\$0.00		\$0.0	0 5	\$17,500.00		\$0.00	\$17,500.00
Equipment System : Fiscal -									
Equipment		\$0.00		\$0.0	0 · 77	\$269,500.00		\$0.00	\$269,500.00
Inventory System : Equipment - Class									
Codes : Inv (Class Code Mgmt) ;									
Inv/Equip/Fiscal : Inv/Purch/Fiscal :		50.00		50.0	103	\$360 500 00		\$0.00	\$360,500.00
Summaries		\$0.00	l	\$0.0	0 103	\$360,500.00	<u></u>	30.00	\$300,500.00



						•
Project Master Scheduling System	\$0.00	\$0.00	19	\$66,500.00	\$0.00	\$66,500.00
Materials & Tests Seed Quality						
Reporting	\$0.00	\$0.00	6	\$21,000.00	\$0.00	\$21,000.00
Materials & Tests Certifications						
Reference Files : Landscape	\$0.00	\$0.00	24	\$84,000.00	\$0.00	\$84,000.00
Secretary's Legislative Tracking						
System : Legislative Tracking	\$0.00	\$0.00	32	\$112,000.00	\$0.00	\$112,000.00
Traffic Engineering Spot Safety						
Program	\$0.00	\$0.00	11	\$38,500.00	\$0.00	\$38,500.00
NCDOT Fixed Assets System	\$0.00	\$0.00	7	\$24,500.00	\$0.00	\$24,500.00
Computerized Message Mailing						
System : MIS	\$0.00	\$0.00	11	\$38,500.00	\$0.00	\$38,500.00
Private Engineering Firm Project Data	\$0.00	\$0.00	12	\$42,000.00	\$0.00	\$42,000.00
Materials and Test System	\$0.00	\$0.00	45	\$157,500.00	\$0.00	\$157,500.00
Right-of-Way Management System	\$0.00	\$0.00	43	\$150,500.00	\$0.00	\$150,500.00
Erosion & Sediment Control : Planning						
& Traffic	\$0.00	\$0.00	36	\$126,000.00	\$0.00	\$126,000.00
Highway Location Inventory Update :						
Planning (Location Inventory)	\$0.00	\$0.00	23	\$80,500.00	\$0.00	\$80,500.00
Right-of-Way Encroachments Index	\$0.00	\$0.00	9	\$31,500.00	\$0.00	\$31,500.00
Traffic Engineering Accident Analysis	\$0.00	\$0.00	158	\$553,000.00	\$0.00	\$553,000.00
Traffic Engineering Signal						
Management : Rail (Signal					1	
Management)	\$0.00	\$0.00	32	\$112,000.00	\$0.00	\$112,000.00
Pavement Condition Survey :						
Pavement Management : Pavement						
Conditions	\$0.00	\$0.00	23	\$80,500.00	\$0.00	\$80,500.00
Traffic Ordinances	\$0.00	\$0.00	14	\$49,000.00	\$0.00	\$49,000.00
Highway Performance Monitoring					1 1	
System : Planning (Universal Mileage)	\$0.00	\$0.00	169	\$591,500.00	. \$0.00	\$591,500.00
Project Management System	\$0.00	\$0,00	45	\$157,500.00	\$0.00	\$157,500.00
State Titling and Registration System	\$0.00	\$0.00	307	\$1,074,500.00	\$0.00	\$1,074,500.00
International Registration Plan	\$0.00	\$0.00	123	\$430;500.00	\$0.00	\$430,500.00
Financial Security System	\$0.00	\$0.00	56	\$196,000.00	- \$0.00	\$196,000.00
Maintenance Management	\$0.00	\$0.00	16	\$56,000.00	\$0.00	\$56,000.00
Node Link .	\$0.00	\$0.00	4	\$14,000.00	\$0.00	\$14,000.00
Subcontract System	\$0.00	\$0.00	12	\$42,000.00	\$0.00	\$42,000.00
State Roads - Posted Road	\$0.00	\$0.00	7	\$24.500.00	\$0.00	\$24,500.00
Asphalt Job Mix Formula : Asphalt :	30.00	30.00	•	324.500.00	30.00	324,300.00
Asphalt Plants : Asphalt Sample						
Density Planning	\$0.00	\$0,00	19	\$66,500.00	\$0.00	\$66,500.00
Aviation	\$0.00	\$0.00	6	\$21,000.00	\$0.00	\$21,000.00
	\$0.00		<del></del> <del>7</del>	\$24,500.00		
Bicycle	30.00	\$0.00		\$24,300.00	\$0.00	\$24,500.00



Construction : Rainhart Profilograph						
Data Entry System	\$0.00	\$0.00	8	\$28,000.00	\$0.00	\$28,000.00
CRB	\$0.00	\$0.00	13	\$45,500.00	\$0.00	\$45,500.00
Geotechnical	\$0.00	\$0.00	9	\$31,500.00	\$0.00	\$31,500.00
Highway Design : Suspense Case						
Inquiry	\$0.00	\$0,00		\$7,000.00	\$0.00	\$7,000.00
Legislative Tracking - Trans Code						
LEG1 only	\$0.00	\$0.00	27	\$94,500.00	\$0.00	\$94,500.00
Planning (Secondary Roads)	\$0.00	\$0.00	19	\$66,500.00	\$0.00	\$66,500.00
Planning Supplementary Data /						
Supplementary Data	\$0.00	\$0.00	11	\$38,500.00	\$0.00	\$38,500.00
Planning & Environmental : Speed						
Check Study	\$0.00	\$0.00	14	\$49,000.00	\$0.00	\$49,000.00
Public Transportation : Planning						
(Public Transportation Address)	\$0.00	\$0.00	12	\$42,000.00	\$0.00	\$42,000.00
Rail+A138 (Federal RR Crossing)	50.00	60.00		500 500 00		
(Railroad Project)	\$0.00	\$0.00	23	\$80,500.00	\$0.00	\$80,500.00
Roadway : Municipal Street Fiscal Data	\$0.00	\$0.00	6	\$21,000.00	\$0.00	\$21,000.00
Traffic & Planning	\$0.00	\$0.00	4	\$14,000.00	\$0.00	
	\$0.00	\$0.00				\$14,000.00
Traffic Engineering		\$0.00	12	\$42,000.00	\$0.00	\$42,000.00
Contract Master Contract Vendor : Contracts : Fuel	\$0.00	\$0.00	<u> </u>	\$3,500.00	\$0.00	\$3,500.00
Price Adjustments : Letting Master	\$0.00	\$0.00	23	\$80,500.00	\$0.00	\$80,500.00
DOT Table : Project Management	30.00	30.00	20	380,300.00	50.00	300,300.00
Fund Status	\$0.00	\$0.00	4	\$14,000.00	\$0.00	\$14,000.00
Fuel Issues : Automated Fuel Issues	\$0.00	\$0.00	30	\$105,000.00	\$0.00	\$105,000.00
Highway / Improvement	\$0.00	\$0.00	1	\$3,500.00	\$0.00	\$3,500.00
Project & HIP Cross-Reference	\$0.00	\$0.00	2	\$7,000.00	\$0.00	\$7,000.00
Project File	\$0.00	\$0.00	6	\$21,000.00	\$0.00	\$21,000.00
Purchasing and Field Requisitioning	30.00	30.00		321,000.00	30.00	\$21,000.00
System : Purchasing / Inventory :		1 1				
Purchasing : Purchasing Fiscal	\$0.00	\$0.00	115	\$402,500.00	\$0.00	. \$402,500.00
Salt & Dynamite	\$0.00	\$0.00	1	\$3,500.00	\$0.00	\$3,500.00
Accident Reporting (Unknown)	\$0.00	\$0.00	0	\$0.00	\$0.00	\$0.00
Collision Reporting System	\$0.00	\$0.00	4	\$14,000,00	\$0.00	\$14,000.00
Traffic Project Update	\$0.00	\$0.00	1	\$3,500.00	\$0.00	\$3,500.00
Personnel's Logging System	\$0.00	\$0.00	8	\$28,000.00	\$0.00	\$28,000.00
State Highway Administrator's					35.00	320,000.00
Correspondence System	\$0.00	\$0.00	8	\$28,000.00	\$0.00	\$28,000.00
Invoice & Tracking System	\$0.00	\$0.00	23	\$80,500.00	\$0.00	\$80,500.00
BAMS Extract System	\$0,00	\$0.00	9	\$31,500.00	\$0.00	\$31,500.00
Design Services Bidding System : Bids	The same of the sa					
: Design Services HC : Design						
Services HW	\$0.00	\$0.00	66	\$231,000.00	\$0.00	\$231,000.00
DMV Imprest Warrants	\$0.00	\$0.00	15	\$52,500.00	\$0.00	\$52,500.00

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Warrant Check Writing System	. \$0.00	\$0.00	56	\$196,000.00	\$0.00	\$196,000.00
School Bus Safety System	\$0.00	\$0.00	0	\$0.00	\$0.00	\$0.00
Enforcement Administration	\$0.00	\$0.00	3	\$10,500.00	\$0.00	\$10,500.00
Overweight Citations	\$0.00	\$0.00	2	\$7,000.00	\$0.00	\$7,000.00
Dealer System	\$0.00	\$0.00	33	\$115,500.00	\$0.00	\$115,500.00
Inspection / Maintenance Information						
System	\$0.00	\$0.00	80	\$280,000.00	\$0.00	\$280,000.00
Traffic Counts	\$0.00	\$0.00	25	\$87,500.00	\$0.00	\$87,500.00
TIP Project History	\$0.00	\$0.00	9	\$31,500.00	\$0.00	\$31,500.00
Drivers License System	\$0.00	\$0.00	1700	\$5.950,000.00	\$0.00	\$5,950,000.00
Direct Deposit	\$0.00	\$0.00	21	\$73,500.00	\$0.00	\$73,500.00
Job Reports	\$0.00	\$0.00	0	\$0.00	\$0.00	\$0.00
Fuel Tax	\$0.00	\$0.00	0	\$0.00	\$0.00	\$0.00
NCDOT Ferry Division Survey	\$0.00	\$0.00	0	\$0.00	\$0.00	\$0.00
Statewide Maintenance Cost Program	\$0.00	\$0.00	0	\$0,00	\$0.00	\$0.00
Bridge Label Program	\$0.00	\$0.00	0	\$0.00	\$0.00	\$0.00
Bridge Maintenance	\$0,00	\$0.00	0	\$0.00	\$0.00	\$0.00
Class Download Conv/Summarization						
Pgm	\$0.00	\$0.00	0	\$0.00	\$0.00	\$0.00
Commuting Vehicles	\$0.00	\$0.00	0	\$0.00	\$0.00	\$0.00
Personnel Statistical System	\$0.00	\$0.00	0	\$0.00	\$0.00	\$0.00
Telephone Billing System	\$0.00	\$0.00	0	\$0.00	\$0.00	\$0.00
Utility Bill Billing System	\$0,00	\$0.00	0	\$0.00	\$0.00	\$0.00
MIS Purchase Requisition System	\$0.00	\$0.00	0	\$0.00	\$0.00	\$0.00
Child Remittance System	\$0.00	\$0.00	0	\$0.00	\$0.00	\$0.00
Federal Authorization System	\$0.00	\$0.00	0	\$0.00	\$0.00	\$0.00
Motor Fleet System	\$0.00	\$0.00	0	\$0.00	\$0.00	\$0.00
Fuel Master Conversion System	\$0.00	\$0.00	0	\$0.00	\$0.00	\$0.00
Highway Beautification System	\$0.00	\$0.00	0	\$0.00	\$0.00	\$0.00
NCDOT Parking System	\$0.00	\$0.00	0	\$0.00	\$0.00	\$0.00
Engineer Tracking System	\$0.00	\$0.00	0	\$0.00	\$0.00	\$0.00
Imprest Cash System	\$0.00	\$0.00	0	\$0.00	\$0.00	\$0.00
Workman's Compensation System	\$0.00	\$0.00	0 .	\$0.00	\$0.00	\$0.00
Service Awards System	\$0.00	\$0.00	0	\$0.00	\$0.00	\$0.00
Personnel Administrative Mgmt	30.00					
System	\$0,00	·\$0.00	0	\$0.00	\$0.00	\$0.00
Civil Rights Statistical System	\$0.00	\$0.00	0	\$0.00	\$0.00	\$0.00
Pre-packaged PC Software	\$0.00	\$0.00	0	\$0.00	\$0.00	\$0.00
Airsoft - AS400	\$0.00	\$0.00	3114	\$10,899,000.00	\$0.00	\$10,899,000.00
Grants Administration Automation Sys						
AS400	\$0.00	\$0.00	171	\$598,500.00	\$0.00	\$598,500.00
Light Traffic Roads	\$0.00	\$0.00	0	\$0.00	\$0.00	\$0.00

TOTAL for Questionnaire	\$0.00	\$0.00	\$0.00	\$0.00	\$10,076.00	\$35,266,000.00	\$0.00	\$0.00	\$35,266,000.0
Bids Diskette System		\$0.00		\$0.00		\$0.00		\$0.00	\$0.0
Project Management Cross-reference Program		\$0.00		\$0.00		\$0.00		\$0.00	\$0.0
DOH - Chief Engineer's M&C Reports		\$0.00		\$0.00	0	. \$0.00		\$0.00	\$0.0
MB, WB, or DBE Subcontractor Program		\$0.00		\$0.00	0	\$0.00		\$0.00	\$0.0
Inventory Usage Program		\$0.00		\$0.00	0	\$0.00		\$0.00	\$0.0
Travel Advances		. \$0,00		\$0.00	0	00,02		. \$0.00	\$0.0
Roadway Maintenence Program		00.02		\$0.00	0	\$0,00		\$0.00	\$0.0
Purchase Requisition Specifications Pgm - Inquiry		\$0.00		\$0.00	0	\$0.00		\$0.00	\$0.0
Pgm - Data Entry		\$0.00		\$0.00	0	\$0.00		\$0.00	\$0.0
Purchase Requisition Specifications									
Bridge Damages Program		\$0.00		\$0.00	0	\$0.00		\$0.00	\$0.0
Division Utilization Conversion Print		\$0.00		\$0.00	0	\$0.00		\$0.00	\$0.0
Fixed Assets Values < \$500		\$0.00		\$0.00	0	\$0.00		\$0.00	\$0.0
Progarm Gasoline		\$0.00		\$0.00	0	\$0.00		S0.00	\$0.0
Charge Card Entry Summarization		30.00		\$0.00		30.00		\$0.00	30.0
Structure Inspection Log		\$0.00		\$0.00	0	\$0.00		\$0.00	\$0.0
abel Printing Program  nventory Issues Summary by Month		\$0.00		\$0.00	0	\$0.00		50.00	\$0.0
Resurfacing Funds		\$0,00		\$0.00 \$0.00	. 0	\$0.00	1	\$0.00	\$0.0
Allocation of Maintenance &		\$0.00		\$0.00	. 0	\$0,00		\$0.00	\$0.0
Personnel Version		. \$0.00		\$0.00	0	\$0.00		\$0.00	\$0.0
Material Safety Data Sheet Field									
Control Version		\$0.00		\$0.00	0	\$0.00		\$0.00	\$0.0

### Y2000 Status Department of Public Instruction As of 3/20/97

### Completed

- Initial project plan
- · Inventory of systems
- Initial assessment identifying system size and compliance status
- Second assessment identifying failure dates, strategy, and modules/lines of code
- · Current assessment identifying projects requiring outside assistance

### To Be Completed

- · Refinement of fix estimates
- · Impact of dependencies on other systems
- · Determination of replacements and scope
- · Status of vendor products used within DPI
- Test plan

### Y2000 Timing - Assessment As of: 3/20/97

										,
SYSTEM		Prog		Failure		Scope	External	Expected	Interface	
Name	Code	Language	Ind	Date	Strategy	(Days)			Depend	System
Agency Personnel	PERS	COBOL	1		Fix	20 y	40%			
AS/400 Internal Systems		OV, DFU, CL	3	7/1/99	Replace	20 n	n/a		n	
BUD		COBOL	1		Fix/replace	20 n	n/a			
Budgetary Allotment System	BALT	FOCUS	1		Fix	10 n	n/a	************	у	D&B
Candidate for Professional Licensure	CERT0	DBASEIV	3			n/a n	n/a	8/1/97	n	
Cash Management	CASH	COBOL/CICS/Easytrieve	1		Fix/replace	40/960 y	0%/70%			
Central Office SIMS	SIMS01	RPG36	1		Replace	? y	100%		у	SIMS
Chapter 1	CHP102	FOCUS	2		Fix	30 y	80%		n	
DPI Payroll		Easytrieve	1	Section Control Control	1	20 n	n/a		n	
Dun & Bradstreet - Internal	DBSI	IE/Easytrieve	1	12/31/99	Fix	40 n	n/a		у	D&B
Duplication Billing	BILL01	Focus/PC	2	7/1/99	Replace	40 y	80%			
EC End of Year Report	EXCC0	FOCUS	2	11/1/99	Fix/replace	60/? y	80%		n	
EC HeadCount Report	EXCC0	FOCUS	2	4/1/99	Fix/replace	90/? y	80%		n	
EC WillieM Report	EXCC0	FOCUS	2	7/1/99	Fix/replace	20/? y	80%		n	
Graduate Surveys	GRAD	FOCUS	3		Fix	· n	?		n	
HRMS		COBOL	2		Fix/replace	20/? n	n/a			
LEA Financial		COBOL/Easytreve	1		Fix	7 y	n/a			
Licensure		COBOL/CICS/Easytreve	1		Replace	40 n	n/a	12/39/97		
Media & Technology	MED01	FOCUS	3	3/1/99	Fix/replace	30/? n	n/a		n	
Media Production Billing	BILL03	Focus/PC	2	7/1/99	Replace	20 y	80%			-
PMR	PMR01	JCL	1	7/1/99	Fix	60 n	n/a		n	
Professional Personnel Activity Reportin	SAR01	Cobol	2		Fix	5 n	n/a		n	
Property Insurance (INSU01,INSU02)		FOCUS	1	12/31/99	Fix/replace	120/? y	80%		n	
Salary Administration		COBOL/CICS/Easytreve	1		Replace	960 y	80%			
Salary Verificaiton		COBOL/CICS/Easytreve	1		Replace	960 y	80%			
Scholarship Loans		FOCUS	1		Replace	20 n	n/a	8/15/97		
School Activity Report	SAR02	COBOL/Easytrieve/DB2	2	12/31/99	Fix	10 n	n/a		у	Licen/Salary
School Name & Address	NAME	Install1 CICS/COBOL	. 1	7/1/99	Fix	n			n	
Smartstream		IE/SQL/QA&R	2	12/31/99	Fix	20 n	n/a		у	- :
Transfer Control	TRCN	Install/1 CICS/COBOL	3	7/1/99	Fix/replace	n			n	
TV Survey	TVS	FOCUS	3	3/1/99	Fix/replace	20/? y	80%		n	
Uniform Education Reporting System	UERS	COBOL II	1	12/31/99		n			у	
Vehicle Fleet Management		FOCUS		12/31/99		30 y	80%		n	

### DEHNR: Response to The North Carolina House Representatives' Information Technology Committee request (Year 2000).

### a) Your departmental plans for addressing the Year 2000 problem.

DEHNR has created a 5-person Year 2000 Coordination Team. The team is made up of representatives from each of the department's four organizational branches: Environment, Health (2), Natural Resources, and Administration. The department has assigned the lead Year 2000 coordinator responsibility to a project manager in our central Information Technology Services Division.

Numerous presentations regarding the Year 2000 have been made to all levels of the department including technical staff, division directors, and executive staff. The purposes for these presentations are: 1) to raise the level of awareness on the Year 2000 problem, 2) establish responsibility and ownership of the systems and, 3) to keep staff informed as to the state and departmental direction.

The DEHNR Year 2000 team participates in all Year 2000 user group meetings and is coordinating all efforts with the Office of the State Controller (OSC). Working with the guidelines established by OSC, DEHNR will determine the need for outside services in order to complete the work efforts identified in the OSC Master Plan. The program managers will manage the conversions with the intention of using sufficient outside resources for implementation, programming, database analysis, and system modifications.

### b) The budgetary resources your department has allocated, will request in upcoming biennial budget, or funds expected from the Office of State Control central Year 2000 fund.

The department has established a Year 2000 project manager position to coordinate all internal activities and ensure our efforts are consistent with state and industry accepted models.

The departmental biennial budgetary request includes \$750,000 for the continuing systems development of the Water Quality Basin Wide Data Management System. The Basin Wide Data Management project will replace four noncompliant systems currently running on the State Information Processing Service (SIPS) mainframe. The SIPS cost estimate for converting these systems to Year 2000 compliant technology is \$759,272. This conversion does not take into account the new regulatory requirements that the existing systems fail to meet.

The department is continuing to assess the options available for all other systems identified through this effort in order to make sound business decisions on which systems can be enhanced and which should be replaced. We are expecting the state to establish a fund to help support the conversion of all other systems to a Year 2000 compliant level.

### c) The computer systems in operation and the number of lines of code in each.

Through our efforts, we have identified 122 computer systems. For those systems that have not been completely inventoried, we are estimating each of them to contain approximately 33,833 lines of code for a total of more than 4.1 million lines of code (see attachment).

### d) The computer language code is developed in.

Languages include: COBOL, DBASE, ADF, PARADOX, FOXPRO, AND GUPTA SQL Windows. Approximately half the systems are written in COBOL (see attachment).

### e) The systems the agency proposes to retire.

At this time, the department plans to RETIRE seven computer systems (208,266 lines of code) not included in the inventory of 122 for Year 2000 assessment (see attachment).

### f) The estimated cost of correcting the Year 2000 project.

Using the Gartner "Cost Estimating Framework for the Year 2000" model, 122 computer systems averaging 33,833 lines of code produces an estimated cost of \$6,810,618 to FIX all systems to be Year 2000 compliant. However, a number of the systems we have referenced are to be REPLACED, and those costs will be significantly higher than a "FIX" solution. We are continuing to assess the fix verses replace model to our systems on a case by case basis.

The latest OSC cost estimates for the Year 2000 are \$16,251,000. The department is currently working with the Year 2000 OSC user group to review their findings and determine the cost model being applied by Anderson Consulting. Our desire is to determine where the variances occur and continue refining the scope of work to more completely define our cost for this effort.

### g) The lead agency official responsible for the agency Year 2000 project.

On an interim basis, Edward Carter has been designated project manager for this effort. A full time Project Manager position has been established and we are currently recruiting to fill the position.

### h) Progress to date your department has made.

Application system inventory information has been gathered from SIPS, Division of Information Technology Services, and other program divisions. Using this information, we have applied the Gartner Cost Model to help provide much needed planning information. DEHNR has created a 5-person Year 2000 Coordination Team. The team is made up of representatives from each of the department's four organizational branches: Environment, Health (2), Natural Resources, and Administration. The department has assigned the lead Year 2000 coordinator responsibility to a project manager in our central Information Technology Services Division. Numerous presentations regarding the Year 2000 have been made to all levels of the department including technical staff, division directors, and executive staff. The purposes for these presentations are: 1) to raise the level of awareness on the Year 2000 problem, 2) establish responsibility and ownership and, 3) to keep staff informed as to the state and departmental direction.

The DEHNR Year 2000 team continues to work with OSC and our project manager attends all Year 2000 user group meetings. Divisional staff are currently reviewing the system inventory for completeness and accuracy. Division directors are in the process of ranking the systems by mission critical order. After that process is complete, the executive staff will be ranking the systems from a departmental perspective.

The two recent data calls of the Office of the State Controller:

### "Year 2000 Project Funding"

The department was planning to use SIPS staff to assist in funding application completion for systems maintained by the SIPS team. Those plans were suspended when the OSC initiated a statewide project redirection.

### "Year 2000 Agency Non-Compliant System Inventory"

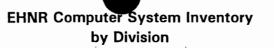
This request for information originated from the "redirected" OSC focus on the Year 2000 problem. Based on the short lead time (1 week) provided for responding, the department submitted a noncompliant system inventory based on previously gathered information. We are currently in the process of recanvasing the various divisions to gather the additional data being requested under the "redirection" focus.



			Total Nb:	YEAR-2000	Expected 2			
Application Name	Year Built	Application Language List	Lines Code	STRATEGY	Failure Year	Division Name	Divisi	on Director
Data Improvement Project		PARADOX 4.0,PAL		unknown		Div. Adult Health Promotion	Dale	Simmons
						Div. Adult Health Promotion		1
Aerometric Information Retrieval System			0	unknown		Div. Air Quality	Alan	Klimek
Air Quality Emission Inventory System	1992	FOXPRO	42,000	unknown	<u> </u>	Div. Air Quality	Alan	Klimek
Air Quality Program	o	COBOL, ADF	17,967	REPLACE		Div. Air Quality	Alan	Klimek
Automobile Inspection & Maintenance System		FOCUS,COBOL	0	unknown	<u> </u>	Div. Air Quality	Alan	Klimek
Compliance Monitoring System		DBASE III	0	unknown		Div. Air Quality	Alan	Klimek
Fee & Letter Writing System		FOXPRO	21,389	unknown		Div. Air Quality	Alan	Klimek
Fee/4 - Fee System		FOXPRO		unknown		Div. Air Quality	Alan	Klimek
I-Steps		FOXPRO		unknown		Div. Air Quality	Alan	Klimek
Permit Tracking System (regional)	0	DBASE III	4	unknown		Div. Air Quality	Alan	Klimek
Tomat Tracking Oyotom (regional)						Div. Air Quality		9
Employee Time Distribution/Leave	<b> </b>	-		unknown	1	Div. Budget, Planning & Analysis	Jane	Smith
Employee Time Distribution/Leave	<del> </del>					Div. Budget, Planning & Analysis		1
CAMA Tracking	<del> </del>		0	unknown		Div. Costal Management	Roger	Schecter
CAWA Tracking	<del> </del>			Turkii Tu		Div. Costal Management	Trogo.	1
Drinking Water Compliance Monitoring	<del> </del>	FOCUS.COBOL.WANG COBOL	<del> </del>	unknown		Div. Environmental Health	Linda	Sewall
Restaurant Management System	<del> </del>	CICS,COBOL2,PENPAL,EZ+,EZ		unknown	<del></del>	Div. Environmental Health	Linda	Sewall
Restaurant Management System	<del> </del>	I CICG,COBOLZ,FENFAL,CZ + ,CZ		·	ł	Div. Environmental Health	Linda	2
Ashanta Parmitting Custom	1006	GUPDA SQL Windows	<del> </del>	unknown	-	Div. Epidemiology	Michael	Moser
Asbestos Permitting System Immunization Day Care Facility Report System		COBOL ILEZ		unknown	<del> </del>	Div. Epidemiology	Michael	Moser
		D.THORTON EDIT, COBOL II, EZ, RPG		unknown		Div. Epidemiology	Michael	Moser
Immunization School Survey System	19/9	GUPDA SQL WINDOWS		unknown	<del> </del>		Michael	Moser
Lead Certification & Asbestos Accreditation	1000			<del></del>	<del> </del>	Div. Epidemiology	Michael	Moser
Tuberculosis Control Assessment Report System	1989	COBOL II,EZ	17,116	unknown	-	Div. Epidemiology	IMICHBEI	F
		CIOC COPOLO EZ .	AF 74.	FIX	1000	Div. Epidemiology	<del> </del>	Davis
Authorization System		CICS,COBOL2,EZ+	35,711 5,111		1998	Div. Fiscal Management	Rod	Davis Davis
CBS Interface-EDSF Master Files System		IMS,COBOL2,EZ,EZ+				Div. Fiscal Management		
CBS Interface-NC Accounting System		COBOL2	6,221		2000	Div. Fiscal Management	Rod	Davis
Claims Budget Online System		IMS,COBOL2,EZ,EZ +		unknown	ļ	Div. Fiscal Management	Rod	Davis
Claims Budget Payment Batch Facility System		COBOL2,EZ,EZ+		unknown	ļ	Div. Fiscal Management	Rod	Davis
Contract Data Batch System		COBOL,COBOL2,EZ,EZ+		unknown	ļ	Div. Fiscal Management	Rod	Davis
Contract Data Online System		CICS,COBOL2		unknown	1.000	Div. Fiscal Management	Rod	Davis
Non-Profit : Subrecipient System	1995	FOXPRO	14,900	unknown	1999	Div. Fiscal Management	Rod	Davis
	ļ		40.00			Div. Fiscal Management	ļ	8
Forest Development Program	<b></b>	COBOL	48,392			Div. Forest Resources	Stan	Adams
Forest Fire Tracking	<b>.</b>	COBOL	21,347		-	Div. Forest Resources	Stan	Adams
Forest Resources - Security	<b></b>			FIX	<u> </u>	Div. Forest Resources	Stan	Adams
Forest Resources-Temporary Personnel Tracking		COBOL	\ 24,763	FIX		Div. Forest Resources	Stan	Adams
				ļ		Div. Forest Resources		4
Birth Certification System		COBOL2		unknown		Div. Health & Environ. Statistics	Delton	Atkinson
Birth Index System	1984	COBOL2		unknown		Div. Health & Environ. Statistics	Delton	Atkinson
VACMAN				unknown ,		Div. Health & Environ. Statistics	Delton	Atkinson
Vital Records Accounting System		System 36 COBOL		unknown		Div. Health & Environ. Statistics	Delton	Atkinson
Vital Statistics Index & Late Receipts System		COBOL,EZ		unknown		Div. Health & Environ. Statistics	Delton	Atkinson
Vital Statistics System		COBOL2,COBOL,SAS,SPSS		unknown		Div. Health & Environ. Statistics	Delton	Atkinson
Vital Statistics Year End Batch System	1980	COBOL,EZ,SAS,SPSS	16,71	unknown		Div. Health & Environ. Statistics	Delton	Atkinson
						Div. Health & Environ. Statistics		7
DEHNR Public Records Catalog	1996	WEBSQL,UNIX PERL,UNIX VI,HTML2	]	unknown		Div. Information Technology Services	William	Golden
Disaster Recovery Backup File System		COBOL,EZ+,IMS UTILITIES	(	unknown		Div. Information Technology Services	William	Golden
Special Reports Requests System	1989	COBOL2,EZ,EZ+	7,500	FIX	1998	Div. Information Technology Services	William	Golden



		receives	AXSHION)		ministra in the State	or the Co	A Walter
Application (Tamp) (Year	reula Application Contract USA	Lines Code	SULPATEON.	Expected Failure Year	Division Vance	ำเกษา	on Director
Time Accounting	017		unknown		Div. Information Technology Services		Golden
1110 / 000011111					Div. Information Technology Services		4
Administration	WANG COBOL		RETIRE		Div. Laboratory Services	Lou	Turner
Administration	WANG COBOL		RETIRE		Div. Laboratory Services	Lou	Turner
Administration	WANG CODOL		REPLACE		Div. Laboratory Services	Lou	Turner
	WANG COBOL		REPLACE		Div. Laboratory Services	Lou	Turner
Family Planning Fee Renewal & Charge System	WANG COBOL		REPLACE		Div. Laboratory Services	Lou	Turner
HIV	Prodas, CDC package		REPLACE		Div. Laboratory Services	Lou	Turner
	WANG COBOL		REPLACE		Div. Laboratory Services	Lou	Turner
Labeling System	WANG COBOL		REPLACE		Div. Laboratory Services	<del></del>	Turner
Labeling System	WANG COBOL		REPLACE			Lou	
Labeling System		£		<u> </u>	Div. Laboratory Services	Lou	Turner
Laboratory Certification	WANG COBOL	}	REPLACE	\$	Div. Laboratory Services	Lou	Turner
Laboratory Support Tables	WANG COBOL		REPLACE	<u> </u>	Div. Laboratory Services	Lou	Turner
Masy II : Water System Inventory	WANG COBOL	<u> </u>	FIX		Div. Laboratory Services	Lou	Turner
Newborn HIV	WANG COBOL		RETIRE		Div. Laboratory Services	Lou	Turner
Personnel	WANG COBOL		REPLACE		Div. Laboratory Services	Lou	Turner
Provider System	WANG COBOL	1	REPLACE	<del></del>	Div. Laboratory Services	Lou	Turner
Scientific System	WANG COBOL		REPLACE	<u> </u>	Div. Laboratory Services	Lou	Turner
Specimen Tracking: 1011	WANG COBOL	I	REPLACE	<del></del>	Div. Laboratory Services	Lou	Turner
Specimen Tracking : Bloodlead	WANG COBOL		REPLACE		Div. Laboratory Services	Lou	Turner
Specimen Tracking : CAH	WANG COBOL		REPLACE		Div. Laboratory Services	Lou	Turner
Specimen Tracking: Chlamydia			REPLACE		Div. Laboratory Services	Lou	Turner
Specimen Tracking: Enteric	WANG COBOL	(	REPLACE		Div. Laboratory Services	Lou	Turner
Specimen Tracking: Fluoridation	WANG COBOL		REPLACE		Div. Laboratory Services	Lou	Turner
Specimen Tracking : Galactosemia	WANG COBOL	(	REPLACE		Div. Laboratory Services	Lou	Turner
Specimen Tracking: Haz. Waste (radiation)	WANG COBOL		REPLACE		Div. Laboratory Services	Lou	Turner
Specimen Tracking : Hepatitis	Paradox		REPLACE	<u> </u>	Div. Laboratory Services	Lou	Turner
Specimen Tracking : Hypothyroid	WANG COBOL		REPLACE		Div. Laboratory Services	Lou	Turner
Specimen Tracking : Inorganic Chemicals .	WANG COBOL		REPLACE	<del></del>	Div. Laboratory Services	Lou	Turner
Specimen Tracking: Mycobacteriology	WANG COBOL	· (	REPLACE		Div. Laboratory Services	Lou	Turner
Specimen Tracking : Organic Chemicals	WANG COBOL	(	REPLACE	1	Div. Laboratory Services	Lou	Turner
Specimen Tracking : PAP Smears	WANG COBOL		REPLACE	<b> </b>	Div. Laboratory Services	Lou	Turner
Specimen Tracking : Parasitology/Mycology	WANG COBOL	1 (	REPLACE		Div. Laboratory Services	Lou	Turner
Specimen Tracking : PKU	WANG COBOL		REPLACE		Div. Laboratory Services	Lou	Turner
Specimen Tracking: Radiation	WANG COBOL	£	REPLACE		Div. Laboratory Services	Lou	Turner
Specimen Tracking : Sickle Cell	WANG COBOL		REPLACE	<b></b>	Div. Laboratory Services	Lou	Turner
Specimen Tracking: Street Son	WANG COBOL		REPLACE	<del> </del>	Div. Laboratory Services	Lou	Turner
Water Microbiology	WANG COBOL		REPLACE	ł	Div. Laboratory Services	Lou	Turner
Water Microsiology				<del> </del>	Div. Laboratory Services		36
Albermarie Sound Creel Survey	O DBASE	1	FIX	2000	Div. Marine Fisheries	Bruce	Freeman
Arrest Conviction Data Information	GENER/OL		RETIRE	2000	Div. Marine Fisheries	Bruce	Freeman
Artificial Reef Buoy Tracking	0 DBASE		DFIX	2000	Div. Marine Fisheries	Bruce	Freeman
Biological Data	COBOL	<u> </u>	OFIX	2080	Div. Marine Fisheries	Bruce	Freeman
	O DBASE		DEIX	2000	Div. Marine Fisheries	Bruce	Freeman
Headboat Survey	O DBASE	<u> </u>	OFIX	2000	Div. Marine Fisheries	Bruce	Freeman
License Appeals		1			<u> </u>		
Licensing (94,95,96,97)	DBASE	·\$	FIX	2000	Div. Marine Fisheries	Bruce	Freeman
Mechanical Harvest Permits - Oysters / Clams	0 DBASE	· <u>\$</u>	FIX .	2000	Div. Marine Fisheries	Bruce	Freeman
Pound Net Permits	0 DBASE		) FIX	2000	Div. Marine Fisheries	Bruce	Freeman
Proclamation Mailing Data	0 DBASE		FIX	2000	Div. Marine Fisheries	Bruce	Freeman
Recreational Fishing Survey Information	COBOL		FIX	2000	Div. Marine Fisheries	Bruce	Freeman



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Application Name	Year Built	Application Language List	Lines Code	STRATEGY	Fallure Year	Olvision Name 4 to 1994	· DIVISI	on Director
Shellfish Bottom Leases / Prod Utilization		DBASE		FIX	2000		Bruce	Freeman
Shellfish Mapping Statistics	0	DBASE	0	FIX	2000	Div. Marine Fisheries	Bruce	Freeman
Submerged Lands Information		GENER/OL	. 0	RETIRE	2000 ↔	Div. Marine Fisheries	Bruce	Freeman
Trip Ticket Data	0	DBASE,SAS	0	FIX	2000	Div. Marine Fisheries	Bruce	Freeman
						Div. Marine Fisheries		15
Health Services Information System		COBOL, EZ+, SPSS, SAS, PL1, CICS	0	unknown		Div. Maternal-Child Health	Ann	Wolfe
Sickle Cell Tracking	-	PARADOX 5.0 WINDOWS, Object Pal	0	unknown		Div. Maternal-Child Health	Ann	Wolfe
						Div. Matemal-Child Health	······	2
NC Agriculture Cost Share Program	0	PARADOX	0	REPLACE	1999	Div. Soil & Water Conservation	Dewey	Botts
						Div. Soil & Water Conservation		1
Fee Collection : Hazardous Waste Facilities		dBASE III PLUS	0	unknown		Div. Solid Waste Mgmt.	Bill	Meyer
Hazardous Waste Annual Reporting		dBASE III PLUS,COBOL,FOCUS	0	unknown	1	Div. Solid Waste Mgmt.	Bill	Meyer
Publication Billing		dBASE III PLUS		unknown			Bill	Meyer
RCRA Facility Management		FOCUS, WANG COBOL		unknown			Bill	Meyer
Rule & Reg Tracking : Hazardous Waste		dBASE III PLUS		unknown			Bill	Meyer
Septage Fee Collection		dBASE III PLUS		unknown			Bill	Meyer
Solid Waste Management System		dBASE III PLUS		unknown	<del> </del>		Bill	Meyer
Tracking: Ground Water Contaminants		dBASE III PLUS, LOTUS 123		unknown			Bill	Meyer
Tracking: Superfund Site Costs		dBASE III PLUS		unknown	<del> </del>		Bill	Meyer
Tracking: Superiund Site Costs		ODASE III I EOS		dikiowii		Div. Solid Waste Mamt.		9
Compliance Monitoring		COBOL, ADF	191 774	REPLACE		Div. Water Quality	Preston	Howard
		ADF		RETIRE		Div. Water Quality	Preston	Howard
Emergency Response	1006	GUPDA SQL-WINDOWS		unknown		Div. Water Quality	Preston	Howard
Financial Information Control System	1996	COBOL, ADF		REPLACE	<del> </del>	Div. Water Quality	Preston	Howard
Non-NPDES		COBOL,ADF		REPLACE	<del> </del>	Div. Water Quality	Preston	Howard
NPDES	_	CUBUL, ADP		unknown	<u> </u>	Div. Water Quality	Preston	Howard
Underground Storage Tank Tracking				unknown		Div. Water Quality Count	rieston	noward
		00001 455		RETIRE		Legislative and Intergovernmental Affairs	0:-54	D
Automated Office		COBOL, ADF	32,886	KETIKE			Richard	Rogers
			4 500		1000	Legislative and Intergovernmental Affairs	C	1 10/2 - 12/2 - 22 - 2
EEO Tracking System		PARADOX5 WINDOWS,ObjectPal	1,596	unknown	1999	Office of Equal Employment Opportunity	Sandra	Washington
				ļ	1	Office of Equal Employment Opportunity	5:	1
Regulatory Agenda Tracking System		PARADOX 5.0 WINDOWS, Object Pal	2,484	unknown	1999		Richard	Whisnant
						Office of General Counsel		11
Boater Safety		7		FIX		Wildlife Resource Commission	Charles	Fullwood
Credit Card Verification		COBOL	3,629			Wildlife Resource Commission	Charles	Fullwood
Hunter Harvest Line		COBOL,EZ+,SAS,VRU		unknown		Wildlife Resource Commission	Charles	Fullwood
Hunter Safety		7		FIX		Wildlife Resource Commission	Charles	Fullwood
Hunting & Fishing License & Hunter Safety		COBOL,EZ+,FOCUS,ADF		REPLACE		Wildlife Resource Commission	Charles	Fullwood
Lifetime Endowment Fund		COBOL,EZ,FOCUS,ADF		REPLACE		Wildlife Resource Commission	Charles	Fullwood
Magazine & Customer Informanation Management		COBOL,EZ	50,152			Wildlife Resource Commission	Charles	Fullwood
Motor Boat Registration/Titling		COBOL,EZ,EZ+,VRU	237,539	FIX		Wildlife Resource Commission	Charles	Fullwood
						Wildlife Resource Commission		8
						Grand Count		122

Page 3

	Agency Name:			I					<del></del>															
	Mission Critical System Indicators Syste							Sy	stem Failure I	)ate	Ye	ar 200	0 Stra	tegy	l		If 'Fix	" Strategy	y: , ,		If "Replace" Strategy			
i		(check all that apply)					r the other)	(prov	ide one or the	other)		(chec	k one	)	Approa	ch (chect	one)							
	List Systems which may be Non-Year 2000 Compliant (please list in order of importance to your agency mission)	rovides mandatory business or rogram functions to public: ayments, services, safety, security	eets mandatory legal, statutory or egulatory requirements	Performs a revenue function	erforms an internal operating or trategic planning business unction	Total Lines of Code	# of Program Modules	Primary Programming Languages	System Processing Horizon (in months or yearn)	Expected Failure Date (xx/xx/xxxx)		Replace	Retire	Not known at this time	xpand dates to full 4-digit year ormat (logic and database)	indow technique (changing code o interpret 2-digit format)	Other	Has planning effort begun?	Has conversion coding begun?	xpected completion date x/xx/xxxx (if known)	xpected Implementation Date x/xx/xxxx	Estimated cost to replace		
1	Commercial Accounts - Fiscal						34	ASM		1999	×							×			<u></u>			
2	Train System						2	EZT		2000	ł	×						×				-		
3	Inmate Labor						7	COB, CSP		Never	×							×						
4	Purchasing Tracking System						7	COB, EZT	ļ	Never	×				ļ			×				ļ		
5	Recycle Products and Solid Waste System						15	COB, CSP		Never	×				ļ <u>.</u>			x						
6	Shared Leeve System				ļ		3	COB, ASM, CSP, EZT		1999	×		l i					×						
7	Federal Grant System			<u></u>	L		24	COB, ASM, EZT, CSP		1999	×							×						
8	DMV Legislative Tracking						6	DB2, EZT, CSP	<u></u>	Never	×		l		<u> </u>			×						
9	Grievance Tracking System						5	COB, DB2		Never	×		l					x						
10	Project Management						12	ASM	<u> </u>	2000	×							x						
11	Logo System						16	ASM		2000	×							x						
12	Federal Aid Billing System		ļ		<u> </u>		35	COB, ASM, EZT, DB2		Not sure	×							×						
13	Law Allowance Income Payroll				<u> </u>		18	COB, ASM, EZT		2000	x		l					×						
14	DBA Activities						100	DB2, EZT			l			x				×						
15	Fiscal System						848	COB, ASM, EZT, CSP		2000		×						× ľ						
16	Comprehensive Approved Products Listing						34	COB, DB2, CSP		7	×							×						
17	Contractor Directory System						12	COB, ASM, EZT, CSP		Never	×							× ľ				-		
18	Governor's Correspondence System						14	COB, ASM		1999	×							×						
10	Personnel - Personnel - Retirement						422	COB, ASM, EZF, RPF		2000	×							x						
20	Payroll		1				1095	COB, ASM, EZT, RPF		Never	×							x						
21	Personnel Training						10	COB, CSP, RPF		NYD	x							x						
22	NCDOT-Permits System				l		26	COB, ASM, EZT, CSP		2000	x							x						
23	PD-118 Automated Logging System						18	COB, ASM		2000	x				1			x						
24	Right of Way Area Data System						12	GEN		2000	×				[			x						
25	Secretary's Correspondence System						4	ASM, CSP	İ	1999	x							x				I		
26	Adopt-A-Highway Data System : Traffic			1			51	COB, GEN	İ	1999	×							×		******		1		
27	Bridge Maintenance						105	COB, GEN, SAS		1997	×							x						
	Omtxetsman System				1		5	ASM		2000	×							x						
1	I quipment System Fiscal - Equipment				1	·	"	COB, ASM, EZT		2000	×							, x						
1	Inventory System · Equipment - Class Codes : triv (Class	Code Mgmt) :	hw/Equip/Fisca	al : Inv/Purch/f	i iscal : Summa	ries	103	COB, ASM, EZT, CSP		2000	×													
, .,	1 , , ,							===, , ==, , , , , , , , , , , , , ,	1	, 200	. ^	• •	' '	٠.	1 1		· I	^ I.		<b></b>		L		

1.					1		-,										
31	Project Master Scheduling System				19	COB, ASM, SAS	NYD	×					×				
32	Materials & Tests Seed Quality Reporting				8	GEN	1999	×					x				
33	Materials & Tests Certifications Reference Files : Landscape				24	GEN	1999	x	1				x				
34	Secretary's Legislative Tracking System : Legislative Tracking				32	DB2, ASM, GEN	2000		x				×				
35	Traffic Engineering Spot Safety Program				11	COB, GEN	2000	×					x				
36	NCDOT Fixed Assets System					ASM, EZT	2000	×					x				
37	Computerized Message Mailing System : MIS				11	COB, ASM, DB2	Never		x				x				
38	Private Engineering Firm Project Data				12	COB, ASM, CSP	1999	×					x			-	
39	Materials and Test System				45	COB, ASM, CSP	NYD		x				x				
40	Right of Way Management System				43	COB, ASM, GEN	NYD	×					x				
41	Erosion & Sediment Control : Planning & Traffic				36	COB, GEN	Never	l x			7		×				I
42	Highway Location Inventory Update : Planning (Location Inventor	ry)			23	COB, ASM, GEN	Never		x				x				
43	Right-of-Way Encroachmenta Index				9	COB, GEN	2000	x					x				
44	Traffic Engineering Accident Analysis				158	COB, ASM, SAS	2000		x				x				
45	Traffic Engineering Signal Management : Rall (Signal Manageme	ent)			32	COB, ASM, GEN	2000		x	-   -		-	x				
46	Pavement Condition Survey : Pavement Management : Pavement	nt Conditions			23	COB, ASM	Never		x				x				
47	Traffic Ordinances				14	COB, GEN	1999	×					x				
48	Highway Performance Monitoring System : Planning (Universal II	Vileage)			169	COB, ASM, GEN	NYD	1	1 1	x		1	×				
49	Project Management System				45	COB, ASM, SAS	NYD	×		1		1	×				
50	State Titling and Registration System				307	COB, ASM, EZT	Never	×				-	x	•			
51	International Registration Plan				123	COB, ASM, EZT, GEN	Already / 2000		x				x	j			
52	Financial Security System				50	COB, ASM, EZT, GEN	2000	,					×				
5.9	Maintenance Management				10	COB, EZT	2480	×				1	x				
5-1	Node Link				4	CSP				x			x			****************	
. 55	Subcontract System				12	COB, DB2	2000	1	x				×				
56	State Roads - Posted Road				7	COB, GEN	Never	×					x				
57	Asphalt Job Mix Formuta ; Asphalt ; Asphalt Plants ; Asphalt San	nple Density Pta	ning		19	COB, GEN	Already	1	x			.	×				
1	Aviation			<u> </u>	6	GEN				<u>x</u>			x				
59	Bicycle		-		7	GEN	1	ł		x			×				
(4)	Construction Reinhart Profingraph Date Entry System				•	COB, ASM, GEN	Never	× .	1				x		ĺ		
1					13	COB		1		x		1 1	x				
i	Geotechnical				9	GEN		1		x			x			*****	
63	Highway Design : Suspense Case Inquiry				2	ASM	,	×					x				
. 64	Legislative Tracking - Trans Code LEG1 only				27	DB2, ASM, GEN				×			x				
65	Planning Supplementary Data / Supplementary Data				"	COB, GEN	2000	×					x			·	
66	Planning & Environmental : Speed Check Study			-	14	COB, GEN	2000		x				×				
67	Public Transportation : Planning (Public Transportation Address)	<u> </u>		ļ	12	ASM, GEN	_			x		<u> </u>	x				
68	Rail (Federal RR Crossing) (Railroad Project)			<del> </del>	23	COB, GEN	2000		×			<u> </u>	×				
69	Roadway : Municipal Street Fiscal Data			-	- 6	COB, GEN	Never			x	_	<u>                                     </u>	×				
70	Traffic & Planning				_ 4	COB, GEN				×		_	×				
71	Traffic Engineering			ļ	12	COB, ASM, GEN	.[			x		_	x				
72	Contract Master			1	_  '	ASM	1	1					x [				L

73	la				l		l			ı	ı	1 1	1	ı	1		1		г		
1	Contract Vendor : Contracts : Fuel Price Adjustments : L	etting Master	ļ	ļ			23	COB, ASM, PLI		1996		*		ļ	ļ		x				
74	DOT Table : Project Management Fund Status	ļ	<b></b> -				4	COB, ASM		See Comments	×					.	×				
- ;	Fuel Issues : Automated Fuel Issues						30	ASM, EZT, CSP		2000	×					ļ. <u> </u>	×				
76	Highway / Improvement						1	ASM		1	l		x			-	x				
77_	Project & HIP Cross-Reference						2	СОВ		See Comments	×						х				
. 78	Project File	L			L	ļ	6	ASM		2000	×						. х				
. 79	Purchasing and Field Requisitioning System: Purchasin	g / Inventory : P	urchasing : Pu	rchasing Fisca	1		115	COB, ASM		1999	×		ļ		<u> </u>		x				
80	Salt & Dynamite						1	ASM	<u></u>		1		x				x				
81	Accident Reporting (Unknown)						7	?					×		!		x				
82	Collision Reporting System						4	COB, ASM		2000	x						x				
83	Traffic Project Update						1	ASM					x				x				
84	Personnel's Logging System							СОВ		2000	×		1		Ι΄.		×				
85	State Highway Administrator's Correspondence System						6	ASM		2000	x		1		Ī		x				
86	Invoice & Tracking System	l					23	COB, ASM, CSP		2000	×					i ''l	×				
87	BAMS Extract System						9	COB, PLI		2000	x		' ''	1			x				• •
88	Design Services Bidding System ; Bids ; Design Service	s HC : Design S	Services HW				66	COB, PLI, CSP		1999	l	x					×				i • · · ·
89	DMV Imprest Warrants						15	ASM, EZT		2000	×				1		x				<b></b>
90	Warrant Check Writing System						56	ASM		1999	×				I		x			=	
91	School Bus Safety System						,	ASM		2000	×				l		x				
92	Enforcement Administration					-	3	CSP		2000	×				İ		×				
93	Overweight Citations						2	ASM		Replaced before 2000	ļ				ŀ					** ******	
aı	Dealer System		i			1	33	ASM, EZT, GEN		1999	×						Ŷ				
45	Inspection / Maintenance Information System	1					80	COB, EZT, CSP		Never	×					1	¥				
96	Traffic Counts						25	СОВ		2000		<sub>*</sub>				1	¥				
97	TIP Project History							COB, GEN		2000	x	"					×				
98	Drivers License System						1700+	COB, EZT		Never			x				x				
99	Direct Deposit						21	COB, EZT	<del> </del>	1999	x		<del></del>	i			×			<del>-</del>	
	Job Reports .						,	?			l "		х				x			-	
•	Fuel Tax		i				,	7					- 1				x				
ī	Planning (Secondary Roads)						19	COB, ASM, GEN	1 '	2000	×		x				×				
1	Raitroad Project Status						22	COB, GEN			l ^	×					^			3/1007	
i	NCDOT Ferry Division Survey			l			,	Clipper		Never	×			1			x			3/1997	
	Statewide Maintenance Cost Program						7	Clipper	-	NYD	×						x				
	Bridge Label Program						,	Clipper		NYD	x						Ŷ.				
r	Bridge Maintenance						,	Clipper	i <del></del>	NYD	, ,			<del> </del>	<del></del>		- "				
	Class Download Conv/Summarization Pgm						,	Clipper		NYD							X				<del></del>
	Commuting Vehicles						,		<del> </del>		×			<del> </del> -			X				$\vdash$
1	Personnel Statistical System						,	Clipper		NYD	X				<u> </u>		X	-			
i .	Telephone Billing System				···		,	Clipper	-	1996	×						×				
1							,	Clipper		NYO .	×						x				
	Utility Bill Billing System						7	Clipper		2000	×	×			<b>-</b>		×				
- 1	MIS Purchase Requisition System						7 .	Clipper		2000	×		]				×				
114	Child Remittance System	L	L	L	L.,	i	7	Clipper	1	Never	x		L		<u></u>		× [				1

r		г				 ı	·		1 .			1	,					 
115	Federal Authorization System			<del> </del>		 7	Clipper		2000	×		ļ			x	<u> </u>		
116	Motor Fleet System	ļ				 7	Clipper		2000	x		1			x			 
117	Fuel Master Conversion System					7	Clipper		2000	x					×		. :	 
118	Highway Beautification System	-				 ,	Clipper		2000	×					х х			
119	NCDOT Parking System					 7	Clipper		2000	×					х х			
120	Engineer Tracking System	<u></u>				 7	Clipper		Never	×			<u> </u>		x			
121	Imprest Cash System					 7	Clipper		Never	×					×			
122	Workman's Compensation System					 7	Clipper		2000			×			x			
123	Service Awards System -					 7	Clipper		Never	×					×			
124	Personnel Administrative Mgmt System		<u> </u>			 7	Access		Never	x	li				x			
125	Civil Righte Statistical System		l			7	Access				x				х .			
126	Pre-packaged PC Software				<b>.</b>	 ,	7					١,			×			 1 1
127	Airsoft - AS400		<u> </u>			 3114	CL		Unknown	×					×			
128	Grants Administration Automation Sys - AS400					 171	COB, SQL, CL		Never, but untested	×					x			
129	Light Traffic Roads			<u> </u>		 7	Clipper	İ.	Never	ж .					×			
130	Material Safety Data Sheets Inventory Control Version			<u> </u>		 7	Clipper		Never	×					x			
131	Material Safety Data Sheet Field Personnel Version			<u> </u>		 7	Clipper		Never	×					х			
132	Allocation of Maintenance & Resurfacing Funds			ļ		7	Clipper		2000	×			L		×			
133	Label Printing Program			<u> </u>	<u> </u>	 7	Clipper		Never	×					x			
134	Inventory Issues Summary by Month					 7	Clipper		Never	×					x			
135	Structure Inspection Log					 7	Clipper		Never	x					x			
136	Charge Card Entry Summarization Progam Gasoline					 7	Clipper		Never	×					×			
137	Fixed Assets Values < \$500					 7	Clipper		2000	×					×			
138	Division Utilization Conversion Print			ļ		 7	Clipper		2000	×		1			×			
139	Bridge Damages Program			-		 7	Clipper		2000	×		l			x			
140	Purchase Requisition Specifications Pgm - Data Entry					 7	Clipper		Never	x					х			
141	Purchase Requisition Specifications Pgm - Inquiry			<u> </u>		 7	Clipper		Never	х					х			
142	Roadway Maintenence Program					7	Clipper		Never	×		1			x			
143	Travel Advances			_		 7	Clipper		Never	x					×			
144	hwenloy Usage Program			İ		7	Clipper	ļ	2000	×		1			х			
145	MB, WB, or DBE Subcontractor Program			1		,	Clipper	]	2000	x					×	1		
146	DOH - Chief Engineer's M&C Reports	<b> </b>				 7	Clipper		2000	×					×	1 .		
147	Project Management Cross-reference Program					 7	Clipper		Never	x					x			
148	Bids Diskette System	L	L	1	l	7	Professional Basic		1999	×		<u> </u>	<u> </u>		x	L		

### Year 2000 Agency System Inventory

Department Department of Transportation
Division Management Information Systems

MIS Director Paul Roberts

**Inventory Completed By** 

Dot Watson

Title

Application Development Manager

Phone Number

733-1159

1.) See above

We have created a detailed inventory of all system and code.We have not prioritized the inventoried systems.

- 3.) A.) Dorothy Watson is our Year 2000 project manager. Her phone number is 733-1159.
  - B.) Yes our agency has a Year 2000 Task Force.
- 4.) Yes, many of our systems interface with other departments and agencies.
  - A.) No we have not yet developed a plan to correct the interface.
  - B.) No it is not coordinated with the interfacing agency.

# **NCDOT**

- **♦ YEAR 2000 PROJECT FUNDING**
- **♦ YEAR 2000 NON-COMPLIANT INVENTORY**



## **NC Technology Policies**

## Year 2000 Project Funding Cover Form

The Year 2000 Project Funding Cover Form and the Year 2000 Project Funding Detail Form must be completed each time an agency requests funds for year 2000 compliance conversion activities for a specific application system. This Cover Form must be signed by appropriate staff before a requrest for project funding can be processed.

Name of Department/Agency Requesting Funds	:	
DOT- MIS		
Name of Application System:		
All DOT-MIS applications. ( Technical		
Amount of Funds Requested: 2,082,500	_(from the Hydwar	Just Fac
Approval Signatures:	•	
Mercidee Benton		
Application's Executive Sponsor Name	Signature	Date
Department MIS Director's Name	Maluka Signature	11/21/96 Date
<u>Cathleen A. Camann</u> Year 2000 Project Contact Name	Catslee & Carman Signature	<u> 11/22/9</u> 2 Date

## Year 2000 Project Funding

See NC Technology Policy Y2K-01-02 for instructions. Electronic copies of this form are available on request.

Agen	cy Inforr	nation and	l Program	Description	
Department name:	DOT				
Agency name:	MIS				
Executive Sponsor name:	MERC	IBGE BE	enton		
MIS Director name: 누;	ke Deck	٠/			
YR2000 Project contact:	Cothy	Caman	^	Phone number:	733-1195
Service Program:	All T	VHV HO	Mush-Mos	al Technico	رق درجی (۵)
Describe the Program :			a	lal Trobuico La Ceient Se	2,0105
5ce spr	eard thirt			•	
Program significance (chec	k one):	Critical:	Support int	ensive:	Low impact:

produce and the second	Expected	Life of System	
Estimated Year 2000 failu	re date of system:		
Expected replacement or	retirement date of	system:	
System Plans (check one):	Conversion	Replacement	Retirement
Describe System Plan:			
	e ottached		
Planned completion date:			

Department Information Resource Manager	ment Pla	n
Date the Year 2000 problem was included in the IRM plan::	Harch	1996
ite this project included in the IRM plan:	March	1996
has project been included in the Application Portfolio Management System(APMS)?	Yes	_ No
Project Management Methodology	,	

Name of Project Manager	nent Methodology:	Kegne's Prod	uctivity	Manarement		
Describe Project Manage		and Res	والد ع08	Management O Methodology		
Based on Keane's high level project principles, see o The year 2000 project his beauty Yrak into	Methodology For direction. This exacts . > t plan also Follows a share, which and line	project mana, Methodology is come is year 2000 actions = tas	cement of based of Framew ks to co	and for whe following orts, Resolve 200 amphebreach pho		
Project Management Tool	1: Project Work	-bench_				
Project Plan Attached?	Yes No	_ Date: 11/21/96				
11. 3	System Mo	difications				
Conversion Approach (che	eck one): Expand Date:	Sliding Window:		Compression:		
Impact Analysis	. New Database :	Rewrite Applicati	on:	Other:		
Primary approach to impl						
Primary approach V will be to use field expansion.  For all applications.						
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					
Complexity of date functions (check one):	Pervasive/Complex: see a Hached spre	Moderate: adsheet	Limited	l:		
Modifications made by:	In-house staff:	Contractors: X	Both:			
If you are using contracto	rs, will you be using the	Year 2000 contract?	Yes _	No <u>X</u>		
lf no, what will you be usi	ng? SIPS Conver	nince Contract		·		
If you will be using both of M15 Staff will be will be using both of the M15 will be using both of the M15 will be using both of the M15 will be using both of the M15 will be using both of the M15 will be using both of the M15 will be using both of the M15 will be using both of the M15 will be using both of the M15 will be using both of the M15 will be using both of the M15 will be using both of the M15 will be using both of the M15 will be using both of the M15 will be using both of the M15 will be using both of the M15 will be using both of the M15 will be using both of the M15 will be used by the W15 will be used by the M15 will be used by the M15 will be used by the M15 will be used by the M15 will be used by the M15 will be used by the M15 will be used by the M15 will be used by the	contractors and in-house Il both man fill supplemen	e staff, describe your acte and co of MIS State	plan: Elwer 5	His pigat		
Is in-house staff at an app Estimated date for addition		roject?	Yes Date:	No		

Page 2 of 6

Year 2000 Project Funding

Department Information Resource Manag	ement Pla	n	. ,
Date the Year 2000 problem was included in the IRM plan:;	Harch	1996	
ate this project included in the IRM plan:	March	199.6	
Has project been included in the Application Portfolio Management System(APMS)?	Yes	_ No	
Project Management Methodolog	у		

		163_	NO/
Project Management Methodolo Describe Project Management Methodolo Based on Years Methodolo	ogy:	and Resolut 2	ty Management 080 Methodology
high level project dire Principles, see attach Principles, see attach Principles Princip	nciple One: nciple Two: nciple Three: nciple Four: nciple Five: inciple Six:	Define the Job in De Get the Right People Estimate the Time a Break the Job Down Establish a Change Agree on Acceptance	e Involved nd Costs Procedure
Syst	tem Modifica	ntions	
Conversion Approach (check one): Expand	Date:	Silding Window:	Compression:

	System Mod	difications						
Conversion Approach (check of	ne): Expand Date:	Sliding Window:	Compression:					
Impact Analysis.	New Database :	Rewrite Application:	Other:					
Primary approach to implem	Primary approach to implementing Year 2000 modifications:							
Primary approach will be to one field expansion.  For all applications.								
	rvasive/Complex: Le a Hached spra	Moderate:	Limited:					
functions (check one): See a Hacked Spread  Modifications made by: In-house staff: X Contractors: X Both:								
If you are using contractors,	/		Yes No _X					
If no, what will you be using								
If you will be using both contractors and in-house staff, describe your plan:  MIS Staff will both manage and deliver this project.  Contractors will supplement MIS Staff								
Is in-house staff at an appropriate skill level for project?  Estimated date for additional training for staff.  Yes V No  Date:								
Will additional computer rescomputing Services (CCS)?	ources be required fro	om SIPS Centralized rces been requested?	Yes No Yes No					

## Backup and Fail-Safe Controls

scribe your <u>contingency</u> plan .

NIA For Impart Analysis

	Application Information		
Application System Name:		Acronym:	
Application Description:			

50l. Svf	gladed		Impad Analysis.
Application Impacts of Service Pro	ogram (mark per instructions)	Amt/Year	O deering
Direct service to citizens	Direct Payment to citizen	\$	res
Info. for use by citizens	Direct Payment to business	\$	Ž
Info. For internal use	Receipts from citizens(licenses, taxes, etc.)	\$	12
Info. for use by other state agencies	Receipts from business	- \$	8
Info. for use by federal government	Receipts from federal government	\$	12
nfo. for use by counties			
Info. for use by cities	Info. for use by private business		3
Number of users: Numb	per of sites: Number of citizen	ns affected:	13

Application	Software	Characteris	stics	
Package Name/Program Lanaguage	Number of modules	Lines of Procedural code	Release Level Used	Package or in- house development
				Inhowe
	, .			Development Unless specified otherwise.
to last				Unless specified
See Jacker achert				otherwise.
a per			· · · · · · · · · · · · · · · · · · ·	
71				
			····	
			····	

Package Sof	The state of	
Package Name	Vendor Name	Y2KCompliance by Vendor? Yes/No
		Determined during
Jeen been		In out Analysis.
40 Dot was		
O Apres		
31		

Application Hardware/Software Characteristics									
Application Technology Platform	Manufacturer	Datab Name	ase Rel Lvi						
se want set									
CAPTER WAST					·				
J (									

<del>SONON SONON SONON SONON PROPER PROPER SONON SONON SONON SONON SONON SONON SONON SONON SONON SONON SONON SONON</del>	Application in				
	ices with other State s	The state of the s	T.		
Name of Application	Name of Organization	Contact Letter	Data to/from	Date	Bridge
•	Organization			Format	yes/no
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500 means short					
Se you ver					
0) 35					
		<del> </del>			<u> </u>
	 es with other outside s				
Name of Application	Name of	Contact	Data	ı	
Name of Application			man Jala man	Data	Deidaa
	60 <b> </b> 100000000000000000000000000000000000	Letter	to/from	Date Format	Bridge Yes/No
	Organization			Date Format	Bridge Yes/No
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	60 <b> </b> 100000000000000000000000000000000000			<b>*</b> ***********************************	

	Source of	Other Funds		
Activity	1996-1997	1997-1998	1998-1999	1999-2000
Are other funds available?	Y_4N_ ?_	Y _N _ ? _	Y_N_?_	Y _N_?_
Potential Source of Funds:	, Amount	Amount _	Amount	∫ Amount
Highway Trust bund	\$2,082,500	190000	15/19/00	2,987,500
ABICAL BALLED				
HIGHWAY FUND		84,835,000	\$55 75, 0a)	(2, 787, 500
		, , ,		, , ,
			-	

	Proposed Projec	t Schedule and	Funding Reque	st
Activity	1996-1997	1997-1998	1998-1999	1999-2000
Impact Analysis	\$470,000			
Planning and Scheduling	\$1612,500			
Conversion/ Development		4,435,000	\$ 5,575,000	
Testing and Certification				\$2,787,500
Funding Needed	\$ 2,082,500	\$4,835,000	\$ 5,575,000	\$ 2,787,500

	1		
TOTAL AMOUNT REQUESTED(this fiscal year):	5 72 182 4	500 (from Highway	
TOTAL AMOUNT REQUESTED (IIIIs lister year).	¥ 210001.	100 Girin Highway	
		1 ( ( )	
		Trust frank)	

$\Box$	Agency Name:																					
		Mission	Critical S	ystem Inc	dicators	System	Size	System Failure Date Ye			Ye	ar 200	0 Strat	egy			lf 'Fix'	Strateg	y:		If "Replace"	Strategy:
			check all (	hat apply	)	(provide one o	r the other)	(prov	ide one or the	other)		(chec	k one)	)	Approac	ch (check	one)					
	2000 Compliant (please list in order of importance to your agency mission)	rovides mandatory business or rogram functions to public: ayments, services, safety, security	eets mandatory legal, statutory or egulatory requirements	Performs a revenue function	erforms an internal operating or trategic planning business unction	Total Lines of Code	9 of Program Modules	Primary Programming Languages	System Processing Horizon (in months or years)	Expected Failure Date (xy/xy/xxxx)	Fix	Replace	Retire	Not known at this time	xpand dates to full &digit year ormat (logic and database)	indow technique (changing code o interpret 2-digit format)	Other	Has planning effort begun?	Has conversion coding begun?	xpected completion date x/xx/xxxx (if known)	xpected Implementation Date x/xx/xxxx	Estimated cost to replace
-	Commercial Accounts - Fiscal					<u> </u>	34	ASM		1990	×							x				
2	1 '						2	EZT		2000		×						×				
3	1						,	COB, CSP		Never	x							x				
4	"						,	COB, EZT		Never	x							×				
5	-						15	COB, CSP		Never	×							x				
-	Shered Leave System						3	COB, ASM, CSP, EZT		1990	x	1 1						x				
7	-						24	COB, ASM, EZT, CSP		1990	×							×				
8	-1						6	DB2, EZT, CSP		Never	x							x				
9	~						5	COB, DB2		Never	l x		1					x				
10	-						12	ASM		2000	×		Ī					×				
11	Logo System						16	ASM		2000	×	1 1						×				
12	Federal Aid Billing System						35	COB, ASM, EZT, DB2		Not sure	×	1 1						x				
13	Law Allowance Income Payrell						16	COB, ASM, EZT		2000	×		1			-		x				
14	DBA Activities						100	DB2, EZT	•			1 1	ı	×				x				
15	Fiscal System						646	COB, ASM, EZT, CSP		2000		x	ŀ					×				
16	Comprehensive Approved Products Listing						34	COB, DB2, CSP		,	×	^	ľ					×				<u>                                     </u>
17	Contractor Directory System						12	COB, ASM, EZT, CSP		Never	Ŷ	Ιİ	ŀ				_	×		· · ·		
18	Governor's Correspondence System						14	COB, ASM		1999	×		ŀ					Ĵ		-		$\vdash$
19	Personnel : Personnel - Retirement						422	COB, ASM, EZT, RPF		2000	Î							x				
20	Payroll			-			1086	COB, ASM, EZT, RPF		Never	, .		-					x				<del>  .  </del>
21	Personnel Training						10	COB, CSP, RPF		Never	×							x				
22	NCDOT-Permits System						25	COB, ASM, EZT, CSP		1	l		1									
23	PD-116 Automated Logging System						16	COB, ASM, EZ1, CSP	-	2000	×		ŀ			-	-	x				
24	- <u>1</u>							GEN		2000	×		<b> </b>					х				<del></del>
25	Secretary's Correspondence System			·			12 4	ASM, CSP		2000	×		-					×				1
26	Adopt-A-Highway Data System : Traffic				-			COB, GEN		1990	×							X				
27	7						51			1999	×							x		-		
28	~1 }						105	COB, GEN, SAS		1997	×		-					x				
29	-) '						5	ASM STT		2000	×		-					x				
	Inventory System : Equipment - Clese Codes : Inv (Clase	Code Name		L		<u> </u>	77	COB, ASM, EZT		2000	×							X				
	_ Cust	Social Mg/mt) :	ww/Equip/Fisc	u : trw/PurctVF	racal : Summa	nes	103	COB, ASM, EZT, CSP		2000	×	1	Į.		لــــا			x	l	L		لــــا



F	Project Master Scheduling System			 	19	COB, ASM, SAS		MYD	×						x [			
	Materials & Testa Seed Quality Reporting			 	6	GEN		1999	×						x			
	Materials & Tests Certifications Reference Files ; Landso				24	GEN		1999	×					_	x [			
34	Secretary's Legislative Tracking System : Legislative Tra	cking			322	DB2, ASM, GEN		2000		<sub>x</sub>	i-				x		 	
35	Traffic Engineering Spot Safety Program				11	COB, GEN		2000	×						x			
36	NCDOT Fixed Assets System				7	ASM, EZT		2000	×						x Ì		 	
37	Computerized Message Mailing System : MIS				11	COB, ASM, DB2		Never		<sub>x</sub>					×			
38	Privata Engineering Firm Project Data				12	COB, ASM, CSP		1999	×						, İ			
39	Materials and Test System				45	COB, ASM, CSP		MYD		<sub>x</sub>			1		x Ì			
40	Right-of-Way Management System				43	COB, ASM, GEN		NYD	×						×			
41	Erosion & Sediment Control : Planning & Traffic	L			36	COB, GEN		Never	×						, I			
42	Highwey Location Inventory Update : Planning (Location	Inventory)			23	COB, ASM, GEN		Never		<sub>x</sub>					x			
43	Right-of-Way Encreachments index					COB, GEN		2000	×					$\neg$	× 1			
44	Traffic Engineering Accident Analysis				 158	COB, ASM, SAS		2000		<sub>x</sub>			1		x	-		
45	Traffic Engineering Signal Management : Rail (Signal Ma	negement)			32	COB, ASM, GEN		2000		x					× 1			
	Pavement Condition Survey : Pevement Management : P	avement Condit	ions	 	23	COB, ASM		Never		x	_				×	-		
	Traffic Ordinances	L1		 	14	COB, GEN		1999	×						×			
48	Highway Performence Monitoring System ; Planning (Uni	versal Mileage)			189	COB, ASM, GEN		NYD							×			
49	Project Management System				45	COB, ASM, SAS		NYD	l x						, I			
50	State Titling and Registration System				307	COB, ASM, EZT		Never	×				1	_	x			
51	International Registration Plan			 	123	COB, ASM, EZT, GEN	•	Already / 2000		x	Γ				x		 	
52	Finencial Security System				56	COB, ASM, EZT, GEN		2000	×						, l			
53	Maintenance Management				16	COB, EZT		2000	×						x i			
1	Node Link				4	CSP		i	1			κ .			x			
55	Subcontract System				12	COB, DB2		2000		×					×			
	State Roads - Posted Road				7	COB, GEN		Nevar	×	1					x			
	Asphalt Job Mo: Formute : Asphalt : Asphalt Plants : Asp	halt Sample Den	sity Planning	 	tp	COB, GEN		Already		x				_	x			
	Avistion				6	GEN						ĸ .			x			
59	Bicycle				7	GEN				1 1	_	x			x			
	Construction: Rainhart Profilograph Data Entry System					COB, ASM, GEN		Never	×					[	x			
61					13	СОВ						x			×			
-	Geotechnical					GEN						x			x			
63	Highway Design : Suspense Case Inquiry				2	ASM		,	×						x			
64	Legislative Tracking - Trans Code LEG1 only				27	DB2, ASM, GEN			1	1 1	_	×			x			
65	Planning (Secondary Roads)				19	COB, ASM, GEN		2000	×	1					x		,	
66	Planning Supplementary Data / Supplementary Data				11	COB, GEN		2000	×						x			
67	Planning & Environmental : Speed Check Study				14	COB, GEN		2000		<sub>x</sub>					×			
68	Public Transportation : Planning (Public Transportation A	ddress)			12	ASM, GEN			1	H		x			×			
69	Rail (Federal RR Crossing) (Railroad Project)				23	COB, GEN		2000		<sub>x</sub>					x			
70	Roaderay : Municipal Street Flecal Data					COB, GEN		Never				x			x			
71	Traffic & Planning				4	COB, GEN					_	x		$\neg$	x		-	
72	Traffic Engineering				12	COB, ASM, GEN			1		-	x			×		 	
					 	5557.15117, 5511			1		L				_		 	

77	ontract Master				 			,	•			_				_			
		l			 	,	ASM			l			x			x			
	ontract Vendor : Contracts : Fuel Price Adjustments : Li	etting Master	ļ		 	23	COB, ASM, PLI		1996	l	×					x [			
	OT Table : Project Management Fund Status				 	4	COB, ASM		See Comments	×						x [			
	uel Issues : Autometed Fuel Issues				 	30	ASM, EZT, CSP		2000	×						x [			
	ighway / improvement		ļ <u>.</u>			,	ASM				1 1		x			x			
-	roject & HIP Cross-Reference	ļ				2	СОВ		See Comments	,x						x			
	roject File	L				6	ASM		2000	×						x			
80 P	urchasing and Field Requisitioning System ; Purchasing	/ Inventory : I	Purchasing : Pu	ruhssing Flace		115	COB, ASM		1999	×						x			
-	et & Dynamie					١,	ASM		1			-	x .			×			
	coldent Reporting (Unknown)					,	?			1			×			x		 	
	olitaion Reporting System		<u> </u>				COB, ASM		2000	x				1		x			
	raffic Project Update		<u> </u>			,	ASM						x		_	×			
	ersonnel's Logging System						СОВ		2000	×	1 1	-		1		x			
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## Year 2000 Agency System Inventory

Department Division Department of Transportation

MIS Director

Management Information Systems

Inventory Completed By

Paul Roberts

pleted By Dot Watson



Please copy this parties additional systems.

## Legislative Brief:

## The Year 2000 Conversion Project

North Carolina Department of Transportation
Director: P.A. Roberts Program Manager: D. Watson

#### Background

DOT faces a tremendous challenge over the next three years preparing our many application systems to operate effectively and efficiently after December 31,1999. Most of the older application systems have been in place since the 1960's and were built using industry wide accepted standards of that era. In the early 60s, when many of today's general accounting and core business systems were designed and programmed, a major constraint was the number of characters that could be recorded. This physical limitation led to the practice of representing the descriptor "year" with only two digits in order to save precious space on key punch cards. This limitation was eliminated when disk storage became widely available. These older systems (called Legacy systems) are the programs of primary concern.

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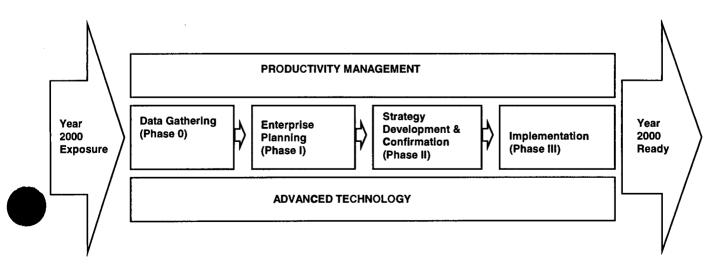
The Department has established and empowered a Year 2000 project team to aggressively attack the problem. This technical management structure provides planning, research, problem resolution and testing and configuration control. A third-party management consultant company, Keane Inc., has been added to the project team to lend their expertise in the matter. This project team's functions include:

- > Communications management
- > Skill transfer
- > Tool acquisition and support
- > Infrastructure upgrades and
- > Status tracking

The project team will also coordinate and share knowledge within and across agencies. DOT has joined with the Office of the State Controller/Information Resource Management (OSC/IRM) in the strategic redirection for the State of North Carolina's Year 2000 Efforts. We meet regularly with the state Year 2000 Committee and share our ideas and concerns.

Our Department is following a methodology developed by Keane, Inc. (RESOLVE 2000) for addressing the Year 2000 challenge. This approach is a four-phase approach that provides effective step progressions for the decisions and resource commitments necessary for a project of this magnitude. The project consists of:

- > Phase Zero Information Gathering
- > Phase I Enterprise Planning
- Phase II Strategy Development and Confirmation
- > Phase III Implementation.



## Legislative Brief:

### The Year 2000 Conversion Project

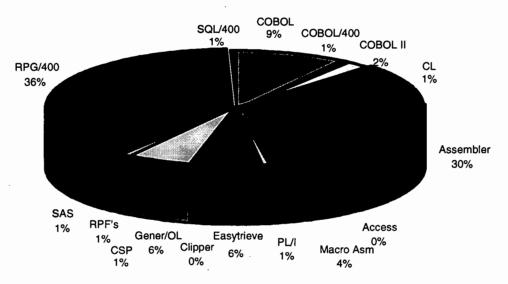
North Carolina Department of Transportation
Director: P.A. Roberts Program Manager: D. Watso

#### Phase Zero

The Department has completed Phase Zero. This effort provided the department with a portfolio of applications and a high-level plan that addressed the estimated cost and resources needed by the Department to become Year 2000 compliant. The DOT-MIS application portfolio consists of 98 mainframe applications and 48 non-mainframe (AS/400 and PC) applications.

#### Program Number Distribution

The DOT systems languages consist of COBOL, COBOL/400, COBOL II, CL, ASSEMBLER, Macro ASSEMBLER, PL/I, EASYTRIEVE, GENER/OL, CSP, RPF's, SAS, and RPG as illustrated below. Phase Zero identified a few applications to be retired and several to be replaced before the Year 2000.



#### Phase I

The department is currently in Phase I. Phase I will provide NCDOT with a detailed project plan, and identify necessary resources. Phase I also aids in defining the roles and responsibilities of project participants. Phase I provided DOT with a detail plan for Year 2000 strategy development and confirmation which will describe the tasks, schedule and assignments for the subsequent phases. Phase I will provide DOT with finalized impact findings, date field impact analysis, and generate impact assessment reports. Phase I will be complete April 18<sup>th</sup>, 1997.

#### Phase II and III

Phase II and Phase III will provide the department an in-depth study of the environment, and define in detail the conversion requirements, database and file impacts, testing needs, and migration plans. This phase also provides for a pilot conversion project. Phase III provides for the completion of the Year 2000 conversions, certification, testing, documentation of changes and the establishment of processes to facilitate future maintenance.

#### Expenses and Cost Projections

The budget for Fiscal 1996/1997 was \$2,082,500.

The Fiscal 1997/1998 request is \$4,835,000

The Fiscal 1998/1999 request is \$5,575,000.

The Fiscal 1999/2000 request is \$2,787,500.

We currently estimate the total cost of the Year 2000 Project to be \$15,380,000+. The current estimate by the OSC/IRM based on industry averages is \$35,266,000. In process projection adjustments will occur.

#### Current Status

Phase Zero has been completed. Phase I will be completed on April 18th, 1997.

## MINUTES HOUSE COMMITTEE ON TECHNOLOGY

April 10, 1997

The House Committee on Technology met in Room 415 of the Legislative Office Building on Thursday, April 10, 1997 at 12:00 noon. Representative Dennis Reynolds, Chairman, presided at the meeting and the following members were present: Representatives Cansler, Clary, Dickson, Earle, Eddins, Gray, Gulley, Hackney, Hensley, Holmes, Shubert, Tolson and Wilkins. The Visitor Registration Sheet is attached and made part of the minutes.

Chairman Reynolds prefaced the meeting activities by stating that a bill to protect the privacy of health information would soon be introduced in the House and would likely be referred to the Technology Committee. As a result, the meeting would hopefully educate committee members about the reasons why this bill is necessary for improving the quality and cost of health care in North Carolina.

A video presentation, entitled "Setting the Stage for Tomorrow," gave a review of electronic medical records and the ways in which they can be used. The video presentation was followed up by Mr. Holt Anderson from the North Carolina Health Care Information and Communication Alliance. He reviewed the history behind the need for the bill and how it would work to improve health care in North Carolina. The bill has been designed to ensure confidentiality in exchange of medical records because current state laws are inconsistent and hard to work with.

Dr. Harvey Estes, a member of the Standing Advisory Committee for medical organizations, stated his support for this bill and emphasized the need for this security so that the available technology can be fully implemented in health care organizations.

Committee members presented questions to Mr. Anderson, Dr. Estes and attorneys who worked on the bill. Summary information about the history and contents of the bill were made available to committee members. A copy of this summary is attached and made part of the minutes.

The meeting adjourned at 12:50 pm.

Representative Dennis Reynolds

Chairman

Tina Covington

Committee Clerk



### North Carolina General Assembly Legislative Services Office

George R. Hall, Legislative Services Officer (919) 733-7044

Administrative Division
Room 5, Legislative Building
16 W. Jones Street
Raleigh, NC 27603-5925
(919) 733-7500

Gerry F. Cohen, Director Bill Drafting Division Suite 401, LOB 300 N. Salisbury St. Raleigh, NC 27603-5925 (919) 733-6660 Thomas L. Covington, Director Fiscal Research Division Suite 619, LOB 300 N. Salisbury St. Raleigh, NC 27603-5925 (919) 733-4910 Donald W. Fulford, Director Information Systems Division Suite 400, LOB 300 N. Salisbury St. Raleigh, NC 27603-5925 (919) 733-6834 Terrence D. Sullivan, Director Research Division Suite 545, LOB 300 N. Salisbury St. Raleigh, NC 27603-5925 (919) 733-2578

April 10, 1997

#### **MEMORANDUM**

TO:

Members, House Technology Committee

FROM:

Linda Attarian, Committee Co-Counsel

RE:

Health Care Information Privacy Act

The bill addresses the concern of patients, providers, state agencies, insurance companies, and others in health care regarding the confidentiality of health care information. Essentially the bill deals with the following issues:

- WHEN may a person's confidential health information be disclosed?
- To WHOM may it be disclosed?
- HOW is the health information secured during storage?
- HOW may it be used by those who are in lawful possession of it?
- WHAT rights does the patient have to access and amend his or her medical record?
- WHAT are the consequences for willful misuse or wrongful disclosure of the information?

The intent of the legislation is to pull together, clarify, update and provide consistency and completeness to the existing statutes and rules governing the regulation of confidential health care information in North Carolina. North Carolina laws and regulations were in large part drafted before health information was commonly stored in electronic form. In this state, as well as nationally, health information, including individual patient records, as well as local, state and national health data, such as the incidence and prevalence of communicable diseases, are stored in an electronic form. The bill will provide a consistent statutory and regulatory framework and will provide enhanced and tighter controls on the storage, disclosure and use of confidential medical records in today's electronic environment.

One of the significant changes the bill makes in North Carolina law pertaining to the confidentiality of medical records is that the bill provides a patient an express right to view his or her medical records.

The act becomes effective on July 1, 1999, except that G.S. 132A-3-3, 132A-3-5, 132A-3-7 become effective when the act becomes law.

#### **NCHICA Resolution**

### Legislation entitled "Health Care Information Privacy"

WHEREAS, individuals and organizations involved in patient care and the administration of healthcare are beginning to realize the tremendous potential of computer and communications technology to provide better care for the patient and at a lower cost to all payers; and

WHEREAS, the lack of clear rules regarding health information in paper or electronic form and the concerns of the public and organizations regarding the potential for inappropriate disclosure and misuse of private medical records may inhibit appropriate implementations of electronic technology; and

WHEREAS, the Board of Directors and members of the North Carolina Healthcare Information & Communications Alliance, Inc. (NCHICA) has recognized the need for clear rules and regulations dealing with the confidentiality, privacy and security of healthcare information; and

WHEREAS, the members of NCHICA have participated in and encouraged research into the current status of North Carolina laws and regulations pertaining to healthcare information; and

WHEREAS, NCHICA has gathered significant information related to laws in other states as well as current and proposed federal laws and regulations; and

WHEREAS, NCHICA has sought the input of various interested organizations and individuals both within and without North Carolina during the consideration and development of proposals for improving North Carolina law; and

WHEREAS, NCHICA has developed legislation entitled "Health Care Information Privacy" as a basis for consideration by the General Assembly of the State of North Carolina,

THEREFORE BE IT RESOLVED, that the Board of Directors of the North Carolina Healthcare Information & Communications Alliance, Inc. supports the introduction of the legislation described above as a starting point for the improvement of North Carolina laws dealing with this important subject.

## **Board of Directors**

The following members of the NCHICA Board of Directors were present at the March 19, 1997 Board Meeting and, with the exception of Mr. Reynolds, voted in favor of the Resolution regarding legislation entitled "Health Care Information Privacy." Mr. Reynolds respectfully abstained due to an incomplete review of the legislation by his organization. Subsequently, NCHICA has been informed that Blue Cross / Blue Shield will not oppose the legislation if presented as written.

James R. Clayton, Electronic Data Systems Corporation

John A. Cooper, HBO and Company

Janis Curtis, Duke University Medical Center

Harvey Estes, North Carolina Medical Society Foundation

Mike Giel, National Data Corp.

Susan Gustke, MD, ECU School of Medicine

Jon Hamm, Sprint

Lewis C. Kammer, Healthsource Health Plans, Inc.

Tim Kvanvig, Glaxo Wellcome Inc.

William D. Mattern, MD, UNC Chapel Hill - Health Affairs and UNC Hospitals

Sheron K. Morgan, Ph.D., Office of State Planning, State of NC

Jane Smith Patterson, Office of the Governor, State of NC

Johnnie B. Quinn, NationsBank

Harry Reynolds, BCBS of North Carolina

Roger H. Shannon, MD, Consultant

Susan L. Thomason, RRA, Quintiles Transnational Corp.

Steve Toler, GTE

David L. Wellons, CPHQ, BellSouth Corporation

Zachary J. Zapack, Carolinas HealthCare System

#### AN ACT TO PROTECT THE PRIVACY OF HEALTH INFORMATION

#### **BACKGROUND**

- The continuing pressures to improve the quality of health care while at the same time dealing
  with the increasing complexity and cost has led to an acceleration in the use of computers and
  communications to manage health information. Because of this, the health care industry is
  experiencing the same explosion in the use of computers and communications as all other
  industry and government sectors.
- Citizens and health care institutions alike are concerned about maintaining the confidentiality, privacy and security of health information while providing for effective and timely care and improving the practice of medicine through appropriate research.
- Existing statutes and regulations at the federal and state level have not kept pace with the use
  of information technology and therefore, the public and health care institutions do not know
  with reasonable certainty what the law allows and requires.
- Patients are reluctant to share sensitive information with health care providers when the rules
  governing the use of this information are unclear. Similarly, it is difficult to develop software
  and systems to protect the information when the rules are uncertain.
- The situation demands rules that protect patient privacy while ensuring that providers have legitimate and timely access to information for purposes of care.
- Legislation appears to be the only effective solution to address these concerns.

#### **COMMON QUESTIONS WITH ANSWERS**

#### What is the purpose of the legislation?

The purpose of the legislation is:

- to establish the rules for when a person's confidential health information may be disclosed and to whom.
- to define rules for security to protect confidentiality while information is stored and when it is disclosed to others,
- to articulate certain rights of patients, including the right to view health information and to suggest corrections to that information,
- to require secure computerized systems that control access and provide audit trails, and
- to integrate state requirements for information systems with those at the federal level.

#### Who needs this legislation?

Patients, providers, integrated delivery systems, ancillary service providers, payers, researchers, lawyers, state agencies, and licensing bodies--everyone involved in health care needs this legislation.

#### How does the legislation protect privacy?

The legislation is first and foremost consumer legislation with a primary focus on the individual patient. It provides more privacy protection to patients than is available today in North Carolina.

A fundamental concern for each citizen is the privacy of individual health care information. Health information is personal and sensitive information such that the inaccurate collection or improper use or release of the information may do significant harm to a patient's interests in privacy, health care, or other interests.

The legislation strives to provide individuals with protections concerning the use, privacy, and confidentiality of their personal health information and to provide a high degree of confidence in health information systems by:

- (i) establishing clear and consistent rules, and hence enhancing legal certainty, related to the collection, storage, compilation, disclosure and use of health information;
- (ii) assuring that health information is secure, private, and accurate and that such information is not improperly disclosed or modified; and
- (iii) limiting access to health information to those with a legitimate, verified need for such information.

The importance of these rules is reinforced by civil damages that arise when these rules are broken.

The legislation also establishes the public policy that a patient's interest in the proper use and disclosure of the patient's health information survives even when the information is held by persons

other than the original health care provider. In this respect the legislation proposes a focus on the utilization of health information that does not identify individual patients.

The legislation ensures patients access to their own health information, enables them to make informed decisions about their health care and provides a mechanism to correct inaccurate or incomplete information about themselves.

The legislation also addresses legitimate privacy interests of health care providers and health care facilities while at the same time accommodating the interests of managed care in a modern health care setting.

The legislation also recognizes that under current North Carolina law others have legitimate needs to collect, use, and disclose health information in different contexts and for different purposes, including providers, integrated delivery systems, ancillary service providers, payers, researchers, lawyers, state agencies and licensing bodies. The legislation balances those needs with the privacy interests of individuals; the emphasis of the legislation is on the establishment and preservation of the privacy of the individual when health information is accessed in ways permitted by law.

#### Are there similar initiatives going on in the surrounding states?

Some 40 states are working with new legislation in some way.

#### Why not rely on federal legislation in this area?

It is not clear that federal legislation or regulation in the area of health care confidentiality will become a reality, and, if it does, what form it will take and whether it will preempt more protective state laws. Each of the states that have already proposed or passed legislation in this area has recognized that confidentiality of health information is both a core issue of local concern and, because of the implications for the reduction of health care costs, a significant national issue. These states have opted to act now in order to ensure the protection of the public's health care privacy for the future.

#### Who may be uncertain or uneasy about this legislation?

Public interest groups and privacy advocates have expressed concerns regarding the security of computerized medical records and the security of transmitting these records over networks. Many of these concerns are alleviated when the advocates understand that the primary purpose of this legislation is to address these very same concerns.

#### How would the legislation improve care?

The legislation would facilitate the utilization of computerized health information systems by organizing relevant law related to the use of health information so as to minimize the confusion and uncertainty in existing law. In turn, computerized health information systems facilitate timely access by health care providers and others to more complete health information than is now available through paper-based systems, improve the accuracy and integrity of health information, enable quicker response times, provide access to knowledge bases otherwise unavailable, facilitate medical research and health care quality assurance, and increase opportunities to discover new treatments, methods and drugs.

#### What is the difference between paper-based systems and electronic systems?

Although the methods of protection vary between physical and electronic forms of information, health care providers and others who handle health care information must deal with both. Designers of health information systems need clearly defined rules to accommodate and facilitate the concerns of privacy and use of health information; consequently, it is impossible to address privacy issues for electronic forms of health information until the law related to privacy issues for all health information, including paper-based information is consolidated and organized. The legislation accomplishes this objective.

#### What will be the fiscal impact?

The fiscal impact will be different for various groups. The legislation states what must be done, but does not state how it must be done. There is a two year window for implementation. Resources will need to be committed for the education and training of staff but much if not all of this is done currently. Existing systems may require modification to comply with the security and tracking standards. Savings will be realized because the development of complex systems is made much easier with known rules.

Currently costs are being incurred in the normal course of system upgrades and to comply with federal laws. As a result, the incremental impact of the state legislation is less significant.

Some of the costs will be offset by decreased liability due to the organized framework for compliance afforded by the Act. Other costs may be reduced due to the efficiencies of computerized systems over paper systems and due to increases in the quality of care provided. As an example, some insurers are offering discounts on medical malpractice insurance premiums to physicians who maintain electronic records. In this regard, a 1994 Government Accounting Office noted:

On average, physicians lack access to patient's medical records in 30%+ of all visits.

Hospital medical records typically are 70% incomplete.

On average, physicians spend 38% of their time writing notes by hand in patient's charts.

One 1992 study prepared for the Secretary of the U.S. Department of Health and Human Services indicated that immediate savings from simplified billing alone could be between \$4 billion and \$10 billion in the United States.

Other significant cost savings arise outside of the administrative arena. Costs are also reduced in areas such as clinical research associated with development and approval of medical devices and beneficial drugs, utilization studies, analysis of public health trends and regulatory review. Also, as noted below, computerized information systems improve the effectiveness of health care delivery, and when this is done, health care costs are reduced.

By working together to adopt standards for systems, North Carolina is reducing the overall cost of implementation and compliance with confidentiality laws and regulations.

#### What is the Status of Medical Records Under Current North Carolina Law?

Current North Carolina laws and regulations provide, at best, an inconsistent and incomplete treatment of laws and policies related to the subject of health care information in any format, much less that created, stored and transmitted by electronic means. North Carolina law relies heavily on the health care industry to self-regulate through medical ethics principals, licensure and forms of professional review. The system has worked in the past, but many believe that to facilitate the proper use of electronic health information, legislation is needed to provide clearer rules.

Although the privacy of medical information arises in a significant number of settings, North Carolina law currently provides only detailed provisions regulating the privacy of medical information in three settings: health information held by mental health facilities, health information used in the insurance industry, and the prescription practices of pharmacies. Of these three areas, only the laws and regulations regulating pharmacies recognize and address the potential benefits and risks associated with electronic communications, demonstrating that the benefits and risks associated with health information can be controlled through appropriate treatment in the law.

North Carolina laws and regulations affecting health information generally were drafted before health information was commonly stored in electronic form. Yet today most forms of health information are stored in an electronic form, including mental health records, communicable disease information, as well as physicians notes and claims information. Without significant changes in North Carolina law, it will be very difficult for the health care industry to respond in a consistent manner to protect the privacy of patients' health information.

While voluminous, incomplete, and sometimes conflicting in nature, current North Carolina law concerning privacy of health information also negatively impacts the ability of the health care industry to address adequately the technological issues associated with developing confidence in the privacy of health care information and making it difficult to achieve the benefits of the technology. The uncertainty created by current North Carolina law increases the costs and risks associated with utilizing computerized health information, and hampers the investment commitments necessary to develop and implement appropriate systems in North Carolina.

The legislation is a response to this inconsistent statutory and regulatory framework and is designed to comprehensively protect patient records in today's information age.

### **VISITOR REGISTRATION SHEET**

TEC	HN	OL.	OGY
		-	$\mathbf{v}$

April 10, 1997

Name of Committee

Date

#### VISITORS: PLEASE SIGN BELOW AND RETURN TO COMMITTEE CLERK

<u>NAME</u>	FIRM OR AGENCY AND ADDRESS
CARMEN HONER BUEZI	CARDINAS HEALTHCARE SUSTEM
Michael Greenberg	Daviels & Davids P.A. Ourhan NC 27713
Walter Daniels	11
Harvey Estes	N.C. Medical Society
Lee Mandell	NCLM
LARRY MATHIOT	SPRINT
Caroline Jackson	DHR-DIRM
Rebecca Trontman	NCACC
DENNY MGUIRE	OSC/IRM
AVELS ROSELAND	OSBM
Um Jo Bain	Smith Underson
Long Walt	Carolines Kealth Can System
Belon & Justier	NOEITA
medica tito	OSA
ERU LARSON	1BM GOVERNMENT
KRISTY SPEGER	IBM GOVERNMENT
Jana E. Cirtis	Out-Rep George Mille
Pana Bowline	OSP /

## MINUTES HOUSE COMMITTEE ON TECHNOLOGY

#### April 17, 1997

The House Committee on Technology met in Room 415 of the Legislative Office Building on Thursday, April 17, 1997 at 12:00 noon. Representative Dennis Reynolds, Chairman, presided at the meeting and the following members were present: Representatives Clary, Dickson, Earle, Eddins, Gulley, Hackney, Miller, Shubert, Tolson and Wilkins. The Visitor Registration Sheet is attached and made part of the minutes.

Chairman Reynolds prefaced the discussion of HB 925, AN ACT TO PROTECT THE PRIVACY OF HEATLH INFORMATION, by stating that the Technology Committee would only be considering the technical portion of the bill and that the Judiciary II committee would be looking at the legal aspects of the bill.

Chairman Reynolds noted and explained several lines of HB 925, including the custodian responsibilities, the Master Person Index and the electronic medical records. Duane Patterson from IBM briefly discussed the design and purpose of the Master Person Index technology. Jatinder Pannu, an Internet security expert discussed the privacy mechanisms that are in place to establish the confidential exchange of electronic information. Pat Cunningham from Nash Health Care Systems reviewed the electronic medical records system that is in place in her organization and the security that is maintained through benefits such as electronic audits.

After brief discussion, Representative Clary motioned for a favorable report and recommendation that the bill be re-referred to the Committee on Judiciary II The motion carried unanimously.

The meeting adjourned at 12:45 p.m.

Representative Dennis Reynolds

Chairman

ina Covington

Committee Clerk

#### 1997 COMMITTEE REPORT HOUSE OF REPRESENTATIVES

The following report(s) from standing committee(s) is/are presented: By Representative(s) **Reynolds** for the Committee on **Technology**. Committee Substitute for H.B. 925 A BILL TO BE ENTITLED AN ACT TO PROTECT THE PRIVACY OF HEALTH INFORMATION With a favorable report and recommendation that the bill be re-referred to the Committee on ☐ Appropriations ☐ Finance ☐ Judiceary T With a favorable report, as amended. With a favorable report, as amended, and recommendation that the bill be re-referred to the Committee on ☐ Appropriations ☐ Finance ☐ With a favorable report as to committee substitute bill (# ), \( \square\) which changes the title, unfavorable as to original bill (Committee Substitute Bill # ), (and recommendation that the committee substitute bill # ) be re-referred to the Committee on .) With a favorable report as to House committee substitute bill (# ), \( \square\) which changes the title, unfavorable as to Senate committee substitute bill. And having received a unanimous vote in committee, is placed on the Consent Calendar. With an unfavorable report. With recommendation that the House concur. With recommendation that the House do not concur. With recommendation that the House do not concur; request conferees. With recommendation that the House concur; committee believes bill to be material. With an unfavorable report, with a Minority Report attached. Without prejudice. With an indefinite postponement report. With an indefinite postponement report, with a Minority Report attached.

With recommendation that it be adopted. (HOUSE RESOLUTION ONLY)

### GENERAL ASSEMBLY OF NORTH CAROLINA

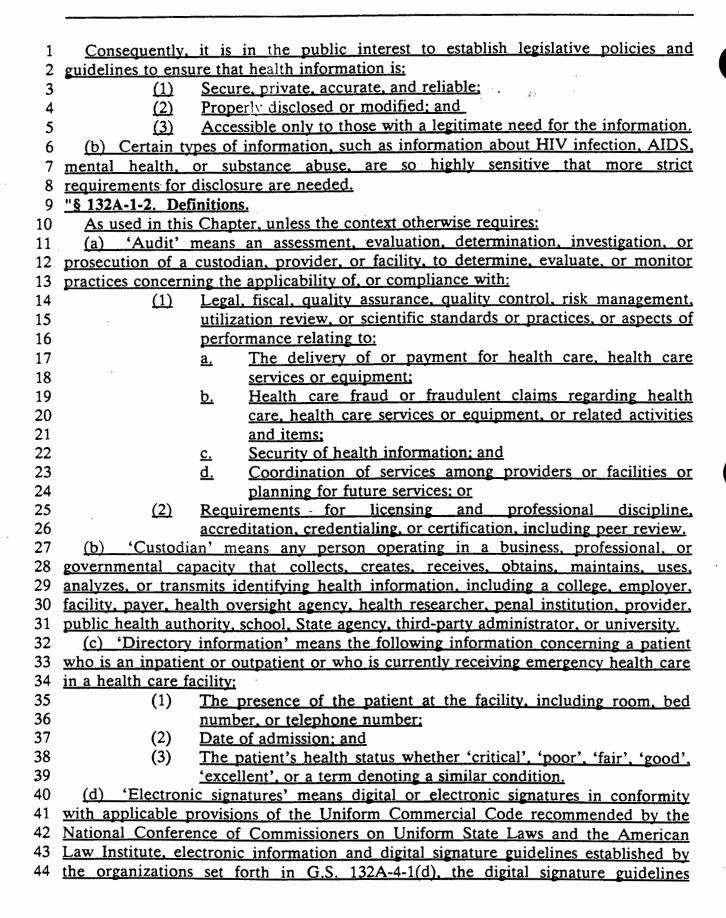
### **SESSION 1997**

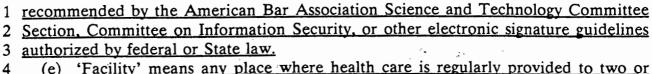
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## **HOUSE BILL 925**

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	Short Title: H	ealth Care Information Privacy. (Public)	
		Representatives Reynolds, Neely, Hackney (Cosponsors); Baddour, Luebke, and Mosley.	
	Referred to: T	echnology, if favorable, Judiciary II.	
	April 10, 1997		
1	A BILL TO BE ENTITLED		
	AN ACT TO PROTECT THE PRIVACY OF HEALTH INFORMATION.		
3	The General Assembly of North Carolina enacts:		
4	Section 1. The General Statutes are amended by adding a new Chapter		
5	to read:		
6		"Chapter 132A.	
7		<u>"ARTICLE 1.</u>	
8	"Legislative Findings and Definitions.		
9	"§ 132A-1-1. Legislative findings.		
10	The General Assembly finds that:		
11	(a) Health information is personal and sensitive information which, if inaccurately		
12	collected, documented, or improperly used or released may cause significant harm to		
13 14	a patient's interests in privacy and health care. Benefits of electronic health information include:		
15	(1)		
16	<del>1.1.1</del>	health information that is now available through paper-based	
17		systems;	
18	(2)		
19		information;	
<sub>-</sub> 20	(3)	Providing access to medical knowledge bases:	
21	(4)	Enhancing efficiencies of health care; and	
22	(5)	Facilitating health care research and health care quality	
23		improvement.	





- (e) 'Facility' means any place where health care is regularly provided to two or more persons by a provider.
  - (f) 'Health care' means:

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- Preventive, diagnostic, therapeutic, rehabilitative, maintenance, (1)investigational, experimental, cosmetic, reconstructive, or palliative care, including assistance with disease or symptom management and maintenance, counseling, service, laboratory test, or procedure:
  - With respect to the physical or mental condition of a patient; or
  - Affecting the structure or function of the human body or <u>b.</u> any part of the human body including the banking of blood, sperm, ova, organs, or any other tissue.
  - Any sale or dispensing of a drug, device, durable or disposable <u>(2)</u> goods or equipment, or other health care related item to a patient, or for the use of a patient pursuant to a prescription, a purpose specified in subdivision (1) of this subsection.
- (g) 'Health information' means any data, information, or orders, including advance directives, documents granting anatomical gifts, biological samples from the 21 human body from which information can be drawn, films, videotapes, consent forms, genetic sequences, digitized images, sound recordings, and demographic information recorded or stored in any form that:
  - Relates to a specific patient's past, present, or future health care or (1)condition, including the patient's individual cells and their components or personal and family medical history;
  - Was created or obtained by a custodian in connection with health (2) care diagnosis, treatment, screening, counseling, intake, or discharge of a patient or related to the application for, or enrollment of, a patient in a reimbursement plan, or for insurance use; or
  - <u>(3)</u> Was obtained by or from a provider, facility, a patient, a member of the patient's family, or any other person about a patient and in connection with a patient's health care.
- (h) 'Health oversight agency' means a public agency or other person that receives a disclosure of, uses, maintains, or discloses health information while acting in the 37 capacity of a person authorized by law or recognized by a government agency to perform or oversee the performance of an audit.
- (i) 'Health research' means scientific, actuarial, survey, or statistical research 40 41 based upon health information, including clinical investigations governed by the 42 Code of Federal Regulations, Chapter I of Title 21. Health research does not include 43 disclosure of health information for purposes of providing health care, peer review. 44 audit functions, or reporting to State and federal authorities.

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- (i) 'Identifying health information' means a collection of health information that 1 2 includes the name, address, social security number, unique identifier established by 3 State or federal law, likenesses or other information which readily identifies a 4 patient's personal identity, could be used or manipulated to identify a patient by 5 foreseeable method, or could be linked or matched by a foreseeable method to any 6 other information in order to identify a patient. Identifying health information 7 includes information stored in a master person index authorized by G.S. 132A-3-5. 8 Health information shall not be considered identifying health information solely 9 based on the inclusion in a collection of health information of a code assigned to a 10 patient by a custodian if that code does not consist of or contain symbols that could 11 be used to readily identify a patient with reasonable accuracy and speed from sources 12 external to the custodian.
- (k) 'Identifying provider information' means the collection of health information 13 14 that includes the name, address, social security number, medical billing number, 15 employer identification number, likenesses, or other information by which the 16 identity of a health care provider can readily be determined with reasonable accuracy and speed, either directly or by reference to other publicly available information. The term does not include a unique identification code assigned to a provider by a 18 19 custodian and used and disclosed only internally to the custodian if that code does 20 not consist of or contain symbols that could be used to identify readily a health care provider with reasonable accuracy and speed from sources external to the custodian.
- 'Master person index' means an index indicating the existence of medical records of patients held by a custodian and other information to facilitate the request 24 for the information under circumstances permitted by this Chapter.
  - (m) 'Medical record' means identifying health information which is maintained in a health information collection, storage, and retrieval system of the custodian in the usual course of health care in accordance with applicable standards of practice.
- (n) 'Patient' means an individual who is requesting, receives, or has received 29 health care. References to the term 'patient' in this Chapter shall include other 30 persons legally empowered to authorize the disclosure of a patient's identifying health 31 information to the extent necessary to effectuate the terms or purposes of the 32 individual's grant of authority.
- (o) 'Payer' means a person acting in a business capacity who undertakes to furnish 33 34 health insurance, disability insurance, life insurance, workers' compensation 35 insurance, or otherwise to pay for all or some of health care services rendered to the 36 patient.
- 37 (p) 'Person' means an individual, government, governmental subdivision, agency 38 or authority, association, corporation, firm, limited liability company, partnership, \_39 society, estate, trust, joint venture, or any other legal entity.
  - (q) 'Provider' means:
- 41 (1)A person licensed, certified, registered, or otherwise authorized by 42 State or federal law to provide health care in the ordinary course 43 of business or practice of profession; 44
  - <u>(2)</u> A State or federal program that directly provides health care; or

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A student training to provide health care acting under the <u>(3)</u> supervision of a provider described in subdivision (1) of this subsection.

"ARTICLE 2.

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"Patient Interests.

#### "§ 132A-2-1. Patient's examination and copying of health information.

- (a) Upon a written request from a patient to examine or copy the patient's medical record, a custodian who is a provider or facility shall, within a reasonable time of the receipt of the request, at the custodian's option. make the patient's medical record available for examination during regular business hours or provide a copy to the patient.
- (b) If in the professional judgment of the provider it would be injurious to the 13 mental or physical health of the patient who is the subject of the health information or in violation of the provider's professional ethical responsibilities to disclose (pursuant to subsection (a) of this section) certain identifying health information to 16 the patient; the provider is not required to provide the information to the patient, but shall upon written request of the patient disclose the information to another provider designated by the patient.
- (c) A patient shall not have a right of access to health information compiled and 20 used by a custodian solely for purposes of audit, peer review, or other administrative 21 functions, to information protected by an evidentiary privilege of a person other than 22 the patient, or information collected about the patient for or during a clinical trial 23 monitored by an institutional review board when such trial is not complete.

#### 24 "§ 132A-2-2. Request for amendment.

- (a) A patient or provider treating a patient may request that a facility or provider 26 amend identifying health information in a patient's medical record maintained by the provider or facility.
  - (b) Upon a request for an amendment, the custodian shall either amend the record or inform the patient or provider in writing of the reasons for refusal to amend the medical record. If the custodian refuses to amend the record, the patient or provider shall be entitled to add a statement about the disagreement to the disputed identifying health information.
- (c) When amending a record, the custodian shall add the amending information to 34 the patient's identifying health information without affecting the original information and shall sign and date the amendment.

#### "§ 132A-2-3. Health information confidentiality; public records.

- (a) A custodian shall maintain as confidential identifying health information. 37 Disclosures of identifying health information may be made only as authorized by this 39 Chapter.
- 40 (b) Unless otherwise provided by law and this section, identifying health 41 information is not a public record.
- No recipient of identifying health information shall use or redisclose 42 43 identifying health information except for the purpose and authority under which the disclosure was made.

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(d) A custodian's employees, agents, and contractors shall be subject to this 2 Chapter to the same extent as the custodian. (e) No person shall use health information that is not identifying health 4 information for the purpose of identifying an individual patient unless the person is 5 authorized under this Chapter to receive disclosures of the information as identifying 6 health information. 7 (f) No person shall use health information that is not identifying provider 8 information for the purpose of identifying an individual provider unless the person is authorized under this Chapter to receive disclosures of the information as identifying 10 provider information. 11 (g) The records established pursuant to G.S. 132A-3-4(a)(4) may only be disclosed 12 as follows: 13 (1)To a patient, subject to G.S. 132A-2-1(c); (2)To a custodian except for records recording peer review functions 14 and investigations of a custodian; 15 To health oversight agencies to the extent such records relate to 16 **(3)** the performance of authorized audit function; 17 By court order pursuant to G.S. 132A-3-3(a)(4). 18 (4) 19 (h) All disclosures of identifying health information shall be limited only to 20 information which the disclosing party reasonably believes is necessary to accomplish the purpose of the disclosure, except to the extent that disclosure is authorized by a 22 patient or G.S. 132A-3-3(a)(4). 23 "ARTICLE 3. 24 "Health Information Communications. 25 "§ 132A-3-1. Authorization to disclose health information. 26 (a) Except for disclosures otherwise authorized by this Chapter, a custodian may 27 disclose a patient's identifying health information only with authorization of the 28 patient. 29 (b) A custodian shall retain a patient's authorization to disclose identifying health 30 information with the patient's health information. A patient's authorization, to be valid shall have the following: 32 (1)The patient's identity; 33 **(2)** A dated written or electronic signature of the patient; 34 A description of the health information to be disclosed: 35 The name or title of a person, or the description of a group of 36 persons, and the physical or electronic address of the person to 37 whom the information is to be disclosed or a description of the 38 class of persons to whom the information is to be disclosed; and 39 The purpose of the disclosure. (c) A patient's authorization to disclose identifying health information may also 40

Any limitation on the scope of disclosure that may be made by the

recipient in carrying out the authorized purpose for which the

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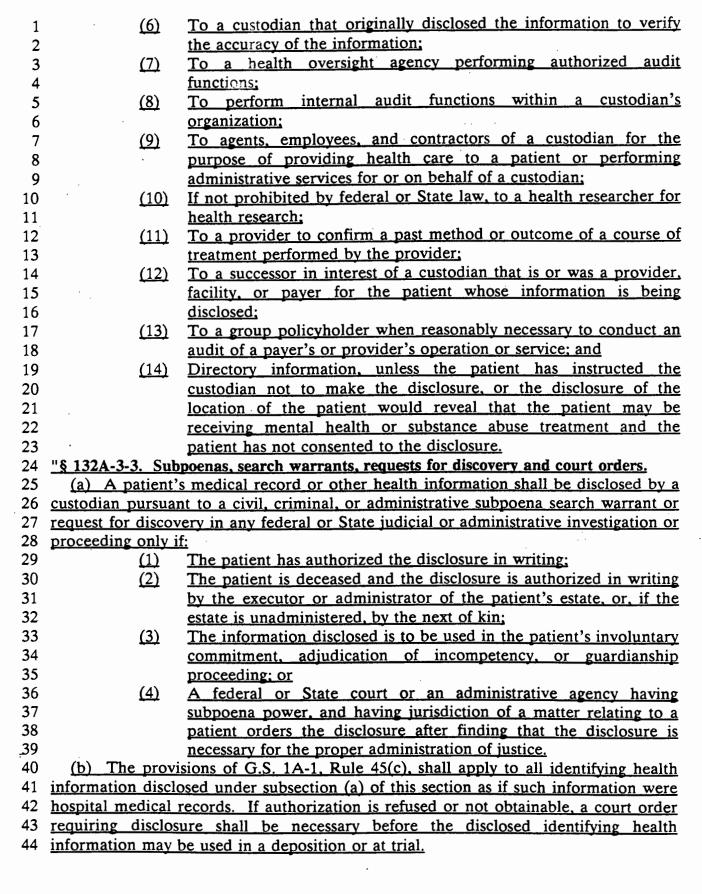
41 <u>include any of the following:</u>

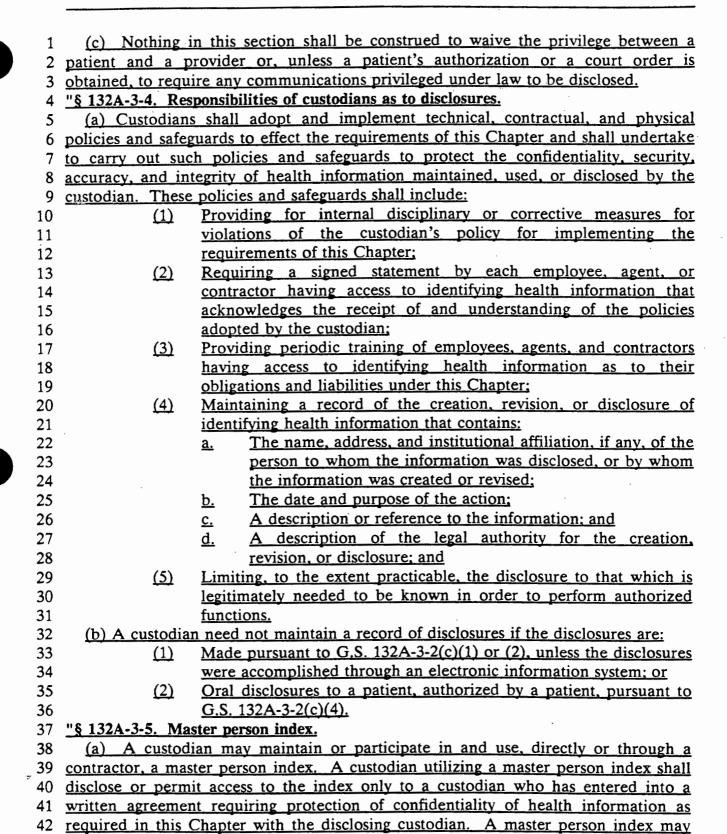
<u>(1)</u>

disclosure is requested;

1	<u>(2)</u>	An acknowledgment from the patient that the patient understands
2	<del></del>	that the authorization is valid for the time period stated unless
3		revoked; or
4	(3)	Any other information believed by the custodians to be needed to
5	<del></del>	facilitate the authorization or to inform the patient as to the
6		patient's rights with respect to the authorization.
7	(d) A patient	may revoke or amend an authorization at any time, except to the
8		stodian has acted in reliance on the authorization.
9		rization under subsection (b) of this section shall remain effective for
10	the time specifie	d by the patient in the authorization. If no time is specified, an
11		Il remain effective for one year.
12		closures and uses of health information.
13		disclosure authorized pursuant to this section may be reasonably
14	accomplished by	disclosing nonidentifying health information rather than identifying
15	health information	n, a custodian shall disclose only nonidentifying health information.
16	(b) A custodi	an shall disclose identifying health information to federal, State, or
17	local law enforce	ement authorities or to federal or State authorities and other law
18		orities, as otherwise required by law, only as provided in G.S. 132A-
19	3-3.	
20	(c) A custod	lian may disclose identifying health information about a patient
21	without the patier	nt's authorization if the disclosure is:
22	(1)	To a provider currently providing authorized health care to a
23		patient or to a referring provider who continues to provide
24		authorized health care to a patient if the information is necessary
25		to provide health care to the patient, and the patient does not
26		object to the disclosure;
27	(2)	To another provider in the same group practice or provider
28		network, or to a custodian under contract with the group practice
29		or provider network, for the purpose of providing patient health
30		care within the practice or network;
31	(3)	To a provider with a need for information to treat a condition
32		which poses an immediate threat to a patient's health;
33	(4)	Unless otherwise limited by G.S. 90-21.4, to a member of a
34		patient's immediate family, a legal guardian of a patient, or to a
35		person with whom the patient is known to have a close personal
36		relationship, when the attending provider reasonably believes that
37		notification is necessary to avoid serious jeopardy to the health of a
38		patient and the patient lacks the capacity to authorize the
39		disclosure;
40	(5)	Necessary because in a provider's opinion, a person is in serious
41	<del>****</del>	and imminent danger or a person is likely to commit a violent
42		felony or violent misdemeanor. This subdivision shall not impose
43		a duty upon the provider to disclose health information;
		and apply the pro-rest to protesse means and interior.

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House Bill 925 Page 9

43 utilize a unique identifier to identify patients and custodians.

- (b) Notwithstanding subsection (a) of this section, the existence of the following 1 2 medical records shall not be disclosed in a master person index unless the requesting party has authority under State or federal law to receive a disclosure of the information:
  - Confidential information as defined in G.S. 122C-3(9): (1)
  - Information and records regulated by G.S. 130A-143; and <u>(2)</u>
  - Identifying health information that is otherwise maintained by a health care provider or health care facility and is identified by the provider as being related to a patient's evaluation, diagnosis, or treatment of HIV infection, AIDS, communicable disease, substance abuse, or mental health condition.
- (c) Access to an entry in a master person index indicating the existence of 13 identifying health information shall not be permitted except to the extent that the disclosure of the information sought is authorized pursuant to G.S. 132A-3-1, 132A-3-15 2, or 132A-3-3.

#### 16 "§ 132A-3-6. Electronic and other medical records.

Notwithstanding any other State law, if a custodian maintains and preserves health 18 information or signatures utilizing electronic, optical, or other technology and media, 19 a custodian shall not be required to maintain a separate paper copy of the health 20 information or signatures. However, if a person receiving a disclosure requests the 21 disclosure be in a paper form, the custodian may not refuse to provide the requested 22 information in a paper form, unless another medium is required by State or federal 23 law.

#### 24 "§ 132A-3-7. Authentication of persons and information; electronic signatures.

- (a) Notwithstanding any other State law, written signatures, electronic signatures, 26 and other authentication techniques recognized as having comparable or superior 27 reliability to electronic signatures shall be acceptable as a legally binding signature 28 and for identification of any individual, entity, or health information associated with an individual or entity.
- (b) All individuals authorized by a custodian to authenticate health information 31 utilizing an authentication technique requiring a secure code shall sign an agreement 32 with the custodian to the effect that only the individual will use or permit access to 33 the code assigned to the individual.

#### "ARTICLE 4. "General Provisions.

#### 36 <u>"§ 132A-4-1. Safe harbors.</u>

Notwithstanding any other provision of this Chapter, no custodian or employee, 38 agent, or contractor of a custodian shall be liable for actions authorized to be taken 39 under this Chapter when the custodian, or employee, agent, or contractor of the 40 custodian:

41 Acted in good faith and in reliance upon health information disclosed 42 consistent with this Chapter:

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- (b) Disclosed health information in good faith and in reliance upon a request for 2 disclosure when the request identified a purpose for which disclosure is authorized 3 under this Chapter; Disclosed health information as authorized by this Chapter, and the 5 transmission of the information was interrupted, or an error in the transmission 6 otherwise was caused, by a common carrier or enhanced service provider while facilitating the disclosure: (d) Acted in good faith and in reliance upon recommendations, guidelines, or specifications implemented by the custodian that address the subject matter of this Chapter and that are designed to protect patients from the damages complained of, in whole or in part, and which recommendations, guidelines, or specifications are: 11 Adopted by the United States Secretary of Health and Human 12 (1) 13 Services: or To the extent not preempted by or inconsistent with 14 (2) recommendations, guidelines, or specifications authorized by 15 subdivision (1) of this subsection, recommendations, guidelines, or 16 specifications recommended as model standards or specifications 17 18 by: The National Committee on Vital and Health Statistics, 19 <u>a.</u> The National Uniform Billing Committee, 20 <u>b.</u> The National Uniform Claim Committee, 21 <u>c.</u> The North Carolina Health Care Information and 22 <u>d.</u> Communications Alliance, Inc., 23 The Workgroup for Electronic Data Interchange, or 24 <u>e.</u> Other public purpose organizations created under section 25 501(c) of the Internal Revenue Code and certified by 26 Executive Order of the Governor as having the technical 27 capability and breadth of representation in the health care 28 community to address the subject matter of this Chapter in 29 the public interest; or 30 (e) Disclosed identifying health information in good faith reliance on an 31 authorization pursuant to G.S. 132A-3-1 or G.S. 132A-3-3(a)(1) or (2). "§ 132A-4-2. Civil remedies. (a) Subject to G.S. 132A-4-1 and Chapter 1D of the General Statutes, a custodian 34 35 or an employee, agent, or contractor of a custodian shall be subject to civil liability 36 for damages incurred by a person with respect to the patient's identifying health 37 information to the extent that such damages arise out of the intentional or negligent act or omission of a custodian in violation of the requirements of this Chapter.
- (b) If a patient believes that a custodian, employee, agent, or contractor of a 40 custodian has failed to comply with its obligations under this Chapter with respect to 41 the patient's identifying health information, a patient may apply to a court of 42 competent jurisdiction for appropriate equitable relief in either the county in which 43 the patient resides, the county where the identifying health information is retained, or 44 the county where the custodian is located.

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- (c) Any agreement purporting to limit the liability arising from violations of this 1 Chapter, other than pursuant to a settlement agreement, is void.
- 3 "§ 132A-4-3. Conflicting laws.
- (a) This Chapter does not restrict a custodian from complying with obligations 4 5 imposed by federal health care payment programs or federal law or regulations. To 6 the extent the provisions of this Chapter conflict with other State law, the provisions 7 of this Chapter shall control unless the other State law specifically states that it is an 8 exception to a specific provision of this Chapter. Notwithstanding the foregoing, if 9 this Chapter conflicts with another State statute governing the nondisclosure of 10 identifying health information held by a health oversight agency for the purposes of 11 peer review, professional review, or other professional disciplinary or corrective action, the other statute shall control.
- (b) G.S. 132A-2-1, 132A-2-2, 132A-3-4(a)(4), and 132A-4-2 shall not apply to 13 disclosures of identifying health information regulated by Article 39 of Chapter 58 of the General Statutes. Health information regulated by Article 39 of Chapter 58 of 16 the General Statutes may also be disclosed as permitted by that Article or G.S.132A-3-1 and G.S. 132A-3-2(b) and (c). 17
- G.S. 132A-2-1 and G.S. 132A-3-2(c) shall not apply to disclosures of (c) 19 identifying health information regulated by Chapter 122C of the General Statutes.
- 20 G.S. 132A-3-2(c) shall not apply to disclosures of identifying health 21 information regulated by G.S. 130A-143 when a custodian is acting pursuant to that 22 section.
- 23 (e) This Chapter does not apply to a telecommunications common carrier and an 24 enhanced service provider if they are certified or subject to regulation:
  - Under Chapter 62 of the General Statutes; or
  - By the Federal Communications Commission pursuant to federal <u>(2)</u>
- 28 (f) Except as provided in G.S. 132A-2-3(e) and (f), this Chapter does not regulate the disclosure of health information that is not identifying health information.
- "§ 132A-4-4. Rules of construction. 30
- 31 Except as otherwise required by law, this Chapter does not require the disclosure 32 of trade secrets or other commercial information."
- 33 Section 2. This act becomes effective July 1, 1999, except that G.S.
- 34 132A-3-3, 132A-3-5, 132A-3-6, and 132A-3-7 become effective when this act becomes
- 35 law. Custodians who comply with this act prior to its effective date may rely on G.S.
- 36 132A-4-1 as to causes of action that accrue after their compliance.

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#### **VISITOR REGISTRATION SHEET**

#### **TECHNOLOGY**

**April 17, 1997** 

Name of Committee

Date

#### VISITORS: PLEASE SIGN BELOW AND RETURN TO COMMITTEE CLERK

<u>NAME</u>	FIRM OR AGENCY AND ADDRESS
Idamey Estes	NC Massociety
Justin Vulturo	NCHA
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Jon Webster	Duke Power
BULE PATERSON	1BM Corp
Trevery Smith	JBN(
Sancia Fing	Nospice of the Carolinas
GENE ANDERSON ()	EDS /
JIM HAZELRIGS	EDS
Chrom Jackson	DHR-DIRM
The Complete	Laule Couralta
Clark G Millian	Chigo a le lleve To.
Don Julyand	NCGA
Denny Moduice	asc/ IRM
Karen Sidonelis	CGIA
Tim Obhreson	CGIA
Ryan Sullivan	UNICO
Sally Caracica	NC Paychological
Elizaboth Holling	NASW-Int
ADAM SEARING	NC Health Access COALTTON
Sade Laffrey	All Broad of Science - Tichnology
Mixley Inseriber	Deales & Boakels, BA.
Barls Carolock	Kitpaturk Stockton
LANT ANDERSON	NCHEA
Desual Ros	ALLU
Carmen Hooker Buell	Carolines Heaten Cas. System
Beck Warlick	DUMC

#### **VISITOR REGISTRATION SHEET**

#### **TECHNOLOGY**

**April 17, 1997** 

Name of Committee

Date

## VISITORS: PLEASE SIGN BELOW AND RETURN TO COMMITTEE CLERK

<u>NAME</u>	FIRM OR AGENCY AND ADDRESS
ECIL LASSIN	1BM GOVERNMENUT
John F. Del Giorno	GloxoWellcome The RTP, NC
Doris Weaver	CWA
John May	ChIA
Eullan Mar Bone	NOTTE
LAURENCE E SCHARFER	IBM
Jatindez Pannu	IBM
Tom MORIZOW	SAMA S
NELS ROSELAND	STAGE BUDGET OFFICE
Truly Guspley	NCBST
Walter Denils	Danielsa Daniels, P.A.
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	-

# MINUTES HOUSE COMMITTEE ON TECHNOLOGY

May 8 1997

The House Committee on Technology met in Room 415 of the Legislative Office Building on Thursday, May 8, 1997 at 12:00 noon. Representative Dennis Reynolds, Chairman, presided at the meeting and the following members were present: Representatives Cansler, Clary, Earle, Eddins, Gulley, Hensley, Shubert, Tolson and Wilkins. The Visitor Registration Sheet is attached and made part of the minutes.

Chairman Reynolds called the meeting to order and moved into discussion of HB 1212 - AN ACT TO APPROPRIATE FUNDS TO ESTABLISH A PILOT PROGRAM FOR CERTIFIED NETWORK ADMINISTRATION (CAN) TRAINING IN NORTH CAROLINA PUBLIC SCHOOLS AND DEVELOP A PROPOSAL FOR THE INTERACTIVE VISUAL TECHNOLOGIES CENTER. After a brief explanation of the bill by Chairman Reynolds, Representative Eddins moved for a favorable report and recommendation that the bill be re-referred to the Committee on Appropriations. The motion was carried by a unanimous vote.

Chairman Reynolds proceeded to open discussion on HB 973 - AN ACT DIRECTING THE DIVISION OF MOTOR VEHICLES OF THE DEPARTMENT OF TRANSPORTATION TO CONDUCT A PILOT PROGRAM THAT ALLOWS NEW MOTOR VEHICLE DEALERS TO ISSUE REGISTRATION PLATES FOR NEW MOTOR VEHICLES SOLD BY THEM. Representative Wilkins made a motion to adopt the proposed committee substitute and the motion passed. Carol Howard, Director of Vehicle Registration in the Division of Motor Vehicles, made a brief presentation regarding the bill and how it will help DMV. After a brief period of questions, Representative Shubert made a motion that the committee substitute bill be given a favorable report, unfavorable to the original bill and recommendation that the committee substitute bill be re-referred to the Subcommittee on Transportation Appropriations. The motion carried unanimously. (NOTE: A meeting was called around the Chairman's desk to correct the committee vote. A quorum was present and a motion was made that the committee substitute bill be given a favorable report, unfavorable to the original bill, and recommendation that the committee substitute bill be re-referred to the Committee on Appropriations.)

The meeting adjourned at 12:15 p.m.

Representative Dennis Revnolds

Chairman

Tina Covington

Committee Clerk

#### 1997 COMMITTEE REPORT HOUSE OF REPRESENTATIVES

The following report(s) from standing committee(s) is/are presented:  By Representative(s) <b>Reynolds</b> for the Committee on <b>TECHNOLOGY</b> .
Committee Substitute for H.B. 1212 A BILL TO BE ENTITLED AN ACT TO APPROPRIATE FUNDS TO ESTABLISH A PILOT PROGRAM FOR CERTIFIED NETWORK ADMINISTRATION (CNA) TRAINING IN NORTH CAROLINA PUBLIC SCHOOLS AND DEVELOP A PROPOSAL FOR THE INTERACTIVE VISUAL TECHNOLOGIES CENTER.
With a favorable report.
With a favorable report and recommendation that the bill be re-referred to the Committee on Appropriations [ Finance Appropriations
☐ With a favorable report, as amended.
☐ With a favorable report, as amended, and recommendation that the bill be re-referred to the Committee on ☐ Appropriations ☐ Finance ☐
☐ With a favorable report as to committee substitute bill (# ), ☐ which changes the title, unfavorable as to original bill (Committee Substitute Bill # ), (and recommendation that the committee substitute bill # ) be re-referred to the Committee on .)
☐ With a favorable report as to House committee substitute bill (# ), ☐ which changes the title, unfavorable as to Senate committee substitute bill.
And having received a unanimous vote in committee, is placed on the Consent Calendar. (PUBLIC BILLS ONLY)
☐ With an unfavorable report.
☐ With recommendation that the House concur.
☐ With recommendation that the House do not concur.
With recommendation that the House do not concur; request conferees.
☐ With recommendation that the House concur; committee believes bill to be material.
☐ With an unfavorable report, with a Minority Report attached.
☐ Without prejudice.
☐ With an indefinite postponement report.
☐ With an indefinite postponement report, with a Minority Report attached.
With recommendation that it be adopted. (HOUSE RESOLUTION ONLY)

#### GENERAL ASSEMBLY OF NORTH CAROLINA

#### **SESSION 1997**

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#### **HOUSE BILL 1212**

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Short Title: Technology & Training Funds. (Public) Sponsors: Representative Reynolds. Referred to: Technology, if favorable, Appropriations.

#### May 5, 1997

A BILL TO BE ENTITLED

2 AN ACT TO APPROPRIATE FUNDS TO ESTABLISH A PILOT PROGRAM FOR CERTIFIED NETWORK ADMINISTRATION (CNA) TRAINING IN 3 4 NORTH CAROLINA PUBLIC SCHOOLS AND DEVELOP A PROPOSAL FOR THE INTERACTIVE VISUAL TECHNOLOGIES CENTER. 5

6 The General Assembly of North Carolina enacts:

Section 1. (a) There is appropriated from the General Fund to the State 8 Board of Education the sum of two million ninety thousand dollars (\$2,090,000) for 9 the 1997-98 fiscal year and the sum of eight hundred forty thousand dollars 10 (\$840,000) for the 1998-99 fiscal year to establish pilot programs for Certified 11 Network Administration (CNA) training in the North Carolina public schools 12 business programs as part of Tech Prep and School-to-Work.

The State Board of Education shall select 12 local school 14 administrative units to participate in the pilot program. In selecting the pilot units, 15 the State Board shall consider (i) indicators of the readiness of a unit to participate in 16 the program, (ii) the degree of community support for such a program, and (iii) indicators of the need for the program in the community, such as lack of comparable 18 training or resources in the community.

The program shall be implemented in one to three high schools in each 20 participating unit. Two teachers shall participate at each high school in which the program is implemented. Classes shall be limited to 15 students each.

(c) Each pilot program shall meet the following criteria:

1 2	` '	be available to high school juniors and seniors		
3		semesters in length, including a work-based		
4		be taught by a certified North Carolina business		
5		who has a CNA credential or by an industry-		
6		•		
7 8	(-)	taught in a CNA-certified classroom/laboratory		
9	,	ll be designed to extend into the community		
	( ) F - 8 - 1 - 1	rovide engineer and instructor certification;		
1	(5) Students successfu	lly completing the program shall be provided an		
12	12 opportunity to take	e the CNA certification examination; and		
13	(6) The program shall	be monitored and managed by the State Board		
4	of Education, in	consultation with private industry business		
5	5 partners.			
16	(d) The State Board of	Education may contract with outside consultants		
17	17 or with private nonprofit corporation	is to assist it in implementing and evaluating the		
8	l8 pilot programs.			
9	(e) The State Board	of Education shall evaluate the educational		
20	20 components of the programs.			
21	The State Board of Educ	ation shall report the results of these evaluations		
22	22 to the Joint Legislative Education Ov	ersight Committee by September 15, 1999.		
23	Section 2. There is	appropriated from the General Fund to the		
24	24 Department of Administration the st	am of two hundred thousand dollars (\$200,000)		
25	25 for the 1997-98 fiscal year for the No	orth Carolina Board of Science and Technology		
26	26 to update and revise the study cond	lucted by the Board in 1994 on the Interactive		
27	27 Visual Technologies Center and to	develop a proposal for establishing the Center.		
28	3 The Department shall report its findings and recommendations by April 1, 1998, to			
29	29 the Legislative Study Commission of	n Information Technology if House Bill 1047 of		
30	30 the 1997 General Assembly become	s law. If House Bill 1047 of the 1997 General		
31		Department shall report to the Senate and House		
	32 Appropriations Committees by April	1, 1998.		
33	Section 3. This act become	mes effective July 1, 1997.		

#### 1997 COMMITTEE REPORT HOUSE OF REPRESENTATIVES

The following report(s) from standing committee(s) is/are presented: By Representative(s) **REYNOLDS** for the Committee on **TECHNOLOGY**. Committee Substitute for H.B. 973 A BILL TO BE ENTITLED AN ACT DIRECTING THE DIVISION OF MOTOR VEHICLES OF THE DEPARTMENT OF TRANSPORTATION TO CONDUCT A PILOT PROGRAM THAT ALLOWS NEW MOTOR VEHICLE DEALERS TO ISSUE REGISTRATION PLATES FOR NEW MOTOR VEHICLES SOLD BY THEM With a favorable report. With a favorable report and recommendation that the bill be re-referred to the Committee on ☐ Appropriations ☐ Finance ☐ ☐ With a favorable report, as amended. With a favorable report, as amended, and recommendation that the bill be re-referred to the Committee on Appropriations Finance With a favorable report as to committee substitute bill (# ), which changes the title, unfavorable as to original bill (Committee Substitute Bill # ), (and recommendation that the committee substitute bill # ) be re-referred to the Committee on ☐ With a favorable report as to House committee substitute bill (# ), \( \square\) which changes the title, unfavorable as to Senate committee substitute bill. And having received a unanimous vote in committee, is placed on the Consent Calendar. (PUBLIC BILLS ONLY) With an unfavorable report. With recommendation that the House concur. With recommendation that the House do not concur. With recommendation that the House do not concur; request conferees. With recommendation that the House concur; committee believes bill to be material. With an unfavorable report, with a Minority Report attached. Without prejudice. With an indefinite postponement report. With an indefinite postponement report, with a Minority Report attached. ☐ With recommendation that it be adopted. (HOUSE RESOLUTION ONLY)

4/24/97

# GENERAL ASSEMBLY OF NORTH CAROLINA

#### SESSION 1997

H

**HOUSE BILL 973** 

Short Title: On-Line Vehicle Registration Pilot.

(Public)

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Sponsors:

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Representatives Reynolds; Baker, Barbee, Bowie, Brawley, Buchanan, Capps, Clary, Cole, Culp, Dedmon, Eddins, Goodwin, Grady, Gulley, Hall, Hardy, Ives, Jeffus, Moore, Morris, Mosley, Rayfield, Sexton, Smith, Starnes, Tallent, and Thompson.

Referred to: Technology, if favorable, Transportation.

#### April 16, 1997

A BILL TO BE ENTITLED

2 AN ACT DIRECTING THE DIVISION OF MOTOR VEHICLES OF THE 3 DEPARTMENT OF TRANSPORTATION TO CONDUCT PILOT Α PROGRAM THAT ALLOWS NEW MOTOR VEHICLE DEALERS TO ISSUE 4 5 REGISTRATION PLATES FOR NEW MOTOR VEHICLES SOLD BY THEM.

6 The General Assembly of North Carolina enacts:

Section 1. Program Established. -- The Division of Motor Vehicles of the 8 Department of Transportation shall implement a pilot program that allows new motor 9 vehicle dealers to issue registration plates for new motor vehicles sold by them. The 10 issuance of registration plates by dealers participating in the program shall begin 11 January 1, 1998, and continue until January 1, 1999, or a later date set by the 12 Division.

13 Section 2. Selection of Dealers. -- The Division shall determine the 14 requirements a new motor vehicle dealer must meet to participate in the program. 15 The Division shall select dealers to participate in the program on the basis of these 16 requirements and on the ability of the dealers selected to provide a thorough test of In selecting automobile dealers to participate, the Division shall 17 the program. 18 consider the recommendations of the North Carolina Automobile Dealers 19 Association.

The Division shall determine the number of dealers to be included in the 21 program and shall include as many as is feasible. The Division may implement the 4

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1 program in phases so that the number of participating dealers is increased as the 2 Division gains experience with the program and resolves any problems that arise with 3 the program.

Section 3. Implementation. -- The Division shall implement the program 5 by allowing the participating dealers to submit an application for a vehicle 6 registration to the Division electronically and to receive authorization electronically The electronic submission of an application for 7 to issue a registration plate. 8 registration may be made by the dealer directly to the Division or indirectly through 9 a third-party vendor that submits the application for registration directly to the 10 Division.

Notwithstanding G.S. 20-63(h), the Division shall provide participating 12 dealers with registration plates to issue under the program. A dealer may not issue a personalized or other special registration plate under the program.

The Division may enter into contracts to implement this program. If the 15 Division implements the program by using a third-party vendor, any charges by the 16 vendor for its services shall be billed to and paid by the participating dealers through per-transaction charges to the dealers or another method.

Section 4. Progress Report. -- The Division shall submit a written report 19 to the Joint Legislative Transportation Oversight Committee by December 1, 1997, on 20 its plan to implement the pilot program required by this act. The report shall describe the program and the Division's goals for the program.

Section 5. Final Report. -- The Division shall submit a written report to 23 the Joint Legislative Transportation Oversight Committee by December 1, 1998. The 24 report shall include an evaluation by the Division of the success or failure of the 25 program and a recommendation on whether the program should end on January 1, 26 1999, or should continue beyond that date. The report shall include data on the 27 number of dealers participating in the program, the number of vehicle registration 28 plates issued by month by participating dealers under the program, the effect of the 29 program on the workload of the Division, and any effect the program has had on 30 contract tag agents of the Division.

Section 6. This act is effective when it becomes law.

Page 2 House Bill 973

#### North Carolina Automobile Dealers Association

# LEGISLATIVE UPDATE

Topic:

Pilot Program for On-Line Vehicle Registration (HB 973)

Sponsor:

Rep. Dennis Reynolds

Issue:

New technology is available to the Division of Motor Vehicles and to the citizens of North Carolina that will allow purchasers of new cars and trucks to have immediate access to their licenses plates and registration data. This new technology, being used in Virginia, Maryland and Florida, will significantly shorten the delay citizens face in obtaining their license plates and registration data and it will have no economic impact on the DMV budget.

Solution:

The 700 franchised car and truck dealers of North Carolina, in partnership with the Division of Motor Vehicles, recommend that a pilot program be introduced to test the feasibility of introducing on-line access, through an approved third-party computer company, to DMV registration data.

This program, which has been operational in Virginia for two years, will be limited to a small group of automobile dealer volunteers. Dealers who wish to continue to have their title work processed by the local DMV field offices will be allowed to do so. Also, the pilot program will utilize a minimum of two, third-party computer vendors in order to protect the integrity of the data that is managed by DMV. Accordingly, auto dealers will not have direct access to DMV's records, but will instead process data through centralized third-party vendors approved by DMV.

The cost of the program, approximately \$10-15 per transaction, will be absorbed by auto dealers as part of the transaction cost in selling the vehicle. The DMV budget will incur no additional cost in the adoption and implementation of this program.

Upon implementation, this program will provide North Carolinians with more timely receipt of title work and license tags upon purchase of a vehicle, and will increase the customer satisfaction in the purchasing process.

More Info:

For additional information on the details related to the implementation of an On-Line Vehicle Registration system, please contact:

Robert J. Glaser, NC Automobile Dealers Association; 919-828-4421

Carol Howard, DMV, 919-733-7452

Charles Pickett, VinNet Computer Company: 800-694-8311

## **VISITOR REGISTRATION SHEET**

TECHNOLOGY	May 8, 1997
Name of Committee	Date

## VISITORS: PLEASE SIGN BELOW AND RETURN TO COMMITTEE CLERK

<u>NAME</u>	FIRM OR AGENCY AND ADDRESS
Crystal Howard	Coversis office
Knsty Seeger	IBM Corp - Government
Andrew Zeneski	13M (018
BILL Wade	OAO Corp
Laun Rehert	ONG Coap
Don Folford	NCGA
Carol Howase	20T/2m/
Rossent GLAGER	NC/Auto DIRS ASSN
Jam ofmson	ath NCADA
Yim Johnson	State Planing /CGIA
Karen Siderlis	Center For Geographic Info & Aralysi,  DHR-DN & Supo Resource Mgni
Carolne Jackson	DHR- DN & Sufo Kepowie Mgni
	,

# MINUTES HOUSE COMMITTEE ON TECHNOLOGY

#### May 15 1997

The House Committee on Technology met in Room 415 of the Legislative Office Building on Thursday, May 15, 1997 at 12:00 noon. Representative Dennis Reynolds, Chairman, presided at the meeting and the following members were present: Representatives Cansler, Clary, Earle, Eddins, Gray, Gulley, Hackney, Hensley, Shubert and Tolson. The Visitor Registration Sheet is attached and made part of the minutes.

Chairman Reynolds called the meeting to order and opened discussion of HB 970 - AN ACT TO PROVIDE A POSITIVE ENVIRONMENT FOR ECONOMIC DEVELOPMENT BY DECLARING A MORATORIUM ON TAXATION OF INTERNET SERVICES FOR AT LEAST TWO MORE YEARS. Leah Chauncey, general manager of Interpath, was introduced to the committee to briefly discuss the Internet, the business relationship that is developing as a result of Internet growth, and the detrimental impact that Internet taxation could have on the growth of Internet commerce in North Carolina. Betsy Justus of NCEITA (North Carolina Electronics and Information Technology Association) made a presentation about the growth of the Internet and the reasons why taxation should be avoided for at least two more years.

After a brief question and answer period, Representative Eddins moved for a favorable report and recommendation that the bill be re-referred to the Committee on Finance. The motion was passed.

The meeting adjourned at 12:38 p.m.

Representative Dennis Reynolds

Chairman

Tina Covington

Committee Clerk

#### 1997 COMMITTEE REPORT HOUSE OF REPRESENTATIVES

The	e following report(s) from standing committee(s) is/are presented:  By Representative(s) REYNOLDS for the Committee on TECHNOLOGY.
_	Committee Substitute for  3. 970 A BILL TO BE ENTITLED AN ACT TO PROVIDE A POSITIVE ENVIRONMENT FOR ECONOMIC DEVELOPMENT BY DECLARING A MORATORIUM ON TAXATRION OF INTERNET SERVICES FOR AT LEAST TWO MORE YEARS.
	With a favorable report.
M	With a favorable report and recommendation that the bill be re-referred to the Committee on Appropriations Finance
	With a favorable report, as amended.
	With a favorable report, as amended, and recommendation that the bill be re-referred to the Committee on  Appropriations Finance
	With a favorable report as to committee substitute bill (# ),  unfavorable as to original bill (Committee Substitute Bill # ), (and recommendation that the committee substitute bill # ) be re-referred to the Committee on .)
	With a favorable report as to House committee substitute bill (# ),  which changes the title, unfavorable as to Senate committee substitute bill.
	And having received a unanimous vote in committee, is placed on the Consent Calendar. (PUBLIC BILLS ONLY)
	With an unfavorable report.
	With recommendation that the House concur.
	With recommendation that the House do not concur.
	With recommendation that the House do not concur; request conferees.
	With recommendation that the House concur; committee believes bill to be material.
	With an unfavorable report, with a Minority Report attached.
	Without prejudice.
	With an indefinite postponement report.
	With an indefinite postponement report, with a Minority Report attached.
$\Box$	With recommendation that it be adopted. (HOUSE RESOLUTION ONLY)

# GENERAL ASSEMBLY OF NORTH CAROLINA SESSION 1997

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#### **HOUSE BILL 970**

Short Title:	Moratorium on Internet Tax.	(Public)
Sponsors:	Representative Reynolds.	14-800-1
Referred to:	Technology, if favorable, Finance.	

#### April 16, 1997

1 A BILL TO BE ENTITLED

2 AN ACT TO PROVIDE A POSITIVE ENVIRONMENT FOR ECONOMIC 3 DEVELOPMENT BY DECLARING A MORATORIUM ON TAXATION OF 4 INTERNET SERVICES FOR AT LEAST TWO MORE YEARS.

5 The General Assembly of North Carolina enacts:

Section 1. It is the intent of the General Assembly that no sales taxes or 7 similar taxes or fees on Internet services and Internet service providers shall be 8 enacted for at least two more years.

9 Section 2. This act becomes effective October 1, 1997, and expires 10 October 1, 1999.

# Relieving the Quagmire of Internet Taxation

or companies seeking to distribute their products via the Internet, the quagmire of state and local transaction taxes is probably the most daunting roadblock to success. There is hope, however, that some clarity and uniformity will come to this arcane and complex area of tax law. In March, Sen. Ron Wyden (D-Ore.) and Rep. Chris Cox (R-Calif.) introduced the Internet Tax Freedom Act (S. 442, 11.R. 1054) to address this issue.

Currently, there are thousands of state, county, municipal and specialurpose taxing jurisdictions in the

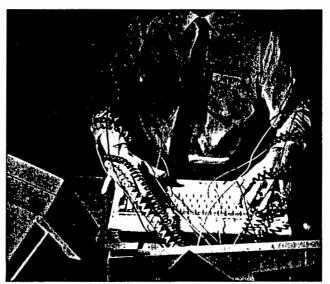
United States alone. Each has the power to impose a sales or use tax on transactions occurring within its jurisdiction. The task of determining whether a particular transaction is subject to such a tax, calculating the amount of the tax and completing the necessary paperwork to actually pay the tax is enough to deter all but the most dedicated from using electronic distribution channels for their products.

Most states impose sales taxes and corresponding use taxes on products sold or used within the state. Sales taxes are traditionally collected by a seller and transferred from the seller to the state taxing authorities. Use taxes, unfamiliar to most of us, are imposed by states on the use of prop-

erty from outside the state but used in the state.

For example, a pair of boots ordered from a mail order supplier in Maine, assuming the buyer resides outside the state, will not require the seller to collect a sales tax. However, the buyer is required to remit a use tax to the state where the buyer resides, in an amount equal to the sales tax the buyer would have paid had the boots been purchased from a local retailer. Needless to say, states have a problem enforcing their use tax laws.

Many states would like to make the out-of-state mail order seller an agent for collecting and remitting the use taxes owed



by their citizens. Mail order companies typically resist this request because of the administrative burden. Under current Supreme Court authority, states can't make out-of-state mail order distributors collect and remit use taxes owed by their customers, unless the seller has a sufficient physical presence, such as an office or employees, in the state. This physical presence is referred to as "nexus."

Software companies distributing products on the Internet are in much the same position.

However, determining whether the company has sufficient nexus is a veritable minefield due to conflicting state interpretations of substantial nexus.

If enacted, the Internet Tax Freedom Act would impose an open-ended moratorium on the imposition of any direct or indirect tax on the use of the Internet, Under this act, states could

continue to impose sales and use tax collection obligations on companies distributing their products on the Internet only if such an obligation would exist for an analogous mail order seller. That is, Internet sellers will be held accountable for collecting taxes based on the same criteria of

nexus that is currently imposed on mail order sellers.

The Internet Tax Freedom Act would direct Congress and the president to consult with the states and the business community and come up with a plan for bringing clarity and uniformity to electronic commerce taxation. Only after such a plan has been formulated and implemented would the moratorium be lifted. At that time, the act contemplates that existing tax regimes would be repealed and replaced with a simple and easy-to-administer system to taxing electronic transactions, SPA supports passage of the Internet Tax Freedom Act. 19

Internet sellers will be held accountable for collecting taxes based on the same criteria of nexus that is currently imposed on mail order sellers.

#### **VISITOR REGISTRATION SHEET**

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MAY 15, 1997

Name of Committee

Date

## VISITORS: PLEASE SIGN BELOW AND RETURN TO COMMITTEE CLERK

<u>NAME</u>	FIRM OR AGENCY AND ADDRESS
Kristy Seeger	IBM
Karen Siderelis	Center for Geograph. Info & Analysis Covernors Office OAU Corp.
Crystal Hound	Governors Office
Bill Wade	OAO Corp.
Don Fulford	NCGA
(aw)ne Jackson	WHR-DIRM
Searge Forg	NODOR
CHARLES COLLINS	11 '
Al Maria	
A Denny McSuire	OSC/1EM
Los Chauncy	Interpath
Haller Jar	087
Jonnysnow a	Spint

#### **MINUTES** HOUSE COMMITTEE ON TECHNOLOGY

May 22, 1997

The House Committee on Technology met in Room 415 of the Legislative Office Building on Thursday, May 22, 1997 at 12:00 noon. Representative Dennis Reynolds, Chairman, presided at the meeting and the following members were present: Representatives Clary, Dickson, Earle, Gulley, Hackney, Hensley, Miller, Shubert, Tolson, Wainwright and Wilkins. The Visitor Registration Sheet is attached and made part of the minutes.

Chairman Reynolds called the meeting to order and opened discussion of SB 869 - AN ACT TO TRANSFER TECHNOLOGY RELATED FUNCTIONS OF STATE GOVERNMENT TO THE DEPARTMENT OF COMMERCE. Secretary Norris Tolson from the Department of Commerce briefly reviewed the mission of the Commerce Department and how technology fits into their goals and purpose. He also noted the preparations and communication that are taking place between Commerce and the Controller's office to implement the transfer.

After a brief question and answer period, Representative Miller moved for a favorable report. The motion was passed.

The meeting adjourned at 12:15 p.m.

Representative Dennis Reynolds

Chairman

Committee Clerk

#### 1997 COMMITTEE REPORT HOUSE OF REPRESENTATIVES

The following report(s) from standing committee(s) is/are presented:

By Representative(s) Reynolds for the Committee on TECHNOLOGY.

Committee Substitute for A BILL TO BE ENTITLED AN ACT TO TRANSFER TECHNOLOGY S.B. 869 RELATED FUNCTIONS OF STATE GOVERNMENT TO THE DEPARTMENT OF COMMERCE. With a favorable report. With a favorable report and recommendation that the bill be re-referred to the Committee on ☐ Appropriations ☐ Finance ☐ ☐ With a favorable report, as amended. With a favorable report, as amended, and recommendation that the bill be re-referred to the Committee on ☐ Appropriations ☐ Finance ☐ With a favorable report as to committee substitute bill (# ), \( \square\) which changes the title, unfavorable as to original bill (Committee Substitute Bill # ), (and recommendation that the committee substitute bill # ) be re-referred to the Committee on With a favorable report as to House committee substitute bill (# ), \( \square\) which changes the title, unfavorable as to Senate committee substitute bill. And having received a unanimous vote in committee, is placed on the Consent Calendar. (PUBLIC BILLS ONLY) With an unfavorable report. With recommendation that the House concur. With recommendation that the House do not concur. With recommendation that the House do not concur; request conferees. With recommendation that the House concur; committee believes bill to be material. With an unfavorable report, with a Minority Report attached. Without prejudice. With an indefinite postponement report. With an indefinite postponement report, with a Minority Report attached. With recommendation that it be adopted. (HOUSE RESOLUTION ONLY)

4/24/97

#### **VISITOR REGISTRATION SHEET**

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	<b>.</b>	71/1	A JUT	

May 22, 1997

Name of Committee

Date

#### VISITORS: PLEASE SIGN BELOW AND RETURN TO COMMITTEE CLERK

<u>NAME</u>	FIRM OR AGENCY AND ADDRESS
Dr. 10 Fe 1	Op. t. fleven
Brenda Dougheitig	Sprint
Paul Goodwin	GARTNOR GROWP
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CATY Nour IE	Road sig T
Knisty Seeger	1 BM
RON HAUILEY	DOTISCI DOL
CARoline JACKSON	DHRIDN & Sufo. Resource Mant.
Denny M'bUIRE	OSC/IRM
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## GENERAL ASSEMBLY OF NORTH CAROLINA

#### SESSION 1997

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#### **SENATE BILL 869** Commerce Committee Substitute Adopted 4/29/97 Third Edition Engrossed 4/30/97

	Short Title: Transfer Technology Functions. (Public)								
	Sponsors:								
	Referred to:								
	April 15, 1997								
1	A BILL TO BE ENTITLED								
2	AN ACT TO TRANSFER TECHNOLOGY-RELATED FUNCTIONS OF STATE								
3	GOVERNMENT TO THE DEPARTMENT OF COMMERCE.								
4	The General Assembly of North Carolina enacts:								
5	Section 1. (a) The following agencies, including all functions, powers								
6	and duties of each, are transferred from the Office of State Controller to the								
7	Department of Commerce:								
8	(1) Information Resource Management Commission.								
9	(2) State Information Processing Services.								
10	(3) State Telecommunications Services.								
11	(b) Budgetary responsibilities for the agencies and services listed in								
12	subsection (a) of this section are transferred from the Office of State Controller to the								
13	Department of Commerce. The positions, funds, equipment, supplies, records, and								
14	other property to support the functions transferred by this section are also transferred								

Section 2. Part 23 of Article 9 of Chapter 143B of the General Statutes is 17 18 recodified as Part 16 of Article 10 of Chapter 143B of the General Statutes, to be entitled "Information Technology Related State Government Functions", and G.S.

15 from the Office of State Controller to the Department of Commerce. Any disputes

arising out of this transfer shall be resolved by the Director of the Budget.

20 143B-426.21 is recodified as G.S. 143B-472.41.

Section 3. G.S. 143B-426.39(14), (15), and (16) are recodified as G.S. 21 22 143B-472.42(1), (2), and (3).

Board.

1 Section 4. G.S. 143B-426.39A is recodified as G.S. 143B-472.43. 2 Section 5. G.S. 143B-426.40 is recodified as G.S. 143B-472.44. 3 Section 6. Part 16 of Article 10 of Chapter 143B of the General Statutes, 4 as created by this act, reads as rewritten: 5 "Part 16. Information Technology Related Functions. 6 "§ 143B-472.41. Information Resource Management Commission. (a) Creation; Membership. -- The Information Resource Management Commission 7 8 is created in the Office of the State Controller. Department of Commerce. The 9 Commission consists of the following members: 10 (1) Four members of the Council of State, appointed by the Governor. 11 (2) The Secretary of Administration. 12 (3) The State Budget Officer. Two members of the Governor's cabinet, appointed by the 13 (4) 14 Governor. One citizen of the State of North Carolina with a background in 15 (5) and familiarity with information systems or telecommunications, 16 appointed by the General Assembly upon the recommendation of 17 18 the President Pro Tempore of the Senate in accordance with G.S. 19 120-121. 20 (6) One citizen of the State of North Carolina with a background in 21 and familiarity with information systems or telecommunications, 22 appointed by the General Assembly upon the recommendation of 23 the Speaker of the House of Representatives in accordance with 24 G.S. 120-121. 25 (7) The Chair of the Governor's Committee on Data Processing and 26 Information Systems. 27 The Chair of the State Information Processing Services Advisory (8) 28 Board. 29 (9) The Chair of the Criminal Justice Information Network Governing 30

Members of the Commission shall not be employed by or serve on the board of 32 directors or other corporate governing body of any information systems, computer 33 hardware, computer software, or telecommunications vendor of goods and services to 34 the State of North Carolina.

The two initial cabinet members appointed by the Governor and the two initial 36 citizen members appointed by the General Assembly shall each serve a term 37 beginning September 1, 1992, and expiring on June 30, 1995. Thereafter, their 38 successors shall be appointed for four-year terms, commencing July 1. Members of 39 the Governor's cabinet shall be disqualified from completing a term of service of the 40 Commission if they are no longer cabinet members.

The appointees by the Governor from the Council of State shall each serve a term 42 beginning on September 1, 1992, and expiring on June 30, 1993. Thereafter, their 43 successors shall be appointed for four-year terms, commencing July 1. Members of

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1 the Council of State shall be disqualified from completing a term of service on the Commission if they are no longer members of the Council of State.

3 Vacancies in the two legislative appointments shall be filled as provided in G.S. 4 120-122.

The Commission chair shall be elected in the first meeting of each calendar year 6 from among the appointees of the Governor from the Council of State and shall serve 7 a term of one year. The Secretary of Administration Commerce shall be secretary to the Commission.

No member of the Information Resource Management Commission shall vote on an action affecting solely his or her own State agency.

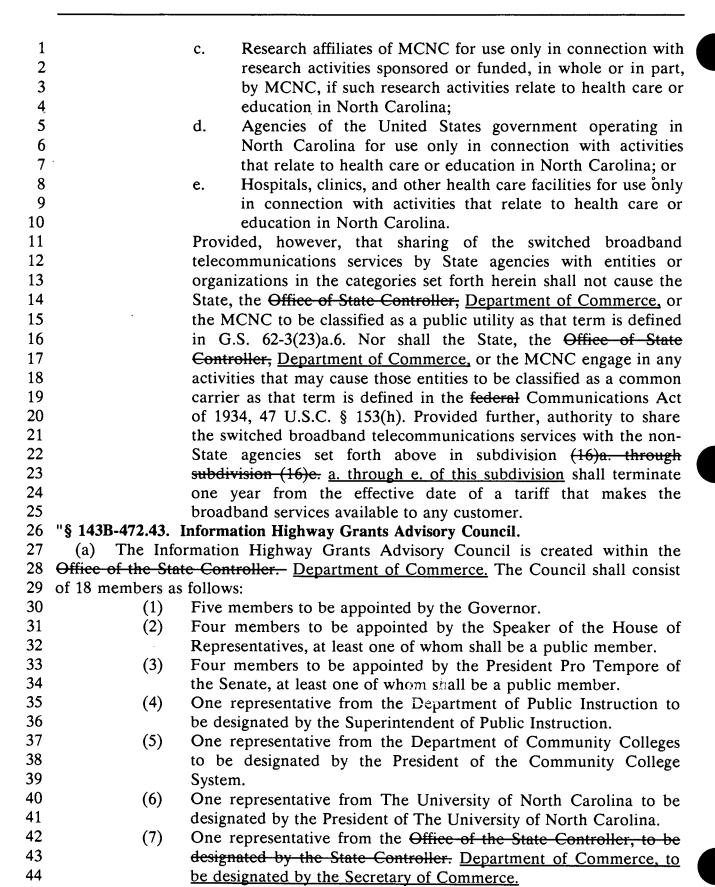
- (b) Powers and Duties. -- The Commission has the following powers and duties:
  - To develop, approve, and publish a statewide information (1)technology strategy covering the current and following biennium that shall be updated annually and shall be submitted to the General Assembly on the first day of each regular session.
  - To develop, approve, and sponsor statewide technology initiatives (2) and to report on those initiatives in the annual update of the statewide information technology strategy.
  - To review and approve biennially the information technology plans (3) of the executive agencies, including their plans for the procurement and use of personal computers and workstations.
  - To recommend to the Governor and the Office of State Budget (4) and Management the relative priorities across executive agency information technology plans.
  - (5) To establish a quality assurance policy for all agency information technology projects, information systems training programs, and information systems documentation.
  - To establish and enforce a quality review and expenditure review (6) procedure for major agency information technology projects.
  - (7) To review and approve expenditures from appropriations made to the Office of State Budget and Management for the purpose of creating a Computer Reserve Fund.
  - To develop and promote a policy and procedures for the fair and (8) competitive procurement of information technology consistent with the rules of the Department of Administration and consistent with published industry standards for open systems that provide agencies with a vendor-neutral operating environment where different information technology hardware, software, and networks operate together easily and reliably.
- (c) Meetings. -- The Information Resources Management Commission shall adopt bylaws containing rules governing its meeting procedures. The Information Resources 41 Management Commission shall meet at least monthly. 42
  - "§ 143B-472.42. Powers and duties of the Secretary of Commerce.
    - The Secretary of Commerce shall:

Page 3 Senate Bill 869

1	(1)	With	respect to State agencies, exercise general coordinating
2	( )	autho	ority for all telecommunications matters relating to the internal
3			gement and operations of these agencies. In discharging that
4			nsibility the State Controller Secretary of Commerce may in
5		_	eration with affected State agency heads, do such of the
6		_	ving things as he the Secretary of Commerce deems necessary
7			dvisable:
8		a.	Provide for the establishment, management, and operation,
9		u.	through either State ownership or commercial leasing, of the
10			following systems and services as they affect the internal
11			management and operation of State agencies:
12			1. Central telephone systems and telephone networks;
13			2. Teleprocessing systems;
			3. Teletype and facsimile services;
14			, , , , , , , , , , , , , , , , , , ,
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16			5. Closed-circuit TV systems;
17			6. Two-way radio systems;
18			7. Microwave systems;
19			8. Related systems based on telecommunication
20		1	technologies.
21		b.	With the approval of the Information Technology Council,
22			coordinate the development of cost-sharing systems for
23			respective user agencies for their proportionate parts of the
24			cost of maintenance and operation of the systems and
25			services listed in item 'a.' of this subdivision.
26		c.	Assist in the development of coordinated
27			telecommunications services or systems within and among
28			all State agencies and recommend, where appropriate,
29			cooperative utilization of telecommunication facilities by
30			aggregating users.
31		d.	Perform traffic analysis and engineering for all
32			telecommunications services and systems listed in item 'a.'
33			of this subdivision.
34		e.	Pursuant to G.S. 143-49, establish telecommunications
35			specifications and designs so as to promote and support
36		_	compatibility of the systems within State agencies.
37		f.	Pursuant to G.S. 143-49 and G.S. 143-50, coordinate the
38			review of requests by State agencies for the procurement of
39			telecommunications systems or services.
40		g.	Pursuant to G.S. 143-341 and Chapter 146 of the General
41			Statutes, coordinate the review of requests by State agencies
42			for State government property acquisition, disposition, or
43			construction for telecommunications systems requirements.

1		h. Provide a periodic inventory of telecommunications costs
2		facilities, systems, and personnel within State agencies.
3		i. Promote, coordinate, and assist in the design and
4	•	engineering of emergency telecommunications systems
5		including but not limited to the 911 emergency telephone
6		number program, Emergency Medical Services, and other
. 7		emergency telecommunications services.
· 7 8		j. Perform frequency coordination and management for State
9	•	agencies and local governments, including all public safety
10		radio service frequencies, in accordance with the rules and
11		regulations of the Federal Communications Commission or
12		any successor federal agency.
13	,	k. Advise all State agencies on telecommunications
14	·	management planning and related matters and provide
15		through the State Personnel Training Center or the State
16		Information Processing Services training to users within
17		State agencies in telecommunications technology and
18		systems.
19	•	l. Assist and coordinate the development of policies and long-
20	•	range plans, consistent with the protection of citizens' rights
21		to privacy and access to information, for the acquisition and
22		use of telecommunications systems; and base such policies
23		and plans on current information about State
24		telecommunications activities in relation to the full range of
25		emerging technologies.
26	,	m. Work cooperatively with the North Carolina Agency for
27	,	Public Telecommunications in furthering the purpose of this
28		subdivision.
29		The provisions of this subdivision shall not apply to the Criminal
30		Information Division of the Department of Justice or to the
31		
32		Judicial Information System in the Judicial Department.
33	,	Provide cities, counties, and other local governmental units with
		access to a central telecommunications system or service
34		established under subdivision (14) (1) of this section for State
35		agencies. Access shall be provided on the same cost basis that
36		applies to State agencies.
37	` ' '	Establish switched broadband telecommunications services and
38		permit in addition to State agencies, cities, counties, and other
39		local government units, the following organizations and entities to
40		share on a not-for-profit basis:
41		a. Nonprofit educational institutions;
42		b. The Microelectronics Center of North Carolina ('MCNC')
43		MCNC;

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(8) One representative from the North Carolina School of Science and Mathematics, to designated by the Board of Trustees.

Members of the Council shall be appointed by September 1, 1994, and shall serve 4 two-year terms. The Speaker of the House of Representatives and the President Pro 5 Tempore of the Senate shall each designate a cochair from among the members of 6 the General Assembly they appoint to the Council. Vacancies on the Council shall be filled in the same manner as the original appointment.

The members of the Council shall not receive compensation but may receive subsistence and travel in accordance with G.S. 120-3.1, G.S. 138-5, and G.S. 138-6 as 10 appropriate.

- (b) The Information Highway Grants Advisory Council shall meet as often as 12 needed to transact its business. The first meeting of the Council shall be called by 13 the cochairs. A majority of the members of the Council shall constitute a quorum. 14 The Office of the State Controller Department of Commerce shall provide staff and 15 space to the Council.
- (c) The Information Highway Grants Advisory Council shall advise the Governor, 16 17 the General Assembly, and Office of the State Controller Department of Commerce 18 on matters pertaining to the North Carolina Information Highway. The Information 19 Highway Grants Advisory Council shall, by September 30, 1994, develop criteria for 20 evaluating grant applications under this section. The Information Highway Grants 21 Advisory Council shall evaluate the grant applications and make recommendations to 22 the State Controller regarding grant recipients by December 1, 1994. The State 23 Controller shall not award grants before December 15, 1994. The State Controller 24 Secretary of Commerce shall notify the Information Highway Grants Advisory 25 Council as to whom the intended grant recipients are 15 days prior to awarding the 26 grants.

#### "§ 143B-472.44. State Information Processing Services.

With respect to all executive departments and agencies of State government, except the Department of Justice and The University of North Carolina, the Office of State Controller Department of Commerce shall have the following powers and duties:

- **(1)** To establish and operate information resource centers and services to serve two or more departments on a cost-sharing basis, if the Information Resources Management Commission decides it is advisable from the standpoint of efficiency and economy to establish these centers and services:
- With the approval of the Information Resources Management (2) Commission, to charge each department for which services are performed its proportionate part of the cost of maintaining and operating the shared centers and services;
- With the approval of the Information Resources Management (3) Commission, to require any department served to transfer to the Office of the State Controller Department of Commerce custody, or control ownership, of information processing

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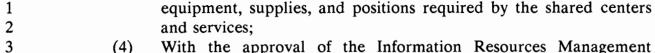
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- (4) With the approval of the Information Resources Management Commission, to adopt reasonable rules for the efficient and economical management and operation of the shared centers, services, and the integrated State telecommunications network;
- With the approval of the Information Resources Management (5) Commission, to adopt plans, policies, procedures, and rules for the acquisition, management, and use of information technology resources in the departments affected by this subdivision to facilitate more efficient and economic use of information technology in these departments; and
- develop and promote training programs to efficiently (6) implement, use, and manage information technology resources.
- To provide cities, counties, and other local governmental units <u>(7)</u> with access to State Information Processing Services information resource centers and services as authorized in this section for State agencies. Access shall be provided on the same cost basis that applies to State agencies.

The Department of Revenue is authorized to deviate from this subsection's 21 requirements that departments or agencies consolidate information processing 22 functions on equipment owned, controlled or under custody of the State Information 23 Processing Services. All deviations from this subsection's requirements shall be 24 reported in writing within 15 days by the Department of Revenue to the Information 25 Resources Management Commission and shall be consistent with available funding. 26 The Department of Revenue is authorized to adopt and shall adopt plans, policies, 27 procedures, requirements and rules for the acquisition, management, and use of processing equipment, information processing 29 communications capabilities, and information systems personnel in the Department of 30 Revenue. If the plans, policies, procedures, requirements, rules, or standards adopted 31 by the Department of Revenue deviate from the policies, procedures, or guidelines 32 adopted by the State Information Processing Services or the Information Resources 33 Management Commission, those deviations shall be allowed and shall be reported in 34 writing within 15 days by the Department of Revenue to the Information Resources 35 Management Commission. The Department of Revenue and the State Information 36 Processing Services shall develop data communications capabilities between the two 37 computer centers utilizing the North Carolina Integrated Network, subject to a 38 security review by the Secretary of Revenue.

The Department of Revenue shall prepare a plan to allow for substantial recovery 40 and operation of major, critical computer applications. The plan shall include the 41 names of the computer programs, databases, and data communications capabilities, 42 identify the maximum amount of outage that can occur prior to the initiation of the plan and resumption of operation. The plan shall be consistent with commonly 44 accepted practices for disaster recovery in the information processing industry. The

Page 8

1 plan shall be tested as soon as practical, but not later than six months, after the 2 establishment of the Department of Revenue information processing capability.

No data of a confidential nature, as defined in the General Statutes or federal law, 3 4 may be entered into or processed through any cost-sharing information resource 5 center or network established under this subdivision until safeguards for the data's 6 security satisfactory to the department head and the State Controller Secretary of 7 Commerce have been designed and installed and are fully operational. Nothing in 8 this subsection may be construed to prescribe what programs to satisfy a department's 9 objectives are to be undertaken, nor to remove from the control and administration 10 of the departments the responsibility for program efforts, regardless whether these 11 efforts are specifically required by statute or are administered under the general 12 program authority and responsibility of the department. This subdivision does not 13 affect the provisions of G.S. 147-64.6, G.S. 147-64.7, or G.S. 143B-426.39(14). 143B-14 472.42(1). Notwithstanding any other provision of law, the Office of the State 15 Controller Department of Commerce shall provide information technology services 16 on a cost-sharing basis to the General Assembly and its agencies as requested by the 17 Legislative Services Commission."

Section 7. G.S. 115C-102.5(b)(4) reads as rewritten:

- "(4) The Deputy Controller for the Information Resources Management Commission in the Office of the State Controller A person with management responsibility concerning information technology related State Government functions, designated by the Secretary of Commerce;"
- Section 8. G.S. 20-123(57) reads as rewritten:

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- 25 "(57) The Information Resource Management Commission, as established by G.S. 143B-426.21. 143B-472.41."
- 27 Section 9. This act is effective when it becomes law.

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## North Carolina House of Representatives Committee on Technology



Rep. Dennis Reynolds Chairman



# **ATTENDANCE**

# **TECHNOLOGY Committee**

TECHNOLOGI Committee														
	197		,							98				
DATES	2/20	2/21	3/6	3/20	4/10	4/1	5/8	5/15	5/22	6/9				
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CLARY	/				/	/	/	/	/					
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1997-98	Regular Session	HOUSE: TECHNOLOG	Y	Valid T	Through 6-	AUG-1998
BILL	INTRODUCER	SHORT TITLE		LATEST ACTION ON BILL	IN DATE	OUT DATE
H 925=	REYNOLDS	HEALTH CARE INFORMATION PRIVACY	H	-RE-REF COM ON RULES	04-10-97	04-17-97
н 970	REYNOLDS	MORATORIUM ON INTERNET TAX	H	-RE-REF COM ON FINANCE	04-16-97	05-15-97
н 973	REYNOLDS	ON-LINE VEHICLE REGISTRATION PILOT	*H	-ASSIGNED TO APP-TRAN	04-16-97	05-12-97
H1212	REYNOLDS	TECHNOLOGY & TRAINING FUNDS	H	-ASSIGNED TO APP-EDUC	05-05-97	05-08-97
S 361	COOPER	EXPAND INFORMATION HIGHWAY USES	*H	-REF TO COM ON TECHNOL	05-01-97	
S 869	RAND	TRANSFER TECHNOLOGY FUNCTIONS	*R	-CH. SL 97-0148	05-01-97	05-22-97
S1193	PLYLER	YEAR 2000 EMERGENCY APPROPRIATION	*R	-CH. SL 98-0009	06-08-98	06-10-98

NOTES- = AFTER BILL NUMBER SHOWS THAT BILL IS IDENTICAL, AS INTRODUCED, TO ANOTHER BILL.

Page:

<sup>\*</sup> AFTER NUMBERS INDICATES THAT TEXT OF BILL WAS ALTERED BY ACTION ON THE BILL. BOLDED LINE INDICATES BILL INDEXED AS AFFECTING APPROPRIATIONS. 1

# MINUTES HOUSE COMMITTEE ON TECHNOLOGY

June 9, 1998

The **HOUSE COMMITTEE ON TECHNOLOGY** met June 9, 1998, at 2.30 P.M. in the Legislative Office Building, Room 415. Rep. Dennis Reynolds presided. **TECHNOLOGY** members present were: Representatives Cansler, Dickson, Eddins, Gulley, Miller, Tolson.

The following bills were discussed:

SB 1193 A BILL TO BE ENTITLED AN ACT TO MAKE AN EMERGENCY APPROPRIATION, ON THE REQUEST OF THE GOVERNOR, TO COVER THE COSTS OF THE YEAR 2000 CONVERSION IN ALL STATE DEPARTMENTS AND AGENCIES. Rep. Miller requested deletion of item 33, sub section 4 which appears to give an open authority to transfer funds from federal receipts and other agency receipts to the Department of Commerce, Year 2000 Reserve Fund, to cover the costs of the year 2000 conversion. Rep. Reynolds introduced Denny McGuire from Commerce/ITS who gave further explanation on the need for this section. Rep. Reynolds moved for a favorable report; motion passed.

The meeting adjourned at 3.00 P.M.

Respectfully submitted,

Rep. Dennis Reynolds, Chairman

Kara A. McCraw, Clerk

# VISITOR REGISTRATION SHEET

Technology	9 June 1998
91	W AND RETURN TO COMMITTEE CLERK
NAME	FIRM OR AGENCY
1. Duny M. Serie	Commerce / ITS
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