

STATE OF NORTH CAROLINA

OFFICE OF THE STATE AUDITOR
BETH A. WOOD, CPA



STATEWIDE INFORMATION TECHNOLOGY PROJECT BENEFITS AND GOVERNANCE

INFORMATION SYSTEMS AUDIT
FEBRUARY 2015



NCOSA
The Taxpayers' Watchdog

EXECUTIVE SUMMARY

PURPOSE

This audit was initiated to inform the General Assembly about the return on investment (achieved monetary benefits) of major information technology (IT) projects compared to their expected monetary benefits. This audit also analyzed whether State agencies follow a common standard or industry recognized framework to manage their IT resources.

This audit covered nine major IT projects at five State agencies: 1) the Department of Public Instruction; 2) the Department of Public Safety; 3) the Department of State Treasurer; 4) the Wildlife Resources Commission; and 5) the State Board of Elections. The IT projects had expected benefits of \$1.2 billion.

BACKGROUND

The State of North Carolina spends approximately \$3 billion every two years on IT products and services. The State Chief Information Officer (State CIO), the Office of State Budget and Management, the Office of the State Controller, and state agencies play a role, while not clearly defined, in the management of the State's IT enterprise.

KEY FINDINGS

- State agencies do not track the achieved benefits of major IT projects and cannot determine if the State achieved \$1.2 billion in expected benefits.
- State agencies do not follow a common standard or industry recognized business framework to manage the State's IT enterprise, which increases the risk of inconsistent management across government.

KEY RECOMMENDATIONS

- The State CIO and State Budget Office should direct agencies to calculate and track the achieved benefits of major IT projects and should provide adequate guidance to ensure consistency in the methods and measures applied.
- The General Assembly should consider legislation to clarify the responsibility of the State CIO related to the governance and management of IT, including internal controls, in the State.

MATTERS FOR FURTHER CONSIDERATION

- The State has a gap in internal controls over any IT systems that do not relate to financial reporting. The General Assembly should consider legislation to clarify and define the responsibilities of the State Controller and the State CIO related to IT internal control standards to ensure complete oversight.
- The State Board of Elections paid a vendor nearly \$1 million to replace the State's Campaign Finance System and received nothing in return. The State should consider strengthening contract practices and IT procurement review processes to prevent similar instances.
- The State CIO did not submit to the General Assembly a Biennial State IT Plan for 2013-2015 as mandated by state law. The General Assembly should consider revising existing law so that in the first year of a new administration the State CIO has sufficient time to prepare a cohesive formal State IT Plan.

Key findings and recommendations are not inclusive of all findings and recommendations in the report.

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Office of the State Auditor



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AUDITOR'S TRANSMITTAL

February 3, 2015

The Honorable Pat McCrory, Governor
Members of the North Carolina General Assembly
Ms. Janet Cowell, State Treasurer, Department of State Treasurer
Dr. June St. Clair Atkinson, State Superintendent, Department of Public Instruction
Mr. Frank Perry, Secretary, Department of Public Safety
Mr. Gordon Myers, Executive Director, Wildlife Resources Commission
Ms. Kim Strach, Executive Director, State Board of Elections
Mr. Chris Estes, State Chief Information Officer
Mr. Lee Roberts, State Budget Director

Ladies and Gentlemen:

We are pleased to submit the results of our information systems audit titled *Statewide Information Technology Project Benefits and Governance*.

This audit was initiated as part of an effort to inform the General Assembly on the actual return on investment (achieved monetary benefits) of major information technology (IT) projects compared to their expected monetary benefits. This audit differs from previously issued audit reports that have looked at IT project cost overruns and schedule delays in the State. The audit objectives were to determine whether the State is achieving the expected monetary benefits of major IT projects after five years of being implemented and whether State agencies follow a common standard or industry recognized business framework to manage the State's IT enterprise.

The State Chief Information Officer (State CIO), the Office of State Budget and Management, the Office of the State Controller, and the five agencies that were audited were presented in advance with the findings and recommendations. The State CIO and the five agencies reviewed a draft copy of this report and their written comments are included in *Appendix G*.

We wish to express our appreciation to the staff of the State CIO and all the agencies involved for the courtesy, cooperation, and assistance provided us during the audit.

Respectfully submitted,

A handwritten signature in cursive script that reads "Beth A. Wood".

Beth A. Wood, CPA
State Auditor



Beth A. Wood, CPA
State Auditor

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Article V, Chapter 147 of the North Carolina General Statutes, gives the Auditor broad powers to examine all books, records, files, papers, documents, and financial affairs of every state agency and any organization that receives public funding. The Auditor also has the power to summon people to produce records and to answer questions under oath.



BACKGROUND, OBJECTIVES, SCOPE, AND METHODOLOGY

The State of North Carolina spends approximately \$3 billion every two years on information technology (IT) products and services.¹

The State Chief Information Officer (State CIO) is responsible for managing IT for the State of North Carolina. As authorized in Article 3D of *General Statutes Chapter 147*, the State CIO has statewide authority over IT project approval and oversight, IT procurement, security, and IT planning and budgeting.²

The Enterprise Project Management Office (EPMO) was established within the State CIO's office in 2004 to help improve the management of IT projects. The EPMO works with State agencies to approve and manage major IT projects worth more than \$500,000. The State's Budget Office and the State Controller's Office are also designated statewide IT project approvers and have key roles and responsibilities for approving major IT projects.³

To initiate the IT project approval process, State agencies must propose major IT projects that cost more than \$500,000. One component of an IT project proposal is the "expected benefits" of the IT project, which indicate how much money the new project is expected to save or how much it will increase revenues for the State after five years of operation.

EPMO is responsible for verifying that the project deliverables, cost, schedule, and scope are defined in a project's business case.⁴ EPMO is also expected to review projects to avoid the duplication of IT capabilities and resources across State agencies and to ensure a major IT project is part of an agency's strategic IT plan.

The State Budget Office is responsible for reviewing and evaluating agency requests to ensure that they are appropriately planned and justified. The State Budget Office also is expected to ensure the benefits of a proposed IT project are reasonable, measurable, and expressed in monetary terms. The expected benefits of a project are reviewed to ensure they exceed project costs and are attainable.

The Office of the State Controller (OSC) functions as the State's Chief Fiscal Officer and manages the State's accounting, financial reporting, disbursement activities, and the implementation and monitoring of internal controls. OSC is responsible for reviewing major IT project proposals to ensure they have no impact on State Controller applications and that they use financial best practices. Per *North Carolina General Statute 143D-6*, the State Controller is responsible for establishing comprehensive standards, policies, and procedures to ensure a strong and effective system of internal control within State government. Through the statewide Internal Control Standards Policy⁵, OSC has directed state agencies to adopt ISACA's Control Objectives for Information Technology (COBIT) framework⁶ as the IT internal control standards for the state.

¹ North Carolina Information Technology Expenditures Report – prepared annually by the Office of the State Controller, the Office of Information Technology Services, and Office of State Budget and Management.

² NC General Statutes – Chapter 147 Article 3D:
http://www.ncga.state.nc.us/EnactedLegislation/Statutes/HTML/ByArticle/Chapter_147/Article_3D.html

³ IT Project Approval Requirements-Process:
<http://www.epmo.scio.nc.gov/library/pdf/ProjectApprovalProcess.pdf>

⁴ The Office of the State Auditor has released an audit report that found the State has control weaknesses over the development of initial IT project costs and schedule estimates which increase the risk that IT projects will experience significant budget and schedule variances.
<http://www.ncauditor.net/EPWeb/Reports/Performance/PER-2013-7283.pdf>

⁵ Internal Control Standards, NC OSC Policy 900.1 -
http://www.osc.nc.gov/policy/IC/900.1_Internal_Controls_Standards.pdf

⁶ ISACA is a non-profit and independent global provider of knowledge, certifications, community, advocacy and education on information systems assurance and security, enterprise governance and management of IT, and objectives for the governance and management of enterprise information and technology assets.

AUDIT OBJECTIVES, SCOPE, AND METHODOLOGY

The audit objectives were to determine: 1) whether the State is achieving the expected monetary benefits of major IT projects after five years of being implemented; and 2) whether State agencies follow a common standard or industry recognized business framework to manage the State's IT enterprise.

The audit scope included:

- IT projects that had expected benefits more than \$30 million and were implemented between 2005 and 2008
- IT projects that had expected benefits of more than \$100 million and were implemented between 2009 and 2012.

To accomplish the first audit objective, auditors analyzed the expected monetary benefits of all major IT projects within the State's IT project management tool, which keeps a record of data for all approved State IT projects, and found 26 projects at 12 agencies in scope. Based on agency risk assessment and cost-benefit analysis, auditors selected nine projects at five agencies using a judgmental sample to ensure a representative sample of state agencies and IT projects:

| Agency | IT Project Name |
|----------------------------------|---|
| Department of Public Instruction | Online Educational Services for Student Achievement Improvement |
| | NC 1:1 Project |
| | K-Nect Project |
| Department of Public Safety | VIPER Project (Phase 0) |
| | VIPER Project (Phase 1) |
| | VIPER Project (Phase 2) |
| Department of State Treasurer | Integrated Retirement System Planning |
| State Board of Elections | Help America Vote Act (HAVA) State Voting Equipment & System Upgrades |
| Wildlife Resources Commission | Coastal Recreational Fishing License |

Following the selection of IT projects for the audit, auditors gained an understanding of the processes, policies, and procedures the Enterprise Project Management Office, the Office of State Budget and Management, and the Office of the State Controller follow in approving major State IT projects. Auditors then obtained and examined system development and financial benefit documentation related to the selected IT projects.

Additionally, auditors obtained information through interviews with agency heads, chief information officers, and officials responsible for managing IT projects. Auditors also interviewed State Budget Office personnel to identify their views on whether the relevant guidance for calculating the expected benefits of IT projects and tracking of achieved benefits after project implementation is appropriately established. Finally, auditors reviewed the Request for Proposal (RFP) issued to replace the State's IT project management tool to assess whether it contained requirements regarding the tracking of achieved benefits.

To accomplish the second audit objective, auditors interviewed IT managers and chief information officers regarding the processes and practices that they follow for the governance and management of enterprise IT. Auditors also collected and analyzed Office of the State Controller guidance related to the statewide internal control program called EAGLE (Enhancing Accountability in Government through Leadership and Education), to assess the program's adoption and State agencies implementation of the IT internal control standard.

As a basis for evaluating whether the State has implemented a common standard or framework, the Control Objectives for Information Technology (COBIT 5) framework issued by ISACA was applied. COBIT 5 is a comprehensive framework that helps enterprises achieve their objectives for the governance and management of enterprise information and technology assets.

The audit period covered January 2005 through April 2014. The audit fieldwork was conducted from February 4, 2014, to April 25, 2014.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

This audit was conducted under the authority vested in the State Auditor of North Carolina by *North Carolina General Statute 147.64*.



FINDINGS AND RECOMMENDATIONS

FINDING 1: STATE AGENCIES DO NOT TRACK THE ACHIEVED BENEFITS OF MAJOR IT PROJECTS AND CANNOT DETERMINE IF THE STATE ACHIEVED \$1.2 BILLION IN EXPECTED BENEFITS

It cannot be determined whether the State reached the expected \$1.2 billion return on investment the audited agencies used to help justify the expense of their information technology (IT) projects. Achieved monetary benefits of major IT projects were not tracked.

The State cannot determine if agencies are achieving optimal value from IT investments if they do not track achieved monetary benefits. Internationally recognized IT industry business frameworks recognize the value of determining achieved monetary benefits of IT projects.

State agencies have not been given a directive and have not received adequate guidance to track and monitor achieved monetary benefits. Specific direction is needed from the State Chief Information Officer and the Office of State Budget and Management to assist agencies in giving adequate attention to the area of tracking IT benefits realization.

Achieved Monetary Benefits of Major IT Projects Were Not Tracked

Three of the five State agencies audited do not track the achieved monetary benefits of major information technology (IT) projects. The other two agencies had limited data and documentation related to the achieved monetary benefits of their IT projects.

The five agencies selected for this audit implemented IT projects with more than \$1.2 billion in expected benefits to the State. Table 1 provides the total amount in expected and achieved benefits estimated by each agency. An overview of each IT project reviewed during the audit and its expected benefits is provided in *Appendix A and B*.

Agencies have been calculating the expected monetary benefits of IT projects and including them in business case proposals since 2005. However, the State Budget Office has reported to the General Assembly that agencies do not track achieved IT benefits after a project is approved.⁷

Table 1: Expected vs. Achieved Monetary Benefits of Major State IT Projects

| Agency | Expected Benefits | Achieved Benefits |
|----------------------------------|---|------------------------------------|
| Department of Public Instruction | \$774,683,304 (Between 2007-2014) | Achieved benefits not tracked |
| Department of Public Safety | \$333,000,000 (Between 2007-2014) | Achieved benefits not tracked |
| Department of State Treasurer | \$43,256,944 (Between 2008-2013) | Achieved benefits not tracked |
| State Board of Elections | \$67,164,703 (Between 2006-2011) | \$82,203,337 (unaudited) |
| Wildlife Resources Commission | \$60,000,000 (Between 2007-2012) | \$31,470,314 (unaudited) |
| TOTALS | \$1,278,104,951 | \$113,673,651 |

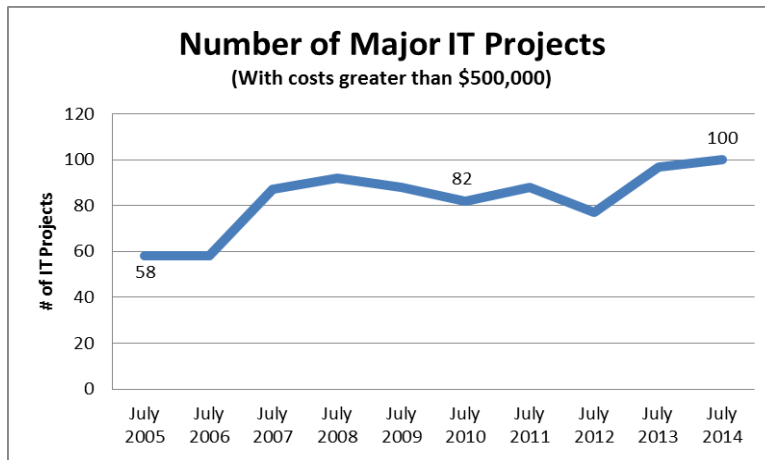
Sources: State IT Portfolio Project Management Tool and documentation provided by agencies.
Note: Table summarizes the total expected and achieved benefits of the nine audited IT projects.

⁷ <http://www.ncleg.net/DocumentSites/committees/JLOCIT/02-06-2014/IT%20Business%20Cases%20and%20Benefits%20Realization%20Final.pdf>

Optimal Value from IT Investments Cannot Be Achieved Without Tracking Benefits

The State cannot obtain optimal value from its investments in IT if agencies do not track achieved benefits. The State Budget Office and the State CIO’s Office have stated they recognize the value of benefits realization, especially when there are tangible financial benefits. The offices indicated that they plan to place additional emphasis on IT business cases in the future.

Optimal value is reached by taking full advantage of IT, maximizing benefits, and capitalizing on opportunities for the State. This is important since the number of major IT projects in the State has increased by 72% in the past 10 years. Specifically, the number of projects with costs greater than \$500,000 has grown from 58 in 2005 to 100 major projects in development in 2014.



Source: NC Enterprise Project Management Office

Inadequate Guidance to Track and Monitor Achieved Benefits

Officials from the agencies that participated in this audit said that the lack of guidance from oversight agencies contributed to their failure to track the achieved monetary benefits of major IT projects in a consistent manner.

Consequently, State agencies, as well as the General Assembly and Governor, lack complete and reliable data about the expected and achieved benefits of major IT projects.

EPMO and the State Budget Office have not provided State agencies with directives that contain clear guidance on calculating expected and achieved benefits that are valid and have not established a separate project approval process for State IT projects that are a result of legislative mandates.

- State agencies are not required to determine, track and monitor the achieved benefits of IT projects
- In previous years, the Enterprise Project Management Office (EPMO) made available to agencies a spreadsheet that could be used as a starting point to consider expected benefits. Completion of the document was optional. During the audit, EPMO and the State Budget Office indicated that a new spreadsheet had been developed to help agencies calculate expected benefits in a more effective and consistent manner and that its completion would be required going forward.

- IT projects mandated by the legislature are required to go through the State's normal project approval process. Which means the project must demonstrate the benefits of the project are higher than the project cost. Because of this, an agency CIO said that agencies may inflate the expected benefits of IT projects mandated by the General Assembly so that the projects will obtain approval. The State Budget Office uses a process that at times rejects legislative-mandated IT project proposals. This occurs based on the State Budget Office approach of approving only project proposals that show the calculated expected benefits of the project are higher than the project cost, regardless of whether the project is required by law. Agencies indicated that in some cases they cannot make a positive business case for a mandated IT project.

During the audit, the State Budget Office informed the General Assembly that agencies vary in their abilities to write IT business cases and quantify benefits.⁸ Additionally, it was noted that "agencies project management offices generally reside within IT Divisions, so business cases:

- Are written from a technology perspective rather than a business perspective
- Do not thoroughly analyze the true financial benefits of a project
- Are often not vetted by the business owner."

The agencies that calculated the expected return on investment for IT projects used flawed and inconsistent methodologies. Specifically, a review of expected benefit calculations revealed:

- An IT project calculated expected benefits based solely on how much in federal grant funds the State could lose if the project was not implemented, and not the actual value of the project.
- An IT project that incorrectly listed \$65 million in expected benefits. The \$65 million was the total projected benefit of two IT projects, not each individual project.
- An IT project with benefits based on a complex and unrealistic formula that incorporated variables that required estimates such as: the estimated number of hours teachers would not have to travel in a year for staff development, the number of estimated dropouts, and estimated savings from avoiding juvenile delinquent system costs.

Inadequate Tools to Track and Monitor Achieved Benefits

The State's IT project management tool⁹ is not capable of tracking achieved benefits and the proposal to replace the State's IT project management tool does not include key capabilities.

As a result, agencies do not have access to an adequate tool to enter achieved IT benefits data to show the State's return on investment.

The State's IT project management tool provides the capability to capture the expected benefits of an IT project, but is unable to track the actual achieved benefits of a project after

⁸ <http://www.ncleg.net/DocumentSites/committees/JLOCIT/02-06-2014/IT%20Business%20Cases%20and%20Benefits%20Realization%20Final.pdf>

⁹ Portfolio Project Management (PPM) Tool: The online and centralized management tool manages the IT project approval process and keeps a record of data for all approved State IT projects. The tool is also used by agencies monthly to self-report on the status of IT projects and used by EPMO to assess all IT projects based on established indicators.

it is in operation. As a result, no work regarding IT benefits is done after an IT project is approved. The tool also does not allow agencies to enter any information, including achieved benefits, after a project has been implemented. An overview of the State's major IT project phases is provided in *Appendix C*.

The Office of Information Technology Services has issued a Request for Proposal (RFP) to replace the State's IT project management tool¹⁰ that does not include capabilities that would assist the State in benefits realization and IT project management:

- The RFP does not require the capability to track IT benefits after project implementation, which is when the majority of the benefits of an IT project are achieved.
- The RFP also does not require the replacement system to provide a central repository of IT project lessons learned. Based on the findings of previous IT related audits, a central repository of IT project lessons learned that is available to all State agencies would provide a valuable source of information to guide IT projects in the State and assist in preventing past and re-occurring IT project management issues.

Industry Standards Recognize Value of Monitoring Achieved IT Benefits

IT governance and management best practices recommend that oversight entities, such as the State CIO's Office and State Budget Office, provide direction regarding IT value optimization. Specifically, the *ISACA COBIT 5 Framework* emphasizes the need for governance-setting entities to direct value management principles and practices to enable optimal value realization from IT-enabled investments throughout their full economic life cycle. The framework also states that those charged with governance should understand and consider how effective current roles, responsibilities, accountabilities and decision-making bodies are in ensuring value creation from IT-enabled investments, services and assets.¹¹ Furthermore, the framework states that governance-setting entities should:

“Define and communicate enterprise-level value delivery goals and outcome measures to enable effective monitoring.”¹²

RECOMMENDATIONS

- The State CIO's Office and State Budget Office should issue a directive requiring State agencies to track the achieved benefits of major IT projects after their implementation.
- The State CIO's Enterprise Project Management Office and State Budget Office should develop formal guidance to help State agencies calculate expected IT benefits and track achieved benefits to ensure consistency statewide.
- The State CIO's Enterprise Project Management Office and State Budget Office should establish a separate framework to document, approve, and monitor major State IT initiatives or projects requested by the General Assembly. Appropriate guidance should also be developed and provided to State agencies regarding this framework.
- The State CIO's Enterprise Project Management Office should ensure that the new system that replaces the State's IT project management tool provides agencies with the capability to monitor and track achieved benefits after a project has been closed out.

¹⁰ RFP No. ITS-008115

¹¹ Management Practice EDM02.01, Evaluate Value Optimization

¹² Management Practice EDM02.02, Direct Value Optimization

- The State CIO's Enterprise Project Management Office should provide agencies with a central repository for IT project lessons learned.
- The General Assembly should consider legislation to enhance the transparency and oversight of major State IT projects, including the creation of an online public IT Dashboard. The dashboard should be similar to the one managed by the Office of Management and Budget in the federal government and provide information about major IT investments.

FINDING 2: STATE AGENCIES DO NOT FOLLOW A COMMON STANDARD OR INDUSTRY RECOGNIZED BUSINESS FRAMEWORK TO MANAGE THE STATE'S IT ENTERPRISE

The State Chief Information Officer (State CIO) has not required State agencies to apply a common standard or industry recognized business framework for the management of the State's information technology (IT) enterprise.

Consequently, every State agency manages their IT operations through different practices and approaches. This increases the risk of ineffective and inefficient management of IT resources as well as inconsistent results across State government. Given the cost and criticality of IT systems to the health, economy, and security of the State, effective and consistent management of the State's IT enterprise is important.

Each of the five State agencies reviewed during this audit stated that they had received no direction from the State CIO about implementing or following a specific standard or industry recognized IT business framework. The adoption of a standard or internationally recognized framework, such as the *ISACA COBIT 5 Framework*¹³, is critical to providing guiding principles that promote effective governance and management of enterprise IT.¹⁴ An overview of the *ISACA COBIT 5 Framework* is provided in *Appendix D*.

North Carolina General Statute 147-33.76 states the State CIO is responsible for ensuring the proper management of the State's IT resources.¹⁵

IT governance and management best practices recommend the adoption of formal guiding principles and accepted framework. The IT Governance Institute, formed by ISACA to advance international thinking on the governance and management of IT, has noted that implementing good governance and taking full advantage of enterprise IT is almost

¹³ ISACA is a non-profit and independent global provider of knowledge, certifications, community, advocacy and education on information systems assurance and security, enterprise governance and management of IT, and IT-related risk and compliance. ISACA has developed the COBIT 5 framework to help organizations achieve their objectives for the governance and management of enterprise information and technology assets.

¹⁴ ISACA defines governance as: ensuring that stakeholder needs, conditions and options are evaluated to determine balanced, agree-on enterprise objectives to be achieved; setting direction through prioritisation and decision making; and monitoring performance and compliance against agreed-on direction and objectives. ISACA defines management as: planning, building, running, and monitoring activities in alignment with the direction set by the governance body to achieve the enterprise objectives.

¹⁵ The general statute defines 'IT enterprise management' as: "a method for managing distributed information technology assets from acquisition through retirement so that total ownership costs (purchase, operation, maintenance, disposal, etc.) are minimized while maximum benefits are realized."
http://www.ncga.state.nc.us/EnactedLegislation/Statutes/PDF/ByArticle/Chapter_147/Article_3D.pdf

impossible without implementing an effective governance framework. The IT Governance Institute also states:

“Frameworks, good practices and standards are useful only if they are adopted and adapted effectively. Oversight entities need to accept more accountability for IT, provide guiding principles and a framework, and instill a different mindset and culture for delivering value from IT.”¹⁶

The *ISACA COBIT 5 Framework* states that organizations should ensure an adequate governance framework setting and maintenance by analyzing and articulating the requirements for the governance of enterprise IT, and put in place and maintain effective enabling structures, principles, processes and practices, with clarity of responsibilities and authority to achieve the enterprise’s mission, goals and objectives.¹⁷

Furthermore, the *ISACA COBIT 5 Framework* recommends continuously evaluating, directing, and monitoring the established IT governance system to:

“Assess whether the governance system and implemented mechanisms (including structures, principles and processes) are operating effectively and provide appropriate oversight of IT.”¹⁸

RECOMMENDATIONS

- The General Assembly should consider legislation to clarify the responsibility of the State CIO related to the governance and management of IT, including internal controls, in the State.
- The State CIO’s Office should issue a formal directive, assign accountability, and monitor state agencies to ensure a common standard or industry recognized business framework is applied consistently throughout the State.
- The State CIO’s Office should develop a statewide IT governance and management educational plan to provide comprehensive training to agencies.

¹⁶ <http://www.itgi.org/About-Governance-of-Enterprise-IT.html>

¹⁷ Management Practice EDM01, Ensure Governance Framework Setting and Maintenance

¹⁸ Management Practice EDM01.03, Monitor Governance System

MATTER 1: THE STATE HAS A GAP IN INTERNAL CONTROL STANDARDS FOR INFORMATION TECHNOLOGY

The State has a gap in internal controls over any IT systems that do not relate to financial reporting. The *State Governmental Accountability and Internal Control Act*¹⁹ and the general statute that lays out the responsibilities for the State Chief Information Officer (State CIO) have led to confusion about who is responsible for establishing and overseeing the effective implementation of internal controls over IT. The General Assembly should consider legislation to clarify and define the responsibilities of the State Controller and State CIO for internal control standards over IT to ensure complete oversight.

The *State Governmental Accountability and Internal Control Act* was established by the General Assembly to ensure a strong and effective system of internal control²⁰ within State government²¹ and to clearly indicate responsibilities related to that system of internal control.

The *State Governmental Accountability and Internal Control Act* gives the State Controller responsibility for all internal controls, including internal controls over IT.

As a result of this law, OSC issued in 2008 a statewide Internal Controls Standards Policy²² that calls for all State agencies to apply *ISACA's COBIT Framework* for IT. However, OSC has only issued internal controls guidance for IT systems that affect financial reporting.

General statutes give the State CIO responsibility for ensuring the proper management of the State's IT resources. However, existing laws do not give the State CIO responsibility for setting policy over internal controls of IT.

Consequently, the State CIO has not issued any policy or guidance regarding internal controls over IT.

As a result of the gap in internal controls over IT systems that do not affect financial reporting, there is an increased risk that State agencies may not be applying COBIT or other internal controls standards over IT. Additionally, it is difficult for the management of each State agency to establish and maintain a proper system of internal control within that agency if adequate oversight guidance is not issued or is unclear.

¹⁹ North Carolina General Statute Chapter 143D
http://www.ncga.state.nc.us/EnactedLegislation/Statutes/HTML/ByChapter/Chapter_143D.html

²⁰ The general statute defines 'Internal Control' as: "An integral process, effected by an entity's governing body, management, and other personnel, designed to provide reasonable assurance regarding the achievement of objectives related to the effectiveness and efficiency of operations, reliability of financial reporting, and compliance with applicable laws and regulations."

²¹ The general statute defines 'State agency' as: "Any department, institution, board, commission, committee, division, bureau, officer, official, or any other entity for which the State has oversight responsibility, including, but not limited to, any university, mental or specialty hospital, community college, or clerk of court."

²² Internal Control Standards, NC OSC Policy 900.1 -
http://www.osc.nc.gov/policy/IC/900.1_Internal_Controls_Standards.pdf

MATTER 2: THE STATE PAID \$1 MILLION TO REPLACE AN IT SYSTEM AND RECEIVED NOTHING IN RETURN

The State Board of Elections paid a vendor nearly \$1 million to replace the State's Campaign Finance System and received nothing in return. The State provided payment to the vendor up-front and contract amendments did not contain detailed descriptions or deadlines for the project. This occurred even after the Office of Information Technology Services Statewide IT Procurement division reviewed and approved the contract amendments.

The General Assembly, the State Chief Information Officer, and the Attorney General's Office should consider strengthening contract practices and IT procurement review processes to prevent similar instances. Areas for consideration should include guidance for advance vendor payments, provisions for vendor non-performance, and controls to prevent agencies from circumventing IT procurement review processes.

A Campaign Finance System serves to capture, store, and report online all campaign information required by the Elections Board. The Elections Board reported that despite the payment to the vendor the State's Campaign Finance System has not changed since 2010.

In 2010, the General Assembly passed a law requiring the State Board of Elections to develop a new Campaign Finance System.²³ In June 2011, former officials at Elections Board and SOE Software Corporation (Vendor) signed two contract amendments to two different contracts to allow enhancements to the Campaign Finance System.²⁴ The Vendor was paid \$988,786 in advance but did not replace the system.

The State's contracts with the Vendor ended in October 2013. Elections Board officials indicated that when they requested the Vendor replace the system through a new contract, the Vendor refused as a new contract would contain specific deliverables and the State would no longer pay the Vendor in advance.

All State IT projects of more than \$500,000 must go through the State CIO and Enterprise Project Management Office approval process. The total expected cost of the Campaign Finance System was divided into two separate amendments affecting two different contracts. Each amendment was less than the \$500,000 threshold.

The amendments contained no detailed descriptions, requirements or deadlines for the project.

²³ Session Law 2010-123 Senate Bill 1202, Section 2.2(i) and Section 11.18

²⁴ **Enhancement 1 - Treasurer's Data Entry Solution:** shall allow all filer types, including political committees, referendum committees, legal expense funds, independent expenditure report filers, electioneering communication report filers, entities making contributions, the Agency and county boards of elections to register filers, change filer statuses and officers, enter and edit campaign finance transactions, and create, submit and amend campaign finance reports. It should include an online, web-based application and an offline, downloadable applications. The solution shall allow administrative users to make changes to forms, audit rules, and allow for data transfer between the agency and contractor.

Enhancement 2 - Web Front End Presentation Layer: shall be a software solution that allows the Agency website visitors to search for, view, print and download Campaign Finance filers, filer status and filer report data.

The only project information included in the amendments consisted of the following:

- Web Front End Presentation Layer – Enhancement amount not to exceed \$496,893
This enhancement is a continuation of the current CONNECT website software and will provide a searchable public database.
- Treasurer’s Data Entry Solution – Enhancement amount not to exceed \$491,893
This enhancement will allow SBE [State Board of Elections] to provide software to campaign treasurers that will help them manage their campaign reporting schedules and electronically send that information to SBE.

The signed contract amendments can be found in *Appendix F*.

Former Elections Board officials asked the Office of Information Technology Services for a sole source waiver from the State procurement process. The reason provided for the waiver request stated, “The software enhancement purchase request cannot be purchased from any other vendor or as a commercial of the shelf (COTS) product.” Current Elections Board officials have indicated that other vendors and products did exist at the time.

MATTER 3: THE STATE CIO DID NOT SUBMIT THE STATE IT PLAN FOR 2013-15 AS REQUIRED BY LAW

The State Chief Information Officer (State CIO) did not submit to the General Assembly a Biennial State IT Plan for 2013-2015 as mandated by state law. The General Assembly should consider revising existing law so that in the first year of a new administration the State CIO has sufficient time to prepare a cohesive formal State IT Plan. The State CIO should continue to provide the General Assembly with regular updates on progress towards developing the State’s 2015-2017 Biennial State IT Plan.

The State’s information technology (IT) enterprise has operated without a formal State IT Plan since February 2013. By general statute, the Biennial State IT Plan for 2013-2015 was due to the General Assembly on February 1, 2013. This plan was not delivered. The State CIO has stated that the goal is to submit a Biennial State IT Plan covering 2015-2017 to the General Assembly in February 2015.

By not submitting a State IT plan to the General Assembly by February 1, 2013, the state’s systematic process for planning and financing the State’s IT resources between 2013 and 2015 was not used, as intended by general statute. Additionally, the following components, mandated in *North Carolina General Statute Chapter 147 Article 3D*, were not established in a cohesive formal plan:

- “An inventory of current information technology assets and major projects currently in progress.
- An evaluation and estimation of the significant unmet needs for information technology resources over a five-year time period. The Plan shall rank the unmet needs in priority order according to their urgency.

- A statement of the financial requirements posed by the significant unmet needs, together with a recommended funding schedule for each major project currently in progress or recommended for initiation during the upcoming fiscal biennium.
- An analysis of opportunities for statewide initiatives that would yield significant efficiencies or improve effectiveness in State programs.”²⁵

The Governor issued Executive Order 30, on November 7, 2013, titled: “Fix and Modernize Information Technology Governance in Cabinet Agencies by Collaborating as ONE IT”. The executive order stated that the way the state has governed and managed IT historically is inefficient, based on too many silos, too much duplication, and too many incompatible systems. The order also indicated that one mechanism for fixing and modernizing IT governance in the State was to collaborate by further aligning the management and operations of cabinet agency IT resources to improve efficiency. A copy of the executive order can be found in *Appendix E*.

As provided by the executive order, the State CIO worked with State agencies and, in March 2014, released a report titled: “Cabinet Unite IT Strategy – Fixing and Modernizing Information Technology Governance in Cabinet Agencies by Collaborating as One IT” to serve as an interim Statewide IT Plan until the publication of the 2015-2017 Statewide IT Plan in February 2015.²⁶

However, it is important to note that this report is not the formal State IT Plan and does not contain key requirements mandated by general statute.

The report does state, among other things, that it “serves as an input to the Statewide Restructuring Plan prescribed by Section 7.4(c) of Session Law 2013-360, which seeks to improve efficiency and the efficacy of IT in state government.” The report also states that “IT planning continues to progress as we build towards the 2015 Biennial IT Plan required by the General Assembly.”

The State CIO noted in a presentation to the Joint Legislative Oversight Committee on Information Technology that the 2013-2015 Biennial State IT Plan was not submitted because it had to be delayed for the new administration and for the new State CIO to assess and prioritize accordingly.²⁷

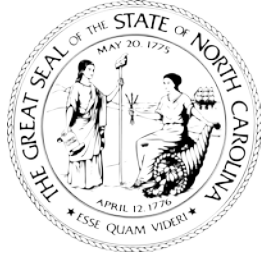
North Carolina General Statute Chapter 147 Article 3D states that:

“In order to provide a systematic process for meeting the State's technology needs, the State Chief Information Officer shall develop a biennial State Information Technology Plan (Plan). The Plan shall be transmitted to the General Assembly by February 1 of each regular session.”

²⁵ General Statute 147-33.72B. Planning and Financing State Information Technology Resources.

²⁶ <https://www.scio.nc.gov/library/pdf/Cabinet-Unite-IT-Strategy.pdf>

²⁷ <http://www.ncleg.net/DocumentSites/committees/JLOCIT/02-06-2014/Enterprise%20Briefing%20Feb%206%202014%20FINAL.pdf>



APPENDICES

Achieved Benefits of Major State IT Projects

| Agency | Project Name | Expected Benefits | Achieved Benefits |
|----------------------------------|---|---|-------------------------------|
| Wildlife Resources Commission | Coastal Recreational Fishing License | \$60,000,000 (Between 2007-2012) | \$31,470,314 * |
| | Project Purpose: To enhance an existing State system to allow for on-line sales of coastal recreational fishing licenses. The expected benefits of the project were categorized as "Enhanced Revenues". | | |
| Department of Public Safety | VIPER Project (Phase 0) | \$130,000,000 (Between 2007-2012) | Achieved benefits not tracked |
| | VIPER Project (Phase 1) | \$101,500,000 (Between 2007-2012) | Achieved benefits not tracked |
| | VIPER Project (Phase 2) | \$101,500,000 (Between 2009-2014) | Achieved benefits not tracked |
| | Project Purpose: To create a statewide radio communications network for all public safety agencies. The expected benefits of the project were categorized as "Avoided Costs". | | |
| State Board of Elections | Help America Vote Act (HAVA) State Voting Equipment & System Upgrades | \$67,164,703 (Between 2006-2011) | \$82,203,337 * |
| | Project Purpose: To upgrade the State's election information system to add legislative required functionality, improve performance and reliability, and add functions required by counties. The expected benefits of the project were categorized as "Other Monetary Benefits". | | |
| Department of State Treasurer | Integrated Retirement System Planning | \$43,256,944 (Between 2008-2013) | Achieved benefits not tracked |
| | Project Purpose: To develop a new retirement accounting and management system for the State. The expected benefits of the project were categorized as "Avoided Costs". | | |
| Department of Public Instruction | Online Educational Services for Student Achievement Improvement | \$107,456,824 Between 2007-2012 | Achieved benefits not tracked |
| | Project Purpose: To provide online services to educators who implement instructional strategies and practices with the goal of improving the achievement levels of students. The expected benefits of the project were categorized as "Operational Savings and Avoided Costs". | | |
| | NC 1:1 Project | \$370,586,480 (Between 2010-2015) | Achieved benefits not tracked |
| | Project Purpose: To increase student engagement in learning by providing laptop computers, software and associated support to teachers and students at eight high schools in the State. The expected benefits of the project were categorized as "Other Monetary Benefits". | | |
| | K-Nect Project | \$296,640,000 (Between 2009-2014) | Achieved benefits not tracked |
| | Project Purpose: To provide mobile wireless devices and instructional content to at-risk secondary school aged students in underserved communities to increase mathematical achievement. The expected benefits of the project were categorized as "Other Monetary Benefits". | | |
| TOTALS | | \$1,278,104,951 | \$113,673,651 * |

* Figures are unaudited.

Sources: State IT Portfolio Project Management Tool and documentation provided by agencies

STATE IT PROJECT PROFILES

Wildlife Resources Commission

Project Name: Costal Recreational Fishing License (CRFL)

Per Senate Bill 1126 the Wildlife Resources Commission was charged with being able to sell the CRFL through their existing Automated License and Vessel Information Network (ALVIN) by January 1, 2007. The project consisted of updating the ALVIN application to allow for CRFL licensing options, creating a formal requirements document, and training and equipment for the new agents in the coastal counties. The project estimated that enhanced revenues would equal ten million dollars a year from 2007 to 2012.

CRFL Estimated Benefits

| Levels | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | Total |
|--------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| ☐ TOTAL BENEFITS - Fiscal Year | \$ 10,000,000 | \$ 10,000,000 | \$ 10,000,000 | \$ 10,000,000 | \$ 10,000,000 | \$ 10,000,000 | \$ 60,000,000 |
| ☐ Enhanced Revenues | \$ 10,000,000 | \$ 10,000,000 | \$ 10,000,000 | \$ 10,000,000 | \$ 10,000,000 | \$ 10,000,000 | \$ 60,000,000 |
| ☐ Operational or Other Savings | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 |
| ☐ Avoided Costs | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 |
| ☐ Other Monetary Benefits | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 |

Department of Public Safety

Project Name: VIPER Project (Phases 0-2)

The Department of Public Safety wanted to enhance the efficiency and effectiveness of public safety responders by creating a single statewide communications network for all public safety agencies. This communications network is called Voice Interoperability Plan for Emergency Responders (VIPER) and is a statewide interoperable communications network using a series of network towers connecting radios using the 800MHz frequency. An interoperable communications network is an integrated and coherent system that allows for public safety agencies to seamlessly communicate with themselves and with other agencies during a crisis. The project was broken into three phases (i.e., 0, 1 and 2).

VIPER (Phase 0) Estimated Benefits

| Levels | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | Total |
|--------------------------------|----------------|------|------|------|------|------|----------------|
| ☐ TOTAL BENEFITS - Fiscal Year | \$ 130,000,000 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 130,000,000 |
| ☐ Enhanced Revenues | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 |
| ☐ Operational or Other Savings | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 |
| ☐ Avoided Costs | \$ 130,000,000 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 130,000,000 |
| ☐ Other Monetary Benefits | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 |

VIPER (Phase 1) Estimated Benefits

| Levels | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | Total |
|--------------------------------|---------------|---------------|------|------|------|------|----------------|
| ☐ TOTAL BENEFITS - Fiscal Year | \$ 91,000,000 | \$ 10,500,000 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 101,500,000 |
| ☐ Enhanced Revenues | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 |
| ☐ Operational or Other Savings | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 |
| ☐ Avoided Costs | \$ 91,000,000 | \$ 10,500,000 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 101,500,000 |
| ☐ Other Monetary Benefits | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 |

VIPER (Phase 2) Estimated Benefits

| Levels | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | Total |
|--------------------------------|---------------|---------------|------|------|------|------|----------------|
| ☐ TOTAL BENEFITS - Fiscal Year | \$ 52,500,000 | \$ 49,000,000 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 101,500,000 |
| ☐ Enhanced Revenues | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 |
| ☐ Operational or Other Savings | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 |
| ☐ Avoided Costs | \$ 52,500,000 | \$ 49,000,000 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 101,500,000 |
| ☐ Other Monetary Benefits | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 |

North Carolina State Board of Elections

Project Name: Help America Vote Act (HAVA) State Voting Equipment & System Upgrades

The Federal Help America Vote Act of 2002 (HAVA) requires that the state have a statewide voting system with all counties using the system. It also requires that specific functions be provided by the system. To achieve this, the SBE updated the existing State Election Information Management System (SEIMS.) SEIMS is a suite of applications that links all 100 counties together and automates and standardizes voter registration and the elections' management processes. The scope of the project included: Supporting differing ballot styles; Interfacing with smart cards; Provide petition support, improved Geocode processing and image scanning; Hardware, software and SQL database upgrades and updating the business rules and plan documents; Establish a vendor and state contract for voting equipment.

HAVA Estimated Benefits:

| Levels | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | Total |
|--------------------------------|---------------|------|------|------|------|------|---------------|
| ☐ TOTAL BENEFITS - Fiscal Year | \$ 67,164,703 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 67,164,703 |
| ☐ Enhanced Revenues | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 |
| ☐ Operational or Other Savings | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 |
| ☐ Avoided Costs | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 |
| ☐ Other Monetary Benefits | \$ 67,164,703 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 67,164,703 |

Department of State Treasurer

Project Name: Integrated Retirement System Planning (IRSP)

The Department of State Treasurer, Retirement Systems Division, is responsible for \$59 billion in assets for more than 600,000 members. This accounting and management system was being maintained on outdated systems and software dating back as far as the 1960's. DST wanted to update the systems and software for the accounting and management to allow for increasing demands and expectations of the system. Some of the goals of updating the systems and software were to add the ability to access true historical information to allow for highly accurate forecasting, automated standard calculations and monitoring, simplified data entry and reporting, including having one system as opposed to logging into separate systems to complete one process., as well as the ability to handle plan changes and membership growth (prepping for the retirement of the baby boomers).

IRSP Estimated Benefits

| Levels | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | Total |
|--------------------------------|------------|---------------|--------------|--------------|---------------|---------------|---------------|
| ☐ TOTAL BENEFITS - Fiscal Year | \$ 652,000 | \$ 10,629,000 | \$ 1,565,250 | \$ 1,592,812 | \$ 10,921,753 | \$ 17,896,129 | \$ 43,256,944 |
| ☐ Enhanced Revenues | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 |
| ☐ Operational or Other Savings | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 |
| ☐ Avoided Costs | \$ 652,000 | \$ 0 | \$ 0 | \$ 1,592,812 | \$ 0 | \$ 0 | \$ 2,244,812 |
| ☐ Other Monetary Benefits | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 |

Department of Public Instruction

Project Name: Online Education Services for Student Achievement Improvement

The Department of Public Instruction found that about 20% of students in grades K through 12 were scoring below or well below grade level in Language Arts and Mathematics. To help change this rate Local Education Agencies (LEAs) were providing teachers with development training throughout the year, however this training was aimed at all teacher’s without performing an assessment of the teacher’s abilities. DPI wanted to implement a teacher assessment system and provide targeted training based on the teacher’s abilities and needs. DPI decided that to do this they would contract for subscription licenses that would provide both an online teacher assessment tool and the appropriate online training based on the individual teacher’s assessment. The program would also allow for the reduction of on-site training using costly in-person trainers.

Estimated Benefits

| Levels | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | Total |
|--------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|
| ☐ TOTAL BENEFITS - Fiscal Year | \$ 17,242,658 | \$ 17,242,658 | \$ 17,242,658 | \$ 19,364,425 | \$ 19,364,425 | \$ 17,000,000 | \$ 107,456,824 |
| ☐ Enhanced Revenues | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 |
| ☐ Operational or Other Savings | \$ 17,000,000 | \$ 17,000,000 | \$ 17,000,000 | \$ 17,000,000 | \$ 17,000,000 | \$ 17,000,000 | \$ 102,000,000 |
| ☐ Avoided Costs | \$ 242,658 | \$ 242,658 | \$ 242,658 | \$ 2,364,425 | \$ 2,364,425 | \$ 0 | \$ 5,456,824 |
| ☐ Other Monetary Benefits | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 |

Project Name: NC 1:1 Project

The Department of Public Instruction implemented the NC 1:1 pilot project to bring laptop computers to the students and teachers in eight NC high schools with the goal of increasing student engagement, achievement and prepare students for the technology driven life in the 21st century. The NC 1:1 project is a partnership between the NC General Assembly and the private sector Golden Lead Foundation and the SAS Institute. The pilot project included 8 schools, 7 Learn and Earn High Schools and 1 traditional high school and laptop computers were purchased for each student and teacher. In addition to the laptop computers the teachers were provided with professional development and additional classroom tools to help them better utilize the computers and provide better instruction for the students. The program came up with a set of policies including acceptable use and student home use policies.

NC 1:1 Estimated Benefits

| Levels | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | Total |
|--------------------------------|---------------|---------------|---------------|---------------|------|------|----------------|
| ☐ TOTAL BENEFITS - Fiscal Year | \$ 92,646,620 | \$ 92,646,620 | \$ 92,646,620 | \$ 92,646,620 | \$ 0 | \$ 0 | \$ 370,586,480 |
| ☐ Enhanced Revenues | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 |
| ☐ Operational or Other Savings | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 |
| ☐ Avoided Costs | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 |
| ☐ Other Monetary Benefits | \$ 92,646,620 | \$ 92,646,620 | \$ 92,646,620 | \$ 92,646,620 | \$ 0 | \$ 0 | \$ 370,586,480 |

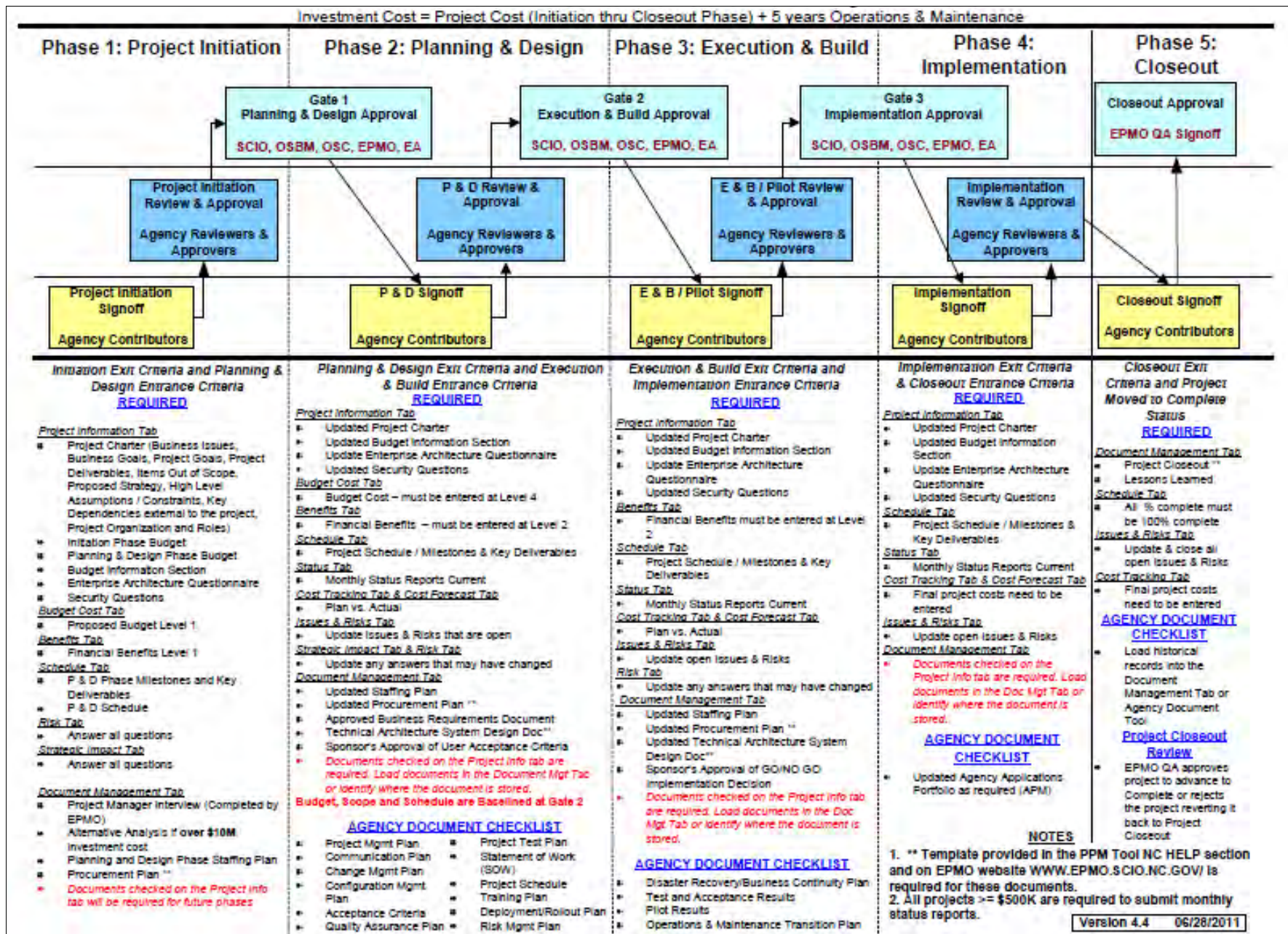
Project Name: K-Nect Project

The Department of Public Instruction designed the K-Nect project to offer internet connections through smart phones to deliver educational material for secondary (9th grade) at-risk students. The smart phones are used to add a supplemental resource and to foster collaboration between high achieving and under achieving students in the area of mathematics.

K-Nect Estimated Benefits

| Levels | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | Total |
|--------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|
| ☐ TOTAL BENEFITS - Fiscal Year | \$ 49,440,000 | \$ 49,440,000 | \$ 49,440,000 | \$ 49,440,000 | \$ 49,440,000 | \$ 49,440,000 | \$ 296,640,000 |
| ☐ Enhanced Revenues | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 |
| ☐ Operational or Other Savings | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 |
| ☐ Avoided Costs | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 |
| ☐ Other Monetary Benefits | \$ 49,440,000 | \$ 49,440,000 | \$ 49,440,000 | \$ 49,440,000 | \$ 49,440,000 | \$ 49,440,000 | \$ 296,640,000 |

State of North Carolina Major IT Project Gates (source: NC EPMO)



Overview: COBIT 5 – IT Governance & Management Framework

COBIT 5 provides the next generation of ISACA's guidance on the enterprise governance and management of IT. It builds on more than 15 years of practical usage and application of COBIT by many enterprises and users from business, IT, risk, security and assurance communities. The major drivers for the development of COBIT 5 include the need to:

- Provide more stakeholders a say in determining what they expect from information and related technology (what benefits at what acceptable level of risk and at what costs) and what their priorities are in ensuring that expected value is actually being delivered. Some will want short-term returns and others long-term sustainability. Some will be ready to take a high risk that others will not. These divergent and sometimes conflicting expectations need to be dealt with effectively. Furthermore, not only do these stakeholders want to be more involved, but they want more transparency regarding how this will happen and the actual results achieved.
- Address the increasing dependency of enterprise success on external business and IT parties such as outsourcers, suppliers, consultants, clients, cloud and other service providers, and on a diverse set of internal means and mechanisms to deliver the expected value
- Deal with the amount of information, which has increased significantly. How do enterprises select the relevant and credible information that will lead to effective and efficient business decisions? Information also needs to be managed effectively and an effective information model can assist.
- Deal with much more pervasive IT; it is more and more an integral part of the business. Often, it is no longer satisfactory to have IT separate even if it is aligned to the business. It needs to be an integral part of the business projects, organizational structures, risk management, policies, skills, processes, etc. The roles of the chief information officer (CIO) and the IT function are evolving. More and more people within the business functions have IT skills and are, or will be, involved in IT decisions and IT operations. IT and business will need to be better integrated.
- Provide further guidance in the area of innovation and emerging technologies; this is about creativity, inventiveness, developing new products, making the existing products more compelling to customers and reaching new types of customers. Innovation also implies streamlining product development, manufacturing and supply chain processes to deliver products to market with increasing levels of efficiency, speed and quality.
- Cover the full end-to-end business and IT functional responsibilities, and cover all aspects that lead to effective governance and management of enterprise IT, such as organizational structures, policies and culture, over and above processes
- Get better control over increasing user-initiated and user-controlled IT solutions
- Achieve enterprise:
 - Value creation through effective and innovative use of enterprise IT
 - Business user satisfaction with IT engagement and services
 - Compliance with relevant laws, regulations, contractual agreements and internal policies
 - Improved relations between business needs and IT objectives
- Connect to, and, where relevant, align with, other major frameworks and standards in the marketplace, such as Information Technology Infrastructure Library (ITIL®), The Open Group Architecture Forum (TOGAF®), Project Management Body of Knowledge (PMBOK®), PRjects IN Controlled Environments 2 (PRINCE2®), Committee of Sponsoring Organizations of the Treadway Commission (COSO) and the International Organization for Standardization (ISO) standards. This will help stakeholders understand how various frameworks, good practices and standards are positioned relative to each other and how they can be used together.
- Integrate all major ISACA frameworks and guidance, with a primary focus on COBIT, Val IT and Risk IT, but also considering the Business Model for Information Security (BMIS), the IT Assurance Framework (ITAF), the publication titled *Board Briefing on IT Governance*, and the Taking Governance Forward (TGF) resource, such that COBIT 5 covers the complete enterprise and provides a basis to integrate other frameworks, standards and practices as one single framework.

Different products and other guidance covering the diverse needs of various stakeholders will be built from the main COBIT 5 knowledge base. This will happen over time, making the COBIT 5 product architecture a living document.

State of North Carolina Executive Order No. 30



State of North Carolina

PAT McCRORY
GOVERNOR

November 7, 2013

EXECUTIVE ORDER NO. 30

FIX AND MODERNIZE INFORMATION TECHNOLOGY GOVERNANCE IN CABINET AGENCIES BY COLLABORATING AS ONE IT

WHEREAS, state government purpose is to promote a stronger North Carolina that connects customers – citizens, business, education and government; and

WHEREAS, efficient and effective Information Technology (IT) will enhance customer service and streamline business operations; and

WHEREAS, the way the state has governed and managed IT historically is inefficient, based on too many silos, too much duplication, too many incompatible systems; and

WHEREAS, one mechanism for fixing and modernizing IT governance is to collaborate as ONE IT by further aligning the management and operations of the cabinet agency IT resources to improve efficiency;

NOW, THEREFORE, pursuant to the authority vested in me as Governor by the Constitution and laws of the State of North Carolina, **IT IS ORDERED**:

Section 1. Cabinet Agencies.

This Executive Order shall apply to all state "Cabinet Agencies" and shall include all executive offices, boards, commissions, departments, divisions, councils, bureaus, and offices, now existing and hereafter established, which are supervised by, administratively housed in or which report to the cabinet agencies.

Section 2. Cabinet Chief Information Officer.

By November 15, 2013, the Secretary/Director of each cabinet agency shall appoint a Cabinet Chief Information Officer ("CCIO"), or combine with another cabinet agency as agreed by the Secretary/Director, and State Chief Information Officer ("SCIO"). Each CCIO shall report to the Secretary/Director and/or the SCIO. Each CCIO will carry the title CIO (Agency)/Deputy State CIO and become members of the ONE IT Executive Leadership Team (ELT). All cabinet agency information technology personnel shall report to the CCIO or to his or her designee.

Section 3. ONE IT Executive Leadership Team.

By November 15, 2013, in the Office of Information Technology (OIT) the SCIO will establish ONE IT Executive Leadership Team (ELT). The ONE IT ELT will meet regularly to modernize IT operating model, enterprise architecture, innovation, shared services, project management,

security, and vendor management programs to enhance customer interactions and streamline business operations.

Section 4. Collaboration & Innovation Plan.

By February 1, 2014, each CCIO shall submit to the Secretary/Director and the SCIO for review and approval a Collaboration & Innovation plan ("plan") demonstrating how the cabinet agency will, no later than July 1, 2014, support the most efficient operating model for the delivery of IT

The plan should consider any related activities to the NC GEAR efforts; define a percentage of cost savings towards future innovation or any necessary one-time or ongoing Information Technology investment needed to realize such business cost savings or efficiencies. All new projects, if deemed appropriate by the ONE IT ELT, shall be tested in the Innovation Center to make sure IT purchases work before purchased.

Each plan shall address: (a) IT operational and project priorities that are consistent with the cabinet agency's strategic business goals, (b) IT budgets, (c) major IT procurements planned, (d) strategies for enhancing the efficiency, effectiveness and security of IT services, (e) IT staffing plans, and (f) Innovation activities and usage of Innovation Center.

Section 5. Cabinet Unite IT Strategy.

By March 31, 2014, the SCIO, in conjunction with each CCIO, shall develop a Unite IT Strategy defining the of Information Technology and related Platforms Services for all cabinet agencies, except those services, if any, that cannot be united due to restrictions imposed by security, contracts, state or federal law. This Strategy will be presented to Cabinet Secretaries/Directors and the Governor by the SCIO.

Section 6. Compliance Reviews.

Annually, beginning in March 2014, the SCIO and CCIO's shall, for the purpose of protecting programs, data and information technology, conduct compliance reviews across the cabinet agencies to ensure full compliance with statutes, regulations, policies, standards and contractual obligations related to information security and information technology and report annually on the results of such reviews to Cabinet Secretaries/Directors and the Governor by the SCIO.

Section 7. Definitions.

As used in this Executive Order:

"Cabinet Agencies" include: Department of Transportation, Department of Health and Human Services, Department of Public Safety, Department of Environment and Natural Resource, Department of Revenue, Department of Commerce, Department of Administration, Department of Cultural Resources, Office of State Budget, Office of Human Resources, Office of Information Technology Services, and Governor's Office.

"Information Technology (IT)" means hardware, software, and telecommunications equipment, including but not limited to personal computers, mainframes, wide and local area networks (wired and wireless), broadband, servers, mobile or portable computers, peripheral equipment, telephones, wireless communications, handheld devices, public safety radio services, facsimile machines, technology facilities including but not limited to data centers, dedicated training facilities, switching facilities, and other relevant hardware and software items as well as personnel tasked with the planning, implementation, and support of technology including hosting or vendor managed as a service solutions;

"Platform Services" shall mean data and telecommunications networks, data center services, web site hosting and portal services, and shared enterprise services such as email, directory services, and authentications systems; and

"Innovation Center" is a shared facility provided by repurposing space in the Department of Environmental and Natural Resources. The activities within the center are supported through IT

operating cost and resources from the SCIO and CCIO initiatives. The Innovation Center aligns the voice of the customers – citizens, business, education, and government through collaboration; and

"Telecommunications" means any origination, transmission, emission, or reception of signs, signals, writings, images, and sounds or intelligence of any nature, by wire, radio, television, optical, or other electromagnetic systems.

Section 8. Applicable Law.

Nothing in this Executive Order shall be construed to require action inconsistent with any applicable state or federal law.

Section 9. Effective Immediate.

This Executive Order shall take effect immediately and shall continue in effect until amended, superseded or revoked by subsequent Executive Order.

IN WITNESS WHEREOF, I have hereunto signed my name and affixed the Great Seal of the State of North Carolina at the Capitol in the City of Raleigh, this seventh day of November, in the year of our Lord two thousand thirteen, and of the Independence of the United States of America the two hundred and thirty-eighth.


Pat McCrory
Governor

ATTEST:


Elaine F. Marshall
Secretary of State



Campaign Finance System: Contract Amendments

AMENDMENT 1 to ITS-004900

THIS AMENDMENT Number 1 is entered into by and between SOE Software Corporation and the North Carolina State Board of Elections as of the last date of execution below.

This Amendment will be governed by the Terms and Conditions of ITS-004900.

The State Board of Elections now desires to add the following ^{MFOC} ~~two~~ ^{MFOC} enhancements to the current SOE suite of software in the amount not to exceed \$491,893.00:

1. Treasurer's Data Entry Solution – This enhancements will allow SBE to provide software to campaign treasurers that will help them manage their campaign reporting schedules and electronically send that information to SBE.

Except as now amended herein, the Terms and Conditions of ITS-004900 remains in full force and effect as written. The signature by the State on this Amendment shall constitute of the modifications herein.

Executed by authorized officials as of the day and date indicated below.

Vendor:
SOE Software Corporation

Agency:
Department of Administration
State Board of Elections

BY:

Marc Fratello
Print Name

[Signature]
Signature

CEO
Title of Signer

4/29/11
Date of Execution

BY:

GARY O. Bartlett
Print Name

[Signature]
Signature

Executive Director
Title of Signer

6/23/2011
Date of Execution

AMENDMENT 1 to ITS-003466

THIS AMENDMENT Number 1 is entered by and between SOE Software Corporation and the North Carolina State Board of Elections as of the last date of execution below.

This Amendment will be governed by the Terms and Conditions of ITS-003466.

The State Board of Elections now desires to add the following enhancement to the current SOE suite of software in the amount not to exceed \$496,893.00:

1. Web Front End Presentation Layer- This enhancement is a continuation of the current CONNECT website software and will provide a searchable public database.

Except as now amended herein, the Terms and Conditions of ITS-003466 remains in full force and effect as written. The signature by the State on this Amendment shall constitute of the medications herein.

Executed by authorized officials as of the day and date indicated below.

Vendor:

SOE Software Corporation

BY:

Marc F. Frattola
Print Name

Marc J. Frattola
Signature

CFO
Title of Signer

6/23/11
Date of Execution

Agency:

Department of Administration
State Board of Elections

BY:

Gary O. Bartlett
Print Name

Gary O. Bartlett
Signature

Executive Director
Title of Signer

6/28/11
Date of Execution



AGENCY RESPONSE - DEPARTMENT OF STATE TREASURER



JANET COWELL
TREASURER

NORTH CAROLINA
DEPARTMENT OF STATE TREASURER
INFORMATION TECHNOLOGY DIVISION

BILL GOLDEN
DEPUTY TREASURER, CHIEF INFORMATION OFFICER

January 23, 2015

The Honorable Beth A. Wood
State Auditor
20601 Mail Service Center
Raleigh, NC 27699-0601

Re: Statewide Information Technology Project Benefits and Governance

Dear Auditor Wood,

I appreciate your efforts as we work together to make a better and more efficient state government. After having reviewed the draft Statewide Information Technology Project Benefits and Governance Audit, our response to your Findings and Recommendations is found below under "Agency Response."

Findings:

- State agencies do not track the achieved benefits of major information technology ("IT") projects and cannot determine if the State achieved \$1.2 billion in expected benefits.
- State agencies do not follow a common standard or industry recognized business framework to manage the State's IT enterprise, which increases the risk of inconsistent management across government.

Recommendations:

- The State Chief Information Officer ("CIO") and State Budget Office should direct agencies to calculate and track the achieved benefits of major IT projects and should provide adequate guidance to ensure consistency in the methods and measures applied.
- The General Assembly should consider legislation to clarify the responsibility of the State CIO related to the governance and management of IT, including internal controls, in the State.

Agency Response:

The Department of State Treasurer ("Department") agrees with the findings and believes that they are accurate. More specifically, the Department believes that it would be highly beneficial to all State agencies for there to be consistent methodology communicated to all agencies to either conduct a preliminary cost-benefit analysis or to conduct post-implementation benefit evaluation. Currently, the project portfolio management ("PPM") tool lacks the capability to track post-implementation benefits, and the Office of Information Technology Services Enterprise Project Management Office ("OITS EPMO") does not currently require its utilization by all agencies.

Further the Department concurs with the following two statements contained in the findings: "State agencies have not been given a directive and have not received adequate guidance to track


and monitor achieved monetary benefits” and “Officials from the agencies that participated in this audit said that the lack of guidance from oversight agencies contributed to their failure to track the achieved monetary benefits of major IT projects in a consistent manner.”

We would also like to take the opportunity to provide some additional insight into these issues:

- On Page 7, the report states, “Agencies indicated that in some cases they cannot make a positive business case for a mandated IT project.” In many cases, IT projects are created due to legislative changes—both directly and indirectly. Separately, maintenance and replacement of the technology systems that support agency functions will always be necessary, even if there are no changes to the existing statutes. It is, however, difficult to make a business case for ongoing maintenance and system replacement. Analysis of alternatives and the demonstration of due diligence should be required instead of computing net positive benefits.
- The development of cost-benefit analysis and post-implementation evaluation, which is essentially a program evaluation function, requires personnel with specialized skills. These types of activities are typically best performed by individuals with a background in public administration, policy analysis and government accounting – not IT or business administration. Even with guidance on methodology and tools, agencies may find they are insufficiently staffed to effectively conduct meaningful analysis.

The Department looks forward to more guidance and will follow future directives from OITS EPMO. Thank you for the opportunity to respond and offer our thoughts on this important matter.

Sincerely,



Janet Cowell
State Treasurer

AGENCY RESPONSE – DEPARTMENT OF PUBLIC INSTRUCTION



PUBLIC SCHOOLS OF NORTH CAROLINA

DEPARTMENT OF PUBLIC INSTRUCTION | June St. Clair Atkinson, Ed.D., *State Superintendent*

WWW.NCPUBLICSCHOOLS.ORG

January 22, 2015

The Honorable Beth A. Wood, State Auditor
Office of State Auditor
2 South Salisbury Street
20601 Mail Service Center
Raleigh, North Carolina 27699-0601

Dear Auditor Wood:

The North Carolina Department of Public Instruction is pleased to submit our response to your findings in connection with the Statewide Information Technology Project Benefits and Governance audit. It is our understanding that the objectives of this audit were to assess the extent to which major information technology (IT) projects achieved the expected benefits, and to determine if state agencies follow a common standard or industry recognized business framework to manage the state's IT enterprise.

The Department of Public Instruction agrees with the findings and recommendations contained in the report. We appreciate the assistance provided by your office to identify areas for improvement. The Department of Public Instruction plans to follow up by coordinating with the State Chief Information Officer and the Office of State Budget and Management to ensure that the recommendations are fully implemented.

Please contact Donna Roch (807-3253) or me, if you have any questions about our response. As always, we appreciate the effort and professionalism of your staff in conducting your audits.

Sincerely,

A handwritten signature in black ink, appearing to read "June St. Clair Atkinson".

June St. Clair Atkinson

- c: Michael Nicolaidis, Chief Information Officer
- Philip Price, Chief Financial Officer for Financial and Business Services
- Jeani Allen, Director of Internal Audit and Advisory Services

AGENCY RESPONSE – DEPARTMENT OF PUBLIC SAFETY



Pat McCrory, Governor

Frank L. Perry, Secretary

January 23, 2015

Beth A. Wood, CPA
State Auditor
NC Office of the State Auditor
2 S. Salisbury Street
Raleigh, NC 27699-0601

Dear Auditor Wood:

Thank you for the opportunity to comment on the Statewide Information Technology Projects Benefits and Governance Information systems audit. We agree that opportunities exist to improve how agencies capture the benefits which result from our IT projects. As your audit points out, we look forward to improved guidance, tools, standards and training from the state's administrative control agencies which can help us achieve that goal.

We particularly appreciated the audit noting that agencies sometimes have difficulty in making the business case for statutorily directed projects. Similarly, hard-dollar benefits of our projects that protect public safety are often difficult to count. The value of our statewide VIPER radio system, used by thousands of law enforcement officers, is a good example. We believe deciding how to deal with these concerns is a precursor to more rigorous project benefits accounting.

Thank you for your efforts to improve efficiency in state government IT project delivery.

Sincerely,



Frank L. Perry
Secretary
N.C. Department of Public Safety

FLP/bh

AGENCY RESPONSE – WILDLIFE RESOURCES COMMISSION



North Carolina Wildlife Resources Commission

Gordon Myers, Executive Director

January 23, 2015

The Honorable Beth A. Wood
Office of the State Auditor
20601 Mail Service Center
Raleigh, North Carolina 27699-0601

Dear Ms. Wood:

Thank you for the opportunity to respond to the Statewide Information Technology Project Benefits and Governance Information Systems Audit. On behalf of the Wildlife Resources Commission (WRC), we respond as follows:

Recommendation: The State CIO and State Budget Office should direct agencies to calculate and track the achieved benefits of major IT projects and should provide adequate guidance to ensure consistency in the methods and measures applied.

WRC Response: WRC agrees with this recommendation. WRC provided detailed reports on the achieved benefits of the Coastal Recreational Fishing License, but we agree that data could be more effectively utilized if agencies used consistent methods and measures to track and report information.

Recommendation: The General Assembly should consider legislation to clarify the responsibility of the State CIO related to the governance and management of IT, including internal controls, in the State.

WRC Response: WRC supports this recommendation.

We will continue to strive to meet the project management and documentation requirements mandated by legislation and OITS policies. If there are questions or comments, please let me know.

Sincerely,

Gordon Myers

AGENCY RESPONSE – STATE BOARD OF ELECTIONS



NORTH CAROLINA

State Board of Elections

Mailing Address:
P.O. Box 27255
Raleigh, NC 27611-7255

Phone: (919) 733-7173
Fax: (919) 715-0135

KIM WESTBROOK STRACH
Executive Director

January 26, 2015

The Honorable Beth A. Wood, CPA
State Auditor
20601 Mail Service Center
Raleigh, NC 27699-0601

Dear Ms. Wood:

The State Board of Elections has reviewed the draft audit report titled "Statewide Information Technology Project Benefits and Governance" dated January 2015, and submits this letter in response.

As Executive Director I am committed to ensuring that our agency acts as a good steward of this State's resources and follows all State procurement policies. I appreciate the opportunity to have an independent review by the Office of the State Auditor.

We agree with your findings that contracts executed in June 2011 for a campaign finance system were lacking detailed deliverables and deadlines, and should not have been paid up front as a lump sum amount. I personally expressed my concerns on those matters, as well as on the pursuit of a sole source waiver, to the previous Executive Director and Board in 2011. In the summer and fall of 2013 we attempted to remedy many of those weaknesses by renegotiating with the vendor but were, unfortunately, unable to reach an agreement with the vendor that would comply with procurement laws and policies.

To identify and remedy any similar problems, in the summer of 2013 we undertook a review of all of our contracts. Our staff have attended contract management training delivered by the State Purchase & Contract office, and we remain committed to managing our resources in a sound, responsible and ethical manner.

I appreciate the opportunity to review and respond to this audit and look forward to working with the Office of the State Auditor in the future. If you have any questions or concerns about our efforts and this response, please do not hesitate to contact me at (919) 715-2334.

Sincerely,

Kim Westbrook Strach
Executive Director

/aes

AGENCY RESPONSE – STATE CIO, OFFICE OF INFORMATION TECHNOLOGY SERVICES



State of North Carolina
Office of Information Technology Services

Pat McCrory
Governor

Chris Estes
State Chief Information Officer

January 23, 2015

The Honorable Beth A. Wood
Office of the State Auditor
20601 Mail Service Center
Raleigh, North Carolina 27699-0601

Dear Ms. Wood:

We have reviewed the draft of the *Information Systems audit for Statewide Information Technology Project Benefits and Governance* for IT projects that had expected benefits more than \$30 million and were implemented between 2005 and 2008, and IT projects that had expected benefits of more than \$100 million and were implemented between 2009 and 2012.

We respond to the Auditor's recommendations as follows:

Finding #1: STATE AGENCIES DO NOT TRACK THE ACHIEVED BENEFITS OF MAJOR IT PROJECTS AND CANNOT DETERMINE IF THE STATE ACHIEVED \$1.2 BILLION IN EXPECTED BENEFITS.

- Achieved Monetary Benefits of Major IT Projects Were Not Tracked
- Optimal Value from IT Investments Cannot be Achieved Without Tracking Benefits
- Inadequate Guidance to Track and Monitor Achieved Benefits
- Inadequate Tools to Track and Monitor Achieved Benefits
- Industry Standards Recognize Value of Monitoring Achieved IT Benefits

Recommendation: The State CIO and State Budget Office should direct agencies to calculate and track the achieved benefits of major IT projects and should provide adequate guidance to ensure consistency in the methods and measures applied.

OITS Response: OITS currently lacks the processes, tools and people to track and monitor metrics to determine benefits achieved from IT Projects as such are identified in the Auditor's findings. The Auditor's recommendations will be taken into consideration as the State CIO team works with the Office of State Budget and Management (OSBM), Cabinet Agencies, and the General Assembly to implement the IT Restructuring Plan. In addition, the SCIO, Controller, and Budget Director presented to the Joint Legislative Oversight Committee on Information Technology in December 2014, to begin discussions on improving various management systems.

An important step in understanding benefits realization is an effective benefits estimation process, which further requires effective financial planning, cost estimation, and tracking processes for all IT Projects. During the past six months, the Enterprise Project Management Office (EPMO), in coordination with OSBM, the Office of the State Controller (OSC), Cabinet Agency IT leaders and their respective PMOs, has led a bottoms-up review and rewrite of the State's IT Project Governance and control measures. This includes a fully revised approach to the financial planning, cost

and benefits estimation, and overall assessment processes. The draft is currently undergoing final review and comment, with an anticipated publication date in the first quarter of CY2015.

Responsible Person: Jim Parker, EPMO Manager, Office of Information Technology Services

Expected Completion Date: Updated Benefits Estimation Process in the first quarter of CY2015.

OTHER COMMENTS AND RECOMMENDATIONS (Page 13)

The Office of Information Technology Services has issued a Request for Proposal (RFP) to replace the State's IT project management tool that does not include capabilities that would assist the State in benefits realization and IT project management:

- The RFP does not require the capability to track IT benefits after project implementation, which is when the majority of the benefits of an IT project are achieved.
OITS Response: Benefits realization necessitates comparisons. From the inception of an IT project, such comparisons are speculative and driven by costs. If benefits realization tracking becomes a requirement, such monitoring should occur at the business level in conjunction with the state budget office in recognition of the current IT budgetary structure and financial management. The EPMO's statutory mission relates most closely to managing project initiation and execution. EPMO involvement ends at time of project acceptance. Regarding IT Project management, the RFP does include a much improved capability in this area, to allow both project managers and the EPMO to better deliver IT projects.
- The RFP also does not require the replacement system to provide a central repository of IT project lessons learned. Based on the findings of previous IT related audits, a central repository of IT project lessons learned that is available to all State agencies would provide a valuable source of information to guide IT projects in the State and assist in preventing past and re-occurring IT project management issues.
OITS Response: This capability was not in the RFP because OITS believes this function can be best performed in SharePoint, which will be delivered to the enterprise as part of Office 365. The vendor has agreed to coordinate this with the Microsoft Project work as part of complying with RFP requirement 1.08 that calls out the need to develop Lessons Learned.
- The State CIO's Enterprise Project Management Office and State Budget Office should develop formal guidance to help State agencies calculate expected IT benefits and track achieved benefits to ensure consistency statewide.
OITS Response: The EPMO component of this is complete, with expected publication in the first quarter of CY2015.
- The State CIO's Enterprise Project Management Office and State Budget Office should establish a separate framework to document, approve, and monitor major State IT initiatives or projects requested by the General Assembly. Appropriate guidance should also be developed and provided to State agencies regarding this framework.
OITS Response: The EPMO will implement a new, common framework to document, approve and monitor major state IT initiatives requested by the General Assembly.
- The State CIO's Enterprise Project Management Office should ensure that the new system that replaces the State's IT project management tool provides agencies with the capability to monitor and track achieved benefits after a project has been closed out.
OITS Response: If benefits realization tracking becomes a requirement, such monitoring should occur at the business level in conjunction with the state budget office, which is proposing a "Results Management Office" as part of the North Carolina Government Efficiency and Reform (NC GEAR) effort to accomplish benefits tracking.

- The State CIO’s Enterprise Project Management Office should provide agencies with a central repository for IT project lessons learned.

OITS Response: The EPMO has and will continue to improve this capability with the implementation of the new PPM System. The EPMO, in coordination with OSBM, is scheduled to publish formal guidance to help State agencies calculate expected IT benefits for IT Projects in the first quarter of CY2015.

Responsible Person: Jim Parker, EPMO Manager, Office Information Technology Services
Expected Completion Date: Updated Benefits Estimation Process in the first quarter of CY2015
 Updated PPM project process in CY2015
 Lessons Learned repository (part of PPM process) in CY2015
 OSBM Results Management Office - TBD

FINDING #2: STATE AGENCIES DO NOT FOLLOW A COMMON STANDARD OR INDUSTRY RECOGNIZED BUSINESS FRAMEWORK TO MANAGE THE STATE’S IT ENTERPRISE.

Recommendations

- The General Assembly should consider legislation to clarify the responsibility of the State CIO related to the governance and management of IT, including internal controls, in the State.
- The State CIO’s Office should issue a formal directive, assign accountability, and monitor state agencies to ensure a common standard or industry recognized business framework is applied consistently throughout the State.
- The State CIO’s Office should develop a statewide IT governance and management educational plan to provide comprehensive training to agencies.

OITS Response: OITS has submitted a plan to the General Assembly to restructure the State’s IT resources for more efficient operations and more effective management. The planned restructuring effort would clarify State CIO’s responsibility for IT management and controls. The restructuring effort would also centralize some governance and education for IT employees across the state. The updated PPM process is based on a common industry standard framework and will be consistently applied throughout the state.

Responsible Person: OITS Leadership/Jim Parker, EPMO Manager
Expected Completion Date: Implementation of IT Restructure would begin immediately following the establishment of a Department of Information technology by the General Assembly and would continue until restructuring is complete. EPMO updated PPM project process in CY2015.

Thank you again for the opportunity to respond to the draft audit. OITS looks forward to working with the Office of State Auditor, or any others, to improve the efficiency and effectiveness of information technology in delivering services to our State’s citizens.

Sincerely,

DocuSigned by:

 1876773CB96C4FA
 Chris Estes

ORDERING INFORMATION

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For additional information contact:
Bill Holmes
Director of External Affairs
919-807-7513



This audit was conducted in 1200 hours at an approximate cost of \$86,400.