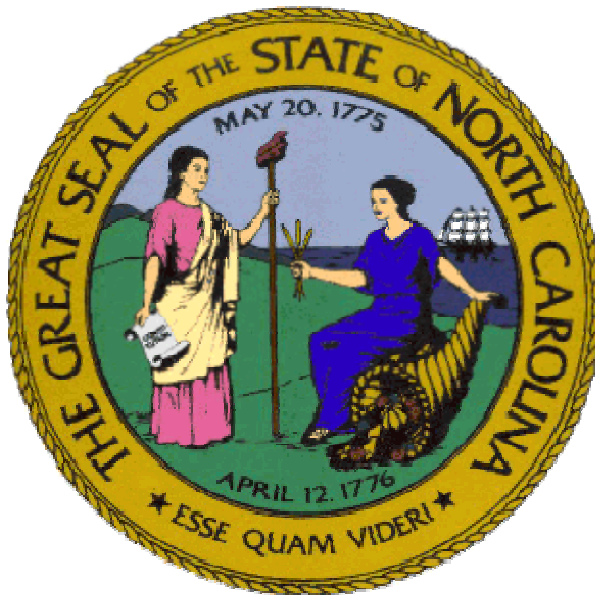**OSBM**

# Office of Information Technology Services Review of State IT Budget Submissions Study Provision

### As Directed by House Bill 1473
### Section 6.12(a) and 6.12(b)
### February 2008

*Prepared By:*

### *Office of State Budget and Management*

**Introduction**

**Scope of Study**

The Office of State Budget and Management (OSBM) was directed by House Bill 1473, Sections 6.12(a) and 6.12(b) to report to the General Assembly on its efforts and outcomes to increasing the efficiency and cost-effectiveness of the State's information technology projects and programs as prescribed by the review check list executed by the State Chief Information Officer (SCIO).[1] The report is to include detailed information on initiatives to eliminate duplication.

**Methodology**

The State of North Carolina has been engaged in an ongoing statewide information technology planning process for several years. The process continues to mature and by doing so, continually provides ways to ferret out duplication of projects / programs and consequently increases the efficiency and cost-effectiveness of state government. To address the requirements of the study provision, the existing practiced processes engaged in planning Information Technology projects in North Carolina will be reviewed.

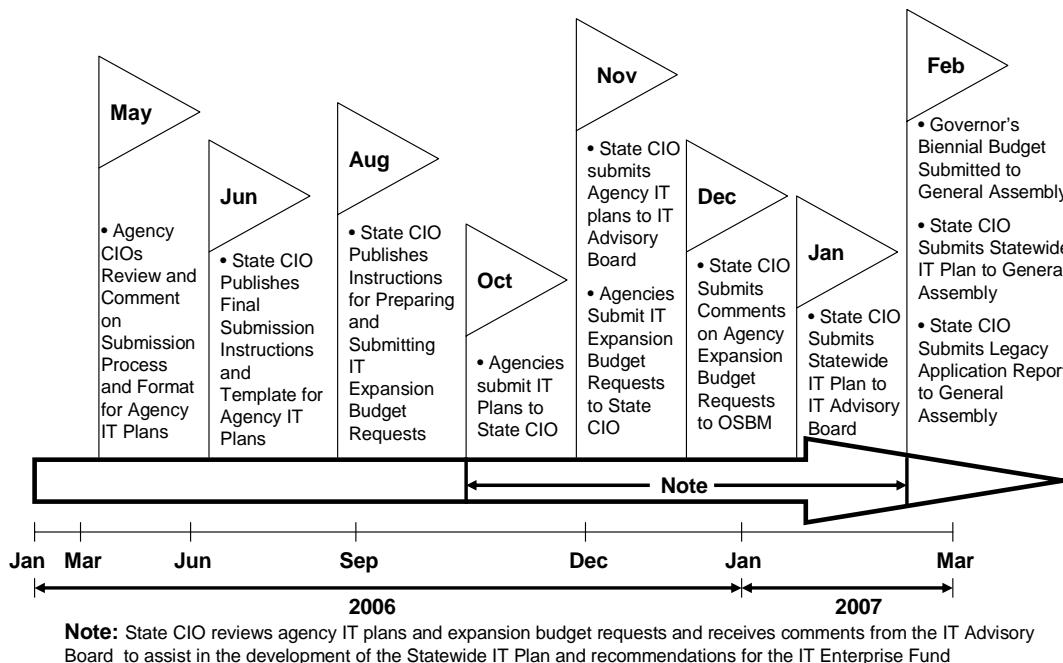**North Carolina's Information Technology Planning Process**

The information technology planning for North Carolina is an ongoing structured process, with responsibilities and timing clearly enumerated in state statutes. The diagram below graphically highlights the sequencing and timeframes for the major steps in the development of the State CIO's Statewide IT Plan and the preparation and review of IT expansion budget requests for the 2007-2009 biennium. The statewide IT planning process is an integral part of the associated IT budgeting and funding process under the auspices of the Office of State Budget and Management. Governing state statutes dictate major requirements for the state's biennium IT planning and budgeting processes, and the following key regulatory mandates are included in the illustration:

- The State CIO prepares a biennial Statewide Information Technology Plan and submits it to the General Assembly by February 1 of each regular session.

- The State CIO develops a biennial report on the management of the state's legacy application assets. The report assesses the status of these systems and ascertains the needs, costs, and timeframes for modernizing them. It is submitted to the General Assembly in conjunction with the submission of the Statewide Information Technology Plan.

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[1] Reference Appendix A for full text of study provision and listing of SCIO project evaluation check list.

- Each executive agency biennially develops an agency information technology plan, and submits it to the State CIO by October 1 of each even-numbered year. The Office of Information Technology Services (ITS) consults with and assists agencies in the preparation of their plans. A key intent of the agency IT plans is to assist the State CIO in the preparation of the Statewide IT Plan.

- The Information Technology Advisory Board reviews and comments on the Statewide IT Plan, the agency IT plans, and the State CIO's technology initiatives. The nine member board consists of two members each appointed by the Governor, Speaker of the House and Senate President Pro Tem; the State Controller and two agency CIO's appointed by the Chair.

- The State CIO reviews agency information technology budget requests as part of the preparation of the Governor's biennial budget package submitted to the General Assembly. These requests are examined for consistency with the agency IT plans, the statewide IT plan, and the results of the legacy applications review.

## Overview of IT Planning and Budgeting Processes for 2007 – 2009 Biennium

**May**
- Agency CIOs Review and Comment on Submission Process and Format for Agency IT Plans

**Jun**
- State CIO Publishes Final Submission Instructions and Template for Agency IT Plans

**Aug**
- State CIO Publishes Instructions for Preparing and Submitting IT Expansion Budget Requests

**Oct**
- Agencies submit IT Plans to State CIO

**Nov**
- State CIO submits Agency IT plans to IT Advisory Board
- Agencies Submit IT Expansion Budget Requests to State CIO

**Dec**
- State CIO Submits Comments on Agency Expansion Budget Requests to OSBM

**Jan**
- State CIO Submits Statewide IT Plan to IT Advisory Board

**Feb**
- Governor's Biennial Budget Submitted to General Assembly
- State CIO Submits Statewide IT Plan to General Assembly
- State CIO Submits Legacy Application Report to General Assembly

Note

Jan  Mar  Jun  Sep  Dec  Jan  Mar

2006  2007

**Note:** State CIO reviews agency IT plans and expansion budget requests and receives comments from the IT Advisory Board to assist in the development of the Statewide IT Plan and recommendations for the IT Enterprise Fund
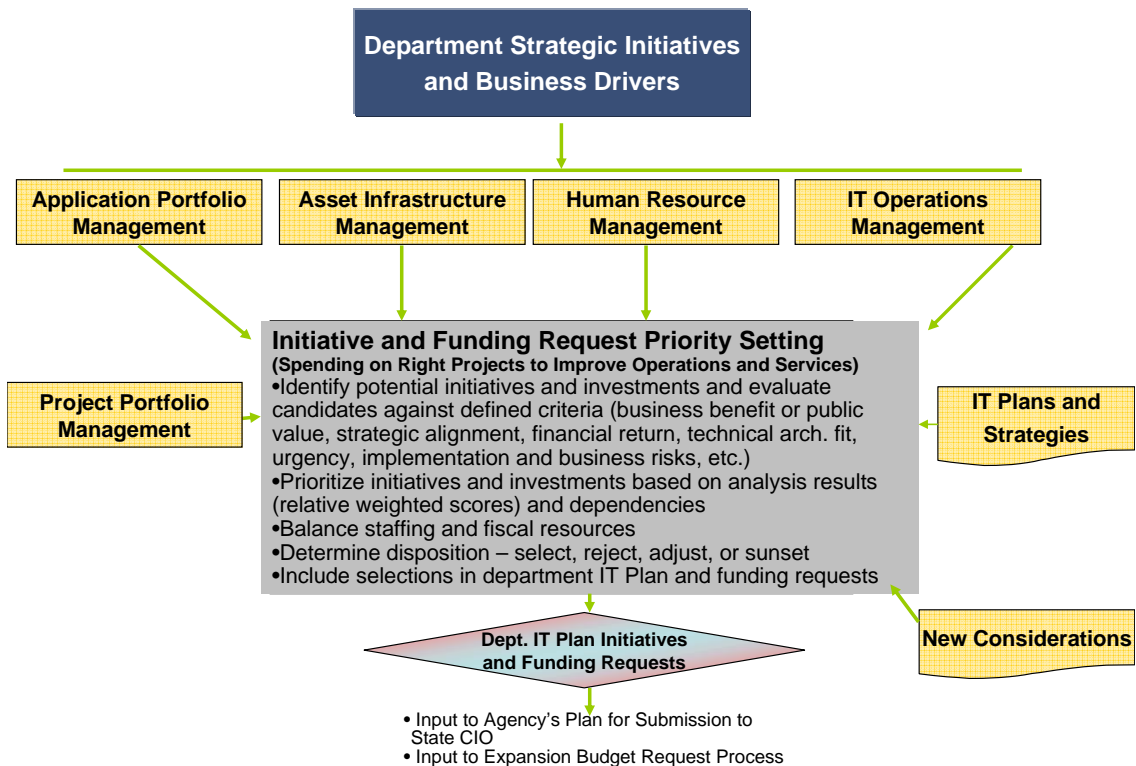
The state IT planning and budgeting processes are a combination of top-down and bottom-up activities. The top-down perspective is the State CIO is a cabinet-level position reporting to the Governor; therefore, he is well aware of the state's

strategic priorities and goals.  Moreover, statewide IT governance processes and practices specified by General Statutes involve the close coordination among the budgeting (Office of State Budget and Management), financial reporting (Office of the State Controller), and IT (State CIO and his dual roles for statewide IT management and management of ITS).  In addition to the role of the executive branch of government described above, the State CIO presents his goals to key General Assembly committees and receives valuable feedback.

The bottom-up view incorporates two mechanisms.  One, the State CIO created an agency advisory group called the Technology Planning Group (TPG) that meets monthly, led by a chair and vice chair agency CIOs.  The TPG is composed of approximately ten agency CIOs, representing a cross section of the state agencies.  The meetings focus on current, emerging, and future technology issues, challenges, and opportunities facing the agencies and the state. Periodically (usually monthly), there is an all agency CIO meeting hosted by the State CIO.  The intent of this meeting is for the State CIO and TPG members to brief all the state agency CIOs on statewide IT issues.   Two, agency IT plans and expansion budget requests are key inputs for the development of the State CIO's Statewide IT Plan, including major initiatives and needs and requests for the IT Enterprise Fund.

The diagram below shows the major inputs and activities for the agency IT planning process.

## Overview of Agency IT Planning Process

**Department Strategic Initiatives and Business Drivers**

| Application Portfolio Management | Asset Infrastructure Management | Human Resource Management | IT Operations Management |
|---|---|---|---|

**Project Portfolio Management**

**Initiative and Funding Request Priority Setting**
(Spending on Right Projects to Improve Operations and Services)
• Identify potential initiatives and investments and evaluate candidates against defined criteria (business benefit or public value, strategic alignment, financial return, technical arch. fit, urgency, implementation and business risks, etc.)
• Prioritize initiatives and investments based on analysis results (relative weighted scores) and dependencies
• Balance staffing and fiscal resources
• Determine disposition – select, reject, adjust, or sunset
• Include selections in department IT Plan and funding requests

**IT Plans and Strategies**

**Dept. IT Plan Initiatives and Funding Requests**

**New Considerations**

• Input to Agency's Plan for Submission to State CIO
• Input to Expansion Budget Request Process

Over the past three years, the state has implemented a portfolio management software tool for assisting in the areas of investment evaluation and recommendation (expansion budget requests), project management, and legacy applications management. Regarding the planning, budgeting, and management activities of IT, the software tool provides information essential for the preparation of agency and statewide IT plans, as it:

- Tracks the workflow (submission, comments, and approvals) for the approximately 75 expansion budget requests submitted by the agencies for State CIO review.

- Maintains detailed project approval and monitoring information for approximately 100 major projects (those over $500,000 in five-years total cost of ownership) being implemented by state agencies.

- Inventories and profiles the state's 1,300 legacy applications to assist in determining the status of each and developing long-term dispositions (roadmaps) for those needing replacement or requiring modernization. In addition, the data in the tool forms the foundation for the State CIO's Legacy Application Report submitted to the General Assembly.

Reference Appendix B for a table that provides the URLs for key documents and instructions related to the preparation of the State CIO's Statewide IT Plan and the related activities of reviewing expansion budget requests for assisting the staff of OSBM in the development of the Governor's Budget for submission to the General Assembly.

**Statewide IT Planning Process Review Observations**

Projects, where there was a need to reject and / or redirect, fell into three categories. The first category contained those projects where there existed no justifiable business case for the investment. The costs exceeded the benefits and therefore there was no reason to move forward. The second category contained those projects where several agencies were attempting to solve similar problems (duplicative projects) with the same technology. The third was made up of projects that were trying to solve a problem with a technology solution that had already been implemented in another agency.

Generally duplicative projects were ferreted out of the planning process by the multiple reviews performed by both the State CIO and OSBM. The Project Portfolio Management Tool review process is a cross functional review. It covers five areas: Statewide architecture to ensure adherence to statewide architectural standards which achieves benefits through standardization; OSBM to ensure adequate funding is in place and overall project/program benefits exceed costs; Statewide Security to ensure security standards are in place; Enterprise Project

Management Office (EPMO) to ensure competent project managers are in place and have a support mechanism for project advice and council through the EPMO and the Office of State Controller to ensure that projects are compatible with present and envisaged human resources, accounting and financial management applications.

Many projects, upon review, contained duplicative technologies among agencies in terms of the problems they were trying to solve.  Four examples of these were document management, software quality assurance, common payment systems and grant management systems.  In both the document management and software quality assurance cases, a statewide enterprise solution was developed to serve the needs of the agencies.  A statewide common payment system was also implemented.   Grant management systems have been on hold in some agencies awaiting future Beacon releases.  Monies were saved by avoiding the cost of building individual agency infrastructures to obtain the first three services mentioned above.

Many agencies have been advised to consider other agencies' accomplishments using a particular technology application, if they are trying to solve a similar problem.  On line boat and trailer registration and point of sale systems are just a few examples of this where agencies have avoided starting from scratch on a project.

**IT Project Review & Monitoring**
In terms of the number of information technology projects being reviewed and monitored, there are currently 107 projects (greater than $500K) totaling approximately $902M that are being monitored by the EPMO, as of January 2, 2008.  Below is a summary of the number and cost of projects, sorted by workflow status.

## Project Totals in PPM as of January 2, 2008
### (Projects >$500K)

| Workflow Status | Project Totals | Total Cost |
|---|---|---|
| Gate 1 State Approval | 3 | $809,660 |
| Planning & Design | 28 | $187,276,894 |
| Planning & Design Approval | 2 | $10,135,570 |
| Gate 2 SCIO Approval | 1 | $2,441,485 |
| Execution & Build | 33 | $223,813,143 |
| Execution & Build Approval | 2 | $60,415,676 |
| Gate 3 State Approval | 2 | $8,298,008 |
| Implementation | 24 | $331,970,622 |
| Implementation Approval | 3 | $37,100,480 |
| Project Closeout | 6 | $13,356,782 |
| Project Closeout Review | 3 | $26,019,983 |
| **Total** | **107** | **$901,638,303** |

The EPMO has several metrics to rate the status of the projects at each workflow stage to ensure that they stay on track.   Project status indicators of Green (ok), Yellow (agency attention required) and Red (CIO attention required) are used to rate the status of the projects.  Most projects[2] move along smoothly, but some require extra attention.  The chart below highlights (red lower line) the number of those projects requiring more attention which would include both the yellow (18 projects) and red (11 projects) status indicators mentioned above.   At the highest volume of projects, the 'needs attention' projects can sometimes amount to about one third of the projects, but it is important to note that about half of the projects that "need attention" are due to late monthly status reports and are not necessarily projects in trouble.   This type of detailed information by project is reported in the State CIO's State Information Technology Plan.[3]



**Needs Attention Projects Compared to Development Portfolio**
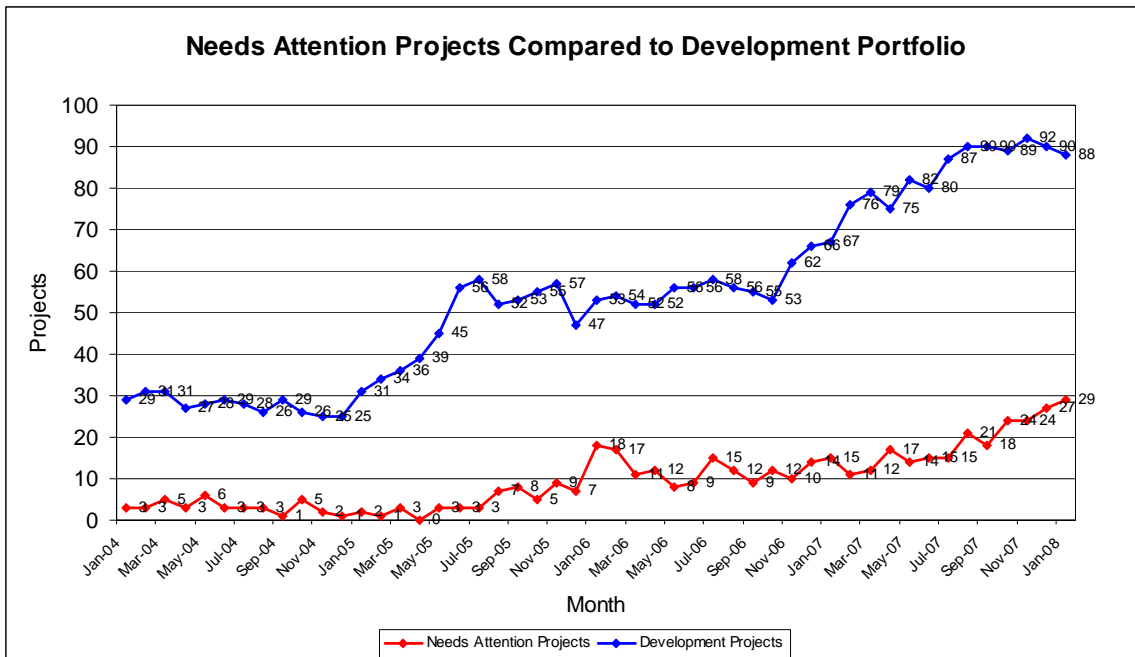
## IT Expansion Budget

The previous budget cycle contained 79 expansion budget requests for information technology projects.  After review by ITS and the Office of State Budget and Management, 26 were approved and 53 were rejected.

The changes requested by the General Assembly for this year in House Bill 1473 Section 6.12(a) resulted in the Worksheet 2 Addendum being added to the process for IT expansion budget requests. The following questions have been

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[2] The difference between the 88 development projects and the 107 in the workflow status table is 19 which is made up of 9 projects in project closeout & review, 3 projects in gate 1 which there is not requirement for status reports and 7 projects in planning & design that have not submitted status' at the time of this report.
[3] See Appendix B for the complete url reference

added to the Worksheet II input requirements which will further help ferret out duplication of efforts across agencies.

1. Will the project or system result in any duplication of efforts across governmental agencies, including State, local, and federal agencies?

2. Describe how the data developed and used by the system will be complete, timely and accessible.

3. Describe the business organizational location of the system as well as the organizational location of the hardware and software inventories associated with the system or project.

4. Identify any opportunities for the State to leverage federal and local support (including fiscal contributions) of the information technology system or project.

5. Provide any other information pertinent to the utility, functionality, and cost-effectiveness of the project or system.

## Summary

Overall, the State of North Carolina's Information Technology Planning Process is maturing well and the foundation has been laid to accumulate more benefits of cost savings and avoidance, eradication of duplication, and the greater use of common infrastructures and shared services as we move forward to provide better and more responsive citizen services.

**Appendix A – Text of Study Provision including SCIO's check list**

**OFFICE OF INFORMATION TECHNOLOGY SERVICES REVIEW OF
STATE IT BUDGET SUBMISSIONS**

**SECTION 6.12. (a)** The State Chief Information Officer (SCIO) shall review each information technology project budget request from the various State departments,
agencies, and institutions prior to the formal submission of those requests to the Governor in order to facilitate a coherent and cost-effective State investment strategy for information technology projects and systems. The SCIO's review shall:
(1) Identify the purpose of the information technology project or system.
(2) Identify whether the project or system would result in any duplication of effort across governmental agencies, including State, local, and federal agencies.
(3) Determine the completeness, timeliness, and accessibility of the data developed and used by the system.
(4) Estimate the cost and actual staffing for the project or system.
(5) Ascertain the organizational location of the system as well as the hardware and software inventories associated with the system or project.
(6) Assess the current and potential benefits that the technology investment would provide to the State.
(7) Identify any opportunities for the State to leverage federal and local support of the information technology system or project.
(8) Consider any other information pertinent to the utility, functionality, and cost-effectiveness of the project or system.

The SCIO shall submit the detailed analysis of each information technology budget request to the Office of State Budget and Management (OSBM). Based on that analysis, the OSBM may require State departments, agencies, and institutions to coordinate information technology budget requests and projects to increase efficiency and eliminate duplication in the governance, organization, staffing, and functionality of information technology projects and systems across State government.

**SECTION 6.12.(b)** By February 1, 2008, the Office of State Budget and Management shall report to the General Assembly on its efforts and outcomes relative to increasing the efficiency and cost-effectiveness of the State's information technology projects and programs as prescribed by this section. *This report shall include detailed information on initiatives to eliminate duplication.*

**SECTION 6.12.(c)** This section does not apply to The University of North Carolina System or to the Judicial Branch.

**Appendix B** – Table of url's for key documents and instructions related to the
preparation of the State CIO's Statewide IT Plan

| Topic or Document | URL | Comments |
|---|---|---|
| State CIO Statewide IT Plan for the 2007-2009 Biennium | http://www.its.state.nc.us/ | Under Hot Topics in right hand margin. |
| Review of Agency IT plans and the State CIO's Statewide Information Technology Plan by the IT Advisory Board (ITAB) | http://www.scio.state.nc.us/ | Click on IT Advisory Board at bottom left hand margin. The IT plans for each agency can be found under Agency IT Plans in left hand margin. The minutes cover the reviews. |
| State CIO's Report submitted to the General Assembly on the management of legacy applications | http://www.scio.state.nc.us/ | Under Hot Topics in right hand margin. |